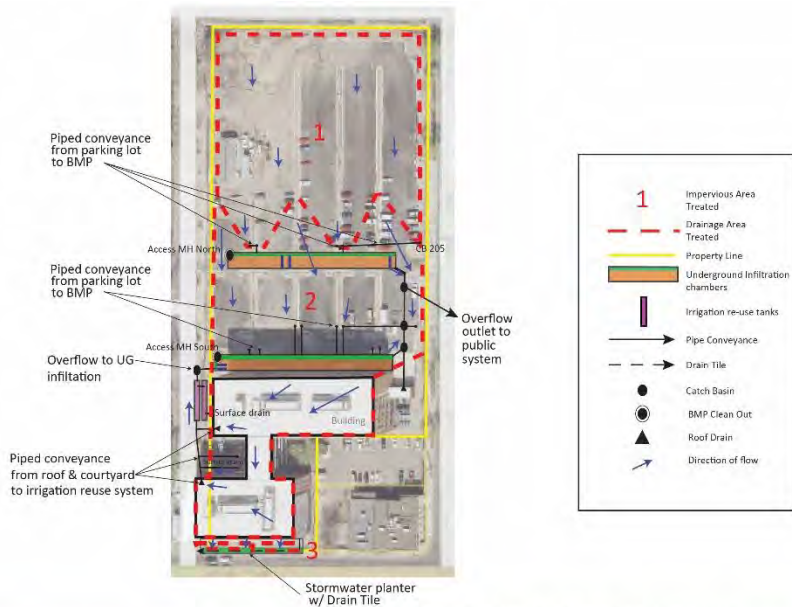


Underground Infiltration Chambers (parking lot)

