

# PERMIT REPORT

To: Board of Managers

From: Will Roach, Permitting Assistant

Date: August 5<sup>th</sup>, 2019

Re: Permit 19-014: Basir Tareen, 3017-3025 E Lake Calhoun Pkwy

## **Recommendation:**

Approval of MCWD permit application on the following conditions:

- 1. Submission of draft Maintenance Declaration for Stormwater Facilities for District approval and then execution.
- 2. Submission of Financial Assurance for Stormwater Management in the amount of \$467 dollars.

## **Background:**

Basir Tareen (Applicant) has applied for a Minnehaha Creek Watershed District (MCWD) permit for Erosion Control and Stormwater Management for a multi-family residential building in the City of Minneapolis. The application was completed on June 27<sup>th</sup>, 2019 and a public notice was sent out to residents within 600 feet of the subject property on July 1<sup>st</sup>, 2019. A member of the public requested the permit appear before the Board of Managers, during the public notice period, for consideration, citing concerns with the rate of water leaving the site and compliance enforcement during construction. District staff have been in communication with the concerned resident and have provided a summary of how the proposed project conforms to District rules and regulations. However, the consideration request remains in effect. A Board Consideration notification was sent to property owners within 600ft of the project on July 24th, 2019.

## **District Rule Analysis:**

## Erosion Control Rule

The District's Erosion Control Rule is applied when a project proposes 5,000 square feet or more of land disturbance or 50 cubic yards of fill, excavation, or stockpiling on-site. The Applicant is proposing 23,000 square feet of disturbance, therefore the rule is triggered. In accordance with rule criteria, the Applicant has submitted an erosion control plan which has identified erosion control and sediment control best management practices. These include a rock construction entrance, silt fence and bio-logs down gradient of disturbed areas, and inlet protection, installed where necessary. Concrete washout for the project will be contained off site. The vegetative stabilization plan includes six inches of topsoil, sod, as well as, a mix of native and pollinator



friendly deciduous and coniferous trees and shrubs, and have identified an erosion control inspector. Based upon staff's review of the material submitted by the Applicant, the criteria of the Erosion Control rule have been met.

Stormwater Management Rule

The Stormwater Management Rule is applicable whenever new impervious surface is proposed. The project site is comprised of three single-family home lots owned by the Applicant, which are proposed to be combined (Table 1). There is approximately 10,683 square feet of existing impervious surface across the three single-family home lots. The proposed project will increase the amount of impervious surface by 1,606 square feet to a total of 12,289 square feet on-site. As stated in section 5(a) of the Stormwater rule, because the total area of the three lot combination is less than one acre in size, the MCWD's Stormwater Management rule requires the incorporation of a Best Management Practice (BMP) onto the project site (Table 2).

Address	Lot Size (acres)
3017 E Lake Calhoun Pkwy	0.15
3021 E Lake Calhoun Pkwy	0.14
3025 E Lake Calhoun Pkwy	0.13
Proposed Lot Combination (3017, 3021, &	0.42
3025)	

Table 1: Lot Sizes by Address

Site Size	Site Disturbance	Impervious Surface Increase Requirements		Treatment Scope
$\leq 1$ acre	N/A	N/A	Incorporate BMPs	N/A

Table 2: MCWD Stormwater Management Requirements

To satisfy the Stormwater Management rule criteria, the Applicant is proposing three on site BMPs, two above ground infiltration basins, one in the northwest corner of the property and one in the southwest corner, and one underground infiltration basin, located south of the basin in the northwest corner. Based on review of the Applicant's submittals, staff and the District Engineer have determined that the proposed infiltration basins have been designed in conformance with the criteria as outlined in the Minnesota Stormwater Manual and their incorporation satisfies the requirements of this provision.

While the incorporation of BMPs do not require specific volume, rate, and water quality removals, the Applicant has elected to provide BMPs that achieve rate control (Table 3),



additionally the installation of BMPs and reduced runoff will contribute to a decrease in annual phosphorus loading leaving the site.

Storm Event	Existing Conditions Rate	Proposed Conditions Rate
	(cfs)	(cfs)
2-Year Event	1.00	0.92
10-Year Event	1.87	1.59
100-Year Event	3.91	3.21

Table 3: Rate Control Comparison

In accordance with section 3(e) of the rule the applicant must demonstrate at least two feet of free board between the lowest opening of the proposed structure and the 100-year high water elevation for stormwater BMPs and waterbodies. Per the site survey, the applicant has demonstrated five to six feet of separation between the lowest opening of the site, the garage door, and the high water levels of the BMPS (Attachment 2).

Per section 8(a) of the rule, no new point source may discharge to a waterbody without pretreatment for sediment and nutrient removal, no new point source is proposed with this project.

As stated in section 8(b), no activity may cause an increase in the bounce or inundation of any downstream lake or cause a change in the elevation of the runout control of any lake, Bde Maka Ska is the lake downstream to the work area. As summarized in Table 3, the applicant is providing BMPs that will reduce rates across the 2-, 10-, and 100-year storm events, and provide water quality treatment in excess of the District's standards. Based upon this information, staff and the District Engineer have determined the criteria of the rule has been met.

In accordance with section 11 of the rule, the stormwater-management BMPs must be subject to a maintenance declaration, recorded on the deed(s) to the subject property after approval of a draft by MCWD staff. Additionally, the MCWD requires \$20,000 dollars of financial assurance for every acre-foot of storage. Both of these requirements have been listed as recommended conditions of approval at the beginning of this report. Upon completion of these conditions, the Applicant has met all applicable criteria of the Stormwater Management rule.

## **Summary:**

Basir Tareen has applied for a Minnehaha Creek Watershed District permit under the Erosion Control and Stormwater Management rules for a multi-family residential building located on East Lake Calhoun Parkway in the City of Minneapolis. The proposed project meets all applicable requirements under all applicable rules, upon satisfaction of the recommended conditions listed in this report. Therefore, staff recommends approval of the permit with the conditions listed.



