September 7, 2023
File No. 25222081.00

Ms. Cindy Koepke
Wisconsin Department of Natural Resources
3911 Fish Hatchery Road
Fitchburg, WI 53711

Subject: Materials Management Plan Addendum
Hartmeyer Property Development
2007 Roth Street, Madison, WI
BRRTS #s 03-13-000053 and 02-13-580328

Dear Ms. Koepke:

SCS Engineers (SCS) is submitting this Materials Management Plan (MMP) Addendum in response to your email of July 28, 2023, with questions regarding the MMP that SCS submitted on behalf of Lincoln Avenue Capital on July 7, 2023. The questions posed in your email are reproduced below in italics with our responses shown below each question.

1. *A map or maps showing an overlay of the building and road areas and the contaminated soil areas*

An updated copy of the previously submitted drawing titled **Figure 2 – Site Plan** is attached. The drawing shows the existing site conditions with the proposed buildings and roadways outlined in red and storm-water ponds outlined in blue.

The estimated limits of petroleum contamination based on laboratory data and field observations noted in soil boring logs are shown with dashed lines. The soil within the dashed lines does not necessarily exceed residual contaminant levels (RCLs) for petroleum-related contaminants, but soil within these areas should be evaluated for evidence of contamination during excavation to identify the correct disposal method (i.e. biotreatment versus direct landfill disposal).

Many of the detailed boring logs in the proposed development area show evidence of suspected cinders or "possible foundry sand" typical of the urban fill found in former low-lying areas of the isthmus and near east side of Madison. Although not specifically delineated on the map, excavated soil with documented arsenic or polynuclear aromatic hydrocarbons (PAH) concentrations greater than RCLs or showing visible quantities of cinders or suspected foundry sand will be managed as contaminated material for disposal at a licensed landfill.

2. *A cut and fill map or cross-sections showing the depths of excavation (for any purpose: building, road construction, utilities, pool, etc.) and the contaminated soils*

Preliminary drawings showing the estimated cut and fill for site grading and excavation for foundations and on-site utilities are included in **Attachment A**. With the exception of the swimming pool, some storm water features and limited areas around the proposed roads, both the senior and family housing sites show that site grades will be raised as much as 4 feet across the development

area. These drawings show that excavation of contaminated soil will primarily be limited to what is required for the swimming pool, building foundations, utility trenches, and storm water ponds. The proposed swimming pool is located outside the area of identified residual petroleum contamination. With the exception of the northern portion of the south storm water pond, the storm water ponds are also located outside the areas of identified residual petroleum contamination.

3. *Do the maps already submitted show the proposed utility locations or the current locations?*

Both the previously submitted and updated **Figure 2-Site Plan** show existing underground utilities. Proposed underground utilities (water, storm sewer, and sanitary sewer) are shown on the drawings included in **Attachment A**. Existing utilities that run underneath the proposed buildings will be re-routed.

4. *What is the timeline for soil excavation and management?*

At this point the closing date for the property has not been set; however, construction work is expected to begin in the 4th quarter of 2023. Clearing, general grading, and foundation borings will likely occur in 2023, with excavation for footings, underground utilities, and streets following in the first half of 2024. Final landscaping, paving, and related work will be finished when the project is substantially completed in 2025.

5. *What are the estimated soil volumes that will be excavated?*

Based on preliminary estimates, the total volume of contaminated soil to be excavated is approximately 17,000 to 27,000 cubic yards (CY). This volume includes approximately 11,000 to 16,000 CY from on-site footings, ponds, and utilities, and 6,000 to 11,000 CY from road profile and utilities in rights-of way of the new Huxley and Coolidge Streets. The total estimated volume of petroleum contaminated soil to be excavated is 6,500 CY, with the balance of contaminated soil consisting of urban fill.

6. *For Section 4.3, Soil Vapor, provide more specific information on the comparison of site conditions to the RR-800 criteria. I recommend listing the criteria individually and indicating with site specifics whether each is met or not (for example, "the proposed buildings will have ___feet of vertical separation and ____feet of horizontal separation from NAPL," NR 140 PAL exceedances are/are not likely to be within the building foundation area" and similar statements).*

As mentioned in the MMP, chlorinated volatile organic compounds (VOCs) have not been identified as a contaminant of concern via the soil and groundwater sampling that has been performed to date. The vapor screening criteria listed in RR-800 for petroleum contaminants include:

- NAPL – Building has less than 15 feet of vertical separation or less than 30 feet of horizontal separation from NAPL (non-aqueous phase liquid).
- Groundwater (below foundation) – Building has less than 5 feet of vertical separation from groundwater with benzene greater than 1 mg/L.
- Groundwater (contacts foundation) - Groundwater with concentrations above Wisconsin Administrative Code (Wis. Admin. Code) § NR 140 preventive action limit (PAL) has entered the building or is in contact with the building's foundation.

- Soil - Building has less than 5-foot (vertical (a) and horizontal) separation distance from petroleum contaminated soil with the potential for off-gassing(c).
- Preferential pathway - Petroleum vapors are present in utilities that transect a petroleum source area.
- Petroleum odors are present in a building near petroleum source area.

As noted with the above listed criteria in NR-800, the potential for off gassing is related primarily to "…light end distillates (e.g. gasoline). Heavier end petroleum products (e.g. diesel or fuel oil) or heavily weathered light end distillates that no longer contain compounds that are detectable by TO-15 analysis are not likely to be a source of vapors."

The applicability of these vapor screening criteria to the Hartmeyer development is as follows:

- NAPL- Separate phase petroleum product was observed in temporary monitoring wells TW-2, TW-4, and TW-6 in 2007 installed on the Hartmeyer Property at the conclusion of the initial aboveground storage tank (AST) area investigation. Groundwater samples collected in 2004, 2005, and 2006 from MW-13 and MW-14 (located within 60 to 80 feet of the temporary wells that showed free product) did not show petroleum volatile organic compound (PVOC) concentrations greater than PALs. With a finished floor elevation of 857 the building floor will be approximately 6 feet above the water table. Although, this criterion may be applicable to the proposed development, the absence of PVOCs in groundwater greater than PALs in the plume associated with the NAPL contamination, and the source of the NAPL (heating oil that has weathered for at least 15 years) indicate that the potential for off gassing volatile petroleum vapors is minimal.
- Groundwater (below foundation) – Benzene concentrations approaching the 1 mg/L screening criterion have not been detected in groundwater at the site.
- Groundwater (contacts foundation) – While portions of the building's foundation system will extend below the water table, residual petroleum concentrations in groundwater are generally below the PAL. Naphthalene was detected at a concentration between the PAL and enforcement standards (ES) in MW4 installed during the second AST area investigation.
- Soil - It is possible that portions of the building envelope may be located within 5 feet vertically of residual petroleum organic compound contamination in soil based on the residual contaminant concentrations documented in General Engineering's Table A-3 (see MMP Appendix C).
- Preferential Pathway – There is no evidence to suggest that existing or proposed utility construction will exacerbate the potential for vapor intrusion since the proposed building already overlies a portion of the contamination source area.
- Petroleum odors – There are currently no buildings in the petroleum source area, therefore no odors in buildings have been observed.

Based on evaluation of the screening criteria above, the potential for petroleum vapor intrusion appears minimal, but cannot be completely ruled out. As noted in Section 4.3 of the MMP, vapor mitigation measures will be incorporated into the building design to address the potential for petroleum vapor intrusion.

7. *Section 5.1, Proposed Soil Management Plan*
    a. *Provide more details on the possible reuse of Type 2 soils on-site*

b. *In what circumstances would you consider reuse on-site?*
c. *What locations would be considered for placement of those soils and a(t) what final depths below ground surface and above the water table?*

Based on the proposed redevelopment plans there will be little opportunity to reuse soil outside the development footprint. As noted in the response to question 1, above, a substantial amount of fill is required within the footprint of the proposed buildings to achieve the desired site grades. Depending on the foundation design and the physical qualities of the soil, it may be possible to re-use some of the excavated soil (Type 2) as fill, above the existing ground surface, within the area of the building footprints. It should be noted that the September 13, 2022 Geotechnical Engineering Report by CGC, Inc., indicated that clay and silt soils excavated on site are not recommended as structural fill because of the moisture conditioning required to achieve the required compaction. However, if suitable *granular* soils that meet Type 2 criteria are encountered it may be possible to re-use the granular material as structural fill.

If Type 2 soil meeting requirements for structural fill is reused on site, it will likely be used below or adjacent to the proposed buildings and will be addressed by the same protective cap as residual/undisturbed in-place site soils containing residual contamination. Reused soil will be placed at a depth no greater than the depth from which it was originally excavated, and we expect that if used it would be primarily placed as fill on top of the existing soil after the upper layer of topsoil has been stripped off. The separation from the water table is expected to be a minimum of 2 feet.

8. *Section 5.3, Vapor Management:*
   DNR does not provide engineering design approvals for mitigation systems.
   DNR strongly recommends the vapor mitigation system conform to the ANSI/AARST standard CC-1000-2018-0523 (Soil Gas Control Systems in New Construction of Multifamily, School, Commercial and Mixed-Use Buildings – Rev. 5/23) and be installed by a NRPP-certified contractor.

SCS and the project team will consider DNR's recommendation and the applicable portions of the AARST National Consensus Standard CC-1000-2018-0523 when designing and constructing the sub-slab vapor mitigation system (VMS). We anticipate the sub-slab VMS will be integrated with the planned sub-slab drainage system.

9. *Section 5.4, Protective Cap:*
   a. *Provide a map indicating proposed capped areas (whether by soil, building, road, or other structure)*
   b. *DNR's RR-709 guidance (attached, along with its companion document RR-528) recommends 2 feet of clean soil over contaminated soil, instead of the 1 foot proposed in your MMP; discuss whether this can be upgraded to a minimum of 2 feet and how it would be protective if only 1 foot.*
   c. *Will any of the proposed dog runs or children's play areas, both of which could experience digging, be capped areas?*

The proposed cap is limited to the areas affected by the current redevelopment plans for the property. Because of the relatively widespread nature of urban fill soil and associated arsenic and PAH contamination, the entire developed portion of the property will effectively be capped by new buildings, lined pools or stormwater features, asphalt, concrete, or other paving materials, and/or at least 1 foot of clean soil in landscaped areas. The stormwater ponds will incorporate a 40-mil plastic

liner to prevent infiltration and contact with underlying soil. Bio-swales adjacent to the public streets will also be constructed with impermeable liners. The types of ground cover material are shown on the landscape plans provided in **Attachment B**.

The thickness of the clean soil cap in areas not covered by other materials will be a minimum of one foot. The minimum cap thickness in designated play/dog run areas will be 2 feet. The maximum soil cap thickness will vary depending on the amount of clean fill needed to achieve the desired grades. Because the landscaping will be maintained by a property manager rather than individual residents, the likelihood of unauthorized cap disturbance and exposure of residents and the general public to remaining contaminants in the underlying soil will be minimal. To the extent possible, the full thickness of contaminated materials or 4 feet of contaminated materials (whichever is less) will be removed in areas such as child play areas or dog runs where incidental digging in the soil cap may occur. If the contaminated material remains within 4 feet of the ground surface in caped in areas where incidental digging may occur, the clean soil will be underlain by permeable geotextile or similar material to demarcate the bottom of the cap.

Capping materials at this site are intended primary to prevent direct contact with residual soil contamination greater than non-industrial direct contact RCLs. Given the age of releases on the property and the absence of documented groundwater contamination greater than ESs, a specific low-permeablilty cap design is not required to protect groundwater quality.

If it appears that the contaminated material in a particular area has been completely removed as a result of redevelopment activities, the project team may elect to collect additional soil samples to confirm that the area has been remediated to applicable RCLs. If the sampling confirms that applicable non-industrial RCLs are not exceeded and documentation of same is provided to DNR, then installation and maintenance of a cap in these areas will not be required.

Please contact us at 608-224-2830 if you have any questions or comments regarding the materials management at the Property.