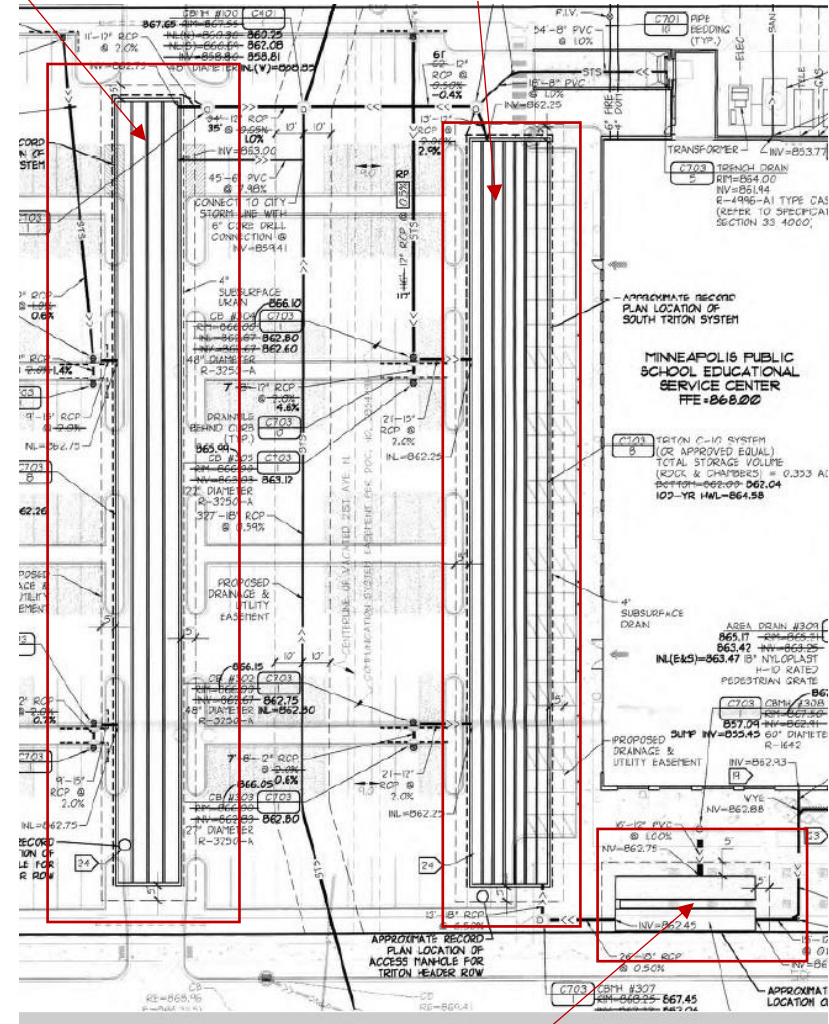
North Infiltration chamber

South infiltration chamber



IMPERVIOUS to BMP: 185,672 / 4.26 acres

TOTAL PROPERTY - 231,674 ft ² / 5.31 acre	IMPERVIOUS to BMP: 183,976 / 4.26 acres
TOTAL IMPERVIOUS: 187,260 ft ² / 4.30 acre	Area 1: parking - 87,110 ft ² / 1.99 acre
building - 38,890 ft ² / .89 acre	Area 2: parking, building, courtyard - 94,918 ft ² / 2.21 acre
parking / drive - 145,412 ft ² / 3.34 acre	Area 3: sidewalk - 1,948 ft ² / 0.044 acre
sidewalk - 2,958 ft ² / .07 acre	
TOTAL PERVIOUS:	TOTAL IMPERVIOUS TREATED:
	99.15% treated



Irrigation re-use system

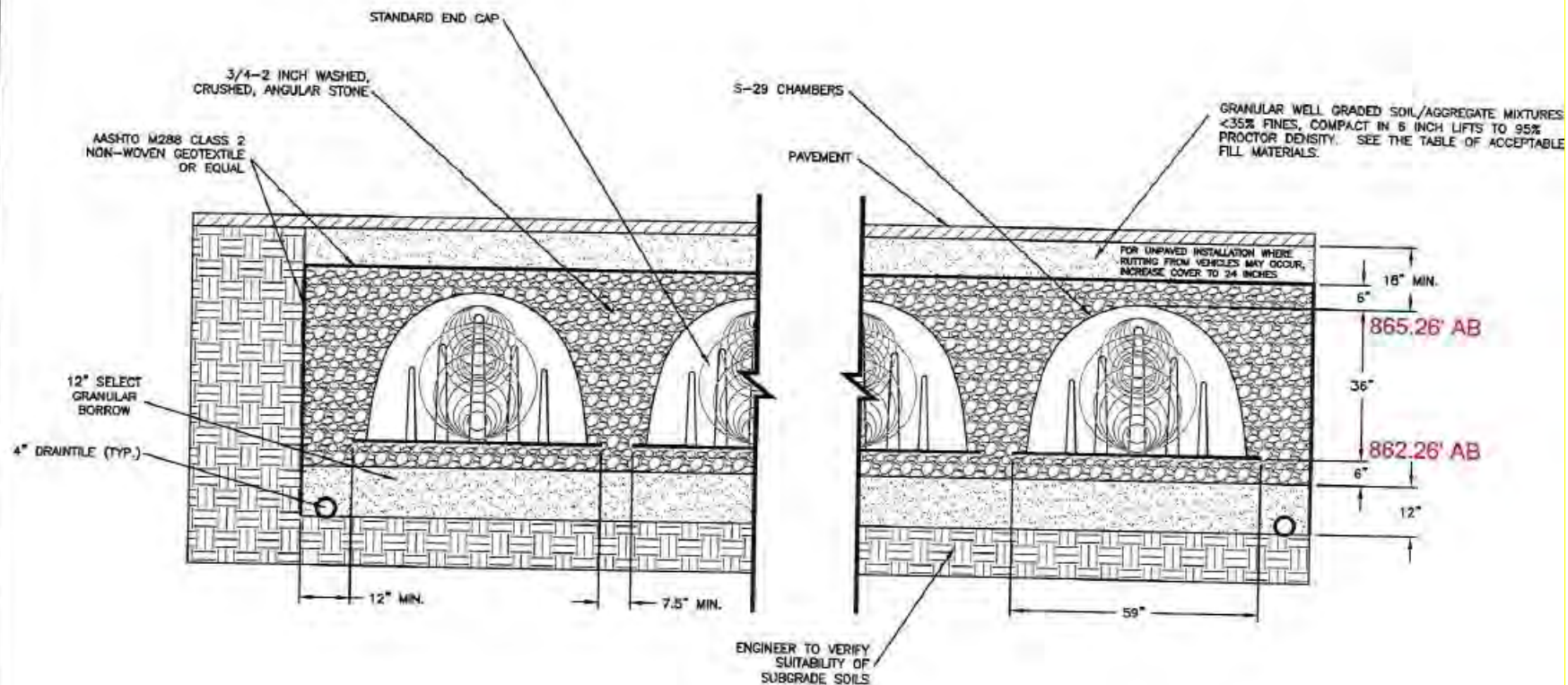
Davis Educational Service Center
 1250 Broadway Ave W,
 Minneapolis MN,
 BMP ID: 8453