### Attachments:

- 1. Water Resource Permit Application Form
- 2. Site Plans

	RMIT APPLICATION FORM		
Use this form to notify/apply to the Minnehaha Creek Watershed District (MCWD) of a proposed project or work which may fall within their jurisdiction. Fill out this form completely and submit with your site plan, maps, etc. to the MCWD at:			
15320 Minnetonka Bly	d. Minnetonka, MN 55345.		
	for your records.		
1. Name of each property owner: BLISLY T(LY	THORIZATIONS BEFORE BEGINNING WORK.		
Mailing Address: 27D/ E1/1K & (HISTARK)	City: Minneapair State: MN Zip: 55408		
Email Address:	Phone: $1012 - 101c_2 = 55712$ Fax:		
2. Property Owner Representative Information (not requ			
Business Name: Civil Site Group	Representative Name: Matt Pavek		
Business Address: 4931 W 35th St, Suite 200	City: St. Louis Park State: MN Zip: 55416		
Email Address: mpavek@civilsitegroup.com	Phone: (763)-213-3944 Fax: -		
3. Project Address: 3017-3025 E Calhoun Parkway	City: Minneapolis		
Lot: - Block: - Subdivision: -	Section(s): - Township(s): - Range(s): - PID: 0402824220021, 0402824220020, 0402824220035		
4. Size of project parcel (square feet or acres): 18658 sf			
Area of disturbance (square feet): 23000 sf	Volume of excavation/fill (cubic yards): 4500 cy CUT		
Area of existing impervious surface: 10683 sf A	rea of proposed impervious surface: 12289 sf		
Length of shoreline affected (feet): Waterbo	dy (& bay if applicable):		
5. Type of permit being applied for (Check all that apply	y):		
E EROSION CONTROL	□ WATERBODY CROSSINGS/STRUCTURES		
FLOODPLAIN ALTERATION	🖾 STORMWATER MANAGEMENT		
WETLAND PROTECTION	□ APPROPRIATIONS		
□ DREDGING	□ ILLICIT DISCHARGE		
SHORELINE/STREAMBANK STABILIZATION			
6. Project purpose (Check all that apply):			
□ SINGLE FAMILY HOME	MULTI FAMILY RESIDENTIAL (apartments)		
ROAD CONSTRUCTION	COMMERCIAL or INSTITUTIONAL		
	□ SUBDIVISIONS (include number of lots) □ LANDSCAPING (pools, berms, etc.)		
DREDGING	$\Box$ DTHER (DESCRIBE):		
<ul> <li>SHORELINE/STREAMBANK STABILIZATION</li> <li>7. NPDES/SDS General Stormwater Permit Number (if</li> </ul>			
8. Waterbody receiving runoff from site: Lake calhoun, M			
9. Project Timeline: Start Date:	Completion Date:		
	N Pollution Control Agency DNR COE N Pollution Control Agency DNR COE		
By signing below, I hereby request a permit to authorize the acti Rules and that the proposed activity will be conducted in compli contained in this application and, to the best of my knowledge an understand that proceeding with work before all required authority administrative, civil and/or criminal penalties.	ance with these Rules. I am familiar with the information		
~~~	12-21-18		
Signature of Each Property Owner	$\frac{1 \wedge 2 \wedge 1 - 1 \times 2}{\text{Date}}$		

# **CALHOUN APARTMENTS** MINNEAPOLIS, MINNESOTA **ISSUED FOR: WATERSHED SUBMITTAL**

## ARCHITECT:

DJR ARCHITECTURE INC. 333 WASHINGTON AVE. N. SUITE 210 UNION PLAZA MINNEAPOLIS, MN 55401

# <u>DEVELOPER</u> / PROPERTY OWNER:

DJR ARCHITECTURE INC. 333 WASHINGTON AVE. N. SUITE 210 UNION PLAZA MINNEAPOLIS, MN 55401

# ENGINEER / LANDSCAPE ARCHITECT:

CIVIL SITE GROUP 4931 W 35TH STREET SUITE 200 ST LOUIS PARK, MN 55416 612-615-0060

# SURVEYOR:

CLARK ENGINEERING 12755 HWY. 55, SUITE 100 MINNEAPOLIS, MN 55422 763-545-9196

# GEOTECHNICAL ENGINEER:

NORTHERN TECHNOLOGIES, INC. 6160 CARMEN AVE. E. INVER GROVE HEIGHTS, MN 55076 763-433-9175

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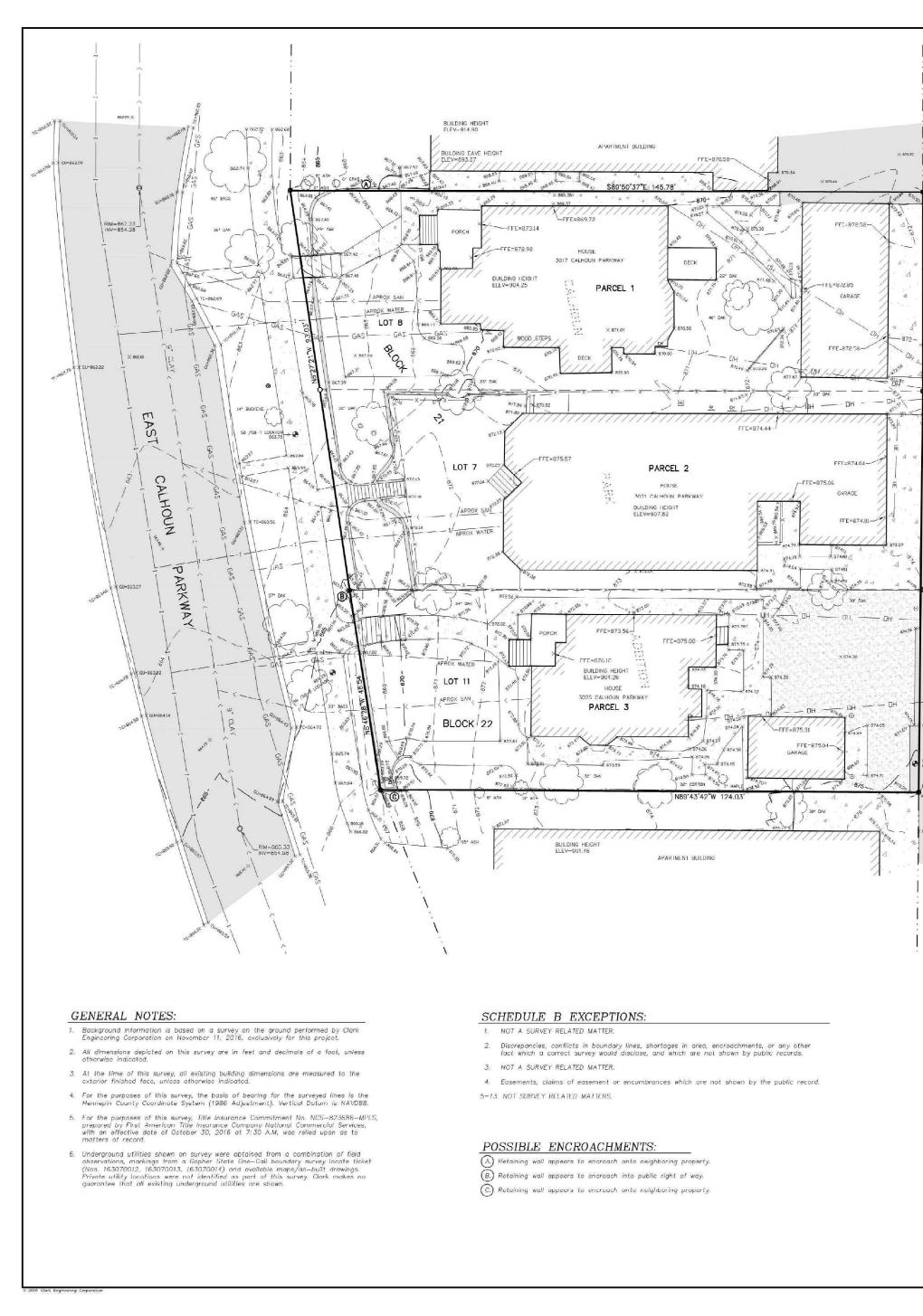
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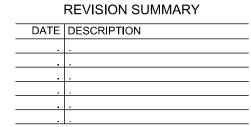
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C4.0	UTILITY PLAN		PDR RESUBMITTAL
C5.0	DETAILS		PDR RESUBMITTAL
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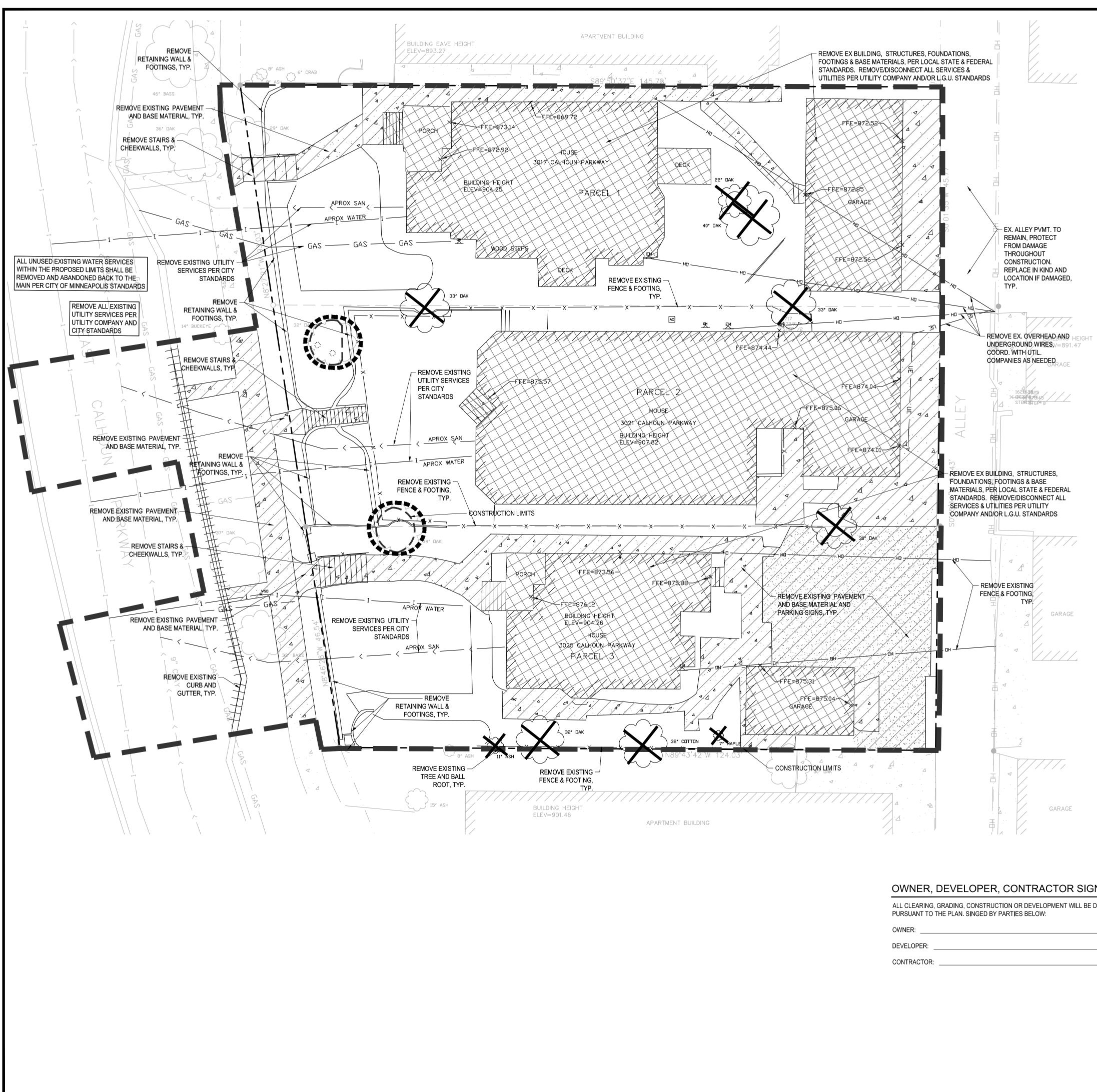


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# OWNER, DEVELOPER, CONTRACTOR SIGNED STATEMENT

ALL CLEARING, GRADING, CONSTRUCTION OR DEVELOPMENT WILL BE DONE

# **REMOVAL NOTES:**

- 1. SEE STORM WATER POLLUTION PREVENTION PLAN (SWPPP) PLAN FOR CONSTRUCTION STORM WATER MANAGEMENT PLAN.
- 2. REMOVAL OF MATERIALS NOTED ON THE DRAWINGS SHALL BE IN ACCORDANCE WITH MNDOT, STATE AND LOCAL REGULATIONS.
- 3. REMOVAL OF PRIVATE UTILITIES SHALL BE COORDINATED WITH UTILITY OWNER PRIOR TO CONSTRUCTION ACTIVITIES.
- 4. EXISTING PAVEMENTS SHALL BE SAWCUT IN LOCATIONS AS SHOWN ON THE DRAWINGS OR THE NEAREST JOINT FOR PROPOSED PAVEMENT CONNECTIONS.
- 5. REMOVED MATERIALS SHALL BE DISPOSED OF TO A LEGAL OFF-SITE LOCATION AND IN ACCORDANCE WITH STATE AND LOCAL REGULATIONS.
- 6. ABANDON, REMOVAL, CONNECTION, AND PROTECTION NOTES SHOWN ON THE DRAWINGS ARE APPROXIMATE. COORDINATE WITH PROPOSED PLANS.
- 7. EXISTING ON-SITE FEATURES NOT NOTED FOR REMOVAL SHALL BE PROTECTED THROUGHOUT THE DURATION OF THE CONTRACT.
- 8. PROPERTY LINES SHALL BE CONSIDERED GENERAL CONSTRUCTION LIMITS UNLESS OTHERWISE NOTED ON THE DRAWINGS. WORK WITHIN THE GENERAL CONSTRUCTION LIMITS SHALL INCLUDE STAGING, DEMOLITION AND CLEAN-UP OPERATIONS AS WELL AS CONSTRUCTION SHOWN ON THE DRAWINGS.
- 9. MINOR WORK OUTSIDE OF THE GENERAL CONSTRUCTION LIMITS SHALL BE ALLOWED AS SHOWN ON THE PLAN AND PER CITY REQUIREMENTS.
- 10. DAMAGE BEYOND THE PROPERTY LIMITS CAUSED BY CONSTRUCTION ACTIVITY SHALL BE REPAIRED IN A MANNER APPROVED BY THE ENGINEER/LANDSCAPE ARCHITECT OR IN ACCORDANCE WITH THE CITY.
- 11. PROPOSED WORK (BUILDING AND CIVIL) SHALL NOT DISTURB EXISTING UTILITIES UNLESS OTHERWISE SHOWN ON THE DRAWINGS AND APPROVED BY THE CITY PRIOR TO CONSTRUCTION.
- 12. SITE SECURITY MAY BE NECESSARY AND PROVIDED IN A MANNER TO PROHIBIT VANDALISM, AND THEFT, DURING AND AFTER NORMAL WORK HOURS, THROUGHOUT THE DURATION OF THE CONTRACT. SECURITY MATERIALS SHALL BE IN ACCORDANCE WITH THE CITY.
- 13. VEHICULAR ACCESS TO THE SITE SHALL BE MAINTAINED FOR DELIVERY AND INSPECTION ACCESS DURING NORMAL OPERATING HOURS. AT NO POINT THROUGHOUT THE DURATION OF THE CONTRACT SHALL CIRCULATION OF ADJACENT STREETS BE BLOCKED WITHOUT APPROVAL BY THE CITY PRIOR TO CONSTRUCTION ACTIVITIES.
- 14. ALL TRAFFIC CONTROLS SHALL BE PROVIDED AND ESTABLISHED PER THE REQUIREMENTS OF THE MINNESOTA MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES (MMUTCD) AND THE CITY. THIS SHALL INCLUDE, BUT NOT BE LIMITED TO, SIGNAGE, BARRICADES, FLASHERS, AND FLAGGERS AS NEEDED. ALL PUBLIC STREETS SHALL REMAIN OPEN TO TRAFFIC AT ALL TIMES. NO ROAD CLOSURES SHALL BE PERMITTED WITHOUT APPROVAL BY THE CITY.
- 15. SHORING FOR BUILDING EXCAVATION MAY BE USED AT THE DISCRETION OF THE CONTRACTOR AND AS APPROVED BY THE OWNERS REPRESENTATIVE AND THE CITY PRIOR TO CONSTRUCTION ACTIVITIES.
- 16. STAGING, DEMOLITION, AND CLEAN-UP AREAS SHALL BE WITHIN THE PROPERTY LIMITS AS SHOWN ON THE DRAWINGS AND MAINTAINED IN A MANNER AS REQUIRED BY THE CITY.

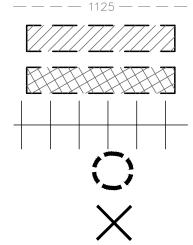
# CITY OF MINNEAPOLIS REMOVAL NOTES:

- 1. ALL EXISTING AND PROPOSED UNDERGROUND PUBLIC UTILITIES (WATER, SANITARY, AND STORM DRAIN) SHALL BE SHOWN ON THE SITE PLAN WITH CORRESPONDING PIPE SIZES AND TYPES. FOR PUBLIC WATERMAIN INFRASTRUCTURE RECORDS CALL (612)673-2865. ANY EXISTING WATER SERVICE CONNECTIONS TO THE SITE SHALL BE NOTED ON THE PLANS FOR REMOVAL, AND SHALL BE REMOVED PER THE REQUIREMENTS OF THE UTILITY CONNECTIONS DEPARTMENT BEFORE ANY NEW SERVICES LINES CAN BE INSTALLED, CALL (612)673-2451 FOR MORE INFORMATION.
- 2. ANY EXISTING CONCRETE INFRASTRUCTURE IN THE PUBLIC RIGHT OF WAY, INCLUDING BUT NOT LIMITED TO PUBLIC SIDEWALKS, CURB AND GUTTER, AND ADA PEDESTRIAN RAMPS, THAT IS EITHER CURRENTLY DEFECTIVE OR THAT IS DAMAGED DURING THE TIME OF SITE RE-DEVELOPMENT, MUST BE REMOVED AND REPLACED AT THE TIME OF SITE RE-DEVELOPMENT.

# **EROSION CONTROL NOTES:**

SEE SWPPP ON SHEETS SW1.0-SW1.3

# **REMOVALS LEGEND**:



EX. 1' CONTOUR ELEVATION INTERVAL

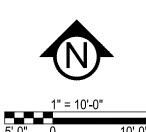
REMOVAL OF PAVEMENT AND ALL BASE MATERIAL, INCLUDING BIT., CONC., AND GRAVEL PVMTS. REMOVAL OF STRUCTURE INCLUDING ALL

FOOTINGS AND FOUNDATIONS. REMOVE CURB AND GUTTER. IF IN RIGHT-OF-WAY, COORDINATE WITH LOCAL GOVERNING UNIT.

TREE PROTECTION

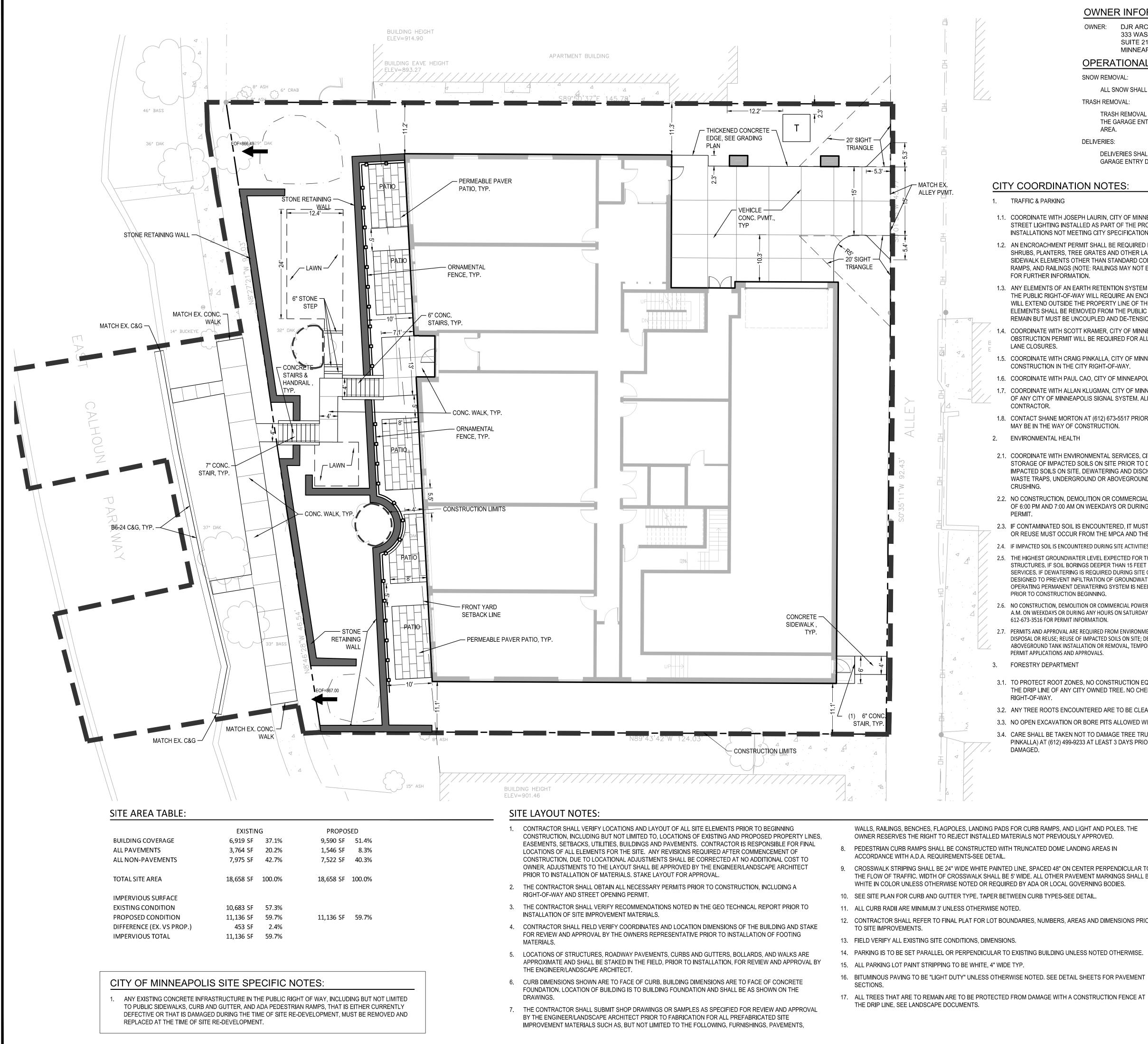
TREE REMOVAL - INCLUDING ROOTS AND STUMPS

GOPHER STATE ONE CALL WWW.GOPHERSTATEONECALL.ORG (800) 252-1166 TOLL FREE (651) 454-0002 LOCAL



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IL I HEREBY CE SPECIFICAT PREPARED BY I SUPERVISION LICENSED PR UNDER THE L Math DATE 06/13/19 ISSUE/SUB DATE 0ESCR 09/06/18 PDR/LL 01/07/19 WATER 01/16/19 LUA RE 02/01/19 PDR RE 03/15/19 PDR RE 03/15/19 PDR RE 04/18/19 LUA RE 06/13/19 WATER 04/18/19 LUA RE 06/13/19 WATER	ION, OR RE ME OR UND AND THAT OFESSION/ AWS OF THAT INNESOTA INNESOTA INNESOTA INNESOTA INNESOTA INNESOTA INNESOTA INNESOTA INNESOTA INNESOTA INNESOTA INNESOTA INNESOTA INNESOTA INNESOTA INNESOTA INNESOTA INNESOTA INNESOTA INNESOTA INNESOTA INNESOTA INNESOTA INNESOTA INNESOTA INNESOTA INNESOTA INNESOTA INNESOTA INNESOTA INNESOTA INNESOTA INNESOTA INNESOTA INNESOTA INNESOTA INNESOTA INNESOTA INNESOTA INNESOTA INNESOTA INNESOTA INNESOTA INNESOTA INNESOTA INNESOTA INNESOTA INNESOTA INNESOTA INNESOTA INNESOTA INNESOTA INNESOTA INNESOTA INNESOTA INNESOTA INNESOTA INNESOTA INNESOTA INNESOTA INNESOTA INNESOTA INNESOTA INNESOTA INNESOTA INNESOTA INNESOTA INNESOTA INNESOTA INNESOTA INNESOTA INNESOTA INNESOTA INNESOTA INNESOTA INNESOTA INNESOTA INNESOTA INNESOTA INNESOTA INNESOTA INNESOTA INNESOTA INNESOTA INNESOTA INNESOTA INNESOTA INNESOTA INNESOTA INNESOTA INNESOTA INNESOTA INNESOTA INNESOTA INNESOTA INNESOTA INNESOTA INNESOTA INNESOTA INNESOTA INNESOTA INNESOTA INNESOTA INNESOTA INNESOTA INNESOTA INNESOTA INNESOTA INNESOTA INNESOTA INNESOTA INNESOTA INNESOTA INNESOTA INNESOTA INNESOTA INNESOTA INNESOTA INNESOTA INNESOTA INNESOTA INNESOTA INNESOTA INNESOTA INNESOTA INNESOTA INNESOTA INNESOTA INNESOTA INNESOTA INNESOTA INNESOTA INNESOTA INNESOTA INNESOTA INNESOTA INNESOTA INNESOTA INNESOTA INNESOTA INNESOTA INNESOTA INNESOTA INNESOTA INNESOTA INNESOTA INNESOTA INNESOTA INNESOTA INNESOTA INNESOTA INNESOTA INNESOTA INNESOTA INNESOTA INNESOTA INNESOTA INNESOTA INNESOTA INNESOTA INNESOTA INNESOTA INNESOTA INNESOTA INNESOTA INNESOTA INNESOTA INNESOTA INNESOTA INNESOTA INNESOTA INNESOTA INNESOTA INNESOTA INNESOTA INNESOTA INNESOTA INNESOTA INNESOTA INNESOTA INNESOTA INNESOTA INNESOTA INNESOTA INNESOTA INNESOTA INNESOTA INNESOTA INNESOTA INNESOTA INNESOTA INNESOTA INNESOTA INNESOTA INNESOTA INNESOTA INNESOTA INNESOTA INNESOTA INNESOTA INNESOTA INNESOTA INNESOTA INNESOTA INNESOTA INNESOTA INNESOTA INNESOTA INNESOTA INNESOTA INNESOTA INNESOTA INNESOTA INNESOTA INNESOTA INNESOTA INNESOTA INNESOTA INNESOTA INNESOTA INNESOTA INNES	PORT WA ER MY DIF I AM A DU L ENGINE IE STATE	S RECT JLY ER OF 63 33 XY