Sincerely,

Ray Tierney, PG
Vice President
SCS Engineers

Eric Oelkers, PG
Senior Project Manager/Hydrogeologist
SCS Engineers

Mark Huber, PE
Senior Engineer
SCS Engineers

EO/AJR/MRH

cc: Kevin McDonell and Kyle Brasser, Lincoln Avenue Capital Management
Brynn Bemis, City of Madison

Encl. Figure 2 – Site Plan (updated)
Attachment A – On-site Earthwork and Utility Excavation Volume Estimates
Attachment B – Site Plans

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Figure 2

Site Plan (updated)

WISCONSIN SOUTHERN RAILROAD

RUSKIN STREET

COMMERCIAL AVENUE

PROPOSED HUXLEY STREET

PROPOSED FAMILY HOUSING BUILDING

PROPOSED GOODRIDGE STREET

PROPOSED SENIOR HOUSING BUILDING

ROTH STREET

CANADIAN PACIFIC RAILROAD – SOO LINE RAILROAD

EXTENT OF OCTOBER 2016 SOIL EXCAVATION

FORMER OSCAR MAYER PLANT PROPERTY

GB101 GB102 GB103 GB104 GB105 GB106 GB107 GB108 GB109 GB110 GB111 GB112 GB113 GB114 GB115 GB116 GB117 GB118 GB119 GB120 GB121 GB122 GB123 GB124 GB125 GB126 GB127 GB128 GB129 GB130 GB131 GB132 GB133 GB134 GB135

HA-1 HA-2 HA-2S HA-3 HA-3S HA-4 HA-4S HA-5 HA-6 HA-9A HA-10 HA-11 HA-14 HA-17 HA-18 HA-19 HA-22A

B-1 B-2 B-3 B-5 B-6 B-7 B-8 B-8A B-9 B-9A B-9B B-9C B-10 B-10A B-10B B-10C B-10D B-10E B-11 B-11A B-11B B-11C B-11D B-11E B-11F B-11G B-12 B-12A B-12B B-13 B-13A B-13B B-13C B-14 B-14A B-14B B-15 B-15A B-16 B-16A B-17 B-17A B-18 B-18A B-18B B-18C B-18D B-20 B-20A B-20B B-20C B-21 B-21A B-21B B-21C B-21D B-21E

GTB-1 GTB-2 GTB-3 GTB-4 GTB-5 GTB-6 GTB-7 GTB-8 GTB-9 GTB-10 GTB-11 GTB-13 GTB-14 GTB-15 GTB-16 GTB-17 GTB-18 GTB-19 GTB-20 GTB-21

MW1 MW2 MW3 MW4 MW5 MW6 MW7 MW8 MW9 MW10 MW12 MW13 MW14 MW15 MW16 MW-2 MW-3(B-5) MW-4(B-6)

TW1 TW2 TW3 TW4 TW5 TW6 TW7 TW8 TW9 TW10

TP-1A TP-2A TP-3A TP-4A TP-5A TP-6A TP-7A TP-8A TP-9A TP-10A TP-11A TP-12A

GEC B-1 GEC B-2 GEC B-3 GEC B-4 GEC B-5

B20-A

LEGEND

- PROPERTY LINE
- PROPOSED PROPERTY LINE
- EXISTING GRADE (5' CONTOUR)
- EXISTING GRADE (1' CONTOUR)
- GUARD RAIL
- WETLAND
- FENCE
- RAILROAD TRACKS
- OVERHEAD UTILITY
- GAS MAIN
- UNDERGROUND ELECTRIC
- WATER MAIN
- TELEPHONE
- SANITARY SEWER
- STORM SEWER
- EXISTING BUILDING
- LIGHT POLE
- UTILITY POLE
- GUY
- ELECTRICAL PEDESTAL
- STORM MANHOLE
- SANITARY MANHOLE
- STORM CATCH BASIN
- STORM INLET
- GAS PEDESTAL
- GAS VALVE
- WATER VALVE
- HYDRANT
- GEC MONITORING WELL
- BT² MONITORING WELL
- BT² /SCS TEMPORARY MONITORING WELL
- RAMBOLL GEOPROBE/HAND-AUGER BORING
- GEC TEST PIT/SOIL BORING
- BT² SOIL BORING
- CGC GEOTECHNICAL BORING
- APPROXIMATE EXTENT OF KNOWN OR SUSPECTED RESIDUAL PETROLEUM CONTAMINATION IN SOIL
- PROPOSED STORM WATER POND
- PROPOSED BUILDING
- PROPOSED ROAD

NOTES:.

1. BASE MAP WITH EXISTING CONDITIONS AND PROPOSED NEW SITE FEATURES PROVIDED BY JSD PROFESSIONAL SERVICES ON DECEMBER 12, 2022.
2. SAMPLE LOCATIONS ARE BASED ON FIGURES INCLUDED IN REPORTS PREPARED BY BT SQUARED (BT2), CONSTRUCTION GEOTECHNICAL CONSULTANTS (CGC), GENERAL ENGINEERING CORPORATION (GEC), RAMBOLL AND SCS, AND ARE APPROXIMATE.

N

80 0 80

SCALE: 1" = 80'

FIGURE 2

SITE PLAN

HARTMEYER PROPERTY
2007 ROTH STREET
MADISON, WISCONSIN

SITE

CLIENT

LINCOLN AVENUE CAPITAL MANAGEMENT
401 WILSHIRE BOULEVARD, SUITE 1070
SANTA MONICA, CA 90401

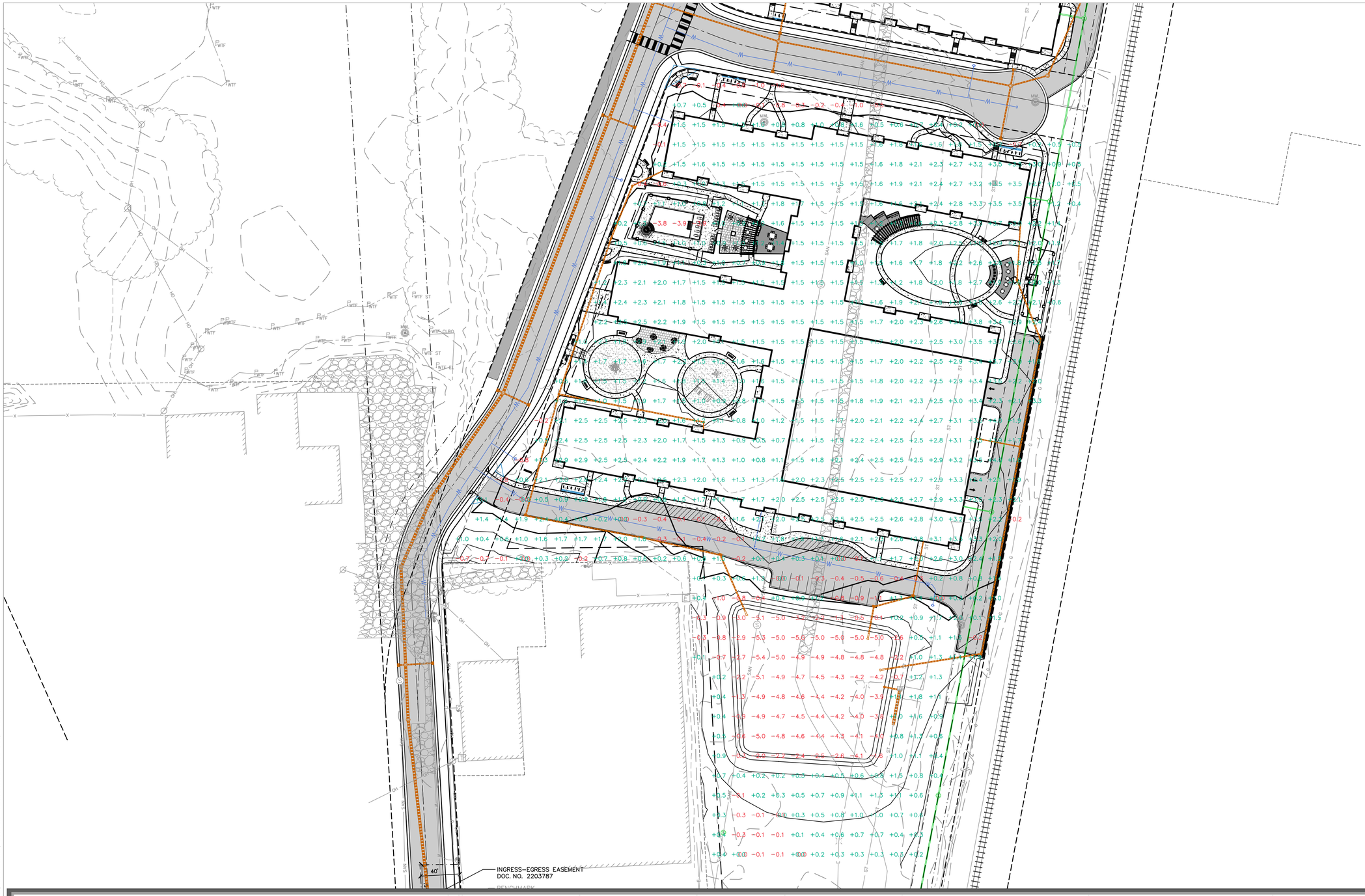
ENGINEER

SCS ENGINEERS
2830 DAIRY DRIVE MADISON, WI 53718-6751
PHONE: (608) 224-2830

PROJECT NO.	25222081.00	DRAWN BY:	KP
DRAWN:	12/22/2022	CHECKED BY:	EO
REVISED:	08/02/2023	APPROVED BY:	EO, 8/7/2023

Attachment A

On-site Earthwork and Utility Excavation Volume Estimates



LEGEND

- PROPERTY LINE
- RIGHT-OF-WAY
- EASEMENT LINE
- BUILDING OUTLINE
- BUILDING OVERHANG
- EDGE OF PAVEMENT
- STANDARD CURB AND GUTTER
- REJECT CURB AND GUTTER
- MOUNTABLE CURB AND GUTTER
- 8" CONCRETE RIBBON CURB
- ASPHALT PAVEMENT
- HEAVY DUTY ASPHALT PAVEMENT
- CONCRETE PAVEMENT
- HEAVY DUTY CONCRETE PAVEMENT
- RETAINING WALL
- FENCE
- 959 PROPOSED 1 FOOT CONTOUR
- 960 PROPOSED 5 FOOT CONTOUR
- 959 EXISTING 1 FOOT CONTOUR
- 960 EXISTING 5 FOOT CONTOUR
- S SANITARY SEWER
- W WATERMAIN
- D STORM SEWER
- -0.1 CUT DEPTH
- +0.1 FILL DEPTH

NOTES:

1. GRID SPACING OF CUT/FILL TICKS IS 20'
2. SURFACE COMPARISON IS FROM THE EXISTING SUBGRADE TO THE PROPOSED SUBGRADE USING THE FOLLOWING ASSUMPTIONS:
   - 2.1. STRIP 6" EXISTING TOPSOIL
   - 2.2. BUILDING SLAB DEPTH OF 12"
   - 2.3. PAVEMENT DEPTH OF 26" (4" ASPHALT, 10" BASE, AND 12" UNDERCUT)
   - 2.4. SIDEWALK DEPTH OF 12"
   - 2.5. COURTYARD HARDSCAPE DEPTH OF 12"
   - 2.6. POOL DEPTH OF 6'
   - 2.7. BIORETENTION BASIN DEPTH OF 2' (ENGINEERED SOIL)
   - 2.8. TOPSOIL REPREAD 6"
3. DOES NOT INCLUDE PUBLIC STREETS CONSTRUCTION.

Name	Cut Factor	Fill Factor	Style	2d Area(Sq. Ft.)	Cut(adjusted)(Cu. Yd.)	Fill(adjusted)(Cu. Yd.)	Net(adjusted)(Cu. Yd.)	Net Graph
Ex Sub to Prop Sub - Family Housing	1.000	**1.200**	JSD_No ...	307601.12	4376.40	18092.29	13715.89<Fill>	

22-11381

HARTMEYER REDEVELOPMENT

2007 ROTH STREET

FAMILY HOUSING EARTHWORK

DATE: 11.23.2022

NORTH

0 50' 100'

JSD

LEGEND

- PROPERTY LINE
- RIGHT-OF-WAY
- EASEMENT LINE
- BUILDING OUTLINE
- BUILDING OVERHANG
- EDGE OF PAVEMENT
- STANDARD CURB AND GUTTER
- REJECT CURB AND GUTTER
- MOUNTABLE CURB AND GUTTER
- 8" CONCRETE RIBBON CURB
- ASPHALT PAVEMENT
- HEAVY DUTY ASPHALT PAVEMENT
- CONCRETE PAVEMENT
- HEAVY DUTY CONCRETE PAVEMENT
- RETAINING WALL
- FENCE
- 959 — PROPOSED 1 FOOT CONTOUR
- 960 — PROPOSED 5 FOOT CONTOUR
- 959 — EXISTING 1 FOOT CONTOUR
- 960 — EXISTING 5 FOOT CONTOUR
- SANITARY SEWER
- WATERMAIN
- STORM SEWER
- −0.1 CUT DEPTH
- +0.1 FILL DEPTH

NOTES:

1. GRID SPACING OF CUT/FILL TICKS IS 15'
2. SURFACE COMPARISON IS FROM THE EXISTING GRADE TO THE PROPOSED SUBGRADE USING THE FOLLOWING ASSUMPTIONS:
   - 2.1. NO TOPSOIL STRIP DUE TO EXISTING PARKING LOT
   - 2.2. BUILDING SLAB DEPTH OF 12"
   - 2.3. PAVEMENT DEPTH OF 14" (4" ASPHALT, 10" BASE)
   - 2.4. SIDEWALK DEPTH OF 12"
   - 2.5. BIORETENTION BASIN DEPTH OF 2.25' (NORTH BASIN) AND 2.50' (WEST BASIN) (ENGINEERED SOIL)
   - 2.6. TOPSOIL REPREAD 6"
3. DOES NOT INCLUDE PUBLIC STREETS CONSTRUCTION.