Location:
 Parking lot north of building

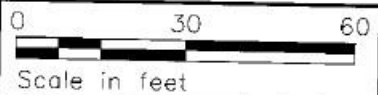
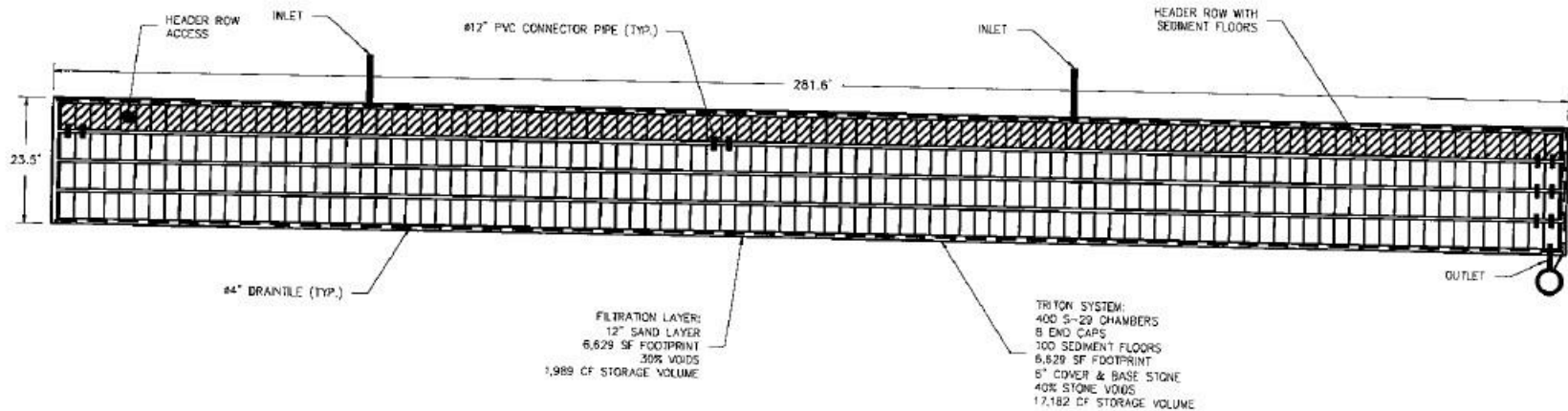
Inspection Frequency:
 Full inspection once each year.

Description of Devices: Two underground infiltration chambers (manufactured by Triton) in the parking lot collect stormwater runoff from the entire 3.34 acre parking lot and all of the building. These structures work by routing storm or melt runoff to the chambers via catch basins in the parking lot. The pooled water in the chambers slowly leaks out of the pipes and infiltrates into the native soil, removing pollutants and reducing volumetric flow of stormwater. Inspections are conducted once a year, with an attempt at inspecting within 48 hours of a rain event of at least 1". Pictures are taken at the sump access manhole, and the header row of the infiltration chambers are inspected for any trash, debris, or sediment; any clogging or overtopping; condition of pre-treatment and overflow structures; presence of sinkholes, buckling or cracking at the surface of pavement above the chambers; visible standing water in the system.

Stormwater runoff from the roof of the building is routed to the south infiltration chambers via an irrigation re-use system. The irrigation system consists of two corrugated metal pipes that fill up with water, and then overflow to the south infiltration chambers. The irrigation system is controlled by a nearby and waters landscaped areas throughout the property.



<p>TRITON STORMWATER SOLUTIONS</p> <p>9864 EAST GRAND RIVER, SUITE 110, #176 BRIGHTON, MI 48116 PHONE: (810) 222-7652 • FAX: (810) 222-1769 WWW.TRITONSW.COM</p>	<p>TRITON LAYOUT NORTH (S-29 CHAMBERS)</p>		<p>OWNER: MINNEAPOLIS PUBLIC SCHOOLS</p>	<p>DISTRIBUTED EXCLUSIVELY IN MN BY:</p> <p>Royal A Division of Royal Entertainment Services, Inc.</p> <p>30622 FOREST BOULEVARD, P.O. BOX 430 STACY, MN 55079 PHONE: (800) 817-3240 • FAX: (851) 462-6890 WWW.ROYALENTERPRISES.NET</p>	<p>DESIGNED BY: LRH</p>
	<p>EDUCATION SERVICE CENTER</p>	<p>ENGINEER: LANDFORM</p>	<p>REVISIONS:</p> <p>9-9-10</p> <p>9-26-10</p> <p>2-28-11</p>		
<p>MINNEAPOLIS, MN</p>	<p>9-7-10</p>	<p>CONTRACTOR: TBD</p>			