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- WALLS, RAILINGS, BENCHES, FLAGPOLES, LANDING PADS FOR CURB RAMPS, AND LIGHT AND POLES. THE OWNER RESERVES THE RIGHT TO REJECT INSTALLED MATERIALS NOT PREVIOUSLY APPROVED.
- 8. PEDESTRIAN CURB RAMPS SHALL BE CONSTRUCTED WITH TRUNCATED DOME LANDING AREAS IN
- CROSSWALK STRIPING SHALL BE 24" WIDE WHITE PAINTED LINE, SPACED 48" ON CENTER PERPENDICULAR TO THE FLOW OF TRAFFIC. WIDTH OF CROSSWALK SHALL BE 5' WIDE. ALL OTHER PAVEMENT MARKINGS SHALL BE WHITE IN COLOR UNLESS OTHERWISE NOTED OR REQUIRED BY ADA OR LOCAL GOVERNING BODIES.
- 12. CONTRACTOR SHALL REFER TO FINAL PLAT FOR LOT BOUNDARIES, NUMBERS, AREAS AND DIMENSIONS PRIOR

# OWNER INFORMATION

OWNER: DJR ARCHITECTURE INC. 333 WASHINGTON AVE. N. SUITE 210 UNION PLAZA

MINNEAPOLIS, MN 55401 **OPERATIONAL NOTES:** 

GARAGE ENTRY DRIVE.

SNOW REMOVAL:

ALL SNOW SHALL BE PLACED IN LANDSCAPED AREA. TRASH REMOVAL:

TRASH REMOVAL SHALL OCCUR AT THE ALLEY NEAR THE GARAGE ENTRY DRIVE, OR IN CONC. DRIVE AREA.

DELIVERIES:

DELIVERIES SHALL OCCUR AT THE ALLEY NEAR THE

1.1. COORDINATE WITH JOSEPH LAURIN, CITY OF MINNEAPOLIS, (612) 673-5987 FOR ALL WORK REGARDING STREET LIGHTING AND ELECTRICAL SYSTEMS. STREET LIGHTING INSTALLED AS PART OF THE PROJECT SHALL BE INSPECTED BY THE CITY, CONTACT DAVE PREHALL (612) 673-5759. ANY LIGHTING INSTALLATIONS NOT MEETING CITY SPECIFICATIONS WILL BE REQUIRED TO BE REINSTALLED AT CONTRACTOR'S EXPENSE.

1.2. AN ENCROACHMENT PERMIT SHALL BE REQUIRED FOR ALL NON-STANDARD STREETSCAPE ELEMENTS IN THE PUBLIC RIGHT-OF-WAY SUCH AS: SHRUBS, PLANTERS, TREE GRATES AND OTHER LANDSCAPING ELEMENTS, SIDEWALK FURNITURE (INCLUDING BIKE RACKS AND BOLLARDS), AND SIDEWALK ELEMENTS OTHER THAN STANDARD CONCRETE WALKWAYS SUCH AS PAVERS. STAIRS. RAISED LANDINGS. RETAINING WALLS. ACCESS RAMPS, AND RAILINGS (NOTE: RAILINGS MAY NOT EXTEND INTO THE SIDEWALK PEDESTRIAN AREA). PLEASE CONTACT MATT HANAN AT (612) 673-3607

1.3. ANY ELEMENTS OF AN EARTH RETENTION SYSTEM AND RELATED OPERATIONS (SUCH AS CONSTRUCTION CRANE BOOM SWINGS) THAT FALL WITHIN THE PUBLIC RIGHT-OF-WAY WILL REQUIRE AN ENCROACHMENT PERMIT APPLICATION. IF THERE ARE TO BE ANY EARTH RETENTION SYSTEMS WHICH WILL EXTEND OUTSIDE THE PROPERTY LINE OF THE DEVELOPMENT THEN A PLAN MUST BE SUBMITTED SHOWING DETAILS OF THE SYSTEM. ALL SUCH ELEMENTS SHALL BE REMOVED FROM THE PUBLIC RIGHT-OF-WAY FOLLOWING CONSTRUCTION WITH THE EXCEPTION OF TIE-BACKS WHICH MAY REMAIN BUT MUST BE UNCOUPLED AND DE-TENSIONED. PLEASE CONTACT MATT HANAN AT (612) 673- 3607 FOR FURTHER INFORMATION.

1.4. COORDINATE WITH SCOTT KRAMER, CITY OF MINNEAPOLIS, (612) 673-2383 REGARDING ANY WORK THAT IS PERFORMED IN THE RIGHT-OF-WAY. AN OBSTRUCTION PERMIT WILL BE REQUIRED FOR ALL WORK IN THE RIGHT-OF-WAY. CONTACT SCOTT KRAMER REGARDING DETAILS OF SIDEWALK AND

1.5. COORDINATE WITH CRAIG PINKALLA, CITY OF MINNEAPOLIS, (612) 499-9233 FOR ALL WORK REGARDING REMOVAL OR PROTECTION OF TREES DURING

1.6. COORDINATE WITH PAUL CAO, CITY OF MINNEAPOLIS, (612) 673-2943 FOR ALL WORK REGARDING BIKE RACKS IN THE CITY RIGHT-OF-WAY.

1.7. COORDINATE WITH ALLAN KLUGMAN, CITY OF MINNEAPOLIS, (612) 673-5750 PRIOR TO CONSTRUCTION FOR THE TEMPORARY REMOVAL/RELOCATION OF ANY CITY OF MINNEAPOLIS SIGNAL SYSTEM. ALL COSTS FOR RELOCATION AND/OR REPAIR OF CITY TRAFFIC SHALL BE BORNE BY THE

1.8. CONTACT SHANE MORTON AT (612) 673-5517 PRIOR TO CONSTRUCTION FOR THE REMOVAL OF ANY CITY OF MINNEAPOLIS RIGHT OF WAY SIGNS THAT

2.1. COORDINATE WITH ENVIRONMENTAL SERVICES, CITY OF MINNEAPOLIS, (612) 673-3867 FOR PERMITS RELATING TO AFTER HOURS WORK, TEMPORARY STORAGE OF IMPACTED SOILS ON SITE PRIOR TO DISPOSAL OR REUSE, REMEDIATION OF CONTAMINATED SOIL AND GROUNDWATER, REUSE OF IMPACTED SOILS ON SITE, DEWATERING AND DISCHARGE OF ACCUMULATED STORM WATER OR GROUND WATER TO CITY SEWERS, FLAMMABLE WASTE TRAPS, UNDERGROUND OR ABOVEGROUND TANK INSTALLATION OR REMOVAL, WELL CONSTRUCTION OR SEALING, OR ON-SITE ROCK

2.2. NO CONSTRUCTION, DEMOLITION OR COMMERCIAL POWER MAINTENANCE EQUIPMENT SHALL BE OPERATED WITHIN THE CITY BETWEEN THE HOURS OF 6:00 PM AND 7:00 AM ON WEEKDAYS OR DURING ANY HOURS ON SATURDAYS, SUNDAYS AND STATE AND FEDERAL HOLIDAYS, EXCEPT UNDER

2.3. IF CONTAMINATED SOIL IS ENCOUNTERED, IT MUST BE REPORTED TO THE MINNESOTA DUTY OFFICER AT (651) 649-5451. PREAPPROVAL FOR REMOVAL OR REUSE MUST OCCUR FROM THE MPCA AND THE CITY OF MINNEAPOLIS.

2.4. IF IMPACTED SOIL IS ENCOUNTERED DURING SITE ACTIVITIES WORK WILL NEED TO STOP AND NOTIFICATION PROVIDED TO THE MN STATE DUTY OFFICER AT (615) 649-545 2.5. THE HIGHEST GROUNDWATER LEVEL EXPECTED FOR THIS SITE SHOULD BE DETERMINED AND USED IN ESTABLISHING THE LOWEST LEVEL FOR SUBGRADE STRUCTURES. IF SOIL BORINGS DEEPER THAN 15 FEET MUST BE DONE A TEMPORARY ENVIRONMENTAL WELL PERMIT MUST BE OBTAINED BY ENVIRONMENTAL SERVICES. IF DEWATERING IS REQUIRED DURING SITE CONSTRUCTION SEE BELOW FOR CITY PERMIT REQUIREMENTS. SUBGRADE STRUCTURES SHOULD BE DESIGNED TO PREVENT INFILTRATION OF GROUNDWATER WITHOUT THE NEED FOR A PERMANENT DEWATERING SYSTEM BEING INSTALLED. IF A CONTINUOUSLY OPERATING PERMANENT DEWATERING SYSTEM IS NEEDED IT MUST BE APPROVED AS PART OF THE SANITARY SEWER AND STORM DRAIN SITE PLAN APPROVAL

2.6. NO CONSTRUCTION, DEMOLITION OR COMMERCIAL POWER MAINTENANCE EQUIPMENT SHALL BE OPERATED WITHIN THE CITY BETWEEN THE HOURS OF 6:00 P.M. AND 7:00 A.M. ON WEEKDAYS OR DURING ANY HOURS ON SATURDAYS, SUNDAYS AND STATE AND FEDERAL HOLIDAYS, EXCEPT UNDER PERMIT. CONTACT ENVIRONMENTAL SERVICES AT

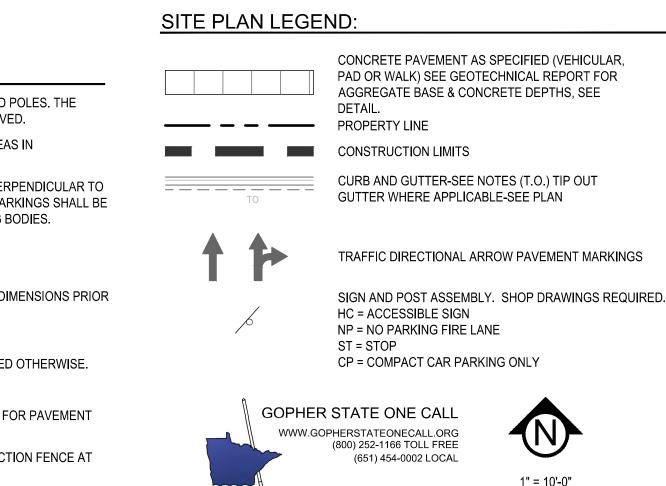
2.7. PERMITS AND APPROVAL ARE REQUIRED FROM ENVIRONMENTAL SERVICES FOR THE FOLLOWING ACTIVITIES: TEMPORARY STORAGE OF IMPACTED SOILS ON SITE PRIOR TO DISPOSAL OR REUSE: REUSE OF IMPACTED SOILS ON SITE: DEWATERING AND DISCHARGE OF ACCUMULATED STORM WATER OR GROUND WATER. UNDERGROUND OR ABOVEGROUND TANK INSTALLATION OR REMOVAL, TEMPORARY ENVIRONMENTAL WELLS, WELL CONSTRUCTION OR SEALING. CONTACT TOM FRAME AT 612-673-5807 FOR

3.1. TO PROTECT ROOT ZONES, NO CONSTRUCTION EQUIPMENT OR MATERIALS SHALL BE PLACED, PARKED, OR STORED ON ANY UNPAVED AREA WITHIN THE DRIP LINE OF ANY CITY OWNED TREE. NO CHEMICALS OR PETROLEUM PRODUCTS SHALL BE DEPOSITED ON ANY UNPAVED AREA IN THE CITY

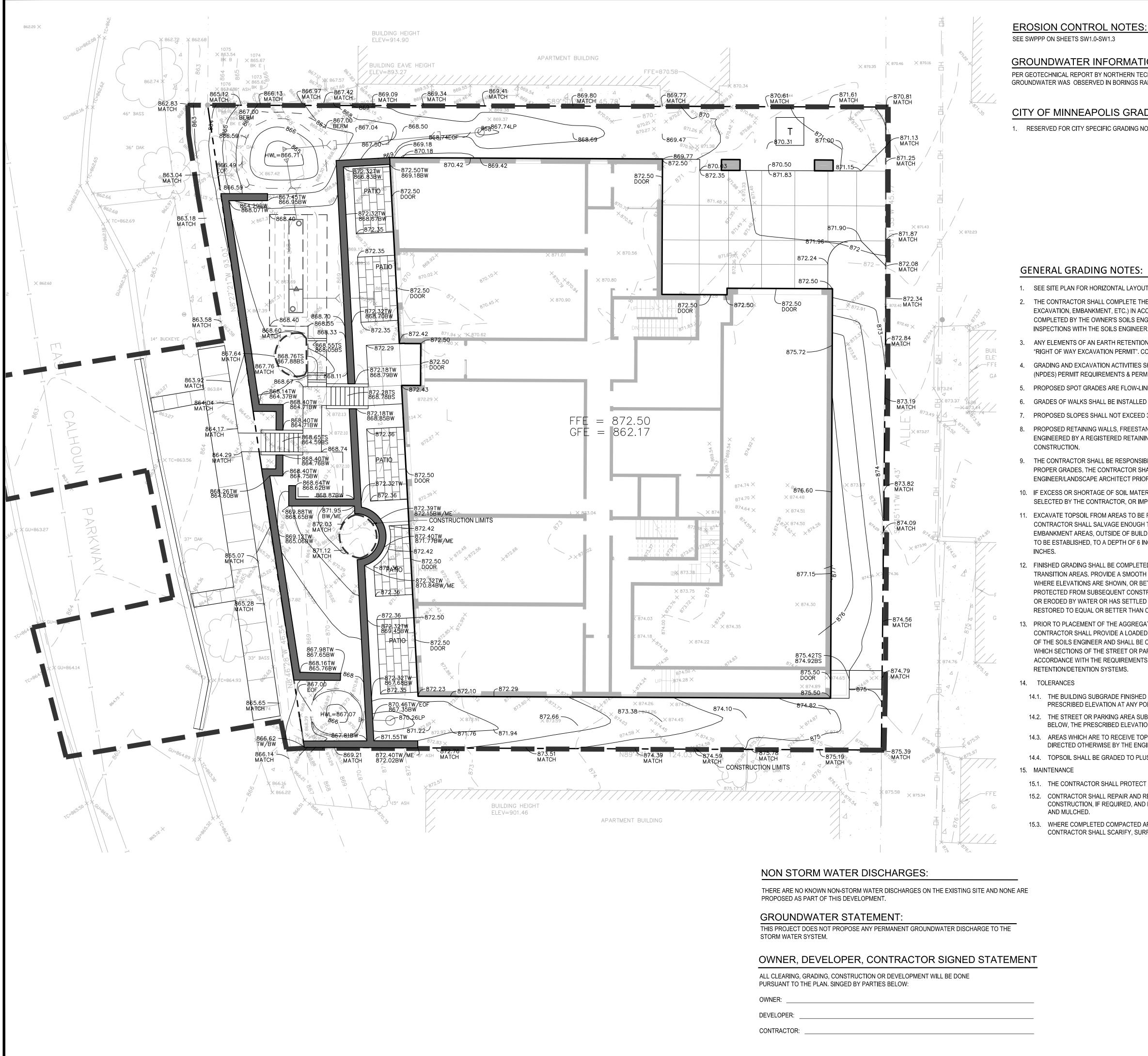
3.2. ANY TREE ROOTS ENCOUNTERED ARE TO BE CLEANLY CUT USING HAND TOOLS.

3.3. NO OPEN EXCAVATION OR BORE PITS ALLOWED WITHIN 8 FEET OF CITY STREET TREES.

3.4. CARE SHALL BE TAKEN NOT TO DAMAGE TREE TRUNKS OR BRANCHES. CONTRACTOR MUST CONTACT FORESTRY DEPARTMENT INSPECTIONS (CRAIG PINKALLA) AT (612) 499-9233 AT LEAST 3 DAYS PRIOR TO STARTING WORK TO DISCUSS PROBLEMS OF OVERHANGING BRANCHES THAT MAY BE



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# **GROUNDWATER INFORMATION:**

PER GEOTECHNICAL REPORT BY NORTHERN TECHNOLOGIES, INC., DATED 12-16-16 GROUNDWATER WAS OBSERVED IN BORINGS RANGING FROM 854.0 - 851.0 ELEVATION.

CITY OF MINNEAPOLIS GRADING NOTES:

1. RESERVED FOR CITY SPECIFIC GRADING NOTES.

1. SEE SITE PLAN FOR HORIZONTAL LAYOUT & GENERAL GRADING NOTES.

2. THE CONTRACTOR SHALL COMPLETE THE SITE GRADING CONSTRUCTION (INCLUDING BUT NOT LIMITED TO SITE PREPARATION, SOIL CORRECTION, EXCAVATION. EMBANKMENT, ETC.) IN ACCORDANCE WITH THE REQUIREMENTS OF THE OWNER'S SOILS ENGINEER, ALL SOIL TESTING SHALL BE COMPLETED BY THE OWNER'S SOILS ENGINEER. THE CONTRACTOR SHALL BE RESPONSIBLE FOR COORDINATING ALL REQUIRED SOIL TESTS AND INSPECTIONS WITH THE SOILS ENGINEER.

3. ANY ELEMENTS OF AN EARTH RETENTION SYSTEM AND RELATED EXCAVATIONS THAT FALL WITHIN THE PUBLIC RIGHT OF WAY WILL REQUIRE A "RIGHT OF WAY EXCAVATION PERMIT". CONTRACTOR IS RESPONSIBLE FOR AQUIRING THIS PERMIT PRIOR TO CONSTRUCTION IF APPLICABLE

4. GRADING AND EXCAVATION ACTIVITIES SHALL BE PERFORMED IN ACCORDANCE WITH THE NATIONAL POLLUTION DISCHARGE ELIMINATION SYSTEM (NPDES) PERMIT REQUIREMENTS & PERMIT REQUIREMENTS OF THE CITY.

5. PROPOSED SPOT GRADES ARE FLOW-LINE FINISHED GRADE ELEVATIONS, UNLESS OTHERWISE NOTED.

6. GRADES OF WALKS SHALL BE INSTALLED WITH 5% MAX. LONGITUDINAL SLOPE AND 1% MIN. AND 2% MAX. CROSS SLOPE, UNLESS OTHERWISE NOTED.

7. PROPOSED SLOPES SHALL NOT EXCEED 3:1 UNLESS INDICATED OTHERWISE ON THE DRAWINGS. MAXIMUM SLOPES IN MAINTAINED AREAS IS 4:1 8. PROPOSED RETAINING WALLS, FREESTANDING WALLS, OR COMBINATION OF WALL TYPES GREATER THAN 4' IN HEIGHT SHALL BE DESIGNED AND ENGINEERED BY A REGISTERED RETAINING WALL ENGINEER. DESIGN DRAWINGS SHALL BE SUBMITTED FOR REVIEW AND APPROVAL PRIOR TO

9. THE CONTRACTOR SHALL BE RESPONSIBLE FOR MAINTENANCE OF GRADE STAKES THROUGHOUT THE DURATION OF CONSTRUCTION TO ESTABLISH PROPER GRADES. THE CONTRACTOR SHALL ALSO BE RESPONSIBLE FOR A FINAL FIELD CHECK OF FINISHED GRADES ACCEPTABLE TO THE ENGINEER/LANDSCAPE ARCHITECT PRIOR TO TOPSOIL AND SODDING ACTIVITIES.

10. IF EXCESS OR SHORTAGE OF SOIL MATERIAL EXISTS, THE CONTRACTOR SHALL TRANSPORT ALL EXCESS SOIL MATERIAL OFF THE SITE TO AN AREA SELECTED BY THE CONTRACTOR, OR IMPORT SUITABLE MATERIAL TO THE SITE.

11. EXCAVATE TOPSOIL FROM AREAS TO BE FURTHER EXCAVATED OR REGRADED AND STOCKPILE IN AREAS DESIGNATED ON THE SITE. THE CONTRACTOR SHALL SALVAGE ENOUGH TOPSOIL FOR RESPREADING ON THE SITE AS SPECIFIED. EXCESS TOPSOIL SHALL BE PLACED IN EMBANKMENT AREAS, OUTSIDE OF BUILDING PADS, ROADWAYS AND PARKING AREAS. THE CONTRACTOR SHALL SUBCUT CUT AREAS, WHERE TURF IS TO BE ESTABLISHED, TO A DEPTH OF 6 INCHES. RESPREAD TOPSOIL IN AREAS WHERE TURF IS TO BE ESTABLISHED TO A MINIMUM DEPTH OF 6