Name	Cut Factor	Fill Factor	Style	2d Area(Sq. Ft.)	Cut(adjusted)(Cu. Yd.)	Fill(adjusted)(Cu. Yd.)	Net(adjusted)(Cu. Yd.)	Net Graph
Ex Sub to Prop Sub - Senior Housing	1.000	**1.200**	JSD_No ...	139479.72	513.66	12978.64	12464.98<Fill>	

22-11381

HARTMEYER REDEVELOPMENT

2007 ROTH STREET

SENIOR HOUSING EARTHWORK

DATE: 11.23.2022

NORTH

0 30' 60'

JSD

INGRESS–EGRESS EASEMENT
DOC. NO. 2203787

BENCHMARK
TOP OF HYDRANT
=857.88 NAVD88

10' WIDE RIGHT-OF-WAY DEDICATION AND ELECTRIC EASEMENT DOC. NO. 2305811

GRANT OF EASEMENT DOC. NO. 11715591 AND 13835555

60' WIDE TWO PARTY, NON-EXCLUSIVE LEASE AGREEMENT & 30' WIDE PERPETUAL NON-EXCLUSIVE UTILITY SERVICE-LINE EASEMENT ITEMS 10 & 11 DOC. NO. 7427?1

BUILDING FOOTING EXCAVATION LIMITS, TYP.

BUILDING FOOTING EXCAVATION LIMITS, TYP.

UTILITY TRENCH EXCAVATION LIMITS, TYP.

UTILITY TRENCH EXCAVATION LIMITS, TYP.

FG 855.58

FG 855.78

LEGEND

- PROPERTY LINE
- RIGHT–OF–WAY
- EASEMENT LINE
- BUILDING OUTLINE
- BUILDING OVERHANG
- EDGE OF PAVEMENT
- STANDARD CURB AND GUTTER
- REJECT CURB AND GUTTER
- MOUNTABLE CURB AND GUTTER
- 8" CONCRETE RIBBON CURB
- ASPHALT PAVEMENT
- HEAVY DUTY ASPHALT PAVEMENT
- CONCRETE PAVEMENT
- HEAVY DUTY CONCRETE PAVEMENT
- RETAINING WALL
- FENCE
- 959 PROPOSED 1 FOOT CONTOUR
- 960 PROPOSED 5 FOOT CONTOUR
- 959 EXISTING 1 FOOT CONTOUR
- 960 EXISTING 5 FOOT CONTOUR
- SANITARY SEWER
- WATERMAIN
- STORM SEWER

NOTES:

1. SURFACE COMPARISONS ARE FROM THE EXISTING SUBGRADE TO THE PROPOSED FOOTING OR UTILITY TRENCH SUBGRADE
2. BUILDING FOOTING TRENCH – 4' WIDE BY 5' DEEP
3. UTILITY TRENCHES
   - 3.1. STORM SEWER – 5' WIDE BY STRUCTURE INVERTS + 6" DEEP
   - 3.2. SANITARY SEWER – 7' WIDE BY STRUCTURE INVERTS + 6" DEEP
   - 3.3. WATER MAIN – 5' WIDE BY 7' DEEP
4. DOES NOT INCLUDE PUBLIC WATER MAIN OR STORM SEWER TRENCHES IN NEW PUBLIC STREETS.

Name	Cut Factor	Fill Factor	Style	2d Area(Sq. Ft.)	Cut(adjusted)(Cu. Yd.)	Fill(adjusted)(Cu. Yd.)	Net(adjusted)(Cu. Yd.)	Net Graph
Footing Excavation - Senior Housing	1.000	1.000	JSD_No ...	10031.05	686.83	30.55	656.28<Cut>	
Footing Excavation - Family Housing	1.000	1.000	JSD_No ...	17590.45	1285.79	46.79	1239.01<Cut>	
Utility Trench Excavation - Overall	1.000	1.000	JSD_No ...	27238.73	5464.64	24.42	5440.22<Cut>	

UTILITY TRENCH EXCAVATION – ADJUSTED WITH 6" TOPSOIL STRIP OVER FAMILY HOUSING LOT

FAMILY HOUSING UTILITY TRENCH AREA (15,620 SF) x 6" TOPSOIL STRIP = 289.27 CY

ADJUSTED CUT=5175.37

FILL = 24.42

ADJUSTED NET=5150.95

22-11381

HARTMEYER REDEVELOPMENT

2007 ROTH STREET

FOOTING & UTILITY EARTHWORK

DATE: 11.23.2022

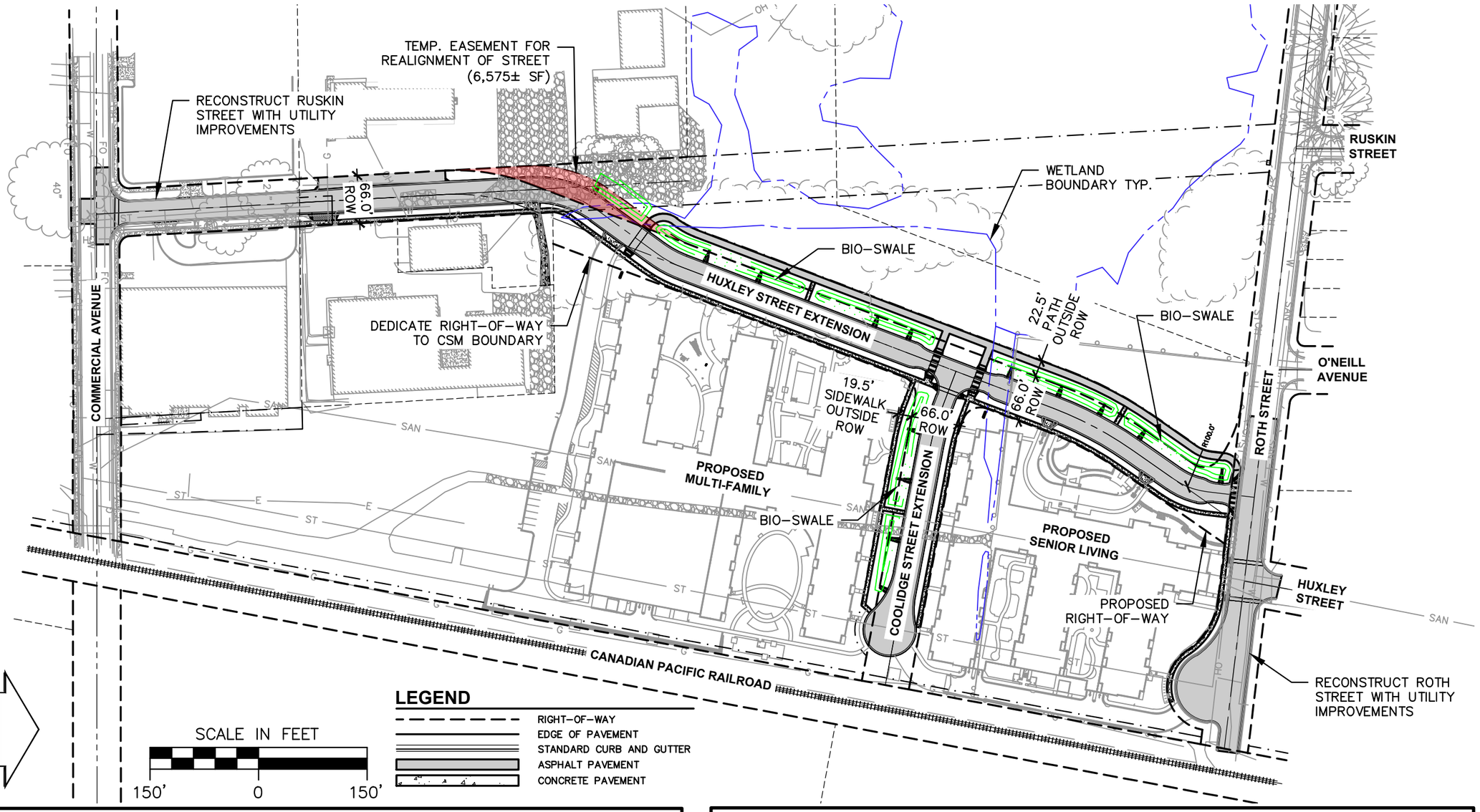
NORTH

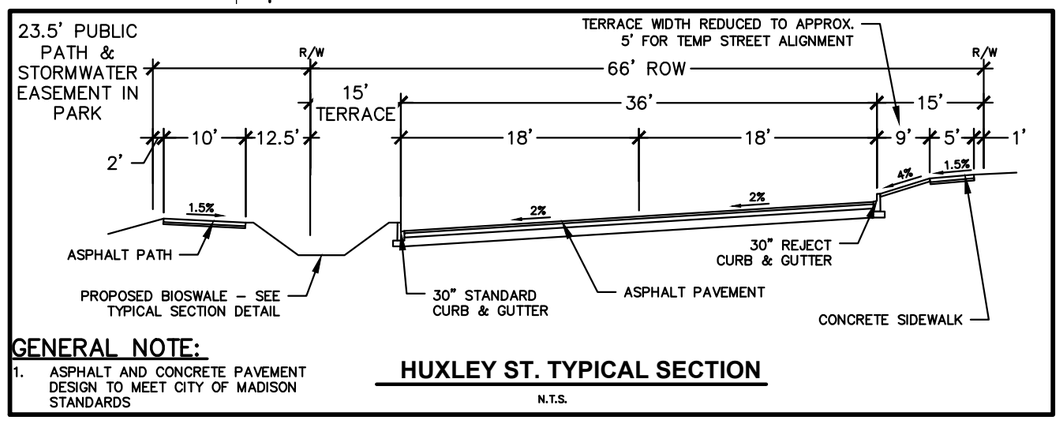
0 50' 100'

JSD

Attachment B

Site Plans



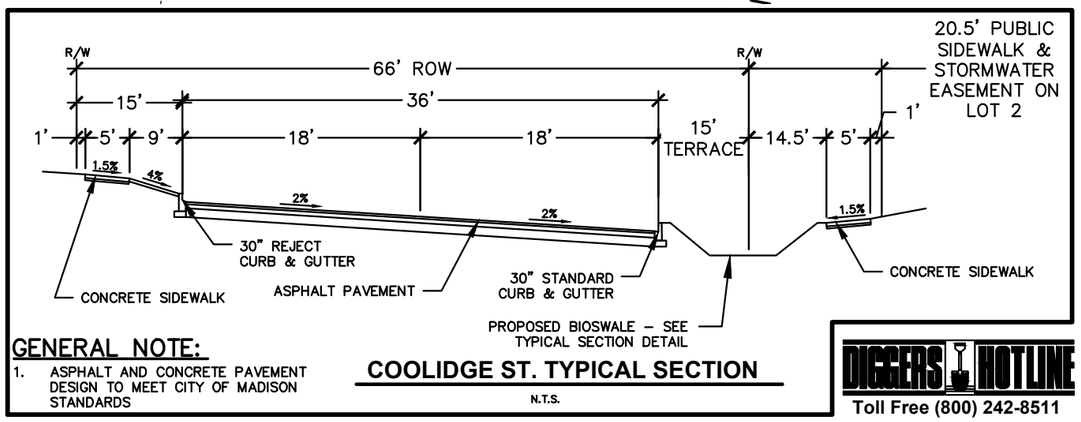


GENERAL NOTE:

1. ASPHALT AND CONCRETE PAVEMENT DESIGN TO MEET CITY OF MADISON STANDARDS

HUXLEY ST. TYPICAL SECTION

N.T.S.