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TRITON LAYOUT
NORTH (S-29 CHAMBERS)

EDUCATION SERVICE CENTER

MINNEAPOLIS, MN 9-7-10

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CONTRACTOR:	TBD

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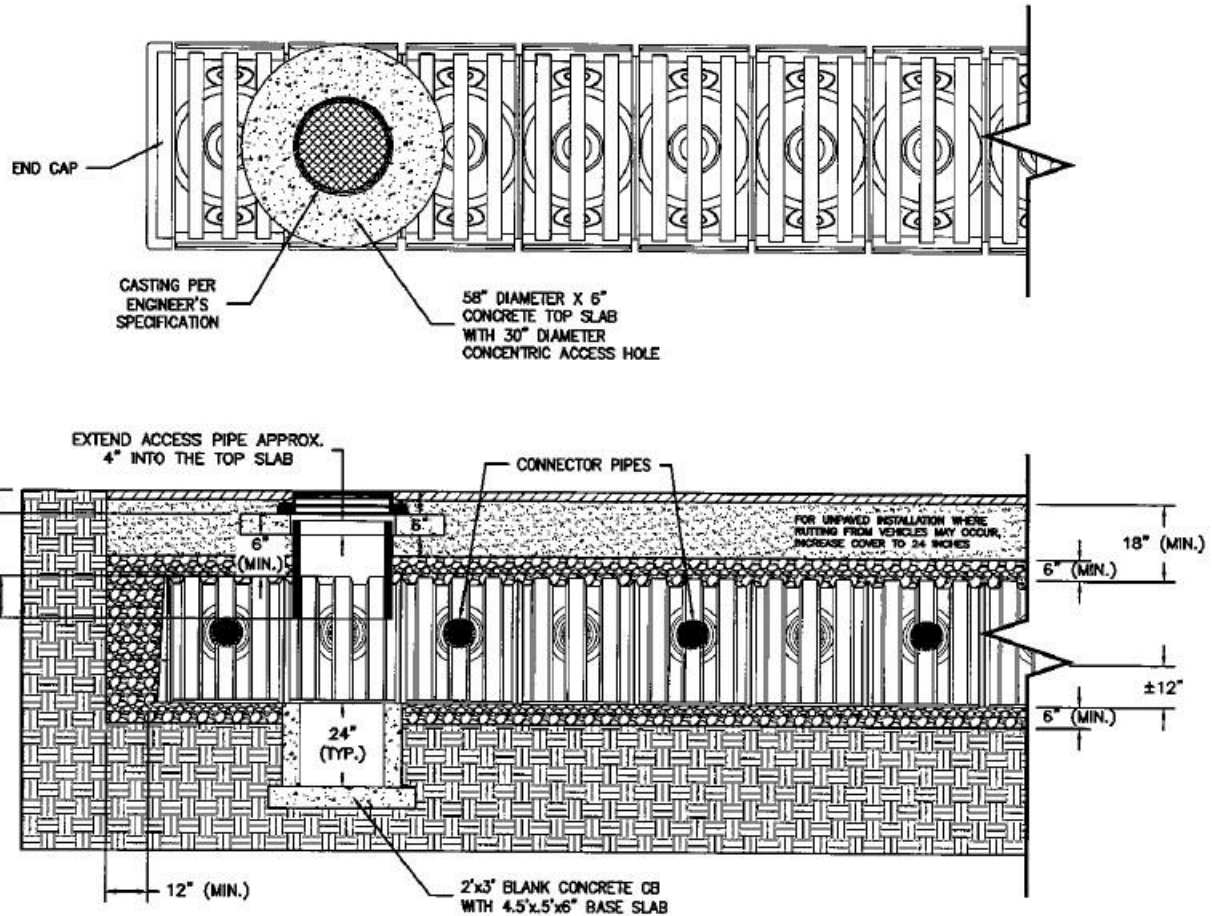
Royal
ENVIRONMENTAL SYSTEMS, INC.
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DESIGNED BY: LRM
REVISIONS:
9-9-10
3-12-11