12. FINISHED GRADING SHALL BE COMPLETED. THE CONTRACTOR SHALL UNIFORMLY GRADE AREAS WITHIN LIMITS OF GRADING, INCLUDING ADJACENT TRANSITION AREAS. PROVIDE A SMOOTH FINISHED SURFACE WITHIN SPECIFIED TOLERANCES, WITH UNIFORM LEVELS OR SLOPES BETWEEN POINTS WHERE ELEVATIONS ARE SHOWN, OR BETWEEN SUCH POINTS AND EXISTING GRADES. AREAS THAT HAVE BEEN FINISH GRADED SHALL BE PROTECTED FROM SUBSEQUENT CONSTRUCTION OPERATIONS, TRAFFIC AND EROSION. REPAIR ALL AREAS THAT HAVE BECOME RUTTED BY TRAFFIC OR ERODED BY WATER OR HAS SETTLED BELOW THE CORRECT GRADE. ALL AREAS DISTURBED BY THE CONTRACTOR'S OPERATIONS SHALL BE RESTORED TO EQUAL OR BETTER THAN ORIGINAL CONDITION OR TO THE REQUIREMENTS OF THE NEW WORK.

13. PRIOR TO PLACEMENT OF THE AGGREGATE BASE, A TEST ROLL WILL BE REQUIRED ON THE STREET AND/OR PARKING AREA SUBGRADE. THE CONTRACTOR SHALL PROVIDE A LOADED TANDEM AXLE TRUCK WITH A GROSS WEIGHT OF 25 TONS. THE TEST ROLLING SHALL BE AT THE DIRECTION OF THE SOILS ENGINEER AND SHALL BE COMPLETED IN AREAS AS DIRECTED BY THE SOILS ENGINEER. THE SOILS ENGINEER SHALL DETERMINE WHICH SECTIONS OF THE STREET OR PARKING AREA ARE UNSTABLE. CORRECTION OF THE SUBGRADE SOILS SHALL BE COMPLETED IN ACCORDANCE WITH THE REQUIREMENTS OF THE SOILS ENGINEER. NO TEST ROLL SHALL OCCUR WITHIN 10' OF ANY UNDERGROUND STORM

14.1. THE BUILDING SUBGRADE FINISHED SURFACE ELEVATION SHALL NOT VARY BY MORE THAN 0.30 FOOT ABOVE, OR 0.30 FOOT BELOW, THE PRESCRIBED ELEVATION AT ANY POINT WHERE MEASUREMENT IS MADE.

14.2. THE STREET OR PARKING AREA SUBGRADE FINISHED SURFACE ELEVATION SHALL NOT VARY BY MORE THAN 0.05 FOOT ABOVE, OR 0.10 FOOT BELOW, THE PRESCRIBED ELEVATION OF ANY POINT WHERE MEASUREMENT IS MADE.

14.3. AREAS WHICH ARE TO RECEIVE TOPSOIL SHALL BE GRADED TO WITHIN 0.30 FOOT ABOVE OR BELOW THE REQUIRED ELEVATION, UNLESS DIRECTED OTHERWISE BY THE ENGINEER.

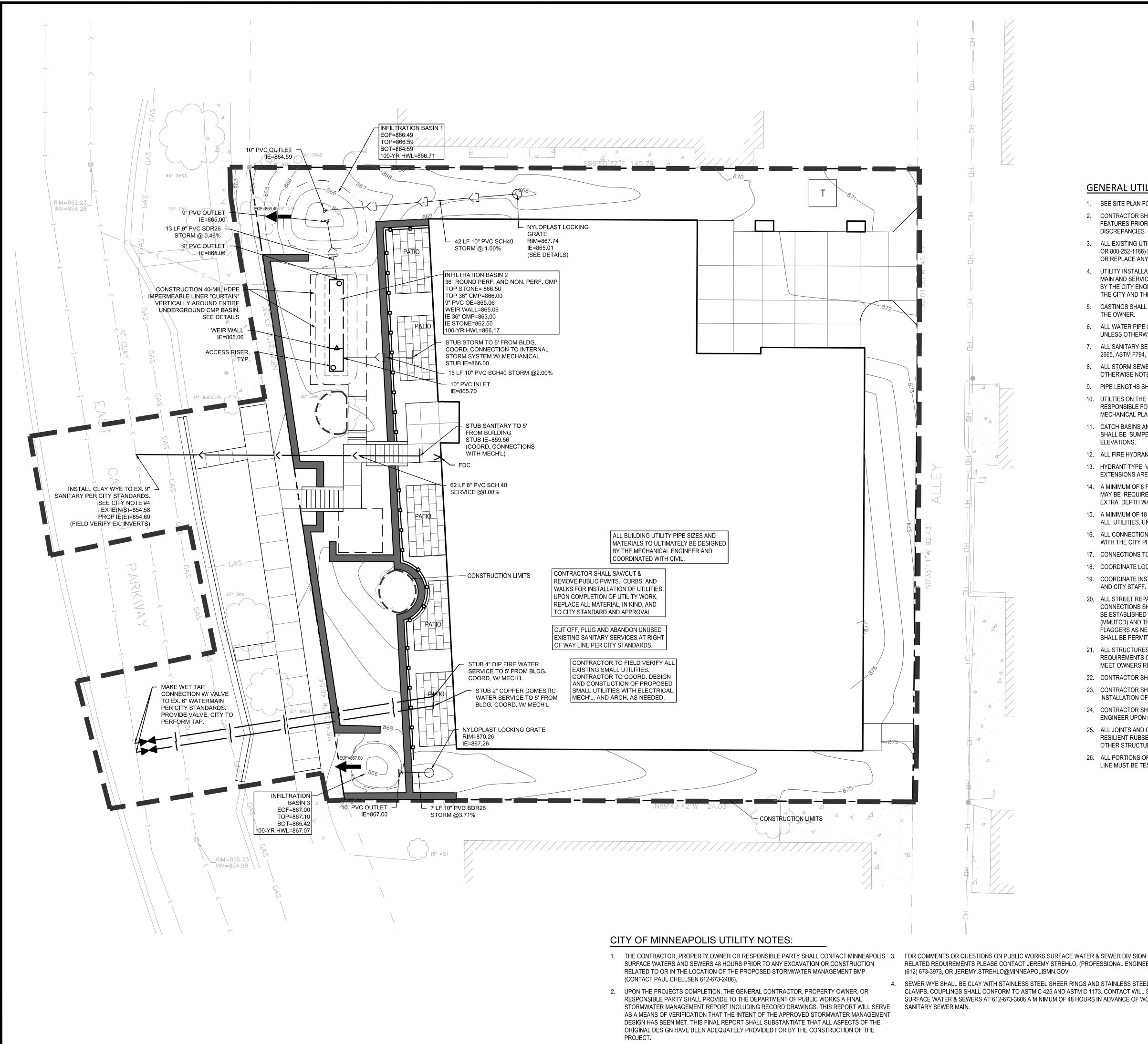
14.4. TOPSOIL SHALL BE GRADED TO PLUS OR MINUS 1/2 INCH OF THE SPECIFIED THICKNESS.

15.1. THE CONTRACTOR SHALL PROTECT NEWLY GRADED AREAS FROM TRAFFIC AND EROSION, AND KEEP AREA FREE OF TRASH AND DEBRIS. 15.2. CONTRACTOR SHALL REPAIR AND REESTABLISH GRADES IN SETTLED, ERODED AND RUTTED AREAS TO SPECIFIED TOLERANCES. DURING THE CONSTRUCTION, IF REQUIRED, AND DURING THE WARRANTY PERIOD, ERODED AREAS WHERE TURF IS TO BE ESTABLISHED SHALL BE RESEEDED

15.3. WHERE COMPLETED COMPACTED AREAS ARE DISTURBED BY SUBSEQUENT CONSTRUCTION OPERATIONS OR ADVERSE WEATHER, CONTRACTOR SHALL SCARIFY, SURFACE, RESHAPE, AND COMPACT TO REQUIRED DENSITY PRIOR TO FURTHER CONSTRUCTION.

GRADING PLAN LEGI	END:
— — —	EX. 1' CONTOUR ELEVATION INTERVAL
1137	1.0' CONTOUR ELEVATION INTERVAL
41.26	SPOT GRADE ELEVATION (GUTTER/FLOW LINE UNLESS OTHERWISE NOTED)
891.00 G	SPOT GRADE ELEVATION GUTTER
891.00 TC	SPOT GRADE ELEVATION TOP OF CURB
891.00 BS/TS	SPOT GRADE ELEVATION BOTTOM OF STAIRS/TOP OF STAIRS
TO	CURB AND GUTTER (T.O = TIP OUT)
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	ER STATE ONE CALL GOPHERSTATEONECALL.ORG (800) 252-1166 TOLL FREE (651) 454-0002 LOCAL

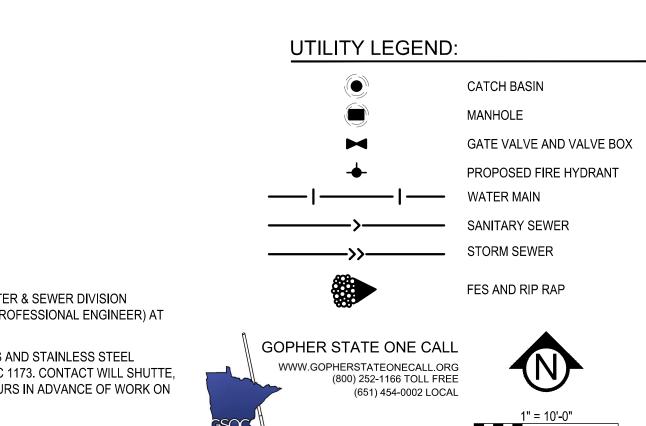
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	I HEREBY CERTIFY THAT THIS PLAN, SPECIFICATION, OR REPORT WAS PREPARED BY ME OR UNDER MY DIRECT SUPERVISION AND THAT I AM A DULY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MINNESOTA. Matthew R. Pavek DATE 06/13/19 LICENSE NO. 44263	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. Matthew R. Pavek DATE 06/13/19 LICENSE NO. 44263 ISSUE/SUBMITTAL SUMMARY DATE DESCRIPTION 09/06/18 PDR/ LUA SUBMITTAL. 12/17/18 PDR/ LUA SUBMITTAL. 01/07/19 WATERSHED SUBMITTAL 01/07/19 PDR RESUBMITTAL 02/01/19 PDR RESUBMITTAL 03/15/19 PDR RESUBMITTAL 04/18/19 LUA RESUBMITTAL	3021 EAST		3017 - 3025 CALHOUN PARKWAY, MINNEAPOLIS, MN 55408	DJR ARCHITECTURE	333 N WASHINGTON AVE, MINNEAPOLIS, 55401
09/06/18PDR/ LUA SUBMITTAL.12/17/18PDR/ LUA SUBMITTAL01/07/19WATERSHED SUBMITTAL01/16/19LUA RESUBMITTAL02/01/19PDR RESUBMITTAL03/15/19PDR RESUBMITTAL04/18/19LUA RESUBMITTAL	DATE         DESCRIPTION			(	C(	3.0	0

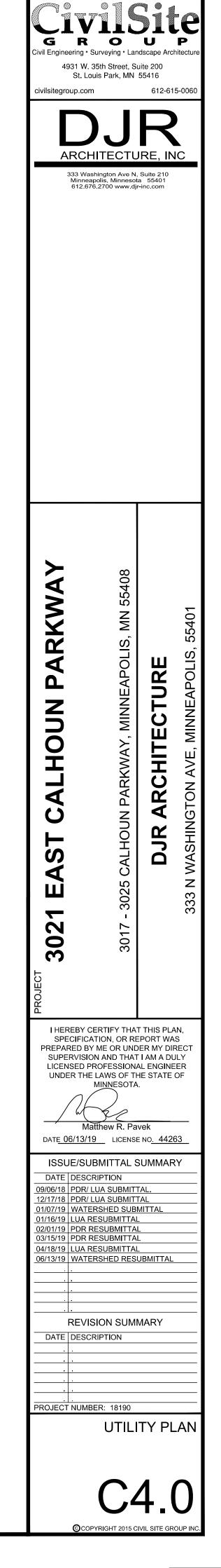


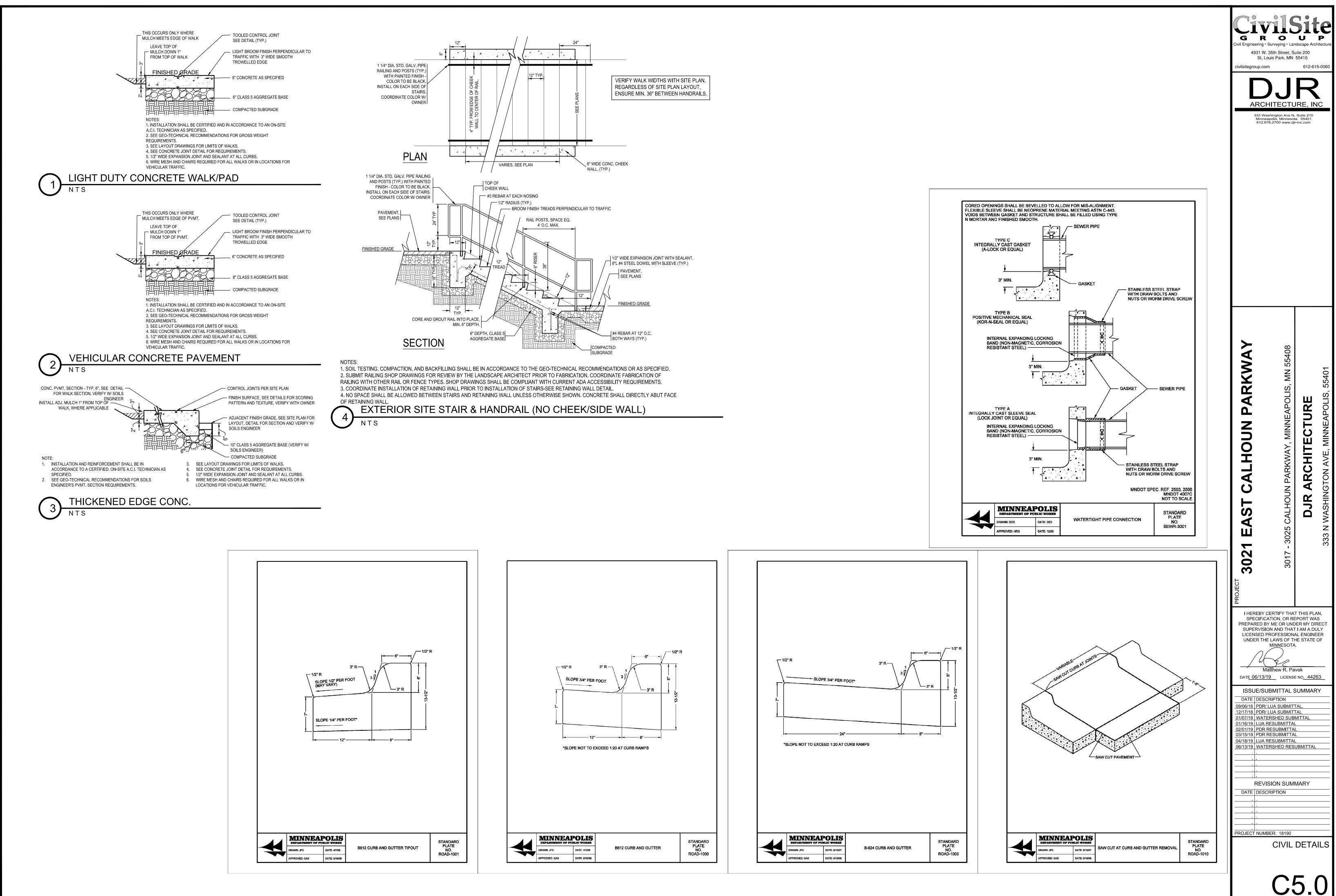
- RELATED REQUIREMENTS PLEASE CONTACT JEREMY STREHLO, (PROFESSIONAL ENGINEER) AT
- 4. SEWER WYE SHALL BE CLAY WITH STAINLESS STEEL SHEER RINGS AND STAINLESS STEEL CLAMPS. COUPLINGS SHALL CONFORM TO ASTM C 425 AND ASTM C 1173. CONTACT WILL SHUTTE, SURFACE WATER & SEWERS AT 612-673-3606 A MINIMUM OF 48 HOURS IN ADVANCE OF WORK ON

## **GENERAL UTILITY NOTES:**

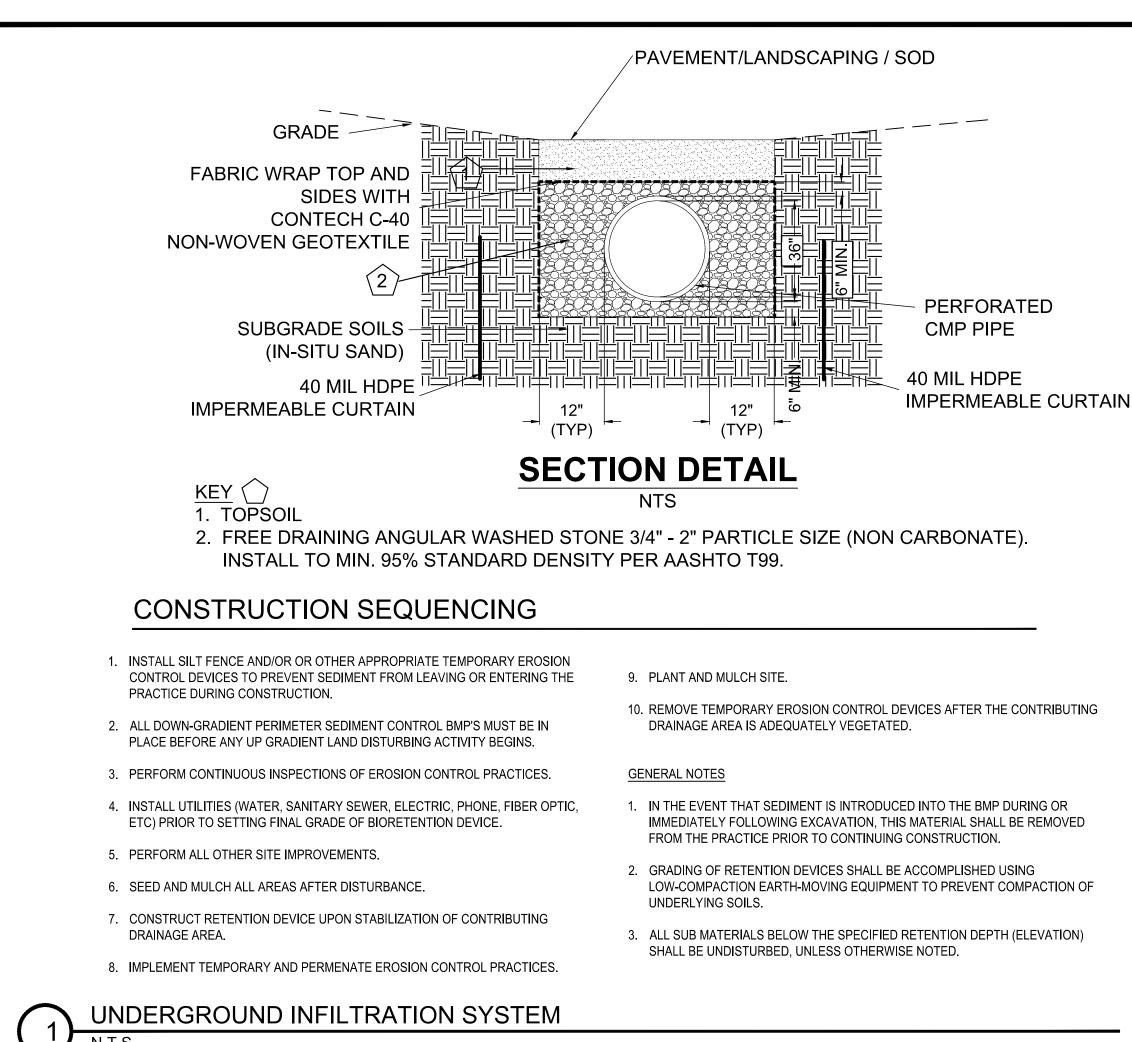
- 1. SEE SITE PLAN FOR HORIZONTAL DIMENSIONS AND LAYOUT.
- 2. CONTRACTOR SHALL FIELD VERIFY LOCATION AND ELEVATION OF EXISTING UTILITIES AND TOPOGRAPHIC FEATURES PRIOR TO CONSTRUCTION. THE CONTRACTOR SHALL IMMEDIATELY NOTIFY THE ENGINEER OF DISCREPANCIES OR VARIATIONS FROM THE PLANS.
- 3. ALL EXISTING UTILITY LOCATIONS SHOWN ARE APPROXIMATE. CONTACT "GOPHER STATE ONE CALL" (651-454-0002 OR 800-252-1166) FOR UTILITY LOCATIONS, 48 HOURS PRIOR TO CONSTRUCTION. THE CONTRACTOR SHALL REPAIR OR REPLACE ANY UTILTIES THAT ARE DAMAGED DURING CONSTRUCTION AT NO COST TO THE OWNER.
- 4. UTILITY INSTALLATION SHALL CONFORM TO THE CURRENT EDITION OF "STANDARD SPECIFICATIONS FOR WATER MAIN AND SERVICE LINE INSTALLATION" AND "SANITARY SEWER AND STORM SEWER INSTALLATION" AS PREPARED BY THE CITY ENGINEERS ASSOCIATION OF MINNESOTA (CEAM), AND SHALL CONFORM WITH THE REQUIREMENTS OF THE CITY AND THE PROJECT SPECIFICATIONS.
- 5. CASTINGS SHALL BE SALVAGED FROM STRUCTURE REMOVALS AND RE-USED OR PLACED AT THE DIRECTION OF THE OWNER.
- 6. ALL WATER PIPE SHALL BE CLASS 52 DUCTILE IRON PIPE (DIP) AWWA C151, ASME B16.4, AWWA C110, AWWA C153 UNLESS OTHERWISE NOTED.
- 7. ALL SANITARY SEWER SHALL BE SDR 26 POLYVINYL CHLORIDE (PVC) ASTM D3034 & F679, OR SCH 40 ASTM D1785, 2665, ASTM F794, 1866) UNLESS OTHERWISE NOTED.
- 8. ALL STORM SEWER PIPE SHALL BE HDPE ASTM F714 & F2306 WITH ASTM D3212 SPEC FITTINGS UNLESS OTHERWISE NOTED.
- 9. PIPE LENGTHS SHOWN ARE FROM CENTER TO CENTER OF STRUCTURE OR TO END OF FLARED END SECTION. 10. UTILTIES ON THE PLAN ARE SHOWN TO WITHIN 5' OF THE BUILDING FOOTPRINT. THE CONTRACTOR IS ULTIMATELY RESPONSIBLE FOR THE FINAL CONNECTION TO BUILDING LINES. COORDINATE WITH ARCHITECTURAL AND MECHANICAL PLANS.
- 11. CATCH BASINS AND MANHOLES IN PAVED AREAS SHALL BE SUMPED 0.04 FEET. ALL CATCH BASINS IN GUTTERS SHALL BE SUMPED 0.15 FEET PER DETAILS. RIM ELEVATIONS SHOWN ON THIS PLAN DO NOT REFLECT SUMPED ELEVATIONS.
- 12. ALL FIRE HYDRANTS SHALL BE LOCATED 5 FEET BEHIND BACK OF CURB UNLESS OTHERWISE NOTED.
- 13. HYDRANT TYPE, VALVE, AND CONNECTION SHALL BE IN ACCORDANCE WITH CITY REQUIREMENTS. HYDRANT EXTENSIONS ARE INCIDENTAL.
- 14. A MINIMUM OF 8 FEET OF COVER IS REQUIRED OVER ALL WATERMAIN, UNLESS OTHERWISE NOTED. EXTRA DEPTH MAY BE REQUIRED TO MAINTAIN A MINIMUM OF 18" VERTICAL SEPARATION TO SANITARY OR STORM SEWER LINES. EXTRA DEPTH WATERMAIN IS INCIDENTAL.
- 15. A MINIMUM OF 18 INCHES OF VERTICAL SEPARATION AND 10 FEET OF HORIZONTAL SEPARATION IS REQUIRED FOR ALL UTILITIES, UNLESS OTHERWISE NOTED.
- 16. ALL CONNECTIONS TO EXISTING UTILITIES SHALL BE IN ACCORDANCE WITH CITY STANDARDS AND COORDINATED WITH THE CITY PRIOR TO CONSTRUCTION.
- 17. CONNECTIONS TO EXISTING STRUCUTRES SHALL BE CORE-DRILLED.
- 18. COORDINATE LOCATIONS AND SIZES OF SERVICE CONNECTIONS WITH THE MECHANICAL DRAWINGS.
- 19. COORDINATE INSTALLATION AND SCHEDULING OF THE INSTALLATION OF UTILITIES WITH ADJACENT CONTRACTORS AND CITY STAFF.
- 20. ALL STREET REPAIRS AND PATCHING SHALL BE PERFORMED PER THE REQUIREMENTS OF THE CITY. ALL PAVEMENT CONNECTIONS SHALL BE SAWCUT. ALL TRAFFIC CONTROLS SHALL BE PROVIDED BY THE CONTRACTOR AND SHALL BE ESTABLISHED PER THE REQUIREMENTS OF THE MINNESOTA MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES (MMUTCD) AND THE CITY. THIS SHALL INCLUDE BUT NOT BE LIMITED TO SIGNAGE, BARRICADES, FLASHERS, AND FLAGGERS AS NEEDED. ALL PUBLIC STREETS SHALL BE OPEN TO TRAFFIC AT ALL TIMES. NO ROAD CLOSURES SHALL BE PERMITTED WITHOUT APPROVAL BY THE CITY.
- 21. ALL STRUCTURES, PUBLIC AND PRIVATE, SHALL BE ADJUSTED TO PROPOSED GRADES WHERE REQUIRED. THE REQUIREMENTS OF ALL OWNERS MUST BE COMPLIED WITH. STRUCTURES BEING RESET TO PAVED AREAS MUST MEET OWNERS REQUIREMENTS FOR TRAFFIC LOADING.
- 22. CONTRACTOR SHALL CORDINATE ALL WORK WITH PRIVATE UTILITY COMPANIES.
- 23. CONTRACTOR SHALL COORDINATE CONNECTION OF IRRIGATION SERVICE TO UTILITIES. COORDINATE THE INSTALLATION OF IRRIGATION SLEEVES NECESSARY AS TO NOT IMPACT INSTALLATION OF UTILITIES.
- 24. CONTRACTOR SHALL MAINTAIN AS-BUILT PLANS THROUGHOUT CONSTRUCTION AND SUBMIT THESE PLANS TO ENGINEER UPON COMPLETION OF WORK.
- 25. ALL JOINTS AND CONNECTIONS IN STORM SEWER SYSTEM SHALL BE GASTIGHT OR WATERTIGHT. APPROVED RESILIENT RUBBER JOINTS MUST BE USED TO MAKE WATERTIGHT CONNECTIONS TO MANHOLES, CATCHBASINS, OR OTHER STRUCTURES.
- 26. ALL PORTIONS OF THE STORM SEWER SYSTEM LOCATED WITHIN 10 FEET OF THE BUILDING OR WATER SERVICE LINE MUST BE TESTED IN ACCORDANCE WITH MN RULES, CHAPTER 4714, SECTION 1109.0.

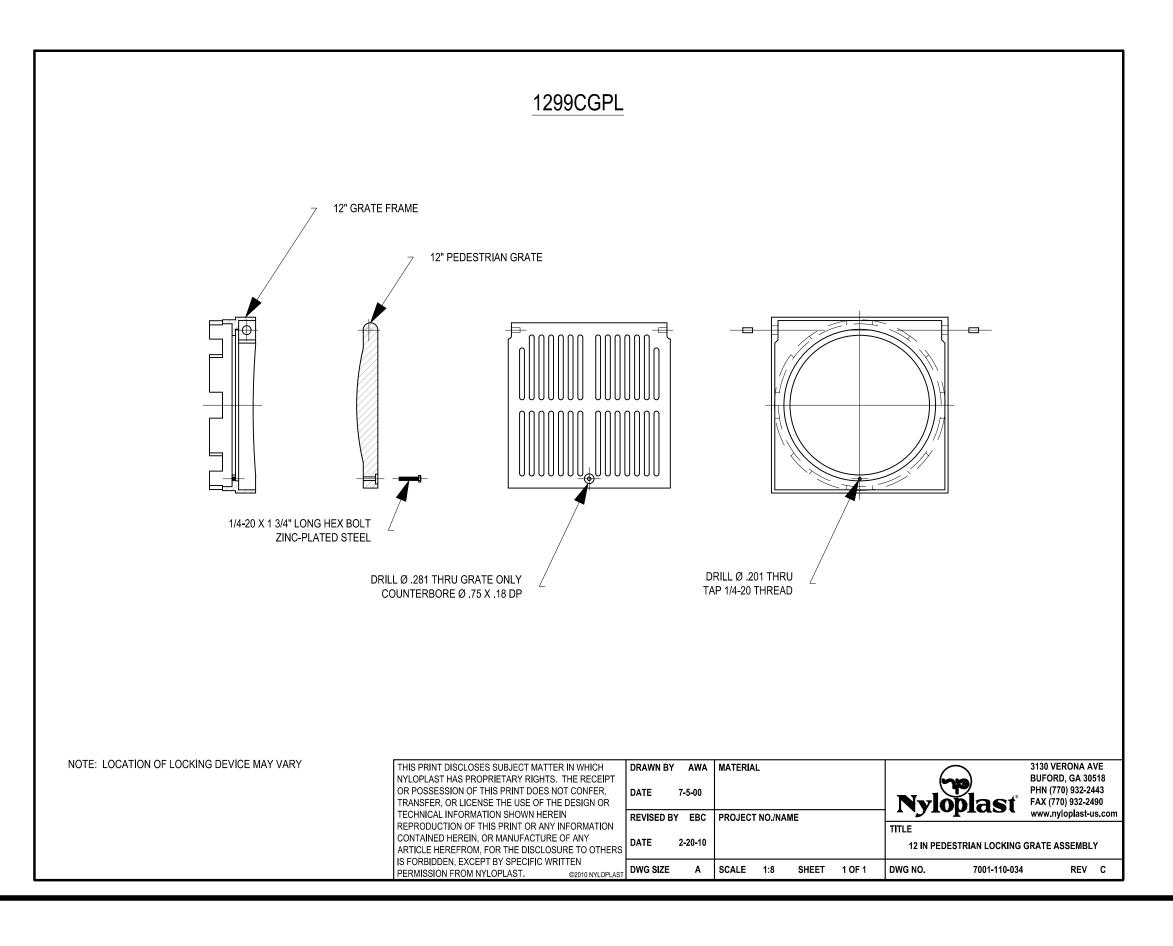


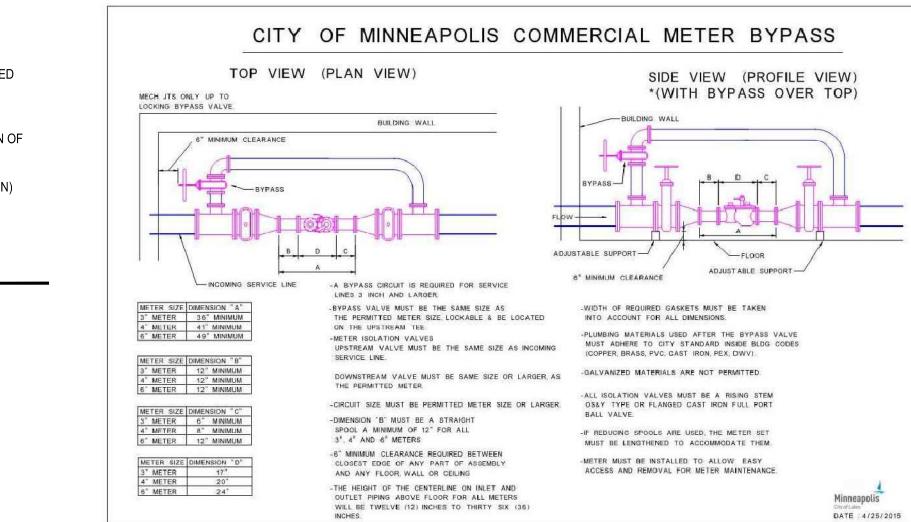




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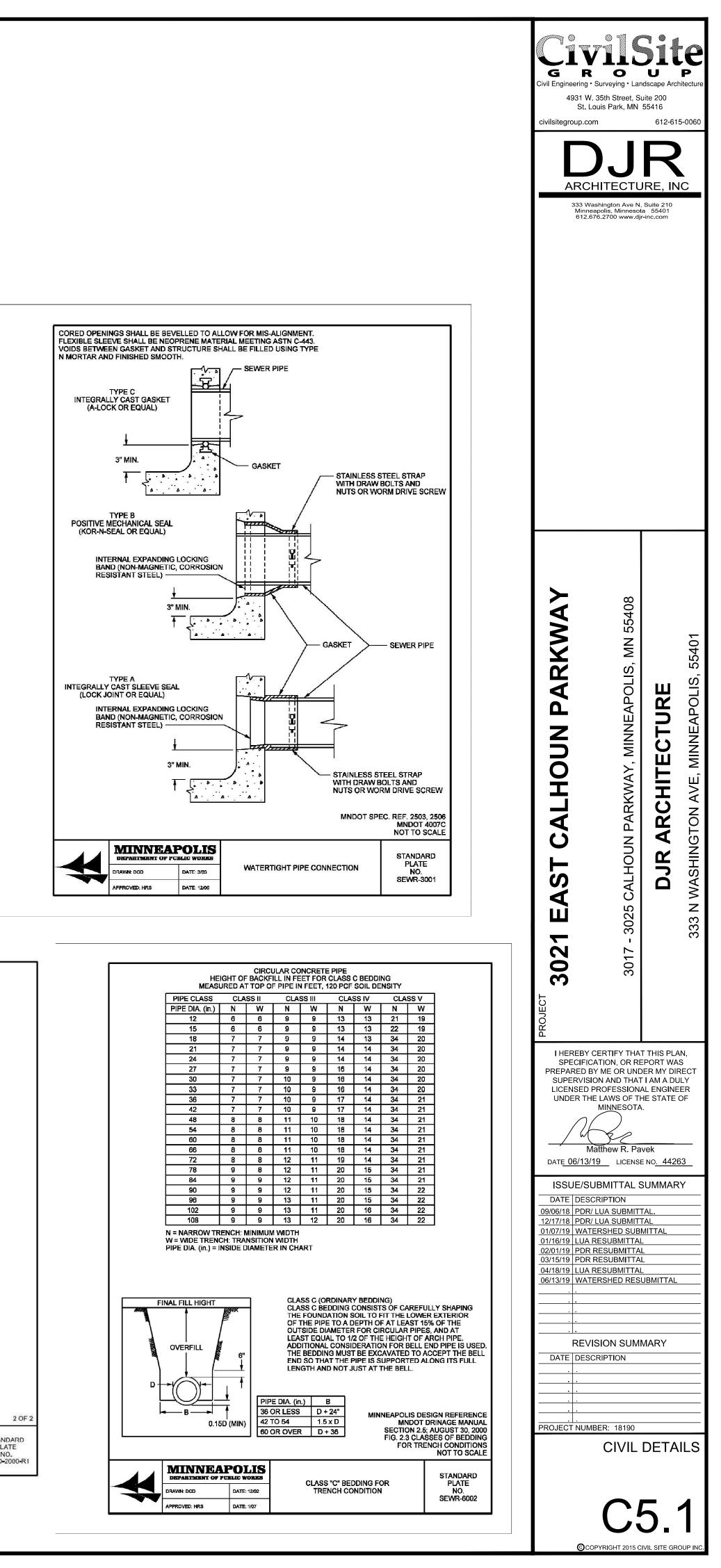


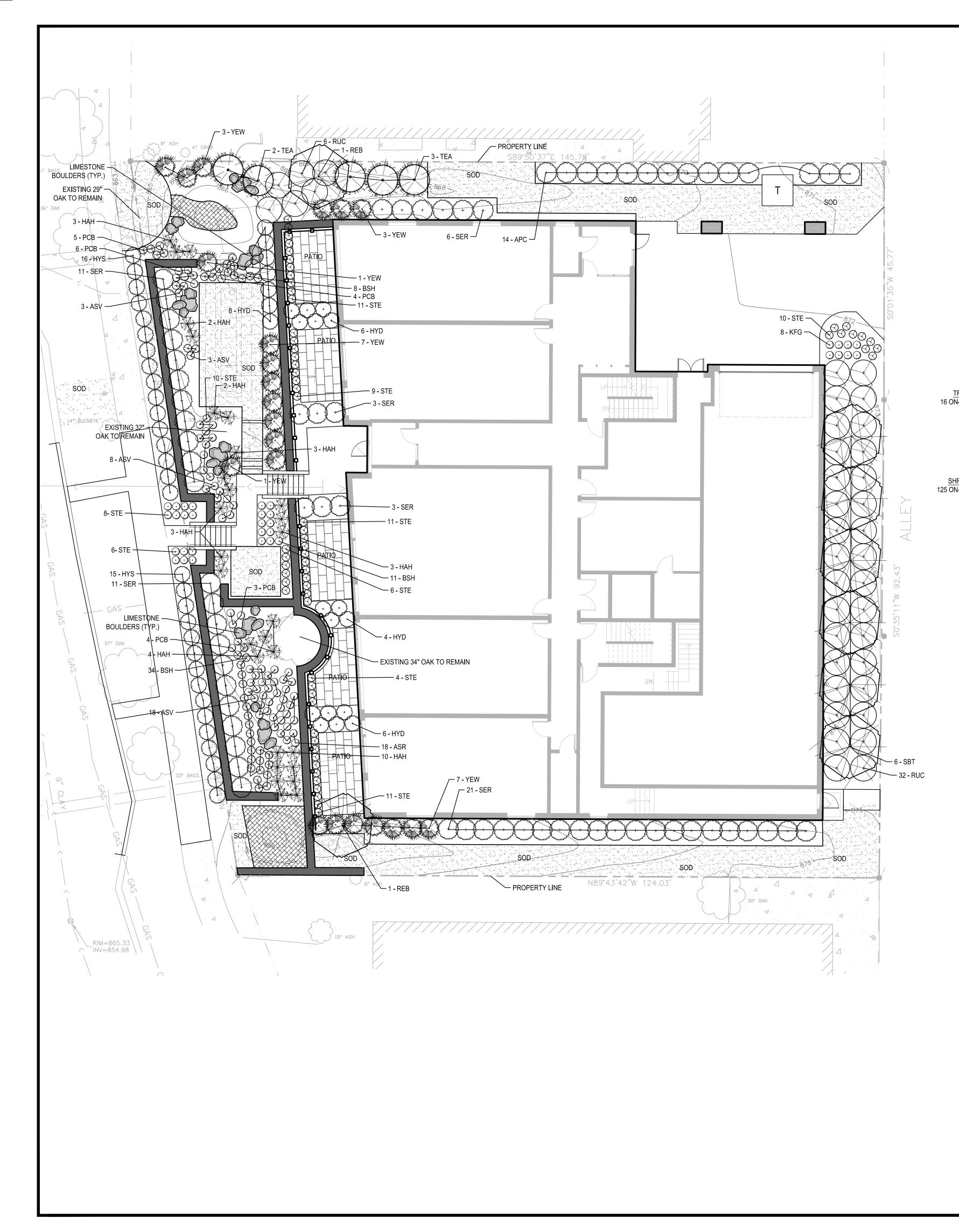


CODE	DIMENSION	RESIDENTIAL	COMMERCIAL
Y	DRIVE APPROACH ANGLE	60-90°	60 <b>-</b> 90°
w	DRIVE APPROACH WIDTH	12' MIN, 25' MAX,*	12' MIN.* 25' MAX.*
R	RADIUS OF CURVATURE OF CURB FOR DRIVE APPROACH	2.5' MIN. 5' MAX.	5' STD.*
R1, R2	RADIUS OF CURVATURE	5' MIN. 15' MAX.	5' MIN. 30' MAX.
F	COMMON FRONTAGE CLEARANCE	5' MIN.	5' MIN.
G	DISTANCE BETWEEN DOUBLE DRIVE APPROACHES	30' MIN.*	30' MIN.*
С	CORNER CLEARANCE AT THE INTERSECTION OF TWO MAJOR STREETS	30' MIN.*	30' MIN.*
N/A	CORNER CLEARANCE AT ALL OTHER INTERSECTIONS	20' MIN.*	20' MIN.*
N/A	CLEARANCE FROM BUS STOP ZONE	40' MIN.*	40' MIN.*

\*OR AS APPROVED BY THE CITY ENGINEER.

	MINNEAPOLIS			STAND	
$\rightarrow$	DRAWN: JFC	DATE: 7/29/14	DRIVEWAY REFERENCE	NO	
Minneapolis City of Lakas	APPROVED: JSH	DATE: 7/29/14		ROAD-20	





# LANDSCAPE CALCULATIONS:

PROPOSED LANDSCAPE AREA CALCULATION: SITE AREA - BUILDING COVERAGE = OPEN SPACE

18,658.0 SF - 9,590.0 SF = 9,068.0 SF

20% OF OPEN SPACE = LANDSCAPE AREA

20% X	9,068.0 SF	=	1,813.6 SF REQUIRED
76% X	9,068.0 SF	=	6,936.0 SF PROVIDED
	62.8%		PROPOSED IMPERVIOUS RATIO

PROPOSED LANDSCAPE: 1 TREE/ 500 SF OF "LANDSCAPE AREA"

1,813.6 SF / 500 = 4 TREES REQUIRED SEE PLANT SCHEDULE

1 SHRUB/100 SF OR "LANDSCAPE AREA" 1,813.6 SF / 100 = 18.1 SHRUBS REQUIRED

SEE PLANT SCHEDULE

SYM	QUANT.	QUANT.	QUANT.	COMMON NAM
STIVI	ON-SITE	OFF-SITE	τοται	COMMON NAM

SYM		QUANT. OFF-SITE		COMMON NAME	BOTANICAL NAME	SIZE	ROOT	POLLINATOR FRIENDLY	NATIVE	COMMENTS
				DECIDUOUS TREES						
-	3	4	7	EXISTING OAK TREES	Quercus sp.	29-34" CAL.			Х	EXISTING TREES TO REMAIN
				ORNAMENTAL TREES						
 REB	2			NORTHERN REDBUD	Cercis canadensis 'Northern Strain'	8' Clump	B&B	Х	Х	5-7 LEADERS, FULL FORM
STB	6			SERVICEBERRY	Amelanchier x grandiflora	8' Clump	B&B	Х	Х	5-7 LEADERS, FULL FORM
				EVERGREEN TREES						
TEA	5			TECHNY ARBORVITAE	Thuja occidentalis 'Techny'	6' ht.	B&B			STRAIGHT LEADER. FULL FORM
				SHRUBS - CONIFEROUS & EVERGREEN						
SER	55			SERVICEBERRY	Amelanchier alnifolia 'Regent'	36" HT.	CONT.	X	X	
APC	14			ALPINE CURRANT	Ribes alpinum	24" HT.	CONT.			
HYD	24			ANNABELLE HYDRANGEA	Hydrangea arborescens	24" HT.	CONT.			
YEW	22			NOVA YEW	Taxus cuspidata 'Nova'	#5	CONT.		Х	
				PERENNIALS & GRASSES						
ASV	32			VISION IN RED ASTILBE	Astilbe chinensis 'Vision in Red'	#1	CONT.			
ASR	18			RHEINLAND ASTILBE	Astilbe japonica 'Rheinland'	#1	CONT.			
STE	86			STELLA DAYLILY	Hemerocallis 'Stella d' oro	#1	CONT.	Х		
PCB	22			PLUM PUDDING CORAL BELLS	Heuchera 'Plum Pudding'	#1	CONT.	Х		
HAH	30			HADSPEN BLUE HOSTA	Hosta 'Hadspen Blue'	#1	CONT.	Х		
BSH	53			BROTHER STEFAN HOSTA	Hosta 'Brother Stefan'	#1	CONT	Х		
RUC	38			RUSSIAN CYPRESS	Microbiota decussata	#1	CONT.			
KFG	8			KARL FOERSTER	Calamagrostis x acutiflora 'Karl Foerster'	#1	CONT			
HYS	31			TWIST & SHOUT HYDRANGEA	Hyrangea macropylla	#`1	CONT.			

# LANDSCAPE NOTES:

1. WHERE SHOWN, SHRUB & PERENNIAL BEDS SHALL BE MULCHED WITH 4" DEPTH (MINIMUM AFTER INSTALLATION AND/OR TOP DRESSING OPERATIONS) OF SHREDDED CYPRESS MULCH.

- 2. ALL TREES SHALL BE MULCHED WITH SHREDDED CYPRESS MULCH TO OUTER EDGE OF SAUCER OR TO EDGE OF PLANTING BED, IF APPLICABLE. ALL MULCH SHALL BE KEPT WITHIN A MINIMUM OF 2" FROM TREE TRUNK.
- 3. IF SHOWN ON PLAN, RANDOM SIZED LIMESTONE BOULDERS COLOR AND SIZE TO COMPLIMENT NEW LANDSCAPING. OWNER TO APPROVE BOULDER SAMPLES PRIOR TO INSTALLATION.
- 4. PLANT MATERIALS SHALL CONFORM WITH THE AMERICAN ASSOCIATION OF NURSERYMEN STANDARDS AND SHALL BE OF HARDY STOCK, FREE FROM DISEASE, DAMAGE AND DISFIGURATION. CONTRACTOR IS RESPONSIBLE FOR MAINTAINING PLUMPNESS OF PLANT MATERIAL FOR DURATION OF ACCEPTANCE PERIOD.
- 5. UPON DISCOVERY OF A DISCREPANCY BETWEEN THE QUANTITY OF PLANTS SHOWN ON THE SCHEDULE AND THE QUANTITY SHOWN ON THE PLAN, THE PLAN SHALL GOVERN.
- 6. CONDITION OF VEGETATION SHALL BE MONITORED BY THE LANDSCAPE ARCHITECT THROUGHOUT THE DURATION OF THE CONTRACT. LANDSCAPE MATERIALS PART OF THE CONTRACT SHALL BE WARRANTED FOR ONE (1) FULL GROWING SEASONS FROM SUBSTANTIAL COMPLETION DATE.
- 7. ALL AREAS DISTURBED BY CONSTRUCTION ACTIVITIES SHALL RECEIVE 4" LAYER LOAM AND SOD AS SPECIFIED UNLESS OTHERWISE NOTED ON THE DRAWINGS.
- 8. COORDINATE LOCATION OF VEGETATION WITH UNDERGROUND AND OVERHEAD UTILITIES, LIGHTING FIXTURES, DOORS AND WINDOWS. CONTRACTOR SHALL STAKE IN THE FIELD FINAL LOCATION OF TREES AND SHRUBS FOR REVIEW AND APPROVAL BY THE LANDSCAPE ARCHITECT PRIOR TO INSTALLATION.
- 9. ALL PLANT MATERIALS SHALL BE WATERED AND MAINTAINED UNTIL ACCEPTANCE.
- 10. REPAIR AT NO COST TO OWNER ALL DAMAGE RESULTING FROM LANDSCAPE CONTRACTOR'S ACTIVITIES. 11. SWEEP AND MAINTAIN ALL PAVED SURFACES FREE OF DEBRIS GENERATED FROM LANDSCAPE
- CONTRACTOR'S ACTIVITIES. 12. REPAIR AT NO COST TO THE OWNER IRRIGATION SYSTEM DAMAGED FROM LANDSCAPE CONSTRUCTION ACTIVITIES.
- 13. PROVIDE SITE WIDE IRRIGATION SYSTEM DESIGN AND INSTALLATION. SYSTEM SHALL BE FULLY PROGRAMMABLE AND CAPABLE OF ALTERNATE DATE WATERING. THE SYSTEM SHALL PROVIDE HEAD TO HEAD OR DRIP COVERAGE AND BE CAPABLE OF DELIVERING ONE INCH OF PRECIPITATION PER WEEK. SYSTEM SHALL EXTEND INTO THE PUBLIC RIGHT-OF-WAY TO THE EDGE OF PAVEMENT/ BACK OF CURB.
- 14. CONTRACTOR SHALL SECURE APPROVAL OF PROPOSED IRRIGATION SYSTEM INCLUDING PRICING FROM OWNER, PRIOR TO INSTALLATION.
- 15. CONTACT DON ZART AT (612)-673-2726 FOR COORDINATION REGARDING PARK DEDICATION FEES

# POLLINATOR SAFE PLANT MATERIAL:

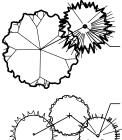
- 1. THE CONTRACTOR SHALL PROVIDE ONLY PLANT MATERIAL FREE OF NEONICOTINOID BASED INSECTICIDES AND/OR TREATMENTS OF ANY KIND, INCLUDING BY NOT LIMITED TO IMIDACLOPRID (CONFIDOR, ADMIRE, GAUCHO, ADVOCATE), THIAMETHOXAM (ACTARA, PLATINUM, CRUISER), CLOTHIANIDIN (PONCHO, DANTOSU, DANTOP), ACETAMIPRID (MOSPILAN, ASSAIL, CHIPCOTRISTAR), THIACLOPRID (CALYPSO), DINOTEFURAN (STARKLE, SAFARI, VENOM), AND NITENPYRAM (CAPSTAR, GUARDIAN).
- 2. CONTRACTOR SHALL CERTIFY, THROUGH SUPPLIERS POLICY STATEMENT OR AFFIDAVIT, THAT NO NEONICOTINOID BASED INSECTICIDES HAVE BEEN USED ON SITE OR DIRECTLY ADJACENT TO THE GROWING OR STORAGE PLOTS OF THE SUPPLIED PLANT MATERIAL, INCLUDING THE PLANTING OF AGRICULTURAL (OR OTHER) SEED TREATED WITH NEONICS.

# LEGEND

SHREDDED HARDWOOD MULCH WITH RAINGARDEN PLUGS (Echinacea purpurea, Joe-Pye Weed, Geum triflorum, Iris versicolor, Juncus effuses Grass and Polemonium reptans). PLANT PLUGS 18" O.C. EXACT QUANTITIES SHALL BE DETERMINED AT TIME OF CONSTRUCTION

SHREDDED CYPRESS MULCH, SAMPLES REQUIRED PROVIDE EDGING AS SHOWN ON PLAN SOD

ANNUALS (BY OWNER)



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PROPOSED DECIDUOUS AND EVERGREEN SHRUB SYMBOLS - SEE SCHEDULE AND PLAN FOR SPECIES AND FILANTING SIZES

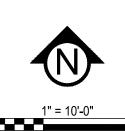
PROPOSED CANOPY & EVERGREEN TREE SYMBOLS - SEE

SCHEDULE AND PLAN FOR SPECIES AND PLANTING SIZES

PROPOSED PERENNIAL PLANT SYMBOLS - SEE SCHEDULE AND PLAN FOR SPECIES AND PLANTING SIZES

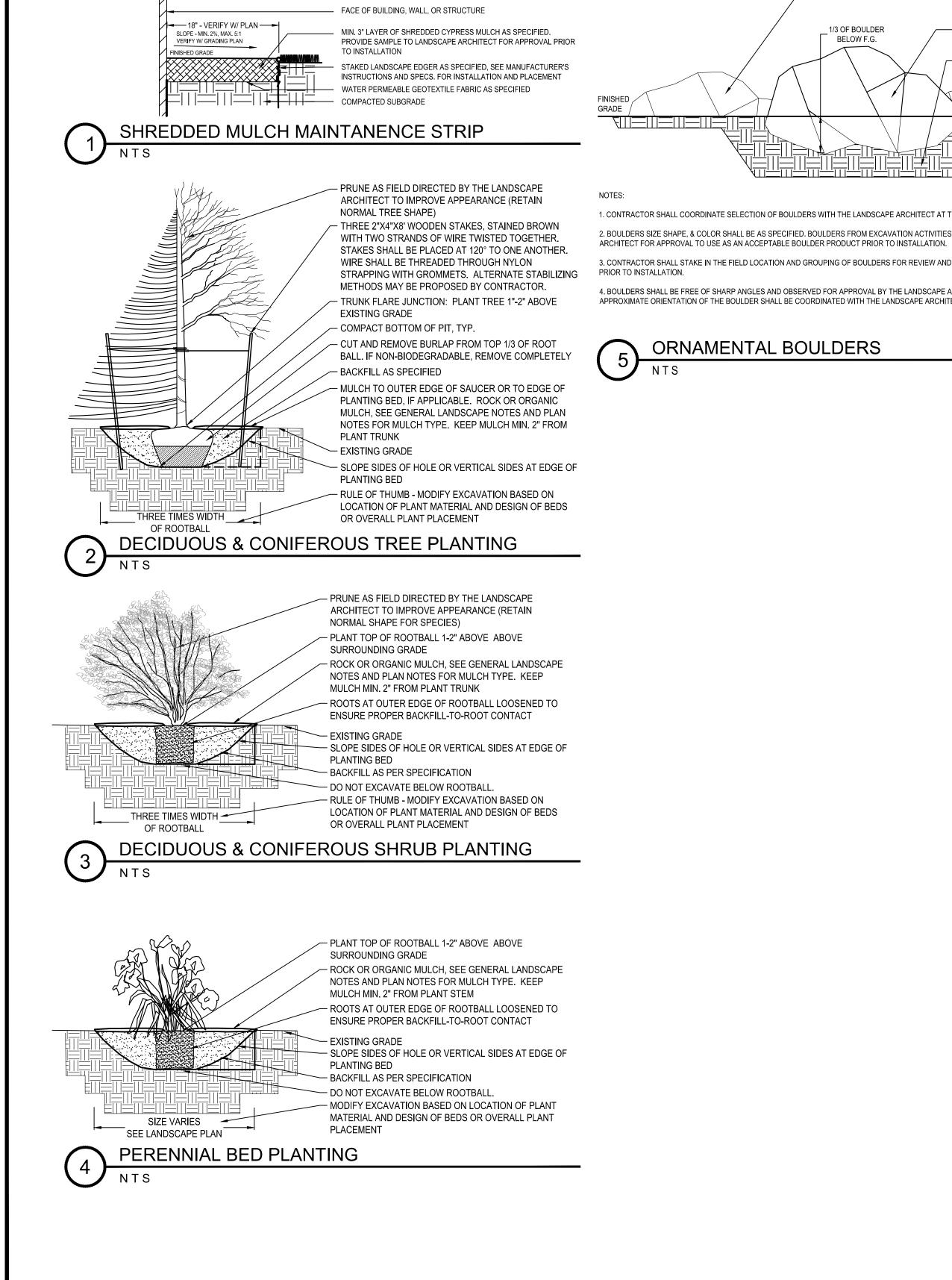
— DECORATIVE BOULDERS, 18"-30" DIA.

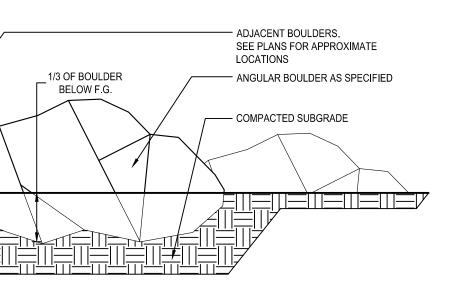




GROU Vivil Engineering • Surveving • Landscape A 4931 W. 35th Street. Suite 200 St. Louis Park, MN 55416 civilsitegroup.com 612-615-006 ARCHITECTURE 333 Washington Ave N, Suite 210 Minneapolis, Minnesota 55401 612.676.2700 www.djr-inc.com R () H C ľ 4  $\mathbf{C}$ S Ш N 0  $\mathbf{c}$ I HEREBY CERTIFY THAT THIS PLAN, SPECIFICATION, OR REPORT WAS PREPARED BY ME OR UNDER MY DIRECT SUPERVISION AND THAT I AM A DULY LICENSED LANDSCAPE ARCHITECT UNDER THE LAWS OF THE STATE OF MINNESOTA Patrick J. Sarver DATE 06/13/19 LICENSE NO. 24904 ISSUE/SUBMITTAL SUMMARY DATE DESCRIPTION 09/06/18 PDR/ LUA SUBMITTAL. 12/17/18 PDR/ LUA SUBMITTAL 01/07/19 WATERSHED SUBMITTAL 01/16/19 LUA RESUBMITTAL 02/01/19 PDR RESUBMITTAL 03/15/19 PDR RESUBMITTAL 04/18/19 LUA RESUBMITTAL 06/13/19 WATERSHED RESUBMITTAL **REVISION SUMMARY** DATE DESCRIPTION PROJECT NUMBER: 18190 LANDSCAPE PLAN

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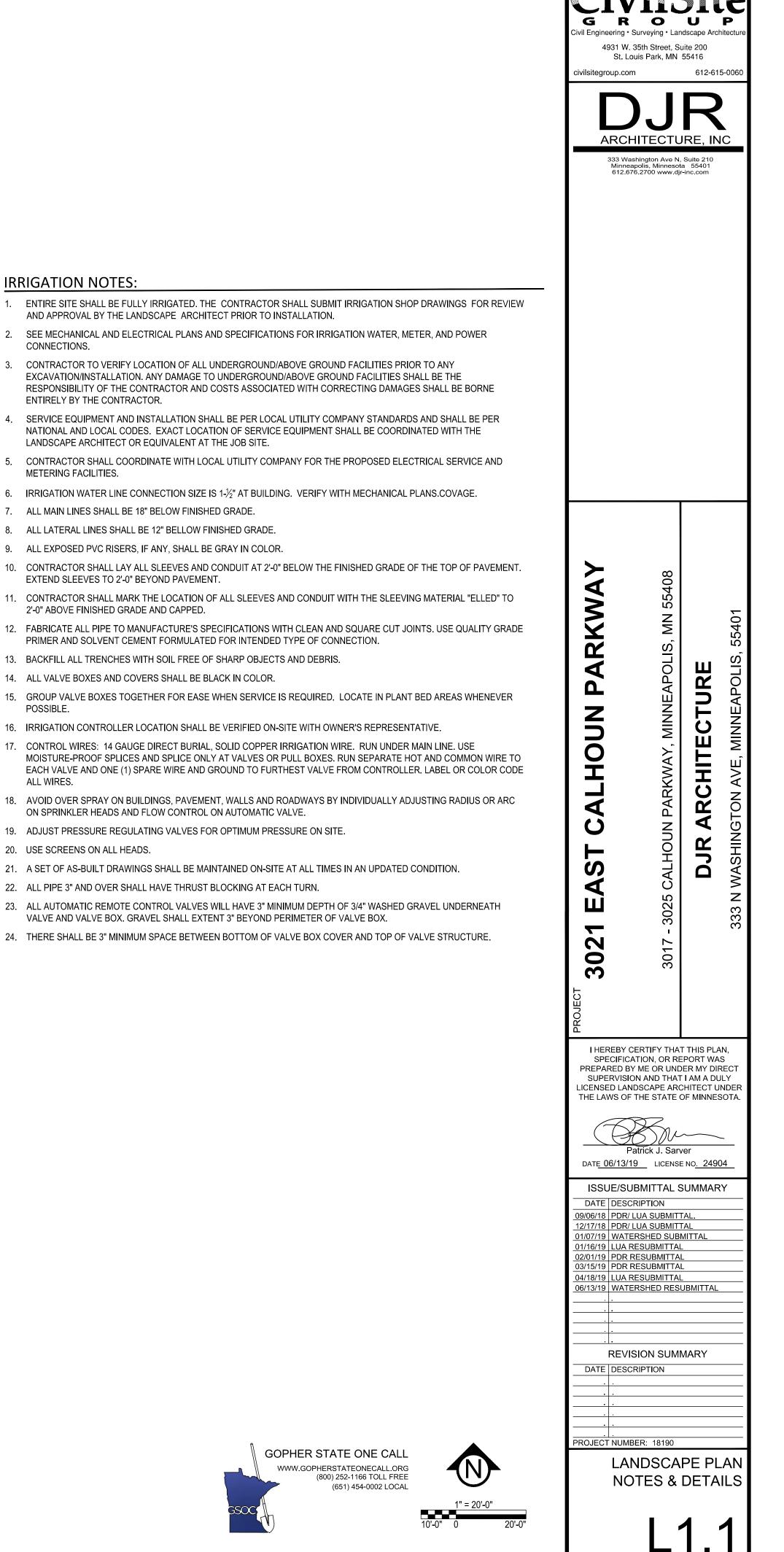




1. CONTRACTOR SHALL COORDINATE SELECTION OF BOULDERS WITH THE LANDSCAPE ARCHITECT AT THE QUARRY PRIOR TO DELIVERY. 2. BOULDERS SIZE SHAPE, & COLOR SHALL BE AS SPECIFIED. BOULDERS FROM EXCAVATION ACTIVITIES SHALL BE REVIEWED BY THE LANDSCAPE 3. CONTRACTOR SHALL STAKE IN THE FIELD LOCATION AND GROUPING OF BOULDERS FOR REVIEW AND APPROVAL BY THE LANDSCAPE ARCHITECT

4. BOULDERS SHALL BE FREE OF SHARP ANGLES AND OBSERVED FOR APPROVAL BY THE LANDSCAPE ARCHITECT PRIOR TO INSTALLATION. APPROXIMATE ORIENTATION OF THE BOULDER SHALL BE COORDINATED WITH THE LANDSCAPE ARCHITECT PRIOR TO FINAL INSTALLATION.

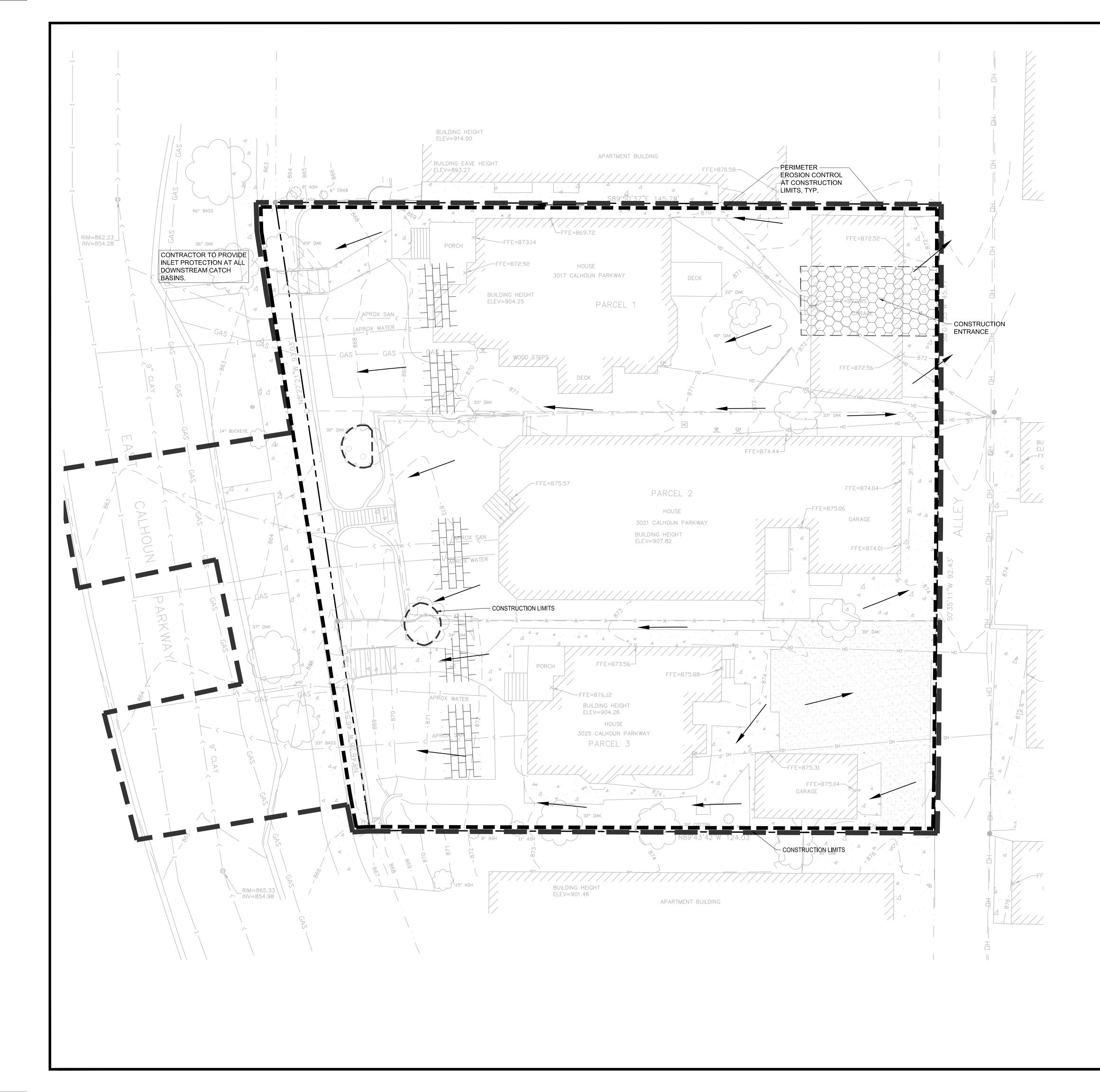
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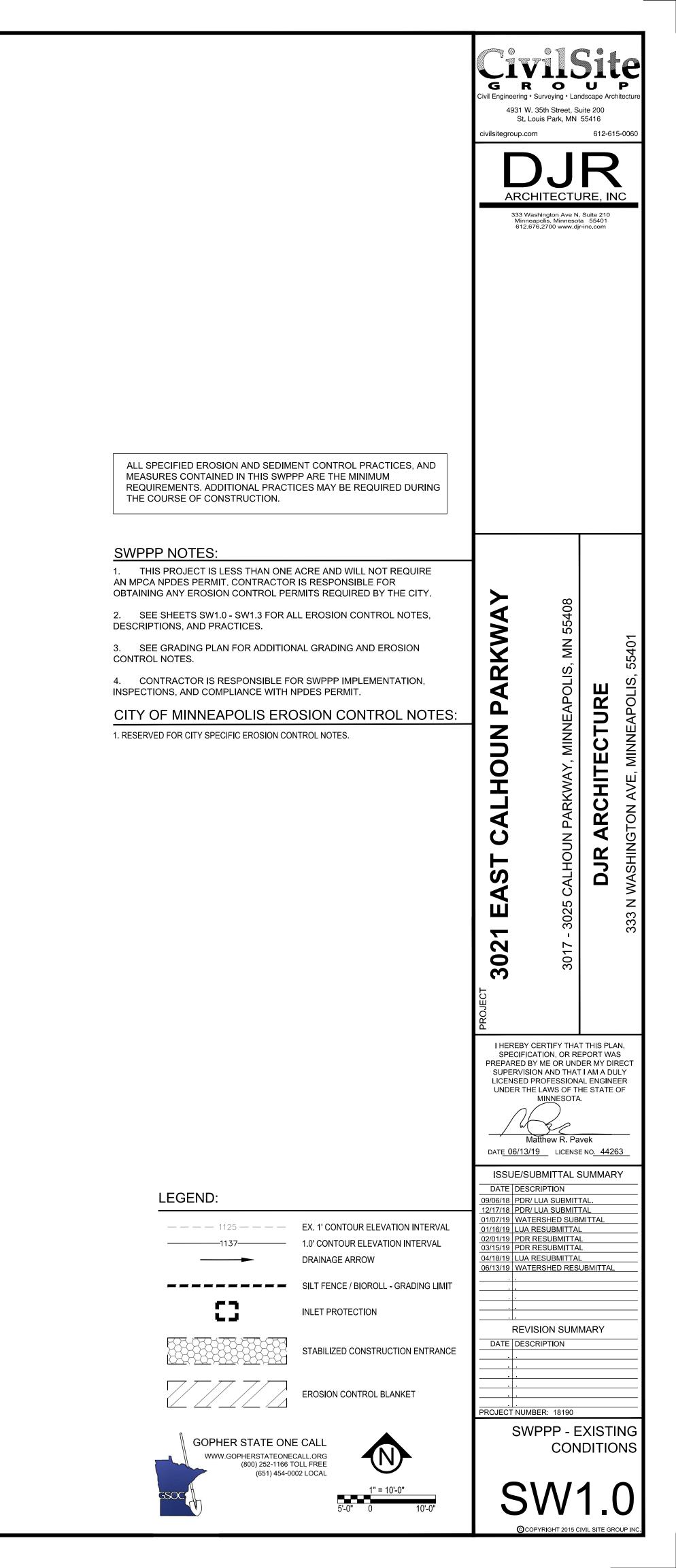


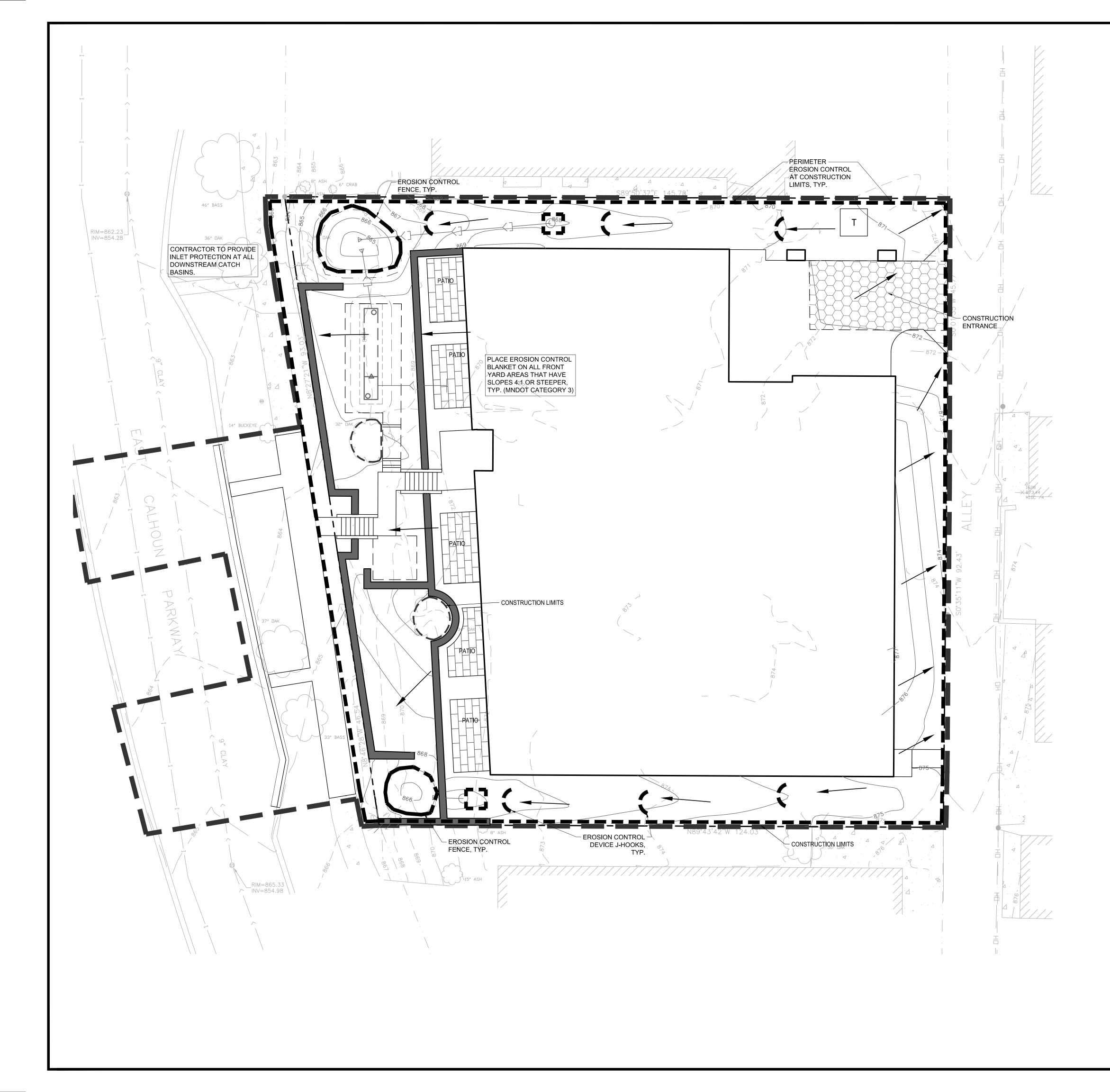
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# **IRRIGATION NOTES:**

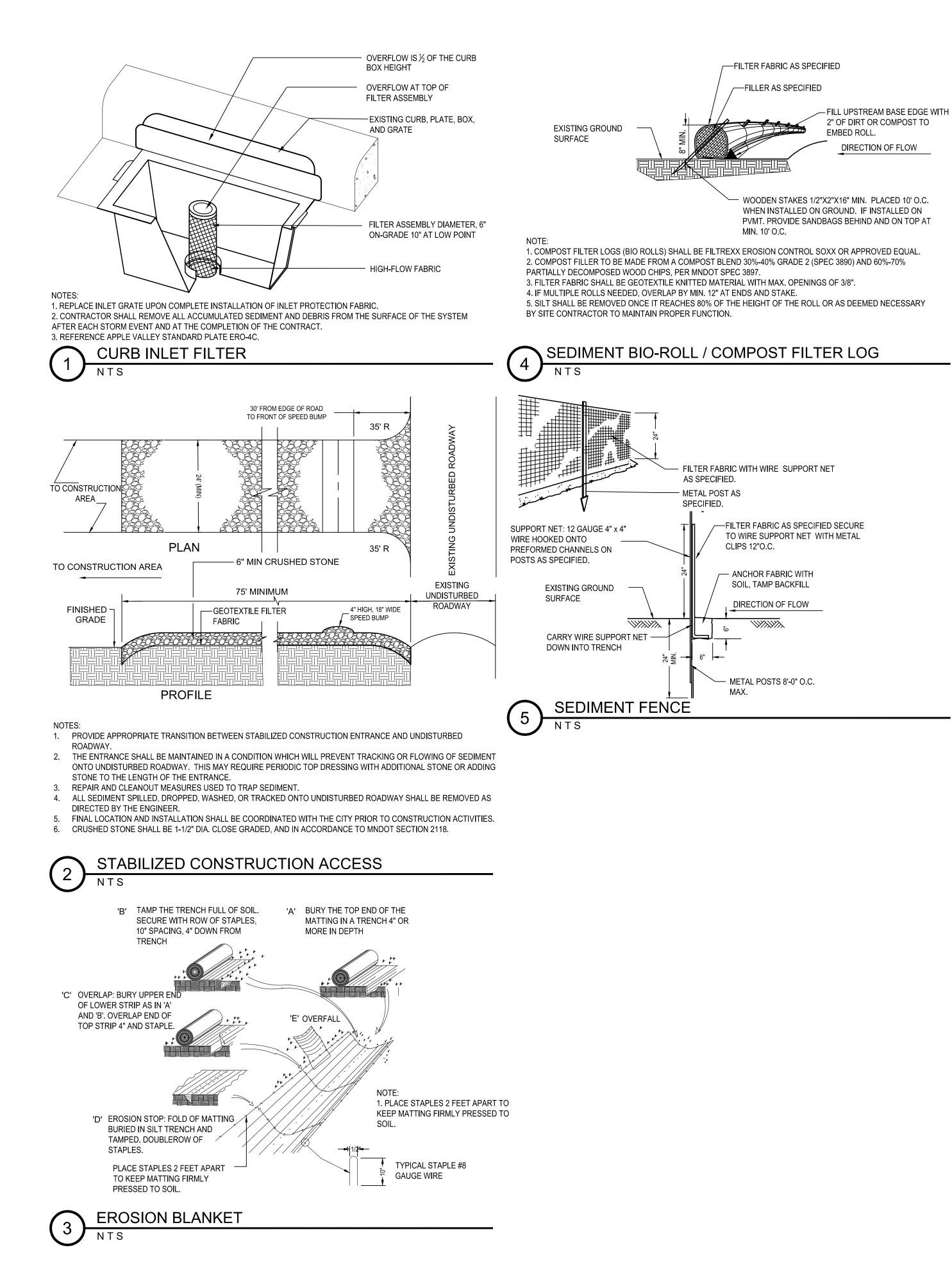
- 1. ENTIRE SITE SHALL BE FULLY IRRIGATED. THE CONTRACTOR SHALL SUBMIT IRRIGATION SHOP DRAWINGS FOR REVIEW AND APPROVAL BY THE LANDSCAPE ARCHITECT PRIOR TO INSTALLATION.
- 2. SEE MECHANICAL AND ELECTRICAL PLANS AND SPECIFICATIONS FOR IRRIGATION WATER, METER, AND POWER CONNECTIONS.
- 3. CONTRACTOR TO VERIFY LOCATION OF ALL UNDERGROUND/ABOVE GROUND FACILITIES PRIOR TO ANY EXCAVATION/INSTALLATION. ANY DAMAGE TO UNDERGROUND/ABOVE GROUND FACILITIES SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR AND COSTS ASSOCIATED WITH CORRECTING DAMAGES SHALL BE BORNE ENTIRELY BY THE CONTRACTOR.
- SERVICE EQUIPMENT AND INSTALLATION SHALL BE PER LOCAL UTILITY COMPANY STANDARDS AND SHALL BE PER NATIONAL AND LOCAL CODES. EXACT LOCATION OF SERVICE EQUIPMENT SHALL BE COORDINATED WITH THE LANDSCAPE ARCHITECT OR EQUIVALENT AT THE JOB SITE.
- CONTRACTOR SHALL COORDINATE WITH LOCAL UTILITY COMPANY FOR THE PROPOSED ELECTRICAL SERVICE AND METERING FACILITIES.
- 6. IRRIGATION WATER LINE CONNECTION SIZE IS  $1-\frac{1}{2}$ " AT BUILDING. VERIFY WITH MECHANICAL PLANS.COVAGE.
- 7. ALL MAIN LINES SHALL BE 18" BELOW FINISHED GRADE.
- 8. ALL LATERAL LINES SHALL BE 12" BELLOW FINISHED GRADE.
- 9. ALL EXPOSED PVC RISERS, IF ANY, SHALL BE GRAY IN COLOR.
- 10. CONTRACTOR SHALL LAY ALL SLEEVES AND CONDUIT AT 2'-0" BELOW THE FINISHED GRADE OF THE TOP OF PAVEMENT. EXTEND SLEEVES TO 2'-0" BEYOND PAVEMENT.
- 11. CONTRACTOR SHALL MARK THE LOCATION OF ALL SLEEVES AND CONDUIT WITH THE SLEEVING MATERIAL "ELLED" TO 2'-0" ABOVE FINISHED GRADE AND CAPPED.
- 12. FABRICATE ALL PIPE TO MANUFACTURE'S SPECIFICATIONS WITH CLEAN AND SQUARE CUT JOINTS. USE QUALITY GRADE PRIMER AND SOLVENT CEMENT FORMULATED FOR INTENDED TYPE OF CONNECTION.
- 13. BACKFILL ALL TRENCHES WITH SOIL FREE OF SHARP OBJECTS AND DEBRIS.
- 14. ALL VALVE BOXES AND COVERS SHALL BE BLACK IN COLOR. 15. GROUP VALVE BOXES TOGETHER FOR EASE WHEN SERVICE IS REQUIRED. LOCATE IN PLANT BED AREAS WHENEVER POSSIBLE.
- 16. IRRIGATION CONTROLLER LOCATION SHALL BE VERIFIED ON-SITE WITH OWNER'S REPRESENTATIVE.
- MOISTURE-PROOF SPLICES AND SPLICE ONLY AT VALVES OR PULL BOXES. RUN SEPARATE HOT AND COMMON WIRE TO EACH VALVE AND ONE (1) SPARE WIRE AND GROUND TO FURTHEST VALVE FROM CONTROLLER. LABEL OR COLOR CODE ALL WIRES.
- 18. AVOID OVER SPRAY ON BUILDINGS, PAVEMENT, WALLS AND ROADWAYS BY INDIVIDUALLY ADJUSTING RADIUS OR ARC ON SPRINKLER HEADS AND FLOW CONTROL ON AUTOMATIC VALVE.
- 19. ADJUST PRESSURE REGULATING VALVES FOR OPTIMUM PRESSURE ON SITE.
- 20. USE SCREENS ON ALL HEADS.
- 21. A SET OF AS-BUILT DRAWINGS SHALL BE MAINTAINED ON-SITE AT ALL TIMES IN AN UPDATED CONDITION.
- 22. ALL PIPE 3" AND OVER SHALL HAVE THRUST BLOCKING AT EACH TURN.
- 23. ALL AUTOMATIC REMOTE CONTROL VALVES WILL HAVE 3" MINIMUM DEPTH OF 3/4" WASHED GRAVEL UNDERNEATH VALVE AND VALVE BOX. GRAVEL SHALL EXTENT 3" BEYOND PERIMETER OF VALVE BOX.
- 24. THERE SHALL BE 3" MINIMUM SPACE BETWEEN BOTTOM OF VALVE BOX COVER AND TOP OF VALVE STRUCTURE.







ALL SPECIFIED EROSION AND SEDIME MEASURES CONTAINED IN THIS SWPP REQUIREMENTS. ADDITIONAL PRACTI THE COURSE OF CONSTRUCTION.	PP ARE THE MINIMUM	St. Loui civilsitegroup.com	Ο	uite 200 55416 612-61 JRE, IN	P iltecture
<ol> <li>THIS PROJECT IS LESS THAN ONE AN MPCA NPDES PERMIT. CONTRACTOR OBTAINING ANY EROSION CONTROL PER</li> <li>SEE SHEETS SW1.0 - SW1.3 FOR AL DESCRIPTIONS, AND PRACTICES.</li> <li>SEE GRADING PLAN FOR ADDITION CONTROL NOTES.</li> <li>CONTRACTOR IS RESPONSIBLE FOR INSPECTIONS, AND COMPLIANCE WITH N</li> <li>CITY OF MINNEAPOLIS ERCO</li> <li>RESERVED FOR CITY SPECIFIC EROSION CON</li> </ol>	IS RESPONSIBLE FOR MITS REQUIRED BY THE CITY. LL EROSION CONTROL NOTES, IAL GRADING AND EROSION OR SWPPP IMPLEMENTATION, IPDES PERMIT.	BROJECT 3021 EAST CALHOUN PARKWAY	3017 - 3025 CALHOUN PARKWAY, MINNEAPOLIS, MN 55408	DJR ARCHITECTURE	333 N WASHINGTON AVE, MINNEAPOLIS, 55401
LEGEND:		I HEREBY CE SPECIFICAT PREPARED BY I SUPERVISION LICENSED PR UNDER THE L M Matt DATE 06/13/19 ISSUE/SUB	TION, OR RE ME OR UND AND THAT OFESSION AWS OF TH AINNESOTA Thew R. Pa LICENSE MITTAL S	EPORT WA DER MY DIF I AM A DU AL ENGINE HE STATE (  vek E NO. 4426 SUMMAR	S RECT LLY ER DF
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 53	SILT FENCE / BIOROLL - GRADING LIMIT	04/18/19 LUA RE 06/13/19 WATER			
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City of Minneapolis Standard Erosion and Sediment Control Notes for Plans These notes may be used as performance standards or requirements for projects not meeting the threshold for a formal plan.

- 1. Contractor must call a construction start 48 hours prior to any land disturbances 612-673-3867. Failure to do so may result in fines, the revocation of permit and a stop work order being issued.
- 2. Install perimeter erosion control at the locations shown on the plans prior to the commencement of any land
- disturbance or construction activities. 3. Before beginning construction, install a temporary rock construction entrance at each point where vehicles exit the construction site. Use 2 inch or greater diameter rock in a layer at least 6 inches thick across the entire width of the entrance. Extend the rock entrance at least 50 feet into the construction zone using a geo-textile fabric beneath
- the aggregate to prevent migration of soil into the rock from below. 4. Remove all soils and sediments tracked or otherwise deposited onto public and private pavement areas. Removal shall be on a daily basis when tracking occurs and may be ordered by Minneapolis inspectors at any time if conditions warrant. Sweeping shall be maintained throughout the duration of the construction and done in a
- manner to prevent dust being blown to adjacent properties. 5. Install inlet protection at all public and private catch basin inlets, which receive runoff from the disturbed areas. Contractor shall clean, remove sediment or replace storm drain inlet protection devices on a routine basis such that the devices are fully functional for the next rain event. Sediment deposited in and/or plugging drainage systems is the responsibility of the contractor. Hay bales or filter fabric wrapped grates are not allowed for inlet protection.
- 6. Locate soil or dirt stockpiles no less than 25 feet from any public or private roadway or drainage channel. If remaining for more than seven days, stabilize the stockpiles by mulching, vegetative cover, tarps, or other means. Control erosion from all stockpiles by placing silt barriers around the piles. Temporary stockpiles located on paved surfaces must be no less than two feet from the drainage/gutter line and shall be covered if left more than 24 hours.
- 7. Maintain all temporary erosion and sediment control devices in place until the contributing drainage area has been stabilized. Inspect temporary erosion and sediment control devices on a daily basis and replace deteriorated, damaged, or rotted erosion control devices immediately.
- 8. Temporarily or permanently stabilize all construction areas which have undergone final grading, and all areas in which grading or site building construction operations are not actively underway against erosion due to rain, wind and running water within 7-14 days. Use seed and mulch, erosion control matting, and/or sodding and staking in green space areas. Remove all temporary synthetic, structural, non-biodegradable erosion and sediment control devices after the site has undergone final stabilization with permanent vegetation establishment. Final stabilization for purposes of this removal is 70% established cover over denuded area.
- 9. Ready mixed concrete and concrete batch/mix plants are prohibited within the public right of way. All concrete related production, cleaning and mixing activities shall be done in the designated *concrete mixing/washout* locations as shown in the erosion control plan. Under no circumstance may washout water drain onto the public right of way or into any public or private storm drain conveyance.
- 10. Changes to approved erosion control plan must be approved by the erosion control inspector prior to implementation. Contractor to provide installation and details for all proposed alternate type devices.
- 11. If dewatering or pumping of water is necessary, the contractor is responsible for obtaining any necessary permits and/or approvals prior to discharge of any water from the site. If the discharge from the dewatering or pumping process is turbid or contains sediment laden water, it must be treated through the use of sediment traps, vegetative filter strips, or other sediment reducing measures such that the discharge is not visibly different from the receiving water. Additional erosion control measures may be required at the discharge point to prevent scour erosion. The contractor shall provide a dewatering/pumping plan to the Erosion Control Inspector prior to initiating dewatering activities.

JANUARY 7, 2011

City of Minneapolis Standard Erosion Control Notes





# **GENERAL SWPPP REQUIREMENTS AND NOTES:**

THE CONTRACTOR AND ALL SUBCONTRACTORS INVOLVED WITH A CONSTRUCTION ACTIVITY THAT DISTURBS SITE SOIL OR WHO IMPLEMENT A POLLUTANT CONTROL MEASUF IN THE STORM WATER POLLUTION PREVENTION PLAN (SWPPP) MUST COMPLY WITH THE REQUIREMENTS OF THE NATIONAL POLLUTION DISCHARGE ELIMINATION SYSTEM (NP GENERAL PERMIT (DATED AUGUST 1, 2013 # MNR100001 PAGES 1-35) AND ANY LOCAL GOVERNING AGENCY HAVING JURISDICTION CONCERNING EROSION AND SEDIMENTATIO

# PART III STORMWATER DISCHARGE DESIGN REQUIREMENTS

SWPPP (PART III.A)

THE NATURE OF THIS PROJECT WILL BE CONSISTENT WITH WHAT IS REPRESENTED IN THIS SET OF CONSTRUCTION PLANS AND SPECIFICATIONS. SEE THE SWPPP PLAN SHE SWPPP NARRATIVE (ATTACHMENT A: CONSTRUCTION SWPPP TEMPLATE) FOR ADDITIONAL SITE SPECIFIC SWPPP INFORMATION. THE PLANS SHOW LOCATIONS AND TYPES OF TEMPORARY AND PERMANENT EROSION PREVENTION AND SEDIMENT CONTROL BMP'S. STANDARD DETAILS ARE ATTACHED TO THIS SWPPP DOCUMENT.

THE INTENDED SEQUENCING OF MAJOR CONSTRUCTION ACTIVITIES IS AS FOLLOWS: 1. INSTALL STABILIZED ROCK CONSTRUCTION ENTRANCE

2. INSTALLATION OF SILT FENCE AROUND SITE

3. INSTALL ORANGE CONSTRUCTION FENCING AROUND INFILTRATION AREAS. 4. CLEAR AND GRUB FOR TEMPORARY SEDIMENT BASIN / POND INSTALL

5. CONSTRUCT TEMPORARY SEDIMENT BASIN / POND (PART III.B)

6. CLEAR AND GRUB REMAINDER OF SITE 7. STRIP AND STOCKPILE TOPSOIL

8. ROUGH GRADING OF SITE

9. STABILIZE DENUDED AREAS AND STOCKPILES 10. INSTALL SANITARY SEWER, WATER MAIN STORM SEWER AND SERVICES

11. INSTALL SILT FENCE / INLET PROTECTION AROUND CB'S 12. INSTALL STREET SECTION

13. INSTALL CURB AND GUTTER 14. BITUMINOUS ON STREETS

15. FINAL GRADE BOULEVARD, INSTALL SEED AND MULCH

16. REMOVE ACCUMULATED SEDIMENT FROM BASIN / POND

17. FINAL GRADE POND / INFILTRATION BASINS (DO NOT COMPACT SOILS IN INFILTRATION AREAS.) (PART III.C) 18. WHEN ALL CONSTRUCTION ACTIVITY IS COMPLETE AND THE SITE IS STABILIZED BY EITHER SEED OR SOD/LANDSCAPING, REMOVE SILT FENCE AND RESEED ANY AREAS DI THE REMOVAL.

RECORDS RETENTION (PART III.E):

THE SWPPP (ORIGINAL OR COPIES) INCLUDING, ALL CHANGES TO IT, AND INSPECTIONS AND MAINTENANCE RECORDS MUST BE KEPT AT THE SITE DURING CONSTRUCTION BY PERMITTEE WHO HAS OPERATIONAL CONTROL OF THAT PORTION OF THE SITE. THE SWPPP CAN BE KEPT IN EITHER THE FIELD OFFICE OR IN AN ON SITE VEHICLE DURING NO WORKING HOURS.

ALL OWNER(S) MUST KEEP THE SWPPP, ALONG WITH THE FOLLOWING ADDITIONAL RECORDS, ON FILE FOR THREE (3) YEARS AFTER SUBMITTAL OF THE NOT AS OUTLINED IN THIS DOES NOT INCLUDE ANY RECORDS AFTER SUBMITTAL OF THE NOT.

1. THE FINAL SWPPP; 2. ANY OTHER STORMWATER RELATED PERMITS REQUIRED FOR THE PROJECT;

- 3. RECORDS OF ALL INSPECTION AND MAINTENANCE CONDUCTED DURING CONSTRUCTION (SEE PART IV.E. INSPECTIONS AND MAINTENANCE); 4. ALL PERMANENT OPERATION AND MAINTENANCE AGREEMENTS THAT HAVE BEEN IMPLEMENTED, INCLUDING ALL RIGHT OF WAY, CONTRACTS, COVENANTS AND OTHER I REQUIREMENTS REGARDING PERPETUAL MAINTENANCE; AND
- 5. ALL REQUIRED CALCULATIONS FOR DESIGN OF THE TEMPORARY AND PERMANENT STORMWATER MANAGEMENT SYSTEMS.

SWPPP IMPLEMENTATION RESPONSIBILITIES:

- 1. THE OWNER AND CONTRACTOR ARE PERMITTEE(S) AS IDENTIFIED BY THE NPDES PERMIT.
- 2. CONTRACTOR SHALL BE RESPONSIBLE FOR ALL ON-SITE IMPLEMENTATION OF THE SWPPP, INCLUDING THE ACTIVITIES OF ALL OF THE CONTRACTOR'S SUBCONTRACTOR 3. CONTRACTOR SHALL PROVIDE A PERSON(S) KNOWLEDGEABLE AND EXPERIENCED IN THE APPLICATION OF EROSION PREVENTION AND SEDIMENT CONTROL BMPS TO O INSTALLATION AND MAINTENANCE OF BMPS AND IMPLEMENTATION OF THE SWPPP.
- 4. CONTRACTOR SHALL PROVIDE PERSON(S) MEETING THE TRAINING REQUIREMENTS OF THE NPDES PERMIT TO CONDUCT INSPECTION AND MAINTENANCE OF ALL EROSIC PREVENTION AND SEDIMENT CONTROL BMPS IN ACCORDANCE WITH THE REQUIREMENTS OF THE PERMIT. ONE OF THESE INDIVIDUAL(S) MUST BE AVAILABLE FOR AN ON INSPECTION WITHIN 72 HOURS UPON REQUEST BY MPCA. CONTRACTOR SHALL PROVIDE TRAINING DOCUMENTATION FOR THESE INDIVIDUAL(S) AS REQUIRED BY THE NF THIS TRAINING DOCUMENTATION SHALL BE RECORDED IN OR WITH THE SWPPP BEFORE THE START OF CONSTRUCTION OR AS SOON AS THE PERSONNEL FOR THE PROVIDE AND A DESCRIPTION OF A DESCRIPTA
- BEEN DETERMINED. DOCUMENTATION SHALL INCLUDE: 4.1. NAMES OF THE PERSONNEL ASSOCIATED WITH THE PROJECT THAT ARE REQUIRED TO BE TRAINED PER PART III.F.1 OF THE PERMIT.
- 4.2. DATES OF TRAINING AND NAME OF INSTRUCTOR AND ENTITY PROVIDING TRAINING. 4.3. CONTENT OF TRAINING COURSE OR WORKSHOP INCLUDING THE NUMBER OF HOURS OF TRAINING.
- 5. FOLLOWING FINAL STABILIZATION AND THE TERMINATION OF COVERAGE FOR THE NPDES PERMIT, THE OWNER IS EXPECTED TO FURNISH LONG TERM OPERATION AND MAINTENANCE (O & M) OF THE PERMANENT STORM WATER MANAGEMENT SYSTEM.

PART IV. CONSTRUCTION ACTIVITY REQUIREMENTS

CONSTRUCTION ACTIVITY FIELD REQUIREMENTS:

1. ALL FIELD REQUIREMENTS SHALL BE PERFORMED IN ACCORDANCE WITH THE REQUIREMENTS OF THE NPDES PERMIT AND STORMWATER POLLUTION PREVENTION PLAN 2. THE CONTRACTOR MUST IMPLEMENT THE SWPPP AND PROVIDE BMPS IDENTIFIED IN THE SWPPP IN AN APPROPRIATE AND FUNCTION MANNER. 3. THE CONTRACTOR SHALL RESPOND TO CHANGING SITE CONDITIONS AND IMPLEMENT/SUPPLEMENT EROSION PREVENTION AND SEDIMENT CONTROL MEASURES UTILIZE PROVIDE ADEQUATE PROTECTION OF DISTURBED SOILS AND ADEQUATE PREVENTION OF SEDIMENT TRANSPORT OFF-SITE. AT A MINIMUM, THE FOLLOWING STORMWAT POLLUTION PREVENTION CONSTRUCTION ACTIVITY FIELD REQUIREMENTS SHALL BE FURNISHED BY THE CONTRACTOR.

EROSION PREVENTION (PART IV.B):

THE CONTRACTOR IS RESPONSIBLE FOR PLANING FOR AND IMPLEMENTING APPROPRIATE CONSTRUCTION PHASING, VEGETATIVE BUFFER STRIPS, HORIZONTAL SLOPE GRAD OTHER CONSTRUCTION PRACTICES THAT MINIMIZE EROSION, SO THAT THE INSPECTION AND MAINTENANCE REQUIREMENTS OF PART IV.E. ARE COMPLIED WITH. THE LOCATI AREAS NOT TO BE DISTURBED MUST BE DELINEATED (E.G. WITH FLAGS, STAKES, SIGNS, SILT FENCE ETC.) ON THE DEVELOPMENT SITE BEFORE WORK BEGINS.

ALL EXPOSED SOIL AREAS MUST BE STABILIZED AS SOON AS POSSIBLE TO LIMIT SOIL EROSION BUT NO LATER THAN THE END OF THE NEXT WORK DAY WHEN EARTH-DISTURI ACTIVITIES WILL CEASE FOR AT LEAST 14 DAYS. TEMPORARY STOCKPILES WITHOUT SIGNIFICANT SILT, CLAY OR ORGANIC COMPONENTS (E.G., CLEAN AGGREGATE STOCKPIL DEMOLITION CONCRETE STOCKPILES, SAND STOCKPILES) AND THE CONSTRUCTED BASE COMPONENTS OF ROADS, PARKING LOTS AND SIMILAR SURFACES ARE EXEMPT FRO REQUIREMENT BUT MUST COMPLY WITH PART IV.C.5.

SOILS WITHIN 200 FEET OF A PUBLIC WATER (AS DESIGNATED BY THE MINNESOTA DNR) MUST BE STABILIZED WITHIN 24 HOURS DURING FISH SPAWNING TIMES.

THE NORMAL WETTED PERIMETER OF ANY TEMPORARY OR PERMANENT DRAINAGE DITCH OR SWALE THAT DRAINS WATER FROM ANY PORTION OF THE CONSTRUCTION SITE WATER AROUND THE SITE, MUST BE STABILIZED WITHIN 200 LINEAL FEET FROM THE PROPERTY EDGE, OR FROM THE POINT OF DISCHARGE INTO ANY SURFACE WATER. STAB OF THE LAST 200 LINEAL FEET MUST BE COMPLETED WITHIN 24 HOURS AFTER CONNECTING TO A SURFACE WATER.

STABILIZATION OF THE REMAINING PORTIONS OF ANY TEMPORARY OR PERMANENT DITCHES OR SWALES MUST BE COMPLETE WITHIN 14 DAYS AFTER CONNECTING TO A SUF WATER AND CONSTRUCTION IN THAT PORTION OF THE DITCH HAS TEMPORARILY OR PERMANENTLY CEASED.

TEMPORARY OR PERMANENT DITCHES OR SWALES THAT ARE BEING USED AS A SEDIMENT CONTAINMENT SYSTEM (WITH PROPERLY DESIGNED ROCK DITCH CHECKS, BIO RO DIKES ETC.) DO NOT NEED TO BE STABILIZED. THESE AREAS MUST BE STABILIZED WITHIN 24 HOURS AFTER NO LONGER BEING USED AS A SEDIMENT CONTAINMENT SYSTEM.

PIPE OUTLETS MUST BE PROVIDED WITH TEMPORARY OR PERMANENT ENERGY DISSIPATION WITHIN 24 HOURS AFTER CONNECTION TO A SURFACE WATER.

SEED NOTES (PART III.A.4.A):

ALL SEED MIXES AND APPLICATION SHALL BE IN ACCORDANCE WITH THE MNDOT SEEDING MANUAL.

GENERAL RECOMMENDATIONS:

IMMEDIATELY BEFORE SEEDING THE SOIL SHALL BE TILLED TO A MINIMUM DEPTH OF 3 INCHES.

TEMPORARY EROSION CONTROL SEEDING, MULCHING & BLANKET.

SEED • TEMPORARY SEED SHALL BE MNDOT SEED MIX 21-112 (WINTER WHEAT COVER CROP) FOR WINTER AND 21-111 (OATS COVER CROP) FOR SPRING/SUMMER APPLICATIONS. BOTH SEED MIXES SHALL BE APPLIED AT A SEEDING RATE OF 100 LBS/ACRE.

MULCH • IMMEDIATELY AFTER SEEDING, WITHIN 24 HOURS, MNDOT TYPE 1 MULCH SHOULD BE APPLIED TO PROTECT AND ENHANCE SEED GERMINATION. MULCH SHALL BE APPLIED AT 90% COVERAGE (2 TONS PER ACRE OF STRAW MULCH)

SLOPES • 3:1 (HORIZ/VERT.) OR FLATTER MUCH SHALL BE COVERED WITH MULCH

 SLOPES STEEPER THAN 3:1 OR DITCH BOTTOMS SHALL BE COVERED WITH EROSION CONTROL BLANKET. • SEE PLAN FOR MORE DETAILED DITCH AND STEEP SLOPE EROSION CONTROL TREATMENTS.

SEDIMENT CONTROL (PART IV.C):

GRADE OF 3:1 OR STEEPER.

SEDIMENT CONTROL PRACTICES MUST MINIMIZE SEDIMENT FROM ENTERING SURFACE WATERS, INCLUDING CURB AND GUTTER SYSTEMS AND STORM SEWER INLETS. a. TEMPORARY OR PERMANENT DRAINAGE DITCHES AND SEDIMENT BASINS THAT ARE DESIGNED AS PART OF A SEDIMENT CONTAINMENT SYSTEM (E.G., DITCHES WITH ROCK CHECK

DAMS) REQUIRE SEDIMENT CONTROL PRACTICES ONLY AS APPROPRIATE FOR SITE CONDITIONS. b. IF THE DOWN GRADIENT TREATMENT SYSTEM IS OVERLOADED, ADDITIONAL UPGRADIENT SEDIMENT CONTROL PRACTICES OR REDUNDANT BMPS MUST BE INSTALLED TO ELIMINATE THE OVERLOADING, AND THE SWPPP MUST BE AMENDED TO IDENTIFY THESE ADDITIONAL PRACTICES AS REQUIRED IN PART III.A.4, A. THROUGH C. C. IN ORDER TO MAINTAIN SHEET FLOW AND MINIMIZE RILLS AND/OR GULLIES, THERE SHALL BE NO UNBROKEN SLOPE LENGTH OF GREATER THAN 75 FEET FOR SLOPES WITH A

SEDIMENT CONTROL PRACTICES MUST BE ESTABLISHED ON ALL DOWN GRADIENT PERIMETERS BEFORE ANY UPGRADIENT LAND DISTURBING ACTIVITIES BEGIN. THESE PRACTICES SHALL REMAIN IN PLACE UNTIL FINAL STABILIZATION HAS BEEN ESTABLISHED IN ACCORDANCE WITH PART IV.G.

		TRAINING (PART III.A.2)	)		
SURE IDENTIFIED I (NPDES) ATION CONTROL.	THE TIMING OF THE INSTALLATION OF SEDIMENT CONTROL PRACTICES MAY BE ADJUSTED TO ACCOMMODATE SHORT-TERM ACTIVITIES SUCH AS CLEARING OR GRUBBING, OR PASSAGE OF VEHICLES. ANY SHORT-TERM ACTIVITY MUST BE COMPLETED AS QUICKLY AS POSSIBLE AND THE SEDIMENT CONTROL PRACTICES MUST BE INSTALLED IMMEDIATELY AFTER THE ACTIVITY IS COMPLETED. HOWEVER, SEDIMENT CONTROL PRACTICES MUST BE INSTALLED BEFORE THE NEXT PRECIPITATION EVENT EVEN IF THE ACTIVITY IS NOT COMPLETE.	DESIGN ENGINEER: MATTHEW R. F TRAINING COURSE: DESIGN OF SV TRAINING ENTITY: UNIVERSITY OF	WPPP		
SHEETS AND	ALL STORM DRAIN INLETS MUST BE PROTECTED BY APPROPRIATE BMPS DURING CONSTRUCTION UNTIL ALL SOURCES WITH POTENTIAL FOR DISCHARGING TO THE INLET HAVE BEEN STABILIZED. INLET PROTECTION MAY BE REMOVED FOR A PARTICULAR INLET IF A SPECIFIC SAFETY CONCERN (STREET FLOODING/FREEZING) HAS BEEN IDENTIFIED AND THE PERMITTEE(S) HAVE RECEIVED WRITTEN CORRESPONDENCE FROM THE JURISDICTIONAL AUTHORITY (E.G. CITY/COUNTY/TOWNSHIP/MNDOT ENGINEER) VERIFYING THE NEED FOR REMOVAL. THE WRITTEN CORRESPONDENCE MUST BE DOCUMENTED IN THE SWPPP OR AVAILABLE WITHIN 72 HOURS UPON REQUEST. WHEN WRITTEN CORRESPONDENCE CAN NOT BE OBTAINED IN A TIMELY MANNER, THE SPECIFIC INLET PROTECTION CAN BE REMOVED TO ALLEVIATE THE IMMEDIATE SAFETY CONCERN. HOWEVER, EFFORTS TO OBTAIN WRITTEN CORRESPONDENCE MUST BE DOCUMENTED IN THE SWPPP OR AVAILABLE WITHIN 72 HOURS UPON REQUEST. HOWEVER, EFFORTS TO OBTAIN WRITTEN OBTAINED IN A TIMELY MANNER, THE SPECIFIC INLET PROTECTION CAN BE REMOVED TO ALLEVIATE THE IMMEDIATE SAFETY CONCERN. HOWEVER, EFFORTS TO OBTAIN WRITTEN CORRESPONDENCE MUST BE DOCUMENTED IN THE SWPPP AND AVAILABLE WITHIN 72 HOURS UPON REQUEST. PERMISSION TO REMOVE INLET PROTECTION BASED ON A SPECIFIC	INSTRUCTOR: JOHN CHAPMAN DATES OF TRAINING COURSE: 5/15 TOTAL TRAINING HOURS: 12	DATES OF TRAINING COURSE: 5/15/2011 - 5/16/2011		
S OF ALL	SAFETY CONCERN MUST STILL BE OBTAINED FROM THE JURISDICTIONAL AUTHORITY WITHIN 30 DAYS OF REMOVAL.	OWNER INFORMATION			
	TEMPORARY SOIL STOCKPILES MUST HAVE SILT FENCE OR OTHER EFFECTIVE SEDIMENT CONTROLS, AND CANNOT BE PLACED IN SURFACE WATERS, INCLUDING STORMWATER CONVEYANCES SUCH AS CURB AND GUTTER SYSTEMS, OR CONDUITS AND DITCHES UNLESS THERE IS A BYPASS IN PLACE FOR THE STORMWATER.	OWNER: DJR ARCHITECTU 333 WASHINGTON	IRE INC.		
	VEHICLE TRACKING OF SEDIMENT FROM THE CONSTRUCTION SITE (OR ONTO STREETS WITHIN THE SITE) MUST BE MINIMIZED BY BMPS SUCH AS STONE PADS, CONCRETE OR STEEL WASH RACKS, OR EQUIVALENT SYSTEMS. STREET SWEEPING MUST BE USED IF SUCH BMPS ARE NOT ADEQUATE TO PREVENT SEDIMENT FROM BEING TRACKED ONTO THE STREET (SEE PART IV.E.4.D.).	SUITE 210 UNION MINNEAPOLIS, MN CONTACT:			
	THE PERMITEE MUST MINIMIZE SOIL COMPACTION AND, UNLESS INFEASIBLE, PRESERVE TOPSOIL. MINIMIZING SOIL COMPACTION IS NOT REQUIRED WHERE THE FUNCTION OF THE SPECIFIC AREA OF THE SITE DICTATES THAT IT BE COMPACTED. METHODS FOR MINIMIZING COMPACTION INCLUDE THE USE OF TRACKED EQUIPMENT, AND STAYING OFF OF AREAS TO BE LEFT UN-COMPACTED. METHODS TO PRESERVE TOPSOIL INCLUDE STRIPPING AND STOCKPILING TOPSOIL PRIOR TO GRADING OR EXCAVATION OPERATIONS.				
	THE PERMITTEE MUST INSTALL TEMPORARY SEDIMENTATION BASINS AS REQUIRED IN PART III.B. OF THIS PERMIT.	AREAS AND QUANTITIE	.S (PART III.A.4.B&C):		
	DEWATERING AND BASIN DRAINING (PART IV.D):				