GENERAL NOTE:

1. ASPHALT AND CONCRETE PAVEMENT DESIGN TO MEET CITY OF MADISON STANDARDS

COOLIDGE ST. TYPICAL SECTION

N.T.S.

DIGGERS HOTLINE
Toll Free (800) 242-8511

JSD
CREATE THE VISION TELL THE STORY
jsdinc.com
MADISON REGIONAL OFFICE
161 HORIZON DRIVE, SUITE 101
VERONA, WISCONSIN 53593
P. 608.848.5060

CLIENT:
LINCOLN AVENUE CAPITAL MANAGEMENT, LLC

CLIENT ADDRESS:
401 WILSHIRE BLVD, SUITE 1070
SANTA MONICA, CA 90401

PROJECT:
HARTMEYER PUBLIC IMPROVEMENTS

PROJECT LOCATION:
2007 ROTH STREET
MADISON, DANE COUNTY
WI, 53704

PLAN MODIFICATIONS:

#	Date:	Description:
1	04.05.23	GEOMETRIC/SWM CONCEPTS
2	04.14.23	TRANSPORTATION COMMISSION
3	04.26.23	TRANSPORTATION COMMISSION
4	05.25.23	50% PROGRESS SET
5	06.22.23	50% DESIGN PLANS
6		
7		
8		
9		
10		
11		
12		
13		
14		
15		

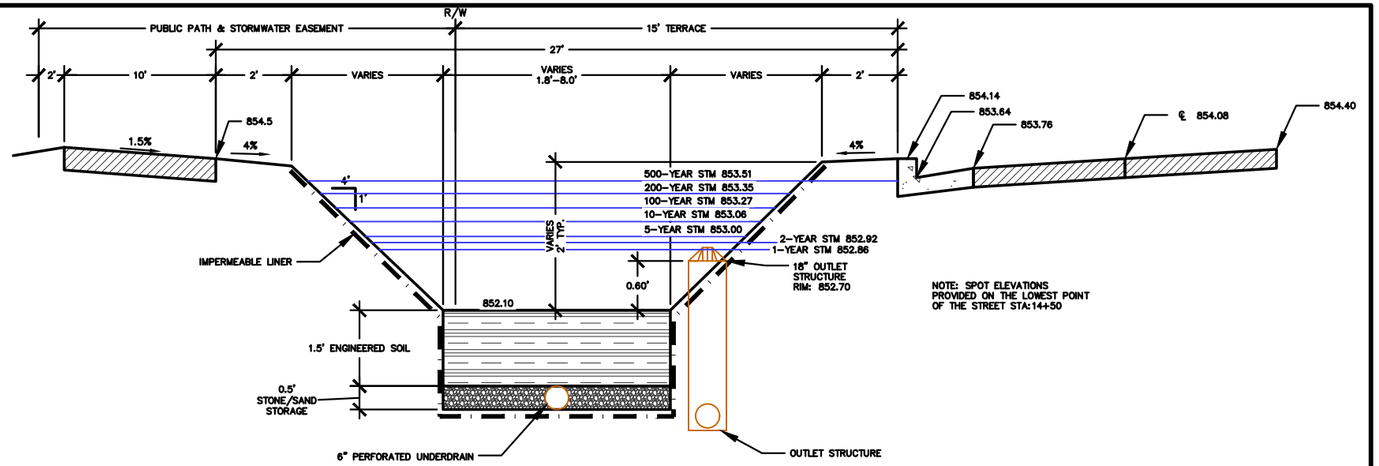
Designed By: CAC
Reviewed By: MRH
Approved By: MRH

SHEET TITLE:
OVERALL STREET GEOMETRICS & TYPICAL SECTIONS

SHEET NUMBER:
C1.0

JSD PROJECT NO: 22-11381-PUB

File: I:\2022\22113811_221381-PUB\DWG\Civil Sheets\C1.0 - Street Geometrics.dwg Layout: C1.0 OVERALL GEOMETRICS User: ccox Plotted: Jun 20, 2023 - 3:09pm Xrefs:



HUXLEY ST. TYPICAL NORTH BIOSWALE SECTION

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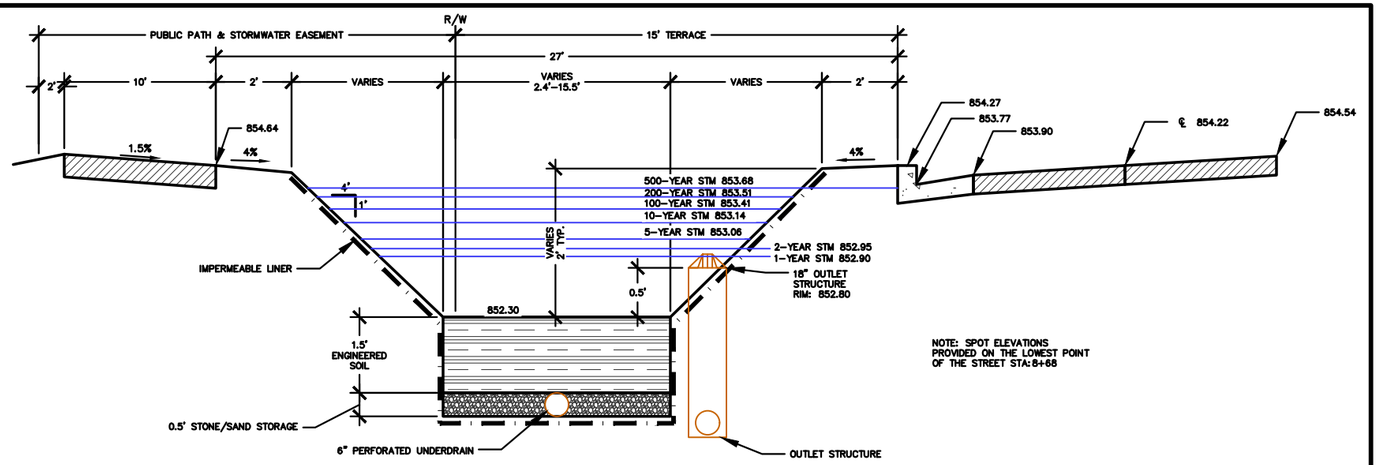

HUXLEY ST. TYPICAL MIDDLE BIOSWALE SECTION

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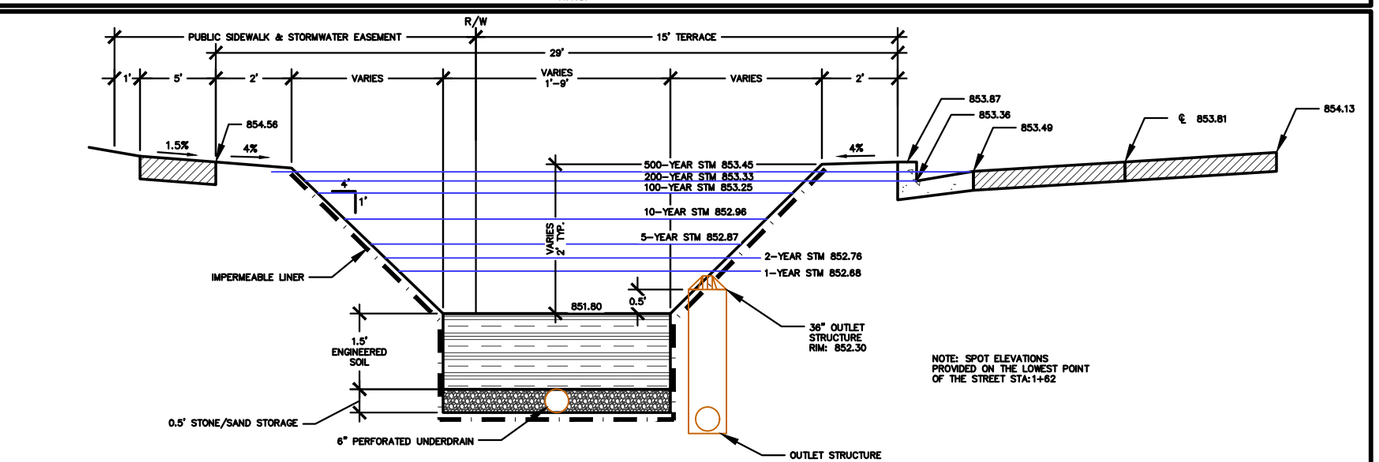


COOLIDGE ST. TYPICAL EAST BIOSWALE SECTION

N.T.S.

DIGGERS HOTLINE
Toll Free (800) 242-8511

JSD
CREATE THE VISION TELL THE STORY
jsdinc.com
MADISON REGIONAL OFFICE
161 HORIZON DRIVE, SUITE 101
VERONA, WISCONSIN 53593
P. 608.848.5060

CLIENT:
LINCOLN AVENUE CAPITAL MANAGEMENT, LLC

CLIENT ADDRESS:
401 WILSHIRE BLVD, SUITE 1070
SANTA MONICA, CA 90401

PROJECT:
HARTMEYER PUBLIC IMPROVEMENTS

PROJECT LOCATION:
2007 ROTH STREET
MADISON, DANE COUNTY
WI, 53704

PLAN MODIFICATIONS:

#	Date:	Description:
1	04.05.23	GEOMETRIC/SWM CONCEPTS
2	04.14.23	TRANSPORTATION COMMISSION
3	04.28.23	TRANSPORTATION COMMISSION
4	05.25.23	50% PROGRESS SET
5	06.22.23	50% DESIGN PLANS
6		
7		
8		
9		
10		
11		
12		
13		
14		
15		

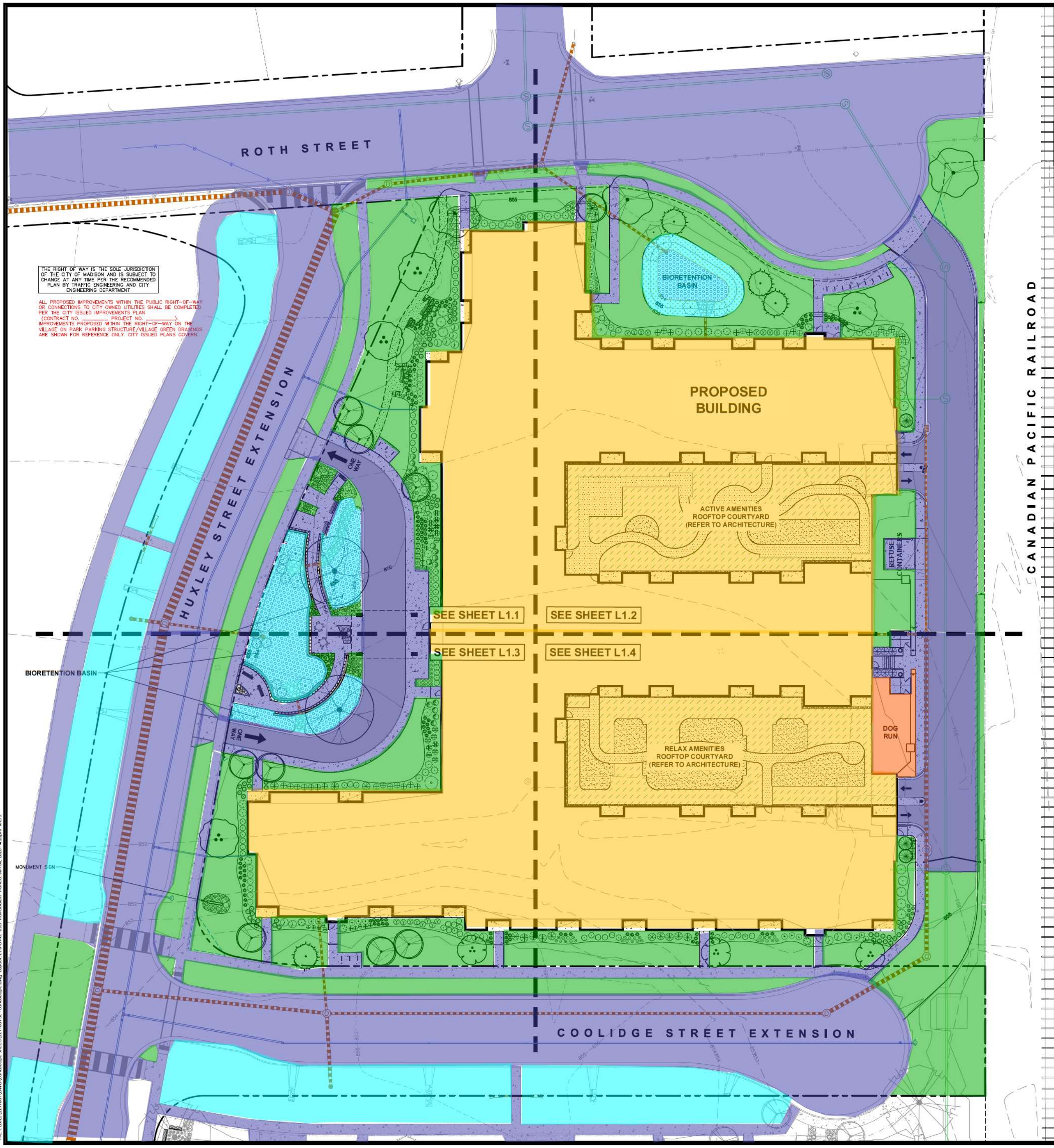
Designed By:	CAC
Reviewed By:	MRH
Approved By:	MRH