NOTES:

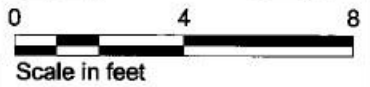
1. 18" MINIMUM DEPTH REQUIRED BETWEEN CASTING RIM AND TOP OF CHAMBERS (ASSUMING 4" LOW-PROFILE CASTING WITH 1 ADJUSTING RING).
2. CONNECT STANDPIPE TO CHAMBER PER LATEST INSTALLATION INSTRUCTIONS.
3. CONNECTION OF THE STANDPIPE TO THE TOP SLAB IS TYPICALLY NOT NECESSARY. IF A CONNECTION IS DETERMINED TO BE NECESSARY, A FLEXIBLE CONNECTION IS REQUIRED.



Minnesota Public Transit/Transportation Service Center
 CIP-2010-01
 R. A. Madsen, Designer
 Date: 11/11/10
 Page: 22/22

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EXTEND ACCESS PIPE A MIN. OF 12" INTO THE CHAMBER



CONCEPTUAL PLAN DISCLAIMER:
 THIS GENERIC DETAIL DOES NOT ENCOMPASS THE SIZING, FIT, AND APPLICABILITY OF THE TRITON CHAMBER SYSTEM FOR THIS SPECIFIC PROJECT. IT IS THE ULTIMATE RESPONSIBILITY OF THE DESIGN ENGINEER TO ASSURE THAT THE STORMWATER SYSTEM DESIGN IS IN FULL COMPLIANCE WITH ALL APPLICABLE LAWS AND REGULATIONS. TRITON PRODUCTS MUST BE DESIGNED AND INSTALLED IN ACCORDANCE WITH TRITON'S MINIMUM REQUIREMENTS. TRITON STORMWATER SOLUTIONS AND ROYAL ENVIRONMENTAL SYSTEMS INC. DO NOT APPROVE PLANS, SIZING, OR SYSTEM DESIGNS. THE DESIGN ENGINEER IS RESPONSIBLE FOR ALL DESIGN DECISIONS.



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**TRITON ACCESS
 DIRECT CHAMBER CONNECTION - S-29 CHAMBERS**

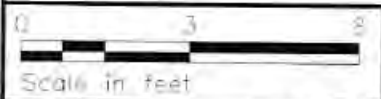
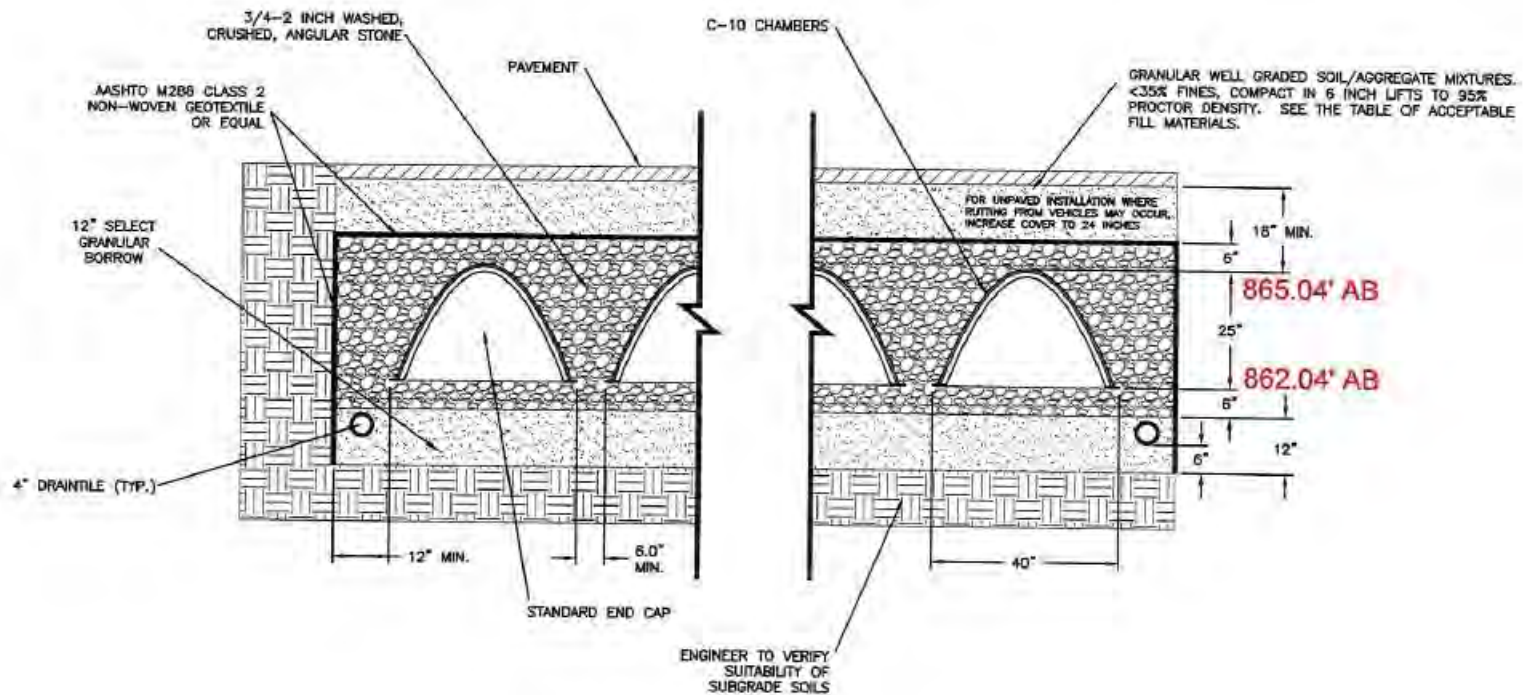
TRITON - STANDARD DETAILS