S DISTURBED BY	DEWATERING OR BASIN DRAINING (E.G., PUMPED DISCHARGES, TRENCH/DITCH CUTS FOR DRAINAGE) RELATED TO THE CONSTRUCTION ACTIVITY THAT MAY HAVE TURBID OR SEDIMENT LADEN DISCHARGE WATER MUST BE DISCHARGED TO A TEMPORARY OR PERMANENT SEDIMENTATION BASIN ON THE PROJECT SITE WHENEVER POSSIBLE. IF THE WATER CANNOT BE DISCHARGED TO A SEDIMENTATION BASIN PRIOR TO ENTERING THE SURFACE WATER, IT MUST BE TREATED WITH THE APPROPRIATE BMP'S SUCH THAT THE DISCHARGE DOES NOT ADVERSELY AFFECT THE RECEIVING WATER, DOWNSTREAM LANDOWNERS OR WETLANDS. THE CONTRACTOR MUST ENSURE THAT DISCHARGE POINTS ARE ADEQUATELY PROTECTED FROM EROSION AND SCOUR. THE DISCHARGE MUST BE DISPERSED OVER NATURAL ROCK RIPRAP, SAND BAGS, PLASTIC SHEATHING OR OTHER ACCEPTED ENERGY DISSIPATION MEASURES. ADEQUATE SEDIMENTATION CONTROL MEASURES ARE REQUIRED FOR DISCHARGE WATER THAT CONTAINS SUSPENDED SOLIDS.	BUILDING COVERAGE ALL PAVEMENTS ALL NON-PAVEMENTS	EXISTING 6,919 SF 37.1% 3,764 SF 20.2% 7,975 SF 42.7%	PROPOSED 9,590 SF 51.4% 1,546 SF 8.3% 7,522 SF 40.3%	
N BY THE	FILTER BACKWASH WATERS MUST BE HAULED AWAY FOR DISPOSAL, RETURNED TO THE BEGINNING OF THE TREATMENT PROCESS, OR INCORPORATE INTO THE SITE IN A MANNER THAT DOES NOT CAUSE EROSION. DISCHARGE OF THE BACKWASH WATER TO SANITARY SEWER IS ALLOWED WITH PERMISSION OF THE SANITARY SEWER AUTHORITY.	TOTAL SITE AREA	18,658 SF 100.0%	18,658 SF 100.0%	
G NORMAL	INSPECTIONS AND MAINTENANCE (PART IV.E):	IMPERVIOUS SURFACE EXISTING CONDITION	10,683 SF 57.3%		
	THE CONTRACTOR IS RESPONSIBLE AT ALL TIMES FOR THE MAINTENANCE AND PROPER OPERATION OF EROSION AND SEDIMENT CONTROL FACILITIES. THE CONTRACTOR SHALL AT A MINIMUM, INSPECT, MAINTAIN AND REPAIR ALL DISTURBED SURFACES AND ALL EROSION AND SEDIMENT CONTROL FACILITIES AND SOIL STABILIZATION MEASURES ONCE EVERY SEVEN (7) DAYS DURING ACTIVE CONSTRUCTION AND WITHIN 24 HOURS FOLLOWING A RAINFALL OF 0.5 INCHES OR GREATER AND WITHIN 7 DAYS AFTER THAT. CONTINUE INSPECTION ACTIVITIES UNTIL LAND-DISTURBING ACTIVITY HAS CEASED. THEREAFTER THE CONTRACTOR SHALL PERFORM THESE RESPONSIBILITIES AT LEAST WEEKLY UNTIL VEGETATIVE COVER IS ESTABLISHED. INSPECTIONS MUST INCLUDE STABILIZED AREAS, EROSION PREVENTION AND SEDIMENT CONTROL BMP'S AND INFILTRATION AREAS.	PROPOSED CONDITION DIFFERENCE (EX. VS PROP.) IMPERVIOUS TOTAL	11,136 SF 59.7% 453 SF 2.4% 11,136 SF 59.7%	11,136 SF 59.7%	
IER BINDING	BASED ON INSPECTION RESULTS THE CONTRACTOR MAY MODIFY THE SWPPP IN ORDER TO PREVENT POLLUTANTS FROM LEAVING THE SITE VIA STORM WATER RUNOFF. THIS MODIFICATION MUST BE MADE WITHIN 7 CALENDAR DAYS OF THE INSPECTION UNLESS OTHERWISE REQUIRED BY THE TERMS OF THE PERMIT, LEGAL, REGULATORY, OR PHYSICAL ACCESS CONSTRAINTS.	EROSION CONTROL QUANTITIES DISTURBED AREA	22,639 SF		
	INSPECTION REPORTS MUST BE RECORDED WITHIN 24 HOURS IN WRITING AND KEPT ON FILE BY THE CONTRACTOR AS AN INTEGRAL PART OF THE SWPPP ON SITE AND THEN FOR AT LEAST 3 YEARS FROM THE DATE OF COMPLETION OF THIS PROJECT.	SILT FENCE/BIO-ROLL EROSION CONTROL BLANKET INLET PROTECTION DEVICES	665 LF 0 SF AS NEEDED DOWNSTREAM		
O OVERSEE ALL	ALL PERIMETER CONTROL DEVICES MUST BE REPAIRED, REPLACED OR SUPPLEMENTED WHEN THEY BECOME NONFUNCTIONAL OR THE SEDIMENT REACHES 1/2 OF THE HEIGHT OF THE DEVICE. THESE REPAIRS MUST BE MADE BY THE END OF THE NEXT BUSINESS DAY AFTER DISCOVERY, OR THEREAFTER AS SOON AS FIELD CONDITIONS ALLOW ACCESS.				
OSION NONSITE E NPDES PERMIT. PROJECT HAVE	REMOVE ALL DELTAS AND SEDIMENT DEPOSITED IN SURFACE WATERS, INCLUDING DRAINAGE WAYS, CATCH BASINS, AND OTHER DRAINAGE SYSTEMS, AND RESTABILIZE THE AREAS WHERE SEDIMENT REMOVAL RESULTS IN EXPOSED TOPSOIL. THIS REMOVAL AND STABILIZATION MUST TAKE PLACE WITHIN 7 DAYS OF DISCOVERY UNLESS PRECLUDED BY LEGAL, REGULATORY, OR PHYSICAL ACCESS CONSTRAINTS.	NOTE: QUANTITIES ARE FOR INFOR QUANTITIES FOR BIDDING AND COI		ITRACTOR SHALL DETERMINE FOR	
	SEE (ATTACHMENT A: CONSTRUCTION SWPPP TEMPLATE) FOR SITE SPECIFIC INSPECTIONS AND MAINTENANCE REQUIREMENTS.				
	POLLUTION PREVENTION MANAGEMENT (PART IV.F):	SWPPP CONTACT PERS	SON		
ND	THE CONTRACTOR SHALL IMPLEMENT THE FOLLOWING POLLUTION PREVENTION MANAGEMENT MEASURES ON THE SITE;	CONTRACTOR:		WPPP INSPECTOR TRAINING:	
	SOLID WASTE: COLLECTED SEDIMENT, ASPHALT AND CONCRETE MILLINGS, FLOATING DEBRIS, PAPER, PLASTIC, FABRIC, CONSTRUCTION AND DEMOLITION DEBRIS AND OTHER WASTES MUST BE DISPOSED OF PROPERLY AND MUST COMPLY WITH MINNESOTA POLLUTION CONTROL AGENCY (MPCA) DISPOSAL REQUIREMENTS.		F	ALL SWPPP INSPECTIONS MUST BE ERSON THAT MEETS THE TRAINING IPDES CONSTRUCTION SITE PERMI	
PLAN (SWPPP). ILIZED TO	HAZARDOUS MATERIALS: OIL, GASOLINE, PAINT AND ANY HAZARDOUS SUBSTANCES MUST BE PROPERLY STORED, INCLUDING SECONDARY CONTAINMENT, TO PREVENT SPILLS, LEAKS OR OTHER DISCHARGE. RESTRICTED ACCESS TO STORAGE AREAS MUST BE PROVIDED TO PREVENT VANDALISM. STORAGE AND DISPOSAL OF HAZARDOUS WASTE MUST BE IN COMPLIANCE WITH MPCA REGULATIONS.		I	RAINING CREDENTIALS SHALL BE F CONTRACTOR AND KEPT ON SITE W	
WATER	EXTERNAL WASHING OF TRUCKS AND OTHER CONSTRUCTION VEHICLES MUST BE LIMITED TO A DEFINED AREA OF THE SITE. RUNOFF MUST BE CONTAINED AND WASTEWATER PROPERLY DISPOSED OF. NO ENGINE DEGREASING IS ALLOWED ON SITE.	PARTY RESPONSIBLE FOR LONG TERM OPERATION AND MAINTE			
GRADING, AND CATION OF	CONCRETE WASHOUT: ALL LIQUID AND SOLID WASTES GENERATED BY CONCRETE WASHOUT OPERATIONS MUST BE CONTAINED IN A LEAK PROOF CONTAINMENT FACILITY OR IMPERMEABLE LINER. A COMPACTED CLAY LINER THAT DOES NOT ALLOW WASHOUT LIQUIDS TO ENTER THE GROUND IS CONSIDERED AN IMPERMEABLE LINER. THE LIQUID AND SOLID WASTES MUST NOT CONTACT THE GROUND, AND THERE MUST NOT BE RUNOFF FROM THE CONCRETE WASHOUT OPERATIONS OR AREAS. LIQUID AND SOLID WASTES MUST BE DISPOSED OF PROPERLY AND IN COMPLIANCE WITH MPCA REGULATIONS. A SIGN MUST BE INSTALLED ADJACENT TO EACH WASHOUT FACILITY TO INFORM CONCRETE EQUIPMENT OPERATORS TO	STORM WATER MANAGEMENT SYSTEM PERMANENT STORMWATER MANAGEMENT IS NOT REQUIRED AS PART OF THIS PROJECT TO MEET I PROPERTY OWNER IS RESPONSIBLE FOR THE LONG TERM OPERATION AND MAINTENANCE OF THE			
	UTILIZE THE PROPER FACILITIES. CONCRETE WASHOUT MAY ALSO OCCUR OFF SITE ACCORDING TO THE APPROPRIATE REGULATIONS. FUELING OPERATION PLAN: ALL FUELING SHALL TAKE PLACE AT THE DESIGNATED FUELING LOCATION AND ACCORDING TO BEST PRACTICES FOR SITE FUELING OPERATIONS AS TO	SWPPP ATTACHMENTS (ONLY APPLICABLE IF SITE IS 1 ACRE OR GR			
CKPILES, FROM THIS	MINIMIZE THE POTENTIAL FOR SPILLS. SPILL PREVENTION PLAN: ALL SPILLS SHALL BE IMMEDIATELY CLEANED UP AFTER DISCOVERY. THE SITE SUPERINTENDENT, WHO IS RESPONSIBLE FOR DAY-TO-DAY ONSITE	CONTRACTOR SHALL OBTAIN A COPY OF THE FOLLOWING SWPPP ATTACHMENTS WHICH ARE A P			
SITE. OR DIVERTS	CONSTRUCTION OPERATIONS WILL BE THE SPILL PREVENTION COORDINATOR AND WILL BE RESPONSIBLE FOR IMPLEMENTING CLEAN UP PROCEDURES, POSTING CLEAN UP RECOMMENDATIONS, AND ENSURING PROPER CLEAN UP TRAINING OF APPROPRIATE PERSONNEL.	ATTACHMENT A. CONSTRUCTION SWPPP TEMPLATE - SITE SPECIFIC SWPPP DOCUMENT ATTACHMENT B. CONSTRUCTION STORMWATER INSPECTION CHECKLIST ATTACHMENT C. MAINTENANCE PLAN FOR PERMANENT STORM WATER TREATMENT SYSTEMS ATTACHMENT D: STORMWATER MANAGEMENT REPORT - ON FILE AT THE OFFICE OF PROJECT ENGINEER. AVAILA			
STABILIZATION	SANITARY AND SEPTIC WASTE: SANITARY/SEPTIC FACILITIES SHALL BE PROVIDED AND MAINTAINED IN A NEAT AND SANITARY CONDITION, FOR THE USE OF THE CONTRACTOR'S EMPLOYEES. A LICENSED SANITARY WASTE MANAGEMENT CONTRACTOR AS REQUIRED BY STATE REGULATIONS WILL COLLECT SANITARY WASTE FROM PORTABLE UNITS.	ATTACHMENT E: GEOTECHNICAL EVAL			
SURFACE	FINAL STABILIZATION (PART IV.G):	SUPPLEMENTARY S THESE NOTES SUPERCEDE ANY G		SION CONTROL NOT	
) ROLLS, SILT Fem.	THE CONTRACTOR MUST ENSURE FINAL STABILIZATION OF THE SITE ACCORDING THE DEFINITIONS IN THE NPDES GENERAL PERMIT PART IV SECTION G. THE CONTRACTOR MUST SUBMIT A NOTICE OF TERMINATION (N.O.T.) WITHIN 30 DAYS AFTER FINAL STABILIZATION IS COMPLETE OR WITHIN 7 DAYS AFTER SELLING THE SITE OR PORTION OF THE SITE (THAT HAS NOT UNDERGONE FINAL STABILIZATION ) TO ANOTHER PARTY. A COPY OF THIS NOTICE OF TERMINATION / PERMIT MODIFICATION FORM MUST GO TO THE NEW OWNER. THE ORIGINAL CURRENT OWNER MUST PROVIDE A SWPPP TO THE NEW OWNER THAT SPECIFICALLY ADDRESSES THE REMAINING CONSTRUCTION ACTIVITY. SEE THE SWPPP PLAN SHEETS AND SWPPP	THIS PROJECT IS LESS THAN 1.0 A		DT REQUIRED.	
	NARRATIVE (ATTACHMENT A: CONSTRUCTION SWPPP TEMPLATE) AND SWPPP PLAN SHEETS FOR FINAL STABILIZATION MEASURES	PROJECT NARRATIVE:			
		PROJECT IS A REDEVELOPMENT OF AN IMPROVEMENTS WILL OCCUR.	NEXISTING SITE INTO A NEW RESIDEN	ITIAL APARTMENT BUILDING. SITE, GRA	

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FOR THEMSELVES THE EXACT

T BE PERFORMED BY A NING REQUIREMENTS OF THE BE PROVIDED BY THE TE WITH THE SWPPP

# NANCE OF PERMANENT

NPDES PERMIT REQUIREMENTS. THE E PROPOSED STORMWATER SYSTEM. REATER):

RT OF THE OVERALL SWPPP PACKAGE:

LABLE UPON REQUEST. LABLE UPON REQUEST.

DTES:

GRADING, UTILITY AND LANDSCAPE

SPECIAL TMDL BMP REQUIREMENTS SITE SPECIFIC (IF REQUIRED):

PERMANENT STABILIZATION NOTES SITE SPECIFIC:

PERMANENT SEED MIX

NOT REQUIRED

ACRE

• FOR THIS PROJECT ALL AREAS THAT ARE NOT TO BE SODDED OR LANDSCAPED SHALL RECEIVE A NATIVE PERMANENT SEED MIX. •• AREAS IN BUFFERS AND ADJACENT TO OR IN WET AREAS MNDOT SEED MIX 33-261 (STORMWATER SOUTH AND WEST) AT 35 LBS PER •• DRY AREAS MNDOT SEED MIX 35-221 (DRY PRAIRIE GENERAL) AT 40 LBS PER ACRE.

• MAINTENANCE SHALL BE IN ACCORDANCE TO THE MNDOT SEEDING MANUAL.

# GROU ivil Engineering • Surveving • Landscape 4931 W. 35th Street, Suite 200 St. Louis Park, MN 55416 civilsitegroup.com 612-615-006 ARCHITECTURE. 333 Washington Ave N, Suite 210 Minneapolis, Minnesota 55401 612.676.2700 www.djr-inc.com **K** R R Ζ $\mathbf{O}$ 0 I C Ľ 4 $\mathbf{C}$ R S Ш N 0 $\mathbf{c}$ 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 Matthew R. Pavek DATE 06/13/19 LICENSE NO. 44263 ISSUE/SUBMITTAL SUMMARY DATE DESCRIPTION 09/06/18 PDR/ LUA SUBMITTAL. 12/17/18 PDR/ LUA SUBMITTAL 01/07/19 WATERSHED SUBMITTAL 01/16/19 LUA RESUBMITTAL 02/01/19 PDR RESUBMITTAL 03/15/19 PDR RESUBMITTAL 04/18/19 LUA RESUBMITTAL 06/13/19 WATERSHED RESUBMITTAL REVISION SUMMARY DATE DESCRIPTION PROJECT NUMBER: 18190 SWPPP - NARRATIVE

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