SHEET TITLE:
BIOSWALE PROPOSED TYPICAL SECTIONS

SHEET NUMBER:
C1.5

JSD PROJECT NO: 22-11381-PUB

File: I:\2022\22-11381_2211381-PUB\DWG\Civil Sheets\C1.0 - Street Geometrics.dwg Layout: C1.5 BIOSWALE TYPICAL SECTION User: ccox Plotted: Jun 20, 2023 - 3:15pm Xrefs:



LEGEND

- PROPERTY LINE
- RIGHT-OF-WAY
- BUILDING OUTLINE
- BUILDING OVERHANG
- EDGE OF PAVEMENT
- STANDARD CURB AND GUTTER
- REJECT CURB AND GUTTER
- ASPHALT PAVEMENT
- CONCRETE PAVEMENT
- HEAVY DUTY CONCRETE PAVEMENT
- STORMWATER MANAGEMENT AREA
- SANITARY SEWER
- WATERMAIN
- STORM SEWER
- EXISTING SANITARY SEWER
- EXISTING WATERMAIN
- EXISTING STORM SEWER
- RAILING
- FENCE
- VISION TRIANGLE
- LIGHT POLE (REFER TO PHOTOMETRIC PLAN)
- ADA PARKING SIGN
- BIKE RACK
- ALUMINUM EDGING
- SEED – BIORETENTION MIX
- NATIVE VEGETATIVE MAT
- DECOMPOSED GRANITE FINES
- ROOFTOP PERENNIAL MIX
- DECORATIVE WASHED COBBLES (SEE SITE PLAN)

Cap Materials

- Pavement
- Buildings
- Lined Bioretention Basins/Ponds
- Clean Soil (Sod/Landscape Plantings)
- Clean Soil (Dog Run/Play Area)

GENERAL NOTES

1. REFER TO THE EXISTING CONDITIONS SURVEY FOR EXISTING CONDITIONS NOTES AND LEGEND.
2. ALL WORK IN THE ROW SHALL BE IN ACCORDANCE WITH THE MUNICIPAL STANDARD SPECIFICATIONS FOR PUBLIC WORKS CONSTRUCTION.
3. JSD SHALL BE HELD HARMLESS AND DOES NOT WARRANT ANY DEVIATIONS BY THE OWNER/CONTRACTOR FROM THE APPROVED CONSTRUCTION PLANS THAT MAY RESULT IN DISCIPLINARY ACTIONS BY ANY OR ALL REGULATORY AGENCIES.
4. DRAWING FOR REVIEW – NOT FOR CONSTRUCTION UNLESS OTHERWISE NOTED IN THE TITLE BLOCK.
5. THE LANDSCAPE CONTRACTOR SHALL COORDINATE ALL FINE GRADING AND TOPSOILING WITH GENERAL CONTRACTOR
6. REFER TO "LANDSCAPE DETAILS AND NOTES" SHEET FOR ADDITIONAL DETAILS, NOTES AND SPECIFICATION INFORMATION INCLUDING MATERIALS, GUARANTEE AND EXECUTION RELATED TO LANDSCAPE PLAN
7. CONTRACTOR SHALL REVIEW SITE CONDITIONS FOR UTILITY CONFLICTS, DRAINAGE ISSUES, SUBSURFACE ROCK, AND PLANT PLACEMENT CONFLICTS PRIOR TO PLANT INSTALLATION. REPORT ANY CONDITIONS THAT MAY HAVE ADVERSE IMPACT ON PLANTING OPERATIONS TO LANDSCAPE ARCHITECT
8. DO NOT COMMENCE PLANTING OPERATIONS UNTIL ALL ADJACENT SITE IMPROVEMENTS, IRRIGATION INSTALLATION (IF APPLICABLE), AND FINISH GRADING ARE COMPLETE

WISCONSIN KEVIN J. YESKA LA-806 MADISON, WI LANDSCAPE ARCHITECT 06/30/2023

north

SCALE IN FEET
20' 0 20'

DIGGERS HOTLINE
Toll Free (800) 242-8511

JLA ARCHITECTS
MADISON | MILWAUKEE | DENVER
JLA-AP.COM

JLA PROJECT NUMBER: W22-0128-01

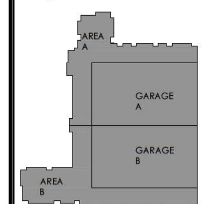
JSD
JSD PROJECT NUMBER: 22-11381

LINCOLN AVENUE CAPITAL

THE VICTORIA AT HUXLEY YARDS

BID SET

NOT FOR CONSTRUCTION



KEY PLAN

PROGRESS DOCUMENTS

These documents reflect progress and intent and may be subject to change, including additional detail. These are not final construction documents and should not be used for final bidding or construction-related purposes.

DATE OF ISSUANCE JUNE 30, 2023

REVISION SCHEDULE

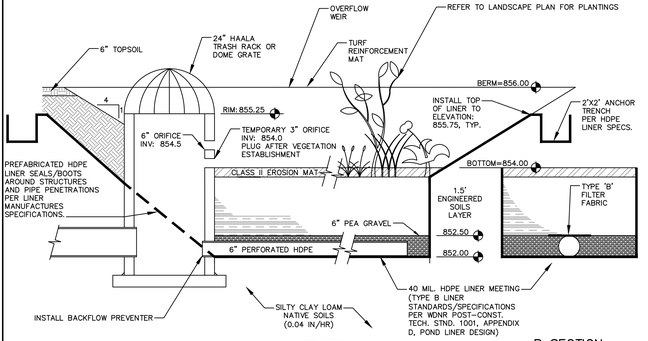
Mark	Description	Date

SHEET TITLE

LANDSCAPE PLAN - OVERALL

SHEET NUMBER

L1.0



A SECTION

B SECTION

THE STORMWATER MANAGEMENT FEATURES CONTAINED WITHIN THIS PLAN SET HAVE BEEN DESIGNED IN ACCORDANCE WITH APPLICABLE STANDARDS SET FORTH IN WISCONSIN DNR NR151 AND LOCAL ORDINANCES. IT IS THE CONTRACTOR'S RESPONSIBILITY TO ENSURE PROPER CONSTRUCTION PRACTICES HAVE BEEN UTILIZED AND THAT STORMWATER MANAGEMENT FEATURES HAVE BEEN CONSTRUCTED IN ACCORDANCE WITH APPROVED DESIGN PLANS. JSD PROFESSIONAL SERVICES, INC. (JSD) SHALL NOT BE LIABLE FOR ANY CONSTRUCTION PRACTICES OR INSTALLATION WHICH DEVIATES FROM THE APPROVED PLAN SET. ONCE THE OWNER HAS PROVIDED FINAL APPROVAL TO THE WORK PERFORMED BY THE CONTRACTOR AND ENSURED COMPLIANCE WITH THE PLAN, IT IS THE OWNER'S RESPONSIBILITY TO MAINTAIN STORMWATER MANAGEMENT FEATURES IN ACCORDANCE WITH THE RECORDED MAINTENANCE AGREEMENT. PROPER OPERATION IS DEPENDENT ON A MULTITUDE OF VARIABLES INCLUDING WEATHER. THESE COMPONENTS REQUIRE ONGOING MAINTENANCE FOR WHICH THE OWNER IS RESPONSIBLE. JSD TAKES NO RESPONSIBILITY FOR PROPER OPERATION OF THE WATER QUALITY COMPONENTS.

SAND STORAGE LAYER: IF NATIVE SOIL INFILTRATION RATES ARE GREATER THAN OR EQUAL TO THE DESIGN SAND LAYER (3.6 IN/HR), NATIVE SOILS MAY BE USED. GEOTECHNICAL CONSULTANT SHALL PROVIDE THIS INFORMATION IN WRITTEN DOCUMENTATION FOR VERIFICATION PRIOR TO CONSTRUCTION.

AS-BUILT SURVEY AND CERTIFICATION: UPON CONSTRUCTION COMPLETION AND STABILIZATION, AN AS-BUILT SURVEY IS TO BE CONDUCTED FOR BASIN AND CERTIFIED BY THE ISSUING ENGINEER. SURVEYOR IS TO CONFIRM THE TEMPORARY 3" ORIFICE IN THE BIORETENTION BASIN OUTLET HAS BEEN PLUGGED AND SEALED. AS-BUILT PLANS ARE TO BE SUBMITTED TO MUNICIPALITY FOR FINAL APPROVAL.

HDPE LINER NOTES:

1. A MINIMUM 6" SUBGRADE LAYER FREE OF ROCKS, DEBRIS, OR OTHER OBJECTS THAT MAY PUNCTURE OR COMPROMISE THE HDPE LINER. SUBGRADE SHALL BE PREPARED WITH A SMOOTH EVEN SURFACE AND COMPACTED WITH A SMOOTH-DRUMMED ROLLER.
2. ALL PENETRATIONS, INCLUDED STRUCTURES AND PIPES SHALL BE SEALED WITH PREFABRICATED WATER-TIGHT BOOTS/SEALS. PREFABRICATED BOOTS/SEALS SHALL BE FUSED TO LINER PER MANUFACTURERS RECOMMENDATIONS.
3. INSTALLATION OF HDPE LINER SHALL BE IN ACCORDANCE WITH PLANS HEREIN., MANUFACTURERS RECOMMENDATIONS, AND WDNR AND NRCS CONSTRUCTION SPECIFICATIONS FOR POND SEALING OR LINING – GEOMEMBRANE OR GEOSYNTHETIC CLAY LINERS (CODE 202 AND 521).
4. ALL LINERS MUST EXTEND ABOVE THE PERMANENT POOL UP TO THE ELEVATION REACHED BY THE 2-YR, 24-HR STORM EVENT. REFER TO NOTED ELEVATIONS.
5. MEDIUM RIPRAP APRONS TO BE PLACED ON A 6" MIN THICK COMPACTED SOIL COVER LAYER ON THE HDPE LINER. REFER TO PLAN FOR LOCATIONS.

GENERAL NOTES:

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2. CONTRACTOR SHALL INSTALL 21" OF ENGINEERED SOIL CONSISTING OF: 85% ASTM C33 SAND, 15% CERTIFIED COMPOST (SEE GENERAL NOTE 3).
3. CERTIFIED COMPOST SHALL CONSIST OF: >40% ORGANIC MATTER, <60% ASH CONTENT, pH OF 6–8, AND MOISTURE CONTENT OF 35–50% BY WEIGHT.
4. SAND/GRAVEL STORAGE LAYER SHALL CONSIST OF SAND OR GRAVEL MATERIAL MEETING THE SPECIFICATIONS IN SECTION V.B.7 OF WDNR TECHINCAL STANDARD 1004.
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6. CONFIRM WITH GEOTECHNICAL ENGINEER THAT THE SILT LOAM SOIL PROFILE HAS BEEN REACHED PRIOR TO BACKFILLING THE BIORETENTION BASIN. DEEP TILL MINIMUM 2 FEET OF NATIVE SOIL TO PROMOTE INFILTRATION.
7. IF ADDITIONAL EXCAVATION IS REQUIRED BELOW THE SAND SOIL PROFILE TO REACH THE LISTED NATIVE SOIL LAYER, THE BACKFILL USED TO RETURN THE BOTTOM OF THE BIORETENTION SYSTEM TO THE BOTTOM OF THE SAND LAYER ELEVATION MUST HAVE AN EQUAL OR HIGHER INFILTRATION RATE THAN THE LISTED NATIVE SOIL LAYER AS CONFIRMED BY A GEOTECHNICAL ENGINEER.
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11. RUNOFF MUST INFILTRATE WITHIN 24-HOURS. BASINS UNABLE TO MAINTAIN THESE RATES MUST BE DEEP TILLED, REGRADED, AND IF NECESSARY REPLANTED TO RESTORE ORIGINAL INFILTRATION RATES.
12. ALL WORK TO BE CONDUCTED IN CONFORMANCE WITH APPLICABLE LOCAL, REGIONAL, AND STATE STORMWATER STANDARDS FOR THE PROJECT SITE AS APPROVED BY THE REGULATORY ENGINEER.
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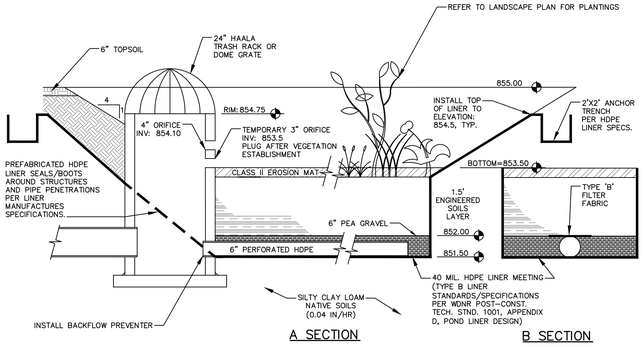
REV. 12-7-2018

BIORETENTION BASIN - NORTH

N.T.S.



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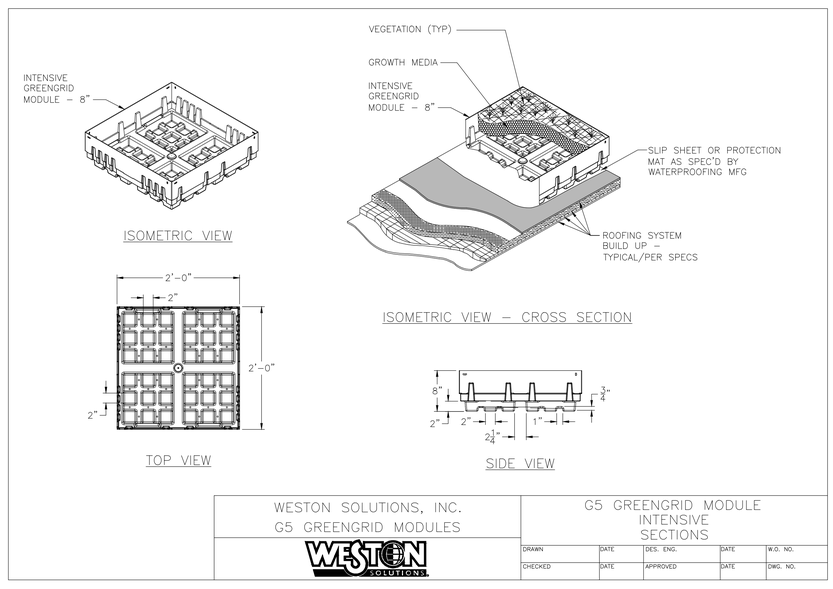
REV. 12-7-2018

BIORETENTION BASIN - WEST

N.T.S.

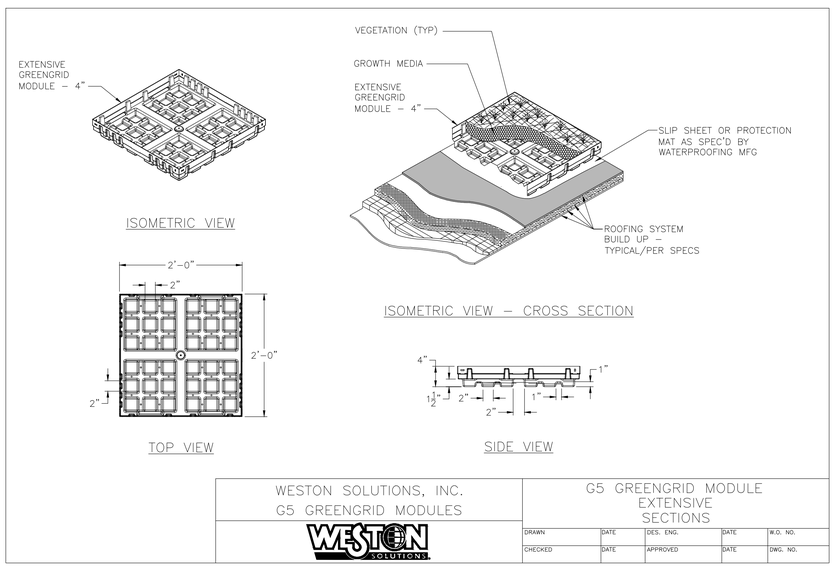


WESTON SOLUTIONS, INC. G5 GREENGRID MODULES	G5 GREENGRID MODULE INTENSIVE SECTIONS				
	DRAWN	DATE	DES. ENG.	DATE	W.O. NO.
	CHECKED	DATE	APPROVED	DATE	DWG. NO.

NOTES:
1. REFER TO ARCHITECTURAL/STRUCTURAL PLANS FOR FINAL GREEN ROOF DETAILS & SECTIONS.
2. GREEN ROOF SECTIONS SHALL HAVE A MINIMUM PLANTING MEDIA DEPTH OF 8" IN ACCORDANCE WITH THE APPROVED STORMWATER MANAGEMENT PLAN.

8" GREEN ROOF SECTION (4TH FLOOR ROOFDECK COURTYARDS)

N.T.S.



WESTON SOLUTIONS, INC. G5 GREENGRID MODULES	G5 GREENGRID MODULE EXTENSIVE SECTIONS				
	DRAWN	DATE	DES. ENG.	DATE	W.O. NO.
	CHECKED	DATE	APPROVED	DATE	DWG. NO.

NOTES:
1. REFER TO ARCHITECTURAL/STRUCTURAL PLANS FOR FINAL GREEN ROOF DETAILS & SECTIONS.
2. GREEN ROOF SECTIONS SHALL HAVE A MINIMUM PLANTING MEDIA DEPTH OF 4" IN ACCORDANCE WITH THE APPROVED STORMWATER MANAGEMENT PLAN.

4" GREEN ROOF SECTION (BUILDING ROOFTOP)

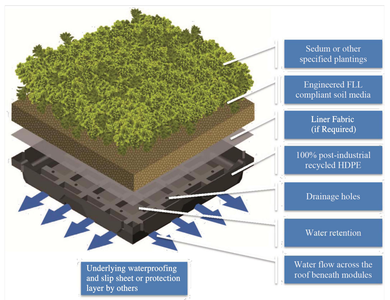
N.T.S.

GreenGrid® Submittal:

G5 System Cutaway

GreenGrid® ROOFS — Engineered to Perform. Designed to Inspire.

The GreenGrid® G5 Green Roof System incorporates all of the various components of a multi-layer green roof system into a simple, self-contained module. The key components are detailed below.



GreenGrid is a registered trademark of Weston Solutions, Inc. (WESTON). The GreenGrid® system is a proprietary technology of WESTON in the U.S. and Canada.
U.S. patents 7,997,027 / 8,505,545
Canadian patents 2,416,457 / 2,416,463 / 2,418,282

888-404-4743
www.GreenGridRoofs.com

DIGGERS HOTLINE
Toll Free (800) 242-8511

JLA ARCHITECTS
MADISON | MILWAUKEE | DENVER
JLA-AP.COM

JLA PROJECT NUMBER: W22-0128-01

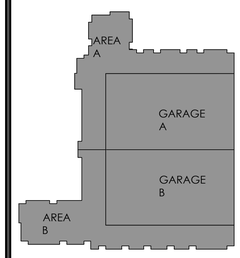
JSD
JSD PROJECT NUMBER: 22-11381

LINCOLN AVENUE CAPITAL

THE VICTORIA AT HUXLEY YARDS

BID SET

NOT FOR CONSTRUCTION



KEY PLAN

PROGRESS DOCUMENTS

These documents reflect progress and intent and may be subject to change, including additional detail. These are not final construction documents and should not be used for final bidding or construction-related purposes.

DATE OF ISSUANCE: JUNE 30, 2023

REVISION SCHEDULE

Mark	Description	Date

SHEET TITLE

DETAILS

SHEET NUMBER

C6.2

LEGEND

- PROPERTY LINE
- RIGHT-OF-WAY
- BUILDING OUTLINE
- BUILDING OVERHANG
- EDGE OF PAVEMENT
- STANDARD CURB AND GUTTER
- REJECT CURB AND GUTTER
- ASPHALT PAVEMENT
- CONCRETE PAVEMENT
- HEAVY DUTY CONCRETE PAVEMENT
- STORMWATER MANAGEMENT AREA
- SANITARY SEWER
- WATERMAIN
- STORM SEWER
- EXISTING SANITARY SEWER
- EXISTING WATERMAIN
- EXISTING STORM SEWER
- FAILING
- FENCE
- VISION TRIANGLE
- LIGHT POLE (REFER TO PHOTOMETRIC PLAN)
- ADA PARKING SIGN
- BIKE RACK
- ALUMINUM EDGING
- SEED – NO-MOW FESCUE
- SEED – BIORETENTION MIX
- NATIVE VEGETATIVE MAT

Cap Materials

- Pavement
- Buildings
- Lined Bioretention Basins/Ponds
- Clean Soil (Sod/Landscape Plantings)
- Clean Soil (Dog Run/Play Area)

GENERAL NOTES

1. REFER TO THE EXISTING CONDITIONS SURVEY FOR EXISTING CONDITIONS NOTES AND LEGEND.
2. ALL WORK IN THE ROW SHALL BE IN ACCORDANCE WITH THE MUNICIPAL STANDARD SPECIFICATIONS FOR PUBLIC WORKS CONSTRUCTION.
3. JSD SHALL BE HELD HARMLESS AND DOES NOT WARRANT ANY DEVIATIONS BY THE OWNER/CONTRACTOR FROM THE APPROVED CONSTRUCTION PLANS THAT MAY RESULT IN DISCIPLINARY ACTIONS BY ANY OR AL. REGULATORY AGENCIES.
4. DRAWING FOR REVIEW – NOT FOR CONSTRUCTION UNLESS OTHERWISE NOTED IN THE TITLE BLOCK.
5. THE LANDSCAPE CONTRACTOR SHALL COORDINATE ALL FINE GRADING AND TOPSOILING WITH GENERAL CONTRACTOR.
6. REFER TO "LANDSCAPE DETAILS AND NOTES" SHEET FOR ADDITIONAL DETAILS, NOTES AND SPECIFICATION INFORMATION INCLUDING MATERIALS, GUARANTEE AND EXECUTION RELATED TO LANDSCAPE PLAN
7. CONTRACTOR SHALL REVIEW SITE CONDITIONS FOR UTILITY CONFLICTS, DRAINAGE ISSUES, SUBSURFACE ROCK, AND PLANT PLACEMENT CONFLICTS PRIOR TO PLANT INSTALLATION. REPORT ANY CONDITIONS THAT MAY HAVE ADVERSE IMPACT ON PLANTING OPERATIONS TO LANDSCAPE ARCHITECT
8. DO NOT COMMENCE PLANTING OPERATIONS UNTIL ALL ADJACENT SITE IMPROVEMENTS, IRRIGATION INSTALLATION (IF APPLICABLE), AND FINISH GRADING ARE COMPLETE.

06/30/2023

north

SCALE IN FEET
20' 0 20'

DIGGERS HOTLINE
Toll Free (800) 242-8511

JLA ARCHITECTS
MADISON | MILWAUKEE | DENVER
JLA-AP.COM

JLA PROJECT NUMBER: W22-0128-02

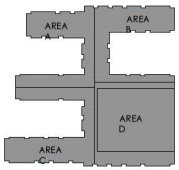
JSD
JSD PROJECT NUMBER: 22-11381

LINCOLN AVENUE CAPITAL

THE VIEW AT HUXLEY YARDS

BID SET

NOT FOR CONSTRUCTION



KEY PLAN

PROGRESS DOCUMENTS

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DATE OF ISSUANCE JUNE 30, 2023

REVISION SCHEDULE

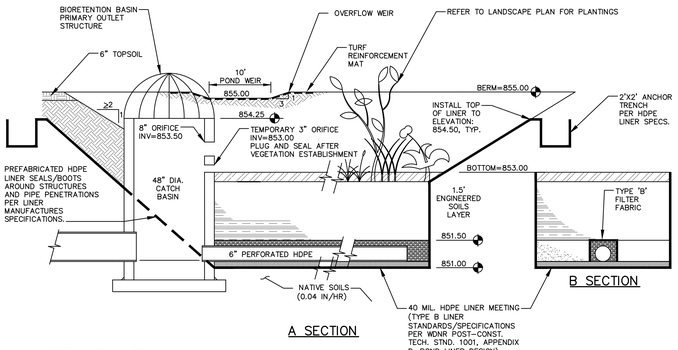
Mark	Description	Date

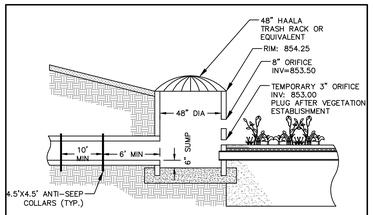
SHEET TITLE

LANDSCAPE PLAN - OVERALL

SHEET NUMBER

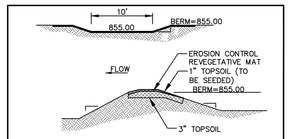
L1.0





BIORETENTION BASIN PRIMARY OUTLET STRUCTURE DETAIL

N.T.S.



BIORETENTION BASIN EMERGENCY OVERFLOW WEIR DETAIL

N.T.S.

HDPE LINER NOTES:

1. A MINIMUM 6" SUBGRADE LAYER FREE OF ROCKS, DEBRIS, OR OTHER OBJECTS THAT MAY PUNCTURE OR COMPROMISE THE HDPE LINER. SUBGRADE SHALL BE PREPARED WITH A SMOOTH EVEN SURFACE AND COMPACTED WITH A SMOOTH-DRUMMED ROLLER.
2. ALL PENETRATIONS, INCLUDED STRUCTURES AND PIPES SHALL BE SEALED WITH PREFABRICATED WATER-TIGHT BOOTS/SEALS. PREFABRICATED BOOTS/SEALS SHALL BE FUSED TO LINER PER MANUFACTURERS RECOMMENDATIONS.
3. INSTALLATION OF HDPE LINER SHALL BE IN ACCORDANCE WITH PLANS HEREIN., MANUFACTURERS RECOMMENDATIONS, AND WDNR AND NRCS CONSTRUCTION SPECIFICATIONS FOR POND SEALING OR LINING – GEOMEMBRANE OR GEOSYNTHETIC CLAY LINERS (CODE 202 AND 521).
4. ALL LINERS MUST EXTEND ABOVE THE PERMANENT POOL UP TO THE ELEVATION REACHED BY THE 2-YR, 24-HR STORM EVENT. REFER TO NOTED ELEVATIONS.
5. MEDIUM RIPRAP APRONS TO BE PLACED ON A 6" MIN THICK COMPACTED SOIL COVER LAYER ON THE HDPE LINER. REFER TO PLAN FOR LOCATIONS.

GENERAL NOTES:

1. ALL CONSTRUCTION PRACTICES SHALL MEET THE SPECIFICATIONS OF THE WDNR TECHNICAL STANDARD 1004 – BIORETENTION FOR INFILTRATION. IT IS THE CONTRACTOR'S RESPONSIBILITY TO OBTAIN A COPY OF THIS STANDARD AND CONSTRUCT THE BIORETENTION DEVICE IN ACCORDANCE WITH THE REQUIREMENTS OUTLINED THEREIN.
2. CONTRACTOR SHALL INSTALL 18" OF ENGINEERED SOIL CONSISTING OF: 85% ASTM C33 SAND, 15% CERTIFIED COMPOST (SEE GENERAL NOTE 3).
3. CERTIFIED COMPOST SHALL CONSIST OF: >40% ORGANIC MATTER, <60% ASH CONTENT, pH OF 6-8, AND MOISTURE CONTENT OF 35-50% BY WEIGHT.
4. SAND/GRAVEL STORAGE LAYER SHALL CONSIST OF SAND OR GRAVEL MATERIAL MEETING THE SPECIFICATIONS IN SECTION V.B.7 OF WDNR TECHNICAL STANDARD 1004.
5. SAND/NATIVE SOIL INFILTRATION LAYER SHALL BE FORMED BY A LAYER OF SAND 3 INCHES DEEP, WHICH IS VERTICALLY MIXED WITH THE NATIVE SOIL TO A DEPTH OF 2-4 INCHES.
6. CONFIRM WITH GEOTECHNICAL ENGINEER THAT THE SILT LOAM SOIL PROFILE HAS BEEN REACHED PRIOR TO BACKFILLING THE BIORETENTION BASIN. DEEP TILL MINIMUM 2 FEET OF NATIVE SOIL TO PROMOTE INFILTRATION.
7. IF ADDITIONAL EXCAVATION IS REQUIRED BELOW THE SAND SOIL PROFILE TO REACH THE LISTED NATIVE SOIL LAYER, THE BACKFILL USED TO RETURN THE BOTTOM OF THE BIORETENTION SYSTEM TO THE BOTTOM OF THE SAND LAYER ELEVATION MUST HAVE AN EQUAL OR HIGHER INFILTRATION RATE THAN THE LISTED NATIVE SOIL LAYER AS CONFIRMED BY A GEOTECHNICAL ENGINEER.
8. FILTER FABRIC SHALL BE PLACED ABOVE AND ON THE SIDES OF THE PERFORATED PIPE, BETWEEN THE PEA GRAVEL AND THE ENGINEERED SOIL, A WIDTH OF 4 FEET CENTERED OVER THE FLOW LINE OF THE PIPE.
10. ANNUAL RYE GRASS SHALL BE SEEDED AT 40 LB/ACRE WITH THE SEED MIX IN THE AREAS SURROUNDING THE BASIN, ON SIDE SLOPES, AND OVER ANY LAND THAT DISCHARGES INTO THE BASIN FOR EROSION CONTROL WHEN BASIN IS BROUGHT ON-LINE. ROOTSTOP AND PLUGS ARE REQUIRED TO ESTABLISH VEGETATION AT THE INVERT OF THE BASIN.
11. RUNOFF MUST INFILTRATE WITHIN 24-HOURS. BASINS UNABLE TO MAINTAIN THESE RATES MUST BE DEEP TILLED, REGRADED, AND IF NECESSARY REPLANTED TO RESTORE ORIGINAL INFILTRATION RATES.
12. ALL WORK TO BE CONDUCTED IN CONFORMANCE WITH APPLICABLE LOCAL, REGIONAL, AND STATE STORMWATER STANDARDS FOR THE PROJECT SITE AS APPROVED BY THE REGULATORY ENGINEER.
13. SEE LANDSCAPING PLAN AND CONSULT WITH LANDSCAPE ARCHITECT OR ECOLOGICAL PLANTING AGENCY FOR APPROPRIATE SEED MIX, PLANTS AND PLANTING CONFIGURATIONS.

NOTE:
INFILTRATION DEVICES ARE DESIGNED IN ACCORDANCE WITH THE SPECIFICATIONS OF THE WISCONSIN DEPARTMENT OF NATURAL RESOURCES (WDNR), COUNTY, MUNICIPALITY, AND ENGINEERING STANDARD OF CARE. ALL DESIGNATED INFILTRATION AREAS (e.g. RAIN GARDENS, INFILTRATION BASINS, BIORETENTION DEVICES) SHALL BE FENCED PRIOR TO CONSTRUCTION AND REMAIN UNDISTURBED AND PROTECTED DURING THE CONSTRUCTION OF PROPOSED SITE IMPROVEMENTS. PROPOSED BIORETENTION DEVICES SHALL NOT BE CONSTRUCTED UNTIL THE DEVICE'S CONTRIBUTING WATERSHED AREA MEETS ESTABLISHED VEGETATION REQUIREMENTS SET FORTH WITHIN THE RESPECTIVE WDNR TECHNICAL STANDARDS. IF THE LOCATION OF THE INFILTRATION AREA CONFLICTS WITH CONSTRUCTION STAGING AND/OR CONSTRUCTION TRAFFIC AND IS DISTURBED, COMPACTION MITIGATION WILL BE REQUIRED AT THE CONTRACTOR'S EXPENSE.

THE CONTRACTOR IS REQUIRED TO PROVIDE QUALIFIED STAFF FOR INSPECTION AND OBSERVATION OF THE CONSTRUCTION ACTIVITIES RELATING TO ALL JOB SITE REGULATORY COMPLIANCE INCLUDING THE PROTECTION AND CONSTRUCTION OF ALL STORMWATER MANAGEMENT FEATURES. ANY OBSERVATION OF PLAN OR SITE DISCREPANCIES SHALL BE REPORTED TO THE ENGINEER OF RECORD PRIOR TO CONSTRUCTION.

BIORETENTION BASIN

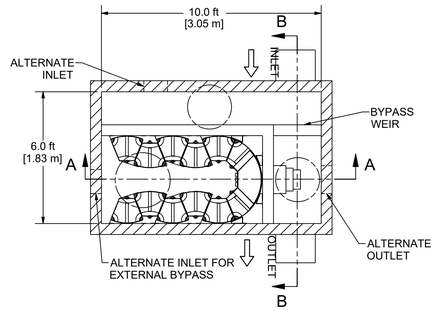
N.T.S.

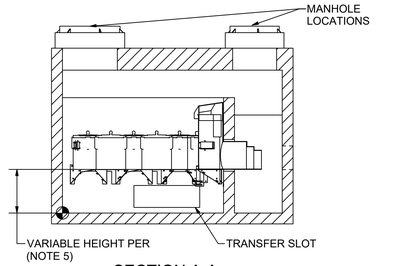
REV. 12-7-2018

THE STORMWATER MANAGEMENT FEATURES CONTAINED WITHIN THIS PLAN SET HAVE BEEN DESIGNED IN ACCORDANCE WITH APPLICABLE STANDARDS SET FORTH IN WISCONSIN DNR NR151 AND LOCAL ORDINANCES. IT IS THE CONTRACTOR'S RESPONSIBILITY TO ENSURE PROPER CONSTRUCTION PRACTICES HAVE BEEN UTILIZED AND THAT STORMWATER MANAGEMENT FEATURES HAVE BEEN CONSTRUCTED IN ACCORDANCE WITH APPROVED DESIGN PLANS. JSD PROFESSIONAL SERVICES, INC. (JSD) SHALL NOT BE LIABLE FOR ANY CONSTRUCTION PRACTICES OR INSTALLATION WHICH DEVIATES FROM THE APPROVED PLAN SET. ONCE THE OWNER HAS PROVIDED FINAL APPROVAL TO THE WORK PERFORMED BY THE CONTRACTOR AND ENSURED COMPLIANCE WITH THE PLAN, IT IS THE OWNER'S RESPONSIBILITY TO MAINTAIN STORMWATER MANAGEMENT FEATURES IN ACCORDANCE WITH THE RECORDED MAINTENANCE AGREEMENT. PROPER OPERATION IS DEPENDENT ON A MULTITUDE OF VARIABLES INCLUDING WEATHER. THESE COMPONENTS REQUIRE ONGOING MAINTENANCE FOR WHICH THE OWNER IS RESPONSIBLE. JSD TAKES NO RESPONSIBILITY FOR PROPER OPERATION OF THE WATER QUALITY COMPONENTS.

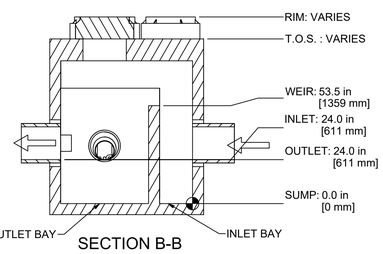
SAND STORAGE LAYER: IF NATIVE SOIL INFILTRATION RATES ARE GREATER THAN OR EQUAL TO THE DESIGN SAND LAYER (3.6 IN/HR), NATIVE SOILS MAY BE USED. GEOTECHNICAL CONSULTANT SHALL PROVIDE THIS INFORMATION IN WRITTEN DOCUMENTATION FOR VERIFICATION PRIOR TO CONSTRUCTION.

AS-BUILT SURVEY AND CERTIFICATION: UPON CONSTRUCTION COMPLETION AND STABILIZATION, AN AS-BUILT SURVEY IS TO BE CONDUCTED FOR BASIN AND CERTIFIED BY THE ISSUING ENGINEER. SURVEYOR IS TO CONFIRM THE TEMPORARY 3" ORIFICE IN THE BIORETENTION BASIN OUTLET HAS BEEN PLUGGED AND SEALED. AS-BUILT PLANS ARE TO BE SUBMITTED TO MUNICIPALITY FOR FINAL APPROVAL.