REVISED:
 3-12-11 LRH

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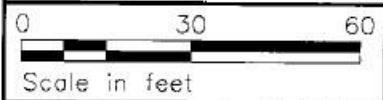
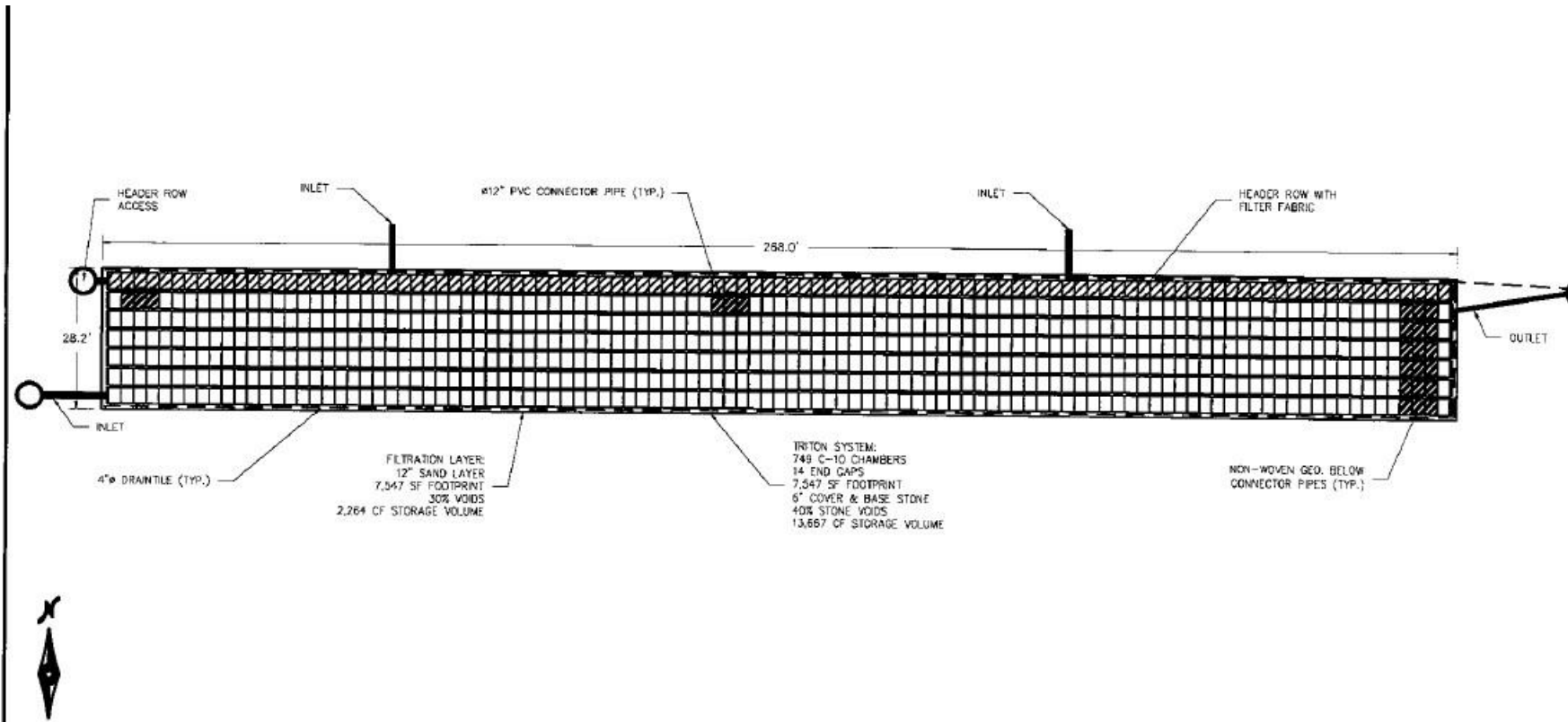


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TRITON LAYOUT SOUTH (C-10 CHAMBERS)	
EDUCATION SERVICE CENTER	
MINNEAPOLIS, MN	9-7-10

OWNER:	MINNEAPOLIS PUBLIC SCHOOLS
ENGINEER:	LANDFORM
CONTRACTOR:	TBD

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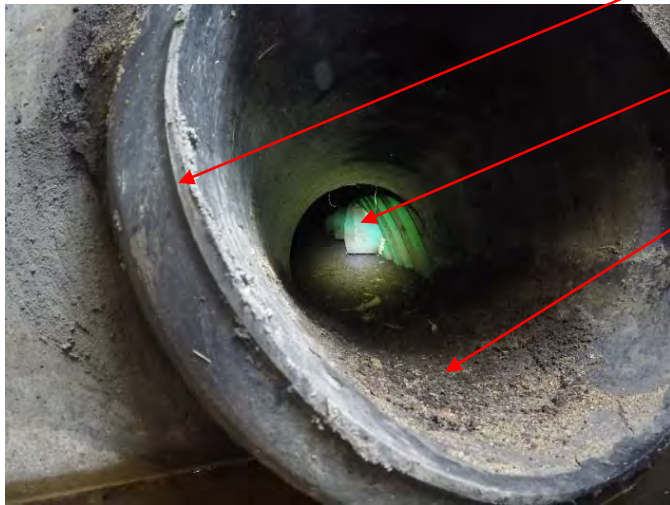
TRITON LAYOUT SOUTH (C-10 CHAMBERS)	
EDUCATION SERVICE CENTER	
MINNEAPOLIS, MN	9-7-10