SECTION A-A



SECTION B-B

CAPACITIES:
- ☐ Minimum performance: 80% removal. Washington DOE/NJCAT verified at the peak treatment flow.
- ☐ Peak treatment flow:
  - .033 CFS (0.9 LPS) (15 GPM) per module (Ribbons)
  - .022 CFS (0.6 LPS) (10 GPM) per module (Long Ribbons)
  - .056 CFS (1.6 LPS) (25 GPM) per module (CPZ)
- ☐ Maximum number of ribbon modules per outlet module: 36
- ☐ Maximum number of CPZ modules per outlet module: 18 (contract Hydro if more are required)

ADDITIONAL DESIGN INFORMATION:
- ☐ Normal operating W.S.E. is 26-30" (660-762mm) above the outlet invert
- ☐ Media Types Available: Ribbons, CPZ

DO NOT SCALE DRAWING
UNLESS OTHERWISE SPECIFIED, DIMENSIONS ARE IN INCHES.
TOLERANCES ARE: FRACTIONS ± 1/16 DECIMALS: X.X ± .06, X.XX ± .03, X.XXX ± .015, ANGLES ± .5°

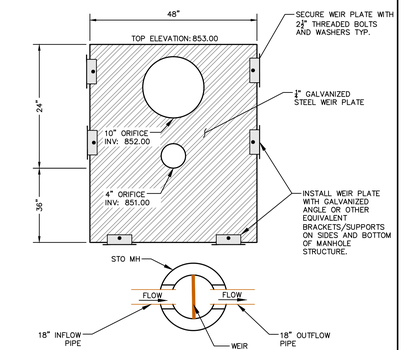
WEIGHT: | MATERIAL:
NEXT ASSEMBLY:
6X10-1
DRAWING NO:
6X10-UFF-1
SHEET SIZE: B | SHEET: 1 OF 1 | Rev: -

PROJECTION

COMMENTS:
1. STRUCTURE WALL AND SLAB THICKNESSES ARE NOT TO SCALE
2. CONTACT HYDRO INTERNATIONAL FOR A BOTTOM OF STRUCTURE ELEVATION PRIOR TO SETTING THE STRUCTURE
3. NOT FOR CONSTURCION CONTACT HYDRO FOR SITE SPECIFIC DRAWING
4. NOT ALL SIZES AVAILABLE IN ALL AREAS
5. SUMP DEPTH AVAILABLE IN 24" (610mm) CPZ, RIBBONS AND 36" (914mm) LONG RIBBONS DEPTH

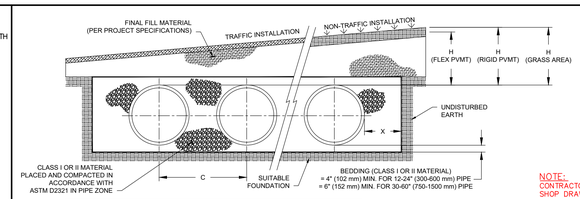
REVISION HISTORY			
REV	BY	DESCRIPTION	DATE
-	ER	FIRST RELEASE	3/8/2019

DATE: 3/8/2019 | SCALE: 1:35
DRAWN BY: ER | CHECKED BY: | APPROVED BY
Title:
UP-FLO FILTER
6ft (1829mm) X 10ft (3048mm)
14 MODULES



STO MH A-5.2.1 AND STO MH B-5.6 WEIR PLATE

N.T.S.



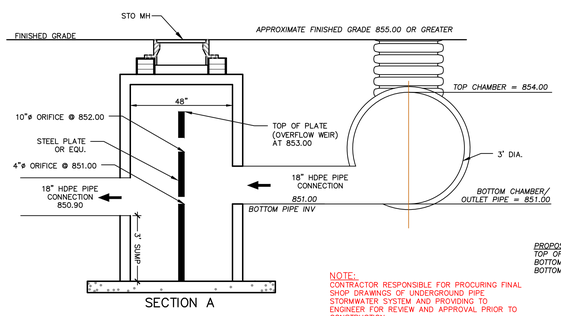
NOMINAL DIAMETER	NOMINAL O.D.	TYPICAL SPACING "C"	TYPICAL SIDE WALL "X"	MIN. H (TRAFFIC)	MAX. H*
36"	42"	63"	18"	12"	8'
48"	54"	78.5"	18"	24"	8'

* MAXIMUM FILL HEIGHTS OVER MANIFOLD FITTINGS. CONTACT MANUFACTURER'S REPRESENTATIVE FOR INSTALLATION CONSIDERATIONS WHEN COVER EXCEEDS 8 FT (2.4 m).

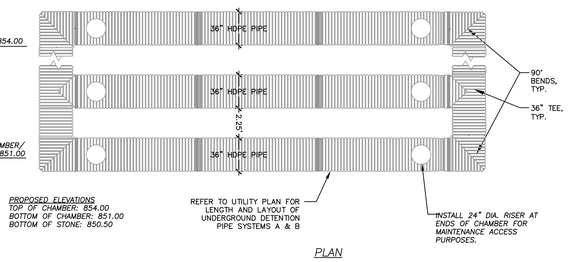
NOTES:
1. ALL REFERENCES TO CLASS I OR II MATERIAL ARE PER ASTM D2321 "STANDARD PRACTICE FOR UNDERGROUND INSTALLATION OF THERMOPLASTIC PIPE FOR SEWERS AND OTHER GRAVITY FLOW APPLICATIONS", LATEST EDITION.
2. ALL RETENTION AND DETENTION SYSTEMS SHALL BE INSTALLED IN ACCORDANCE WITH ASTM D2321, LATEST EDITION AND THE MANUFACTURER'S PUBLISHED INSTALLATION GUIDELINES.
3. MEASURES SHOULD BE TAKEN TO PREVENT THE MIGRATION OF NATIVE FINES INTO THE BACKFILL MATERIAL, WHEN REQUIRED. SEE ASTM D2321.
4. FOUNDATION: WHERE THE TRENCH BOTTOM IS UNSTABLE, THE CONTRACTOR SHALL EXCAVATE TO A DEPTH REQUIRED BY THE ENGINEER AND REPLACE WITH SUITABLE MATERIAL AS SPECIFIED BY THE ENGINEER. AS AN ALTERNATIVE AND AT THE DISCRETION OF THE DESIGN ENGINEER, THE TRENCH BOTTOM MAY BE STABILIZED USING A GEOTEXTILE MATERIAL.
5. BEDDING: SUITABLE MATERIAL SHALL BE CLASS I OR II. THE CONTRACTOR SHALL PROVIDE DOCUMENTATION FOR MATERIAL SPECIFICATION TO ENGINEER. UNLESS OTHERWISE NOTED BY THE ENGINEER, MINIMUM BEDDING THICKNESS SHALL BE 4" (102 mm) FOR 4"-24" (100-600 mm), 6" (152 mm) FOR 30-60" (750-900 mm).
6. INITIAL BACKFILL: SUITABLE MATERIAL SHALL BE CLASS I OR II IN THE PIPE ZONE EXTENDING NOT LESS THAN 6" (152 mm) ABOVE CROWN OF PIPE. THE CONTRACTOR SHALL PROVIDE DOCUMENTATION FOR MATERIAL SPECIFICATION TO ENGINEER. MATERIAL SHALL BE INSTALLED AS REQUIRED IN ASTM D2321, LATEST EDITION.
7. COVER: MINIMUM COVER OVER ALL RETENTION/DETENTION SYSTEMS IN NON-TRAFFIC APPLICATIONS (GRASS OR LANDSCAPE AREAS) IS 12" (305 mm) FROM TOP OF PIPE TO GROUND SURFACE. ADDITIONAL COVER MAY BE REQUIRED TO PREVENT FLOATATION. FOR TRAFFIC APPLICATIONS, MINIMUM COVER IS 12" (305 mm) UP TO 36" (900 mm) DIAMETER PIPE AND 24" (610 mm) OF COVER FOR 42-60" (1050-1500 mm) DIAMETER PIPE, MEASURED FROM TOP OF PIPE TO BOTTOM OF FLEXIBLE PAVEMENT OR TO TOP OF RIGID PAVEMENT. MAXIMUM FILL HEIGHT LIMITED TO 8 FT (2.4 m) OVER FITTINGS FOR STANDARD INSTALLATIONS. CONTACT A SALES REPRESENTATIVE WHEN MAXIMUM FILL HEIGHTS EXCEED 8 FT (2.4 m) FOR INSTALLATION CONSIDERATIONS.

NOTE:
CONTRACTOR RESPONSIBLE FOR PROCURING FINAL SHOP DRAWINGS OF UNDERGROUND PIPE STORMWATER SYSTEM AND PROVIDING TO ENGINEER FOR REVIEW AND APPROVAL PRIOR TO CONSTRUCTION

ADS UNDERGROUND CHAMBER (48" & 36" HDPE PIPE)



SECTION A

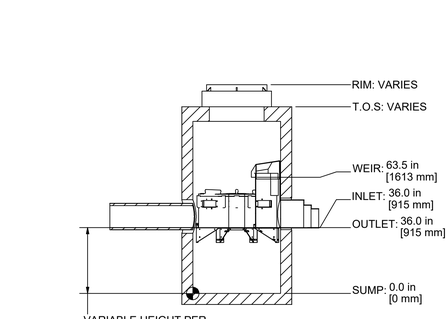


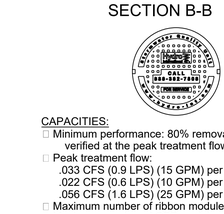
PLAN

NOTE:
CONTRACTOR RESPONSIBLE FOR PROCURING FINAL SHOP DRAWINGS OF UNDERGROUND PIPE STORMWATER SYSTEM AND PROVIDING TO ENGINEER FOR REVIEW AND APPROVAL PRIOR TO CONSTRUCTION

ADS UNDERGROUND DETENTION CHAMBERS SYSTEM A (SW COURTYARD) & SYSTEM B (NE COURTYARD)

NTS





SECTION B-B

SECTION A-A

CAPACITIES:
- ☐ Minimum performance: 80% removal. Washington DOE/NJCAT verified at the peak treatment flow.
- ☐ Peak treatment flow:
  - .033 CFS (0.9 LPS) (15 GPM) per module (Ribbons)
  - .022 CFS (0.6 LPS) (10 GPM) per module (Long Ribbons)
  - .056 CFS (1.6 LPS) (25 GPM) per module (CPZ)
- ☐ Maximum number of ribbon modules per outlet module: 36
- ☐ Maximum number of CPZ modules per outlet module: 18 (contract Hydro if more are required)

ADDITIONAL DESIGN INFORMATION:
- ☐ Normal operating W.S.E. is 26-30" (660-762mm) above the outlet invert
- ☐ Media Types Available: Ribbons, CPZ

DO NOT SCALE DRAWING
UNLESS OTHERWISE SPECIFIED, DIMENSIONS ARE IN INCHES.
TOLERANCES ARE: FRACTIONS ± 1/16 DECIMALS: X.X ± .06, X.XX ± .03, X.XXX ± .015, ANGLES ± .5°

WEIGHT: | MATERIAL:
NEXT ASSEMBLY:
4 MH-1
DRAWING NO:
4 MH-UFF-1
SHEET SIZE: B | SHEET: 1 OF 1 | Rev: -

PROJECTION

COMMENTS:
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3. NOT FOR CONSTURCION CONTACT HYDRO FOR SITE SPECIFIC DRAWING
4. NOT ALL SIZES AVAILABLE IN ALL AREAS
5. SUMP DEPTH AVAILABLE IN 24" (610mm) CPZ, RIBBONS AND 36" (914mm) LONG RIBBONS DEPTH

REVISION HISTORY			
REV	BY	DESCRIPTION	DATE
-	ER	FIRST RELEASE	6/17/2019

DATE: 6/17/2019 | SCALE: NTS
DRAWN BY: ER | CHECKED BY: | APPROVED BY
Title:
UP-FLO FILTER
4ft Manhole

6 MODULES MAX

Sizing Tool

Hydro International
94 Hutchins Drive
Portland, ME 04102
Tel: +1 (207) 756-6200
Fax: +1 (207) 756-6212
hydro-int.com

JLA ARCHITECTS
MADISON | MILWAUKEE | DENVER
JLA-AP.COM

JLA PROJECT NUMBER: W22-0128-02

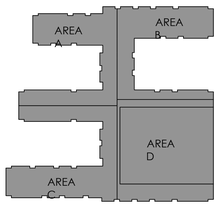
JSD
JSD PROJECT NUMBER: 22-11381

LINCOLN AVENUE CAPITAL

THE VIEW AT HUXLEY YARDS

BID SET

NOT FOR CONSTRUCTION



KEY PLAN

PROGRESS DOCUMENTS

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DATE OF ISSUANCE JUNE 30, 2023

REVISION SCHEDULE

Mark	Description	Date

SHEET TITLE

DETAILS

SHEET NUMBER

C6.2

DIGGERS HOTLINE
Toll Free (800) 242-8511