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3-12-11



Picture from manhole access point

Distribution chamber rows

Sediment building up in header row, North chamber system



North Header row before any jetting/vacuuming



Clean and clear overflow pipe to city system



North Header row after first pass of jetter and vacuum



North Header row after final pass of jetter and vacuum



Main header row, south chamber system

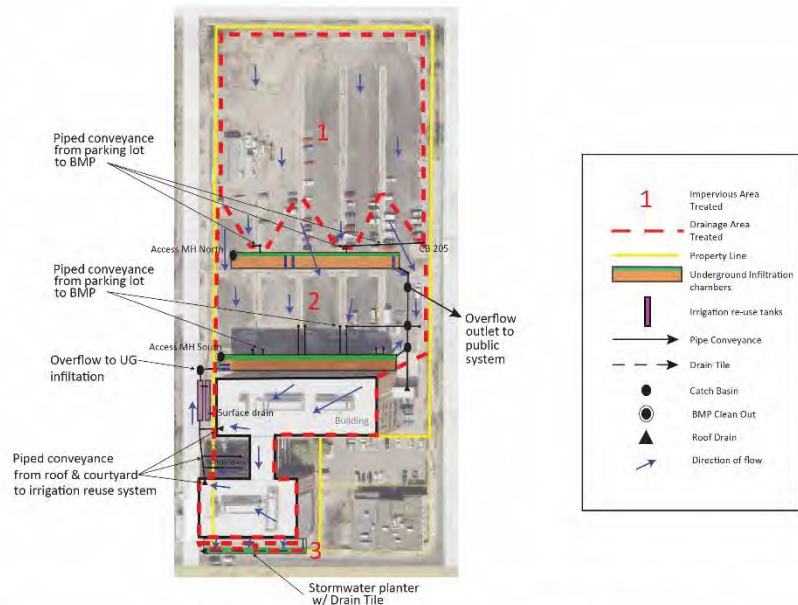
Sump



Header row floor of south system after cleaning

BMP ID 8453		Underground Infiltration Chamber		
Inspection Date / / 20		Inspector:		
Inspection Activity	Observations Measurements	Maintenance	Maint. Required	Actions Required/Date Completed/Responsible Foreman
General: Visual inspection of Header Row for trash and debris in pre-treatment, inlet, underground area, and/or outlet.(see Triton Header Row Inspection)		Metro Blooms will advise Davis Center staff when a professional maintenance service is needed.	Yes No	/ / 20 Responsible Party:
Inspect inlets: Visual inspection for erosion around inlet and outlet structures (if applicable) Inspect structural components of inlet and outlet structures		Metro Blooms will advise Davis Center staff when a professional maintenance vacuuming service is needed. Metro Blooms can address some maintenance objectives at catch basin inlets, otherwise a professional contractor will be arranged.	Yes No	/ / 20 Responsible Party:
Sedimentation: Visual inspection of Header Row for sediment accumulation		Metro Blooms will advise Davis Center staff when a professional maintenance vacuuming service is needed in the main header rows. Header rows should be vacuumed every 2-5 years, or when sediment has accumulated to 11" in the header row.	Yes No	/ / 20 Responsible Party:
Pavement: Inspect ground surface above underground structure for sinkholes or other unusual depression areas		Metro Blooms will advise Davis Center staff when a professional maintenance service is needed.	Yes No	/ / 20 Responsible Party:
Dewatering Visual inspection for any standing water present in system		Metro Blooms will advise Davis Center staff when a professional maintenance service is needed.	Yes No	/ / 20 Responsible Party:

Stormwater Planters (in front of building)



IMPERVIOUS to BMP: 185,672 / 4.26 acres

TOTAL PROPERTY - 231,674 ft ² / 5.31 acre	IMPERVIOUS to BMP: 183,976 / 4.26 acres
TOTAL IMPERVIOUS: 187,260 ft ² / 4.30 acre	
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sidewalk - 2,958 ft ² / .07 acre	Area 3: sidewalk - 1,948 ft ² / 0.044 acre
TOTAL PERVIOUS:	TOTAL IMPERVIOUS TREATED:
	99.15% treated



BMP Location and access points for inspection of underground infiltration facility

Davis Educational Service Center
1250 Broadway Ave W,
Minneapolis MN,
BMP ID: 8453

Location:
 Parking lot north of building

Inspection Frequency:
 Three times each year, at least one visit within 48 hours of a rain event of at least 1"

Description of Devices: This stormwater planter is simply a landscape bed on the south side of the private sidewalk on the front of the building that absorbs stormwater runoff from the private sidewalk. The linear landscape bed is filled with native plants and has an underdrain to quickly shed water that has infiltrated in the bed. This is a highly visible location at the front entrance to the Minneapolis Public Schools, and is thus maintained as a highly manicured and aesthetically-pleasing garden.

Notes: Return reports annually to Minneapolis Public Works SWS stormwater@minneapolismn.gov



Native plants

Sidewalk – contributing area

Stormwater planter on front of building captures sheetflow from sidewalk into landscaping beds



Underdrain outlet at west end of planter



Stormwater planter after spring cleanup



Stormwater planter after Fall cleanup

BMP ID 8453		Stormwater Planter		
Inspection Date / / 20		Inspector:		
Inspection Activity	Observations Measurements	Maintenance	Maint. Required	Actions Required/Date Completed/Responsible Foreman
General: Visual inspection of stormwater planter for trash, debris and sediment		Metro Blooms will removes trash, debris, and sediment when an inspection deems necessary	Yes No	/ / 20 Responsible Party:
Inspect inlets: Visual inspection for erosion around inlet, the area adjacent to south side of sidewalk, where water sheet flows into the planter Inspect structural components of inlet and outlet structures		Metro Blooms will fix erosion issues, and add mulch and plants when necessary. Metro Blooms will inspect underdrain where it is visible and maintain its integrity	Yes No	/ / 20 Responsible Party:
Dewatering Visual inspection for any standing water present in system		Metro Blooms will excavate the stormwater planter and address any drainage/under drain issues when necessary	Yes No	/ / 20 Responsible Party: