

Hoopoe Holdings, LLC

April 18, 2025

Deanna Schmidt, AICP
City Planner and Zoning Administrator City of Fitchburg
5520 Lacy Road
Fitchburg, WI 53711

Re: Olive Tree Residences Rimrock Rd., PDD-SIP

Dear Deanna:

On behalf of Hoopoe Holdings, LLC, the property owner, I am pleased to transmit the following information for your staff's review and consideration by the City of Fitchburg. These documents reflect the responses to the questions and comments provided by the City. I am requesting that this project be placed on the May 20, 2025, Planning Commission Agenda for PDD-SIP review and approval.

Please accept the following documents:

Rezoning Application

Erosion Control and Stormwater Management Permit Application

PDD-SIP Narrative

Site Location Aerial Photo Context Exhibit

Preliminary Civil Engineering Overall Site Plan, Sheet C300 Preliminary Civil Engineering Site

Grading Plan, Sheet C400 Preliminary Civil Engineering Site Utility Plan, Sheet C500

Preliminary Landscape Plans, Sheets L100, L-101 & L-200

Homeowners Association Draft Agreement

Unrecorded PDD-GIP and Attachments

Draft Condo Plat

Stormwater Management and Erosion Control Plan

The project design consultants and I look forward to working with the City's staff on this project. Please feel free to contact me with questions and we will work to get the answers and additional information necessary to facilitate the review and approval process.

Sincerely,
HOOPOE HOLDINGS, LLC

Ayesha Liaqat
Ayesha Liaqat, CEO



City of Fitchburg
 Planning/Zoning Department
 5520 Lacy Road
 Fitchburg, WI 53711
 (608-270-4200)

REZONING APPLICATION

The undersigned owner, or owner's authorized agent, of property herein described hereby petitions to amend the zoning district map of the Fitchburg zoning ordinance by reclassifying from the MDR district to the PDD-GIP district the following described property:

1. Location of Property/Street Address: 2735 Rimrock Rd., Section 36 Fitchburg

Legal Description - (Metes & Bounds, or Lot No. And Plat):

Section 36, Fitchburg, Dane County, Wisconsin (Parcel Numbers: 225/0709-363-9330-3 and 225/0709-363-9400-8)

***Also submit in electronic format (MS WORD or plain text) by email to: **planning@fitchburgwi.gov**

2. Proposed Use of Property - Explanation of Request:

Planned Development District (PDD) General Implementation Plan (GIP) with 12 townhomes and 8 single family residential units. The total unit count for the project is 20.

3. Proposed Development Schedule: Construction to commence Summer 2025 following governmental approvals

***Pursuant to Section 22-3(b) of the Fitchburg Zoning Ordinance, all Rezoning shall be consistent with the currently adopted City of Fitchburg Comprehensive Plan.

***Attach three (3) copies of a site plan which shows any proposed land divisions, plus vehicular access points and the location and size of all existing and proposed structures and parking areas. Two (2) of the three (3) copies shall be no larger than 11" x 17". Submit one (1) electronic pdf document of the entire submittal to **planning@fitchburgwi.gov**. Additional information may be requested.

Type of Residential Development (If Applicable): Townhomes and Single family homes

Total Dwelling Units Proposed: 20 **No. Of Parking Stalls:** 20 Garages, 20 Driveways.

Type of Non-residential Development (If Applicable): NA

Proposed Hours of Operation: NA **No. Of Employees:** NA

Floor Area: NA **No. Of Parking Stalls:** 2

Sewer: Municipal Private **Water:** Municipal Private

Current Owner of Property: Hoopoe Holdings LLC

Address: 5029 Saint Annes Dr., Middleton WI 53597 **Phone No:** (408) 797-6671

Contact Person: Ayesha Liaqat

Email: ayesha.liaqat@gmail.com

Address: 5029 Saint Annes Dr., Middleton WI 53597 **Phone No:** (408) 797-6671

Respectfully Submitted By:  **Ayesha Liaqat**
 Owner's or Authorized Agent's Signature Print Owner's or Authorized Agent's Name

PLEASE NOTE - Applicants shall be responsible for legal or outside consultant costs incurred by the City. Submissions shall be made at least four (4) weeks prior to desired plan commission meeting.

For City Use Only: **Date Received:** _____ **Publish:** _____ and _____

Ordinance Section No. _____ **Fee Paid:** _____

Permit Request No. _____



City of Fitchburg

Erosion Control and Stormwater Management Permit Application

Last Revised 12/15/2023

Permit # _____
Start Date: _____
Completion: _____
<i>Office Use Only</i>

Project Name: Olive Tree Residences Latitude/Longitude: 43.031272, -89.380916
Coordinates to 6 decimal digits req'd (e.g. 43.002512, -89.424248)

Site Address: 2735 Rimrock Road Parcel ID(s): 0709-363-9330-3 & 0709-363-9400-8

Landowner Name, Phone & E-mail: Hoopoe Holdings, LLC, 801-824-9617, chadali.law@gmail.com

Landowner Address: 5029 St. Annes Dr., Middleton, WI 53597

Applicant Name, Phone & E-mail: Hoopoe Holdings, LLC, 801-824-9617, chadali.law@gmail.com

Designer Name, Phone & E-mail: Brian Arcand, (608) 838-0444 ext. 3224, barcand@snyder-associates.com

Contractor Name, Phone & E-mail: _____

	Total New Impervious Area added since 8-22-01:	49,821.00 s.f.
Total Disturbed Area (this project):	Total New Impervious Area (this project):	49,821.00 s.f.
Total Redeveloped Area (this project):	Total Impervious Area (after project):	49,821.00 s.f.

Proposed Permit Fee for Plat Projects*

<input type="checkbox"/> Erosion Control Only <small>(check only one)</small> (EC Base Fee = \$200) (EC Amendment Fee = \$100)	<input type="checkbox"/> Erosion Control and Stormwater Management <small>(EC+SWM Base Fee = \$200 + \$400 = \$600)</small> <small>(EC+SWM Amendment Fee = \$300)</small>	<input type="checkbox"/> Stormwater Management Only <small>(SWM Base Fee = \$400)</small> <small>(SWM Amendment Fee = \$200)</small>
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Total Disturbed Area (this project): _____ s.f. x	\$0.005	/ s.f. =	\$ _____
Total New Impervious Area (this project): _____ s.f. x	\$0.010	/ s.f. =	\$ _____
Total Redeveloped Impervious Area (this project): _____ s.f. x	\$0.005	/ s.f. =	\$ _____

Permit fee of \$ _____ received by _____ on _____	Base Fee = \$ _____
<small>name</small>	<small>(see above)</small>
<small>date</small>	Total Permit Fee = \$ 0.00

Make checks payable to "City of Fitchburg." Permit fee must be paid before Dane County review will begin.

Fees DOUBLE if work starts before permit is approved.

Note: Maximum length of permit duration is 3 years from permit start date.

* Plat projects include initial grading and infrastructure construction for plats. Development of individual lots within a plat are not considered "Plat projects" for the purposes of permit fee calculation.

Proposed Permit Fee for non-Plat Projects

<input type="checkbox"/> Erosion Control Only <small>(check only one)</small> (EC Base Fee = \$275) (EC Amendment Fee = \$100) Plus actual costs**	<input checked="" type="checkbox"/> Erosion Control and Stormwater Management <small>(EC+SWM Base Fee = \$450)</small> <small>(EC+SWM Amendment Fee = \$100)</small> Plus actual costs**	<input type="checkbox"/> Stormwater Management Only <small>(SWM Base Fee = \$375)</small> <small>(SWM Amendment Fee = \$100)</small> Plus actual costs**
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**In addition, the applicant shall pay the actual costs incurred by the City from any consultant or agent with whom the City may contract to provide services relating to the administration of this Code. The City shall bill the applicant for such charges, which shall be paid within thirty (30) days. Any unpaid charges shall be assessed to the subject property as a special charge pursuant to Wis. Stats. 66.0627 and placed on the tax roll.

Make checks payable to "City of Fitchburg." Permit fee must be paid before Dane County review will begin.

Base fee DOUBLES if work starts before permit is approved.

Landowner or Applicant Signature: *Ayesha Liagat* Date: 4/11/2025

Reviewed by: _____ Date: _____

Conditionally Approved by City Engineer: _____ Date: _____

Submit 1 electronic copy of Permit Application, Report, and Plans (11"x17" max. size) to: bakha.yunusov@fitchburgwi.gov, ben.schulte@fitchburgwi.gov, and Mergen.Elliott@countyofdane.com. Submit permit fee to: Fitchburg Public Works Department, Attn: Environmental Engineer, 5520 Lacy Road, Fitchburg, WI 53711.

The following permit conditions are in addition to Conditions 1-4 listed on Page 1 of this permit.

Landowner / Applicant hereby acknowledged / agrees to the following:

1. Landowner / Applicant have reviewed Chapter 30, Article II of the City of Fitchburg Code of Ordinances and agree to follow all necessary requirements.
2. Landowner / Applicant agree to the permit conditions on the bottom of this permit.
3. Landowner / Applicant hereby grant the City of Fitchburg and its agent's permission to enter the project property for inspection and/or curative action.

Landowner / Applicant agree to keep a copy of the approved permit(s) and plan(s) available on the site at all times until final completion.

4. **City R/W Permit** - Landowner/Applicant shall check on whether a Right-of-Way (R/W) permit application is required for construction work within the City R/W. No land disturbance within the R/W is allowed unless a R/W Permit is approved.
5. **Street Access** - Per Fitchburg Chapter 70, Article V s. 70-145 vehicles over 10,000 lbs. gross weight shall use wood curb blocking when mounting or crossing curb & gutter, unless specifically permitted in writing by the City. Gravel & soil curb ramping is expressly prohibited.
6. **WDNR, Army Corps of Engineers, CARPC, etc. Permits** - Landowner/Applicant is responsible for checking with appropriate agencies for determining applicable permits. Copies of any applicable permits must be provided to the City prior to commencing land disturbance.
7. **Property Transfer** - If there is a transfer of property ownership prior to completion of the permit requirements, the permittee must notify the City and coordinate either a new permit application or permit transfer per Fitchburg Chapter 30 Article II 30-26 (f).
8. **Digger's Hotline** - Permittee shall be responsible for calling in all necessary underground utility locates for the construction work, and keeping the locates current/up-to-date. **Digger's Hotline for the area is 1-800-242-8511.**
9. **Traffic Control / Job Site Safety** - Traffic control shall comply with the current edition of the Manual on Uniform Traffic Control Devices (MUTCD). The Permittee and Permittee's Contractor are responsible for all job site safety and shall ensure that they communicate all applicable emergency contact information to the City and County emergency management services (EMS) departments.
10. **Erosion Control** - R/W surfaces shall be thoroughly cleaned before the end of each working day. All inlets, culverts, or other storm sewer structures subject to drainage shall be protected with silt screen protection device specifically designed for that structure. Any deposits of dirt, mud, rock, debris, or other material entering the storm sewer system shall be promptly and thoroughly cleaned out. If not clean by the end of the day, the City reserves the right to coordinate the work and charge back all equipment use and labor deemed necessary by the City to the Permittee. All erosion control measures shall be installed in accordance with the City of Fitchburg Standard Specifications, current edition. The City reserves the right to require additional erosion control measures as conditions warrant.
11. **Restoration** shall be completed as noted in the construction schedule unless otherwise authorized by the City. All public improvements (ie: curb and gutter, sidewalks, driveways, topsoil, vegetative cover, terrace trees, underground utilities, storm water conveyance and detention facilities, etc.) shall be installed and/or restored in accordance with the City of Fitchburg Standard Specifications, current edition.
12. **Construction Schedule Notification** - Permittee shall notify the City within 10 days of initial installation of all erosion control measures to arrange an inspection. No grading or construction work is allowed until the permit is approved and erosion control measures have been put in place and approved by the City. Permittee shall again contact the City a minimum of 2 working days prior to commencing any grading or construction work. Landowner/Applicant shall notify the City of any changes to the construction schedule as work progresses.
13. **Construction Site Erosion Control Inspections** - Contractor shall complete and upload weekly construction site erosion control inspections online using the PermiTrack system (<https://www.mypermitrack.com/sehsvc/login>) until Complete Stabilization is met. City Staff will set up the accounts, project, and provide training as needed to permittee, consultants, and contractors. If the site will be inactive, but stable, for a prolonged period (e.g. winter shutdown, etc.), Contractor may contact the City to request bumping inspection status to "Inactive" so weekly inspections don't need to be done until construction work resumes.
14. **Completion Date / Notice of Stabilization** - The site shall be stabilized by the Completion Date listed on Page 1 of this permit. If the site cannot be stabilized by that date, written notice shall be given to the City along with revised stabilization date, revised Soil Loss spreadsheet(s) and request to extend the Completion Date. If appropriate notification is not given prior to the Completion Date, a new permit application and appropriate fees

must be submitted for any remaining disturbed areas. Within ten days after installation of all practices in the approved erosion control plan and achievement of soil stabilization, the permittee shall notify the City to arrange a confirmation of project completion and stabilization.

15. **Approved Plan Sheets** (Include dates, sheet numbers, revision, etc.):

16. **Special Conditions:**

City of Fitchburg – Erosion Control Application Checklist

Project Name / Location: _____ **Permit #:** _____

Please check the appropriate box: I = Included; N/A = Not Applicable (If "N/A" is checked, an explanation must be entered.)

Plan Requirements (refer to Chapter 30, Article II s. 30-27 (a))		Applicant			Public Works	
		I	N/A	Explanation / Location of Information (Page Number of Attachment)	I	N/A
(1)	Property lines, lot dimensions, and limits of disturbed area.	<input checked="" type="checkbox"/>	<input type="checkbox"/>	C300 & C400		
(2)	Limits of impervious area, including buildings and paved areas	<input checked="" type="checkbox"/>	<input type="checkbox"/>	C400		
(3)	All natural and artificial water features	<input type="checkbox"/>	<input checked="" type="checkbox"/>			
(4)	All erosion control measures to be installed	<input checked="" type="checkbox"/>	<input type="checkbox"/>	C401		
(5)	Cross sections and profiles of road ditches and channels (existing and proposed).	<input type="checkbox"/>	<input checked="" type="checkbox"/>			
(6)	Storm sewer pipes and/or culvert sizes (existing and proposed).	<input checked="" type="checkbox"/>	<input type="checkbox"/>	C500		
(7)	Direction of runoff flow (contours or runoff arrows).	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	C400		
(8)	Watershed size for each contributing drainage area.	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	Stormwater Rpt.		
(9)	Design discharge for ditches and structural measures (flow calculations).	<input checked="" type="checkbox"/>	<input type="checkbox"/>	Stormwater Rpt.		
(10)	Runoff velocities in channels (ft/s).	<input checked="" type="checkbox"/>	<input type="checkbox"/>	Stormwater Rpt.		
(11)	Fertilizer and seeding rates (seed, fertilizer, polymer, mulch, etc.).	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	C602		
(12)	Detailed description and proposed completion schedule of each element of the erosion control plan, including stabilization of ditches and slopes.	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	C401 & C602		
(13)	Show steps and calculations demonstrating the erosion control performance standards under Chapter 30, Article II s. 30-27(c) will be met. Include Soil Loss spreadsheet.	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	Stormwater Rpt.		
(14)	Provisions to prevent mud-tracking off-site onto public thoroughfares during the construction period.	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	C401 (Construction entrance), C700		
(15)	Provisions to disconnect impervious surfaces, where feasible.	<input checked="" type="checkbox"/>	<input type="checkbox"/>	C300		
(16)	Provisions to prevent sediment delivery to, and accumulation in, any proposed or existing stormwater conveyance systems.	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	C401, C602 & C700		
(17)	Copy of permits or approvals by other agencies (e.g. WDNR, Army Corps of Engineers, etc.).	<input checked="" type="checkbox"/>	<input type="checkbox"/>	Will be provided when received.		
(18)	Existing and proposed elevations and contours (NAVD 88)	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	C200 & C400		
(19)	Itemized estimated cost (including labor) for installation of all elements of the erosion control plan.	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	See estimated cost PDF		
(20)	Any other information necessary to reasonably determine the location, nature, and condition of any physical or environmental features of the site.	<input checked="" type="checkbox"/>	<input type="checkbox"/>	Plans		
(21)	Plan Commission Approval (if parcel is 5 acres or more); See Chapter 30, Article II s. 30-32 for details.	<input checked="" type="checkbox"/>	<input type="checkbox"/>	GIP approved, SIP in process		
(22)	Submit completed City of Fitchburg Inspection Form	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	Will be provided when erosion control items are installed		


Indicates plan requirement must always be included

City of Fitchburg – Stormwater Management Application Checklist

Project Name / Location: Olive Tree Residences (2735 Rimrock Road) Permit #: _____

Please check the appropriate box: I = Included; N/A = Not Applicable (If "N/A" is checked, an explanation must be entered.)

*SWM Plan/Report must have P.E. Stamp on Cover Page		Applicant			Public Works	
		I	N/A	Explanation / Location of Information (Page Number of Attachment)	I	N/A
Plan Requirements (refer to Chapter 30, Article II s. 30-27 (a))						
(1)	Narrative describing the proposed project, including implementation schedule of designed practices.	<input checked="" type="checkbox"/>	<input type="checkbox"/>	C300 & C400		
(2)	Identification of the entity responsible for long-term maintenance of the project.	<input checked="" type="checkbox"/>	<input type="checkbox"/>	Stormwater Rpt.		
(3)	Map showing drainage areas for each watershed area.	<input checked="" type="checkbox"/>	<input type="checkbox"/>	Stormwater Rpt.		
(4)	A topographic map of the site location, including the contiguous properties, existing drainage patterns and watercourses affected by the proposed development of the site and the existing vegetative cover	<input checked="" type="checkbox"/>	<input type="checkbox"/>	Stormwater Rpt.		
(5)	Design practices to maintain peak discharge rates for the 1, 2, 10, and 100-year 24-hour storm events. Include a summary table showing the results of the analysis.	<input checked="" type="checkbox"/>	<input type="checkbox"/>	Stormwater Rpt.		
a.	Pre-development peak flow rates	<input checked="" type="checkbox"/>	<input type="checkbox"/>	Stormwater Rpt.		
b.	Post development peak flow rates with no detention	<input checked="" type="checkbox"/>	<input type="checkbox"/>	Stormwater Rpt.		
c.	Post development peak flow rates with detention	<input checked="" type="checkbox"/>	<input type="checkbox"/>	Stormwater Rpt.		
d.	Assumed runoff curve numbers	<input checked="" type="checkbox"/>	<input type="checkbox"/>	Stormwater Rpt.		
e.	Time of concentration used in calculations	<input checked="" type="checkbox"/>	<input type="checkbox"/>	Stormwater Rpt.		
(6)	Complete site plan and specifications.	<input checked="" type="checkbox"/>	<input type="checkbox"/>	Stormwater Rpt.		
a.	Property lines and lot dimensions	<input checked="" type="checkbox"/>	<input type="checkbox"/>	Stormwater Rpt.		
b.	All buildings and outdoor uses, existing and proposed, including all dimensions and setbacks	<input checked="" type="checkbox"/>	<input type="checkbox"/>	Stormwater Rpt.		
c.	All public and private roads, interior roads, driveways and parking lots, showing traffic patterns and type of paving and surfacing material	<input checked="" type="checkbox"/>	<input type="checkbox"/>	Stormwater Rpt.		
d.	All natural and artificial water features	<input type="checkbox"/>	<input checked="" type="checkbox"/>			
e.	Depth to bedrock	<input checked="" type="checkbox"/>	<input type="checkbox"/>	Stormwater Rpt.		
f.	Depth to seasonal high water table	<input checked="" type="checkbox"/>	<input type="checkbox"/>	Stormwater Rpt.		
g.	The extent and location of all soil types as described in the Dane County Soil Survey, slopes exceeding 12%, and areas of natural woodland or prairie	<input checked="" type="checkbox"/>	<input type="checkbox"/>	Stormwater Rpt.		
h.	Existing and proposed elevations (NAVD 88)	<input checked="" type="checkbox"/>	<input type="checkbox"/>	Stormwater Rpt.		
i.	Elevations, sections, profiles, and details as needed to describe all natural and artificial features of the project	<input checked="" type="checkbox"/>	<input type="checkbox"/>	Stormwater Rpt.		
j.	Soil erosion control and overland runoff control measures, including runoff calculations as appropriate	<input checked="" type="checkbox"/>	<input type="checkbox"/>	Stormwater Rpt.		
k.	Detailed construction schedule	<input checked="" type="checkbox"/>	<input type="checkbox"/>	Stormwater Rpt.		
l.	Copies of permits or permit applications required by any other governmental entities or agencies	<input checked="" type="checkbox"/>	<input type="checkbox"/>	Will be provided when received.		
m.	Location of all stormwater management practices	<input checked="" type="checkbox"/>	<input type="checkbox"/>	Stormwater Rpt.		
n.	All existing and proposed drainage features	<input checked="" type="checkbox"/>	<input type="checkbox"/>	Stormwater Rpt.		
o.	The location and area of all proposed impervious surfaces	<input checked="" type="checkbox"/>	<input type="checkbox"/>	Stormwater Rpt.		
p.	The size (ft ²) and limits of the disturbed area	<input checked="" type="checkbox"/>	<input type="checkbox"/>	Stormwater Rpt.		
q.	Any other information necessary to reasonably determine the location, nature and condition of any physical or environmental features	<input checked="" type="checkbox"/>	<input type="checkbox"/>	Stormwater Rpt.		

 Indicates plan requirement must always be included

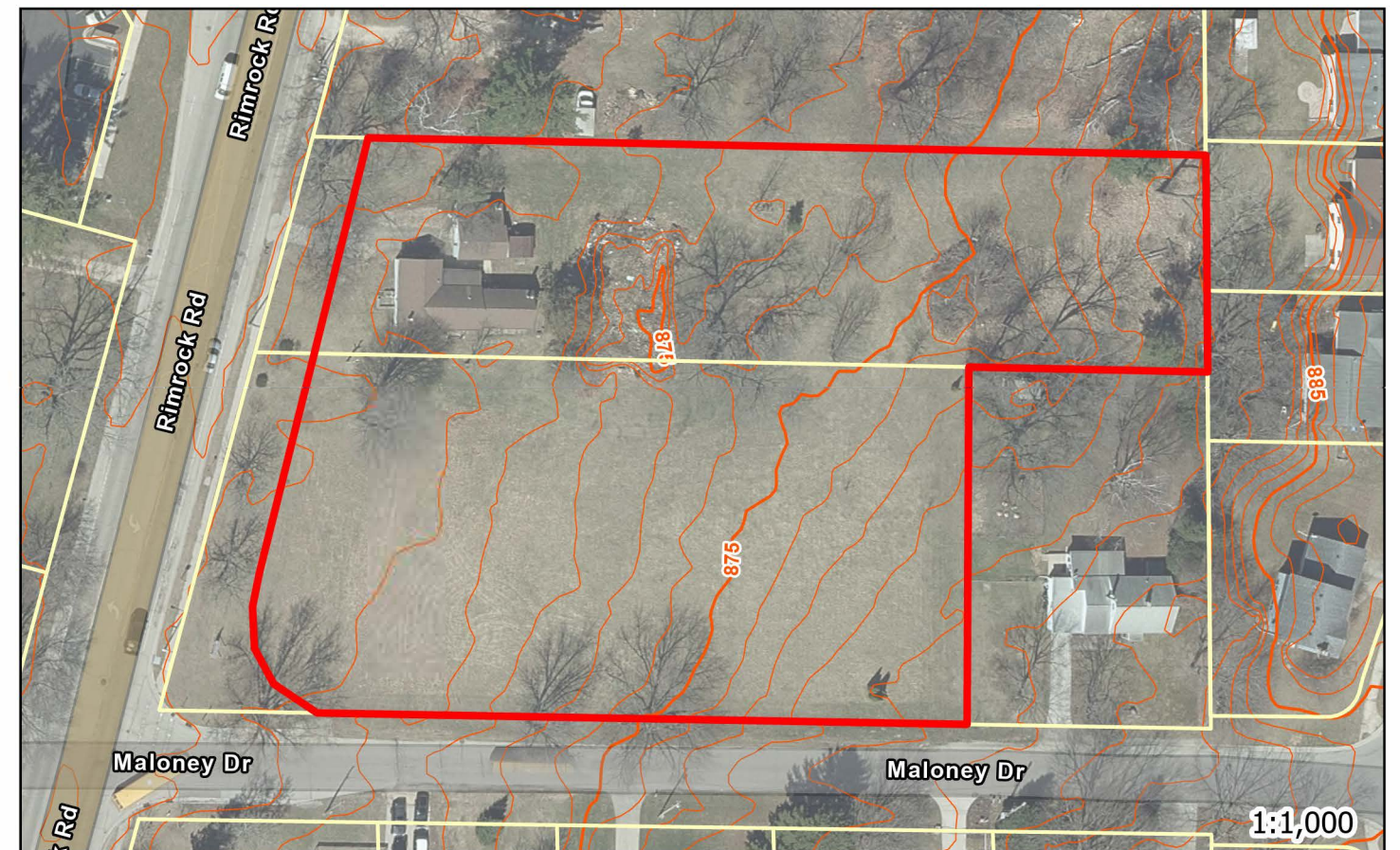
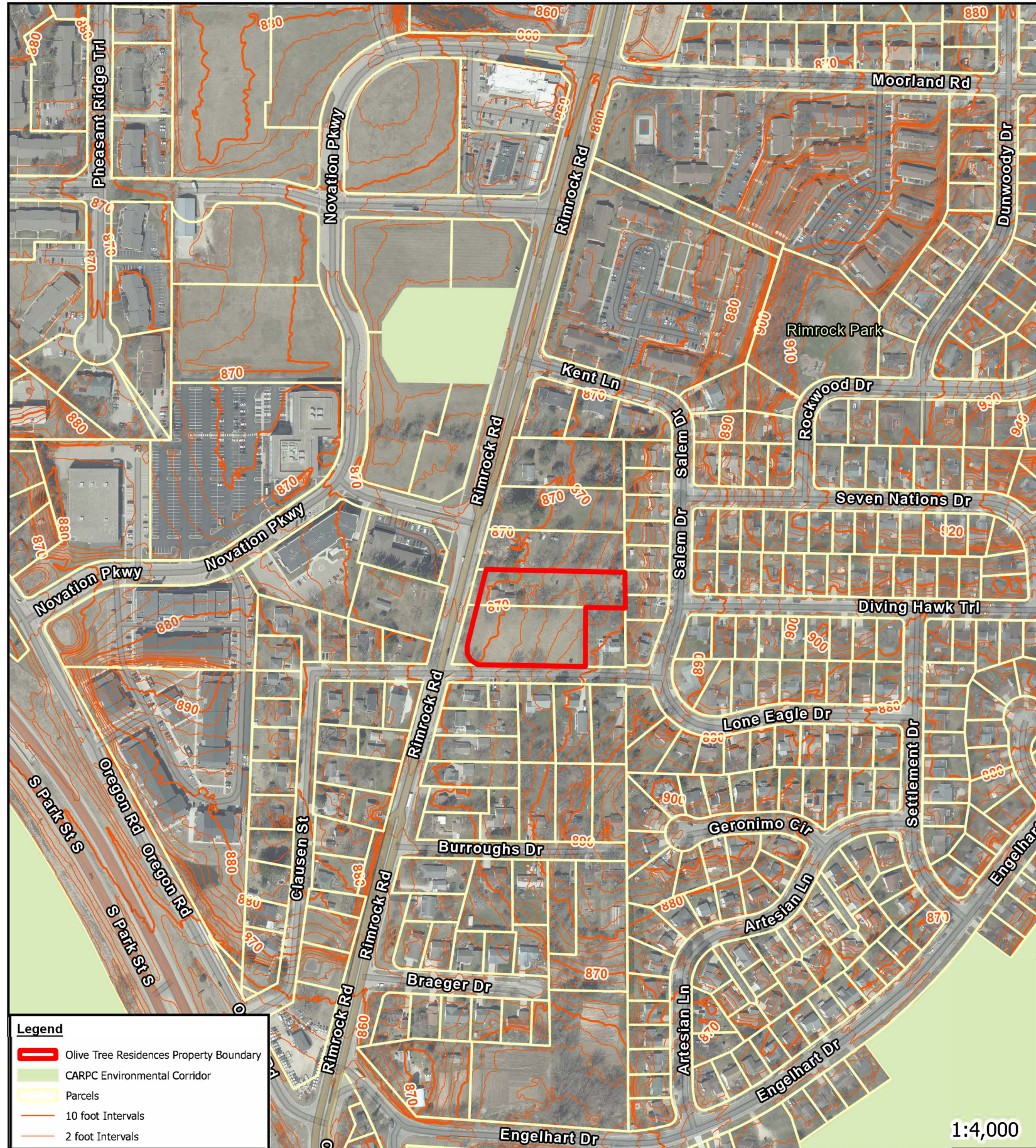
City of Fitchburg – Stormwater Management Application Checklist

Project Name / Location: Olive Tree Residences (2735 Rimrock Road) Permit #: _____

Please check the appropriate box: I = Included; N/A = Not Applicable (If "N/A" is checked, an explanation must be entered.)

(7)	Calculations demonstrating the stormwater management performance standards under Chapter 30, Article II s. 30-28 (b) will be met.	<input checked="" type="checkbox"/>	<input type="checkbox"/>	Stormwater Rpt.		
(8)	Engineered designs for all structural management practices.	<input checked="" type="checkbox"/>	<input type="checkbox"/>	Stormwater Rpt.		
(9)	Description of methods to control oil and grease or written justification for not providing such control.	<input checked="" type="checkbox"/>	<input type="checkbox"/>	Stormwater Rpt.		
(10)	Description and plans to control temperature of runoff.	<input checked="" type="checkbox"/>	<input type="checkbox"/>	Stormwater Rpt.		
(11)	Maintenance plan and schedule for all permanent stormwater management practices.	<input checked="" type="checkbox"/>	<input type="checkbox"/>	Stormwater Rpt.		
(12)	"A summary of infiltration calculations including: predevelopment infiltration volume, calculated infiltration volume goal, achieved post-development infiltration volume.	<input checked="" type="checkbox"/>	<input type="checkbox"/>	Stormwater Rpt.		
(13)	Submit completed City of Fitchburg Inspector Form.	<input checked="" type="checkbox"/>	<input type="checkbox"/>	Will be provided when erosion control items are installed		

Indicates plan requirement must always be included



Site Location Aerial Photo Context Exhibit

April 18, 2025

PDD-SIP

Introduction

The City of Fitchburg, Wisconsin, adopted the Spring 2024 Comprehensive Plan Amendment on April 9, 2024, Amending Map 4.3 Future Land Use Plan Map for properties associated with 2735 Rimrock Road in Section 36, Fitchburg, Dane County, Wisconsin (Parcel Numbers: 225/0709-363-9330-3 and 225/0709-363-9400-8) from Low Density Residential (LDR) to Medium Density Residential (MDR) to allow for the development of twenty (20) residential units with a mix of 12 townhomes and eight (8) single family attached homes.

The community, Olive Tree Residences, will consist of twenty (20) residential units located on 2.272 acres situated at the intersection of Rimrock Rd. and Maloney Drive. It will be a quality residential community serving the increased demand for housing in the Fitchburg area over the next five years and beyond.

A GIP approval was issued in April 2025 for the project and will be recorded soon. This SIP application is substantially in accordance with that GIP approval.

Rational for the PDD

We believe there is a need to take advantage of the option for planned development district zoning for Olive Tree Residences to accomplish the goals of providing a quality infill development and maintain the urban feel desired. Existing standard zoning districts do not allow for the mix of housing types, dimensional standards, unit count, and lot area coverage desired to construct this development. Standards for R-L and R-M districts are the ones most closely aligned to the needs of this PDD.

This will allow flexibility in design and density in the development while ensuring compliance with the basic intent of zoning ordinance and with comprehensive plan. The project size is large enough to allow 20 units and establish coherence of design. The project envisions a higher level of design and amenity to allow space for amenities such as bike and exterior visitor parking as well

as a community area with a small play area for kids and two grilling station areas around the development for community members to socialize.

The planned development district requested for this general implementation plan is proposed to create a single cohesive environment composed of several single-family residential building types, which provide the framework for a viable community of residents, as well as providing access to affordable owner-occupied single family and townhome units.

The planned development was proposed to address the minimum lot sizes and dimensional requirements including front, side and rear setbacks and to address the issue of homes not abutting the Rimrock Rd., Maloney Dr, and maximum lot area coverage. In addition, a central private drive is critical to the proposed development.

To accomplish the PDD zoning goals, in the GIP we proposed the following based on the Fitchburg, Wisconsin Code of Ordinances Title II Land Use and Development Chapter 22 Zoning with the following reasons:

- **Section 22-113 – Permitted Uses:** Only permits the residential occupancy of a two-family attached dwelling unit structure. While the 8 single family attached homes proposed meet that requirement, the other 12 townhome units in blocks of 6 units each do not match that requirement. We feel there is a great need in the area.
- **Section 22-115 – Dimensional Standards:** Sets the minimum front setback (Rimrock Road and Maloney Drive) to 30 feet. To keep with our desire to provide a more urban feel to multi-family residential developments, we propose a minimum 10.2 foot setback for the single family attached units and a 10.7 foot setback for the townhome units.
- **Section 22-58 – Dimensional Standards:** Sets the minimum rear setback (east property line) to 35 feet. To keep with our desire to provide a more urban feel to multi-family residential developments, we propose a minimum 10.9 foot setback for the single family attached units and 35 feet for the townhomes.
- **Section 22-115 – Lot Area Coverage & Buildings:** Sets the maximum lot area coverage and building to 35%. To keep with our desire to provide a more urban feel to multi-family residential developments, we propose a maximum of 50.3%.

While these are the main changes, here is the full list of GIP standards that we requested apply to this PDD which were approved:

- Permitted Uses:
 - Residential occupancy of multi-family attached dwelling unit structures with up to 6 units attached.
 - Limited vocational activities. Residential occupancy also includes limited vocational (household occupations) activities. Permits are not required prior to engaging in such activities, but the standards in Section 22-55(2) apply.
 - Group homes with capacity to accommodate eight or fewer individuals
 - Residential accessory developments and occupancies pursuant to section 22-56 apply in the PDD district, except for the following modifications:
 - 22-56 standard is modified for the PDD:
 - 22-56(4) – No additional parking spaces are allowed besides the ones provided by the development plan which includes 2 stalls inside each unit garage, 2 driveway stalls per unit, plus 3 exterior parking spaces along Arya Way intended for visitor use.
 - 22-56(5) – Patios will be provided for all units. No additional patios, decks, or detached gazebos or screen enclosures are allowed.
 - 22-56(6) standard is not permitted for the PDD.
 - 22-56(7) standard is not permitted for the PDD.
 - 22-56(8) standard is not permitted for the PDD.
 - 22-56(10) – No additional fences are allowed beyond what is provided by the developer along the exterior of the site. The provided fencing adheres to the standards outlined in this standard.
 - 22-56(14) standard is not permitted for the PDD.
- No conditional uses apply
- Setbacks:
 - Front (Rimrock Road and Maloney Drive): 10.7 feet for townhome units and 10.2 feet for attached single family units
 - Side (north property line and Maloney Drive): 6 feet for attached single family units and 8.2 feet for townhome units
 - Rear (east property line): 10.9 feet for attached single family units and 35 feet for the townhome units
- Concrete patios are the only encroachments permitted within building setbacks and only as shown on the site plan.
 - The patio setbacks are as follows:
 - 8.2 feet to the north property line for townhome units,
 - 6.0 feet to the north property line for attached single-family units,
 - 10.9 feet to the east property line for attached single-family units, and
 - 10.2 feet to the south property line for attached single-family units
- ISR: 50.3%
- Open Space: 49.7%

- Parking ratio/Number of spaces:
 - 83 total parking spaces broken down as 40 interior spaces (2 per dwelling unit) and 43 exterior spaces (2 per dwelling unit in the driveways plus 3 off-street exterior stalls shared by the whole development).
- Bike Parking Standards
 - 8 bike parking stalls for the whole development (1 stall per 2.5 dwelling units) located near the development entrances.
- Signage standards will adhere to Ch 26 standards
- Building height: 30 foot maximum for all units
- See site plan for building orientation
- Total Units:
 - 20 total units with 12 units attached townhomes in blocks of 6 units each and 8 units single family attached homes in blocks of 2 units each.

Social and Economic Impacts

When completed, the Olive Tree Residences development will increase the housing stock by twenty homes through attached single family and townhome unit construction. This development is important as issues with suburban sprawl, housing stock, housing affordability and local tax base sources arise.

Upon completion, the development will have an estimated market value as follows:

12 townhome units at approximately \$399,000 each (See Note) =	\$4,788,000
8 single family attached homes at approximately \$499,000 each (See Note) =	<u>\$3,992,000</u>
 Total estimated market value	 \$8,780,000

Note: Estimated market value using City of Fitchburg MLS average sales price listings of active newly built single-family homes and townhome units.

Economic Impacts

We believe that this project will have positive economic & social impacts on the area.

Property Values and Tax Revenue at total completion, it is estimated that this project would have a total value of approximately \$8,780,000. At this value, using the City’s 2024 property tax rate (\$8,780,000 x .017124296) approximately the following tax receipts to the community could be realized annually:

State of Wisconsin Real Estate Property Tax 2024:

Dane County:	\$24,290
City of Fitchburg:	\$50,897
Madison School District:	\$69,251
Madison Area Tech. College:	\$5,914

Total Projected Annual Property Tax: \$150,352 (with credit) or \$166,830 (without credit)

In addition to the value of this specific project, the surrounding properties could realize an increase in values because of this project - thus creating additional tax revenues.

Impact Fees

This project should generate the following estimated Impact Fees to the City (2024 fees listed):

Park Improvement Fee:	\$3,200 (\$160/multifamily dwelling unit)
Fire Protection Fee:	\$9,320 (\$466/multifamily dwelling unit)
Water Impact Fee:	\$12,220 (\$611/condo dwelling unit)

Total Projected Impact Fees: \$24,740

Plus, Permit, Applications, inspections and other fees.

Additionally, per Ordinances 24-2(d)(2)(a) and 24-2(d)(2)(e), there shall be Parkland Dedication & fee in-lieu of per dwelling unit. 20 units x 2,900 sf = 58,000 sf

Fee in lieu of parkland dedication: 20 dwelling units x \$4,330 = \$86,600

Social Impacts

Although the full extent of social impacts cannot fully be predicted or quantified, we believe that this project will also have a positive social impact on the area.

- Improved perception of this neighborhood area as a nicer place to live.
- Provides additional housing options for existing Fitchburg residents as well as newcomers considering moving to the area.
- More residences in this area may spark other business owners to locate retail and commercial offerings nearby with an increased customer base.
- Olive Tree Residences could provide a new blueprint for how future Fitchburg developments could be modeled.
- Provides community gathering spaces around a northcentral community area with a play area and grilling station as well as an additional grilling station near the southern entrance

to the community by the visitor parking to facilitate informal interactions between neighbors instead and outside of the community.

Consistency with the Comprehensive Development Plan

This project remains consistent with the recently approved Medium Density Residential (MDR) land use per the amended City of Fitchburg's Comprehensive Plan for this site. This project is consistent with the overall goals, objectives and policies of the comprehensive plan.

This project is in an Infill Sector. That consists of areas already developed and where appropriate transit service exists. This project will be the construction of new buildings in underutilized or vacant land lots within urban areas. This development is important as issues with suburban sprawl, housing stock, housing affordability and local tax base sources arise.

This project will promote City land use theme that states the need to “develop or redevelop its major corridors, or gateways, in a manner that recognizes their geographical significance and potential economic value and “Place making” capacity.” Fitchburg comprehensive plan. pg. 131. This project will also meet the overall goals, objectives and policies that state the need to promote development of housing to meet forecasted needs, efficient use of land, compact neighborhood, and promote residential development in areas with existing infrastructure and sewer prior to promoting growth at the periphery where new utility and service expansion are needed. Id. pg.32.

The proposed development is on the bus route, easy commute to downtown Madison, convenient access to community facilities, employment centers and arterial highways. It is surrounded by an extensive transportation network i.e., US HWY 12, 14 and 18 (Beltline). The Comprehensive Plan “encourages an overall net neighborhood density that is transit-friendly, promotes to create appropriate transition between higher densities and existing lower density areas, locate housing in areas that are served by full urban services, including sanitary sewers and public water, with convenient access to community facilities, employment centers and arterial highways”. Id. pg. 32-34.

This project complies with the City of Fitchburg's Comprehensive Plan. Specifically, the following is an analysis of how this project meets or advances the goals, objectives, and policies outlined in the Comprehensive Plan – Growing Fitchburg 2030:

Housing Policy Framework Section:

- Goal 1: This project will provide a variety of housing types, decent housing and a suitable living environment for all residents.
 - Objective 1.1: This project will meet forecasted needs.
 - Policy 1.1.1: This will provide an overall net neighborhood density that is transit friendly.
 - Policy 1.1.2: This project will promote a variety of housing options within neighborhoods, including those that provide for diversity in cost, tenure, and type.
 - Policy 1.1.3: This will provide a higher level of owner-occupied housing compared to renter - occupied units within this neighborhood.
 - Policy 1.1.4: Provide housing consistent with the economic opportunities provided within the City.
 - Objective 1.2: Promote the development and preservation of long-term entry-level housing for low to moderate income residents.
 - Policy 1.2.6: Promote opportunities for first time buyers.
 - Policy 1.3.3: Create appropriate transitions between higher densities and existing lower densities.
- Goal 2: This project will be efficient land use for housing.
 - Objective 2.1: This project is a good example of compact neighborhood and development pattern.
 - Policy 2.1.1: This project will Promote Traditional Neighborhood Design (TND) developments to create compactness, efficiency, livability and multi-modal transportation.
 - Policy 2.1.4: The project is a plan for unused and underutilized land in the existing urban service area to promote in-fill development.
 - Policy 2.1.5: This development is at higher but livable densities that will promote wise use of the land resource.
 - Policy 2.1.6: This project will Provide sound sustainable housing design through application of land zoning and architectural review measures.
 - Objective 2.2: This project is in an area with existing infrastructure and sewer.

Resources, Energy & Communications Policy Framework Section:

- Goal 1: This project will protect the natural environment & natural resources Policies:
 - Objective 1.3:
 - Policy 1.3.1: This project will meet all current City storm water control requirements.
 - Policy 1.3.2: This project will meet all current City erosion control requirements.

- Goal 5: Existing urban services will be extended within the urban development boundary area as part of this project. Sewer and water will remain public services.
 - Policy 5.1.4: Our entire project will be served with gravity flow sanitary sewer.

Transportation Policy Framework Section:

- Goal 1: This project is part of a coordinated land use and transportation system.
 - Objective 1.1: This project is a compact, urban development.
 - Policy 1.1.1: This project features buildings closer to the sidewalks, sidewalks throughout the property, street trees, lower parking ratios, and two stall attached garages to each unit.
- Goal 2: This project provides options for walking, biking, bussing, and driving from the site promoting an efficient transportation system.
 - Objective 2.1: This project includes shortened distances for residents and visitors along well-lit areas to reach bus, bike, walking, and driving options increasing safety. Garages are provided for residents to secure vehicles, bicycles, and other personal property to reduce theft.
 - Policy 2.2.2: This project was designed to maximize connectivity with two entrances along major surrounding roadways and sidewalks including one with a bus stop adjacent to the site. The site also has left areas for potential expansion of the road network into adjacent sites if other development occurs offsite in the future.
 - Policy 2.3.4: By increasing bicycle parking options and adding a bench to the bus stop adjacent to the site this project makes this development desirable for residents looking for increased transportation options beyond personal automobiles.
- Goal 3: Bus stop enhancements including a concrete pad for boarding and unloading as well as a bench, connections to sidewalks, and bicycle parking have been provided on this site.
 - Objective 3.1: The internal roads have been designed to slow traffic flow by making a turn between the two streets. No on street parking is allowed providing more space on the road between bicyclists and automobile users.
 - Objective 3.2: Bicycle parking has been provided at both entrances to the development and connections to sidewalks have been provided from the units to promote pedestrian and bicycle transportation options.

In addition, this project advances the following goals from the Southdale Neighborhood Plan:

- Create a compact and connected neighborhood that encourages pedestrian activity without excluding automobiles.
 - This project provides sidewalks along both streets within the development that connect to the sidewalks outside of the development. The roads are 24ft wide so automobiles can still travel through the site at a safe distance from pedestrians.

- Promote a range of transportation options.
 - This project provides opportunities for walking, biking, taking the bus, or driving from the site itself.
- Streets should be designed to promote safe and efficient use by walkers, bikers and drivers.
 - Internal streets are wide enough for drivers and bicyclists to travel next to each other and away from the sidewalk area for pedestrians. Where the two roads meet when making turns, road users will have to slow down to make the turn increasing safety for all users.
- Improve connections within the neighborhood and improve access to underutilized areas.
 - There are two entrances to the neighborhood that connect to the outside neighborhood. The development has been designed to allow for the potential of additional connections outside of the neighborhood in the future. All residences face the internal streets, and the community area is centralized to the site to promote interaction amongst community members.
- Connect the neighborhood to adjacent neighborhoods and the region.
 - See above analysis for the prior goal.

Site Planning Analysis

The development area has no natural or man-made features. Prior to this proposal there was a single family-home on site that has been removed. A few trees and grassy open areas that are not part of an environmental corridor or wetland remain. The townhomes have been located along the west side of the property to provide for a transitional architectural massing between the multistory apartments to the west and the attached single-family houses towards east. The storm water retention to the southwest is consistent with the natural flow of surface water runoff and is in a naturally occurring low lying area of the property. There are Madison Metro bus stops immediately adjacent to the site on the north and south bound sides near the corner of Rimrock Road and Maloney Drive. As part of the proposed development, in coordination with Madison Metro, a 10 foot wide by 5' deep concrete pad for boarding and unloading as well as a bench will be provided at the existing bus stop on the east side of Rimrock Road. In addition, the bus stop will remain open during the site construction process of the development.

The surrounding properties on the eastside are currently designated Low Density Residential. Immediately west of Rimrock Road, the properties are designated Business, high density apartments and townhomes. The current layout of the proposed development with townhome buildings on Rimrock Rd., towards the western portion of the development and attached single-

family homes towards the eastern side of the development fits within the context, fabric and physical character of the neighborhood. This proposed configuration and mix of housing types would not be allowed under existing Chapter 22 zoning districts.

The private drive was designed to improve access to and circulation around the site for vehicles, cyclists, and pedestrians to access the homes. The seemingly “dead end” section of the road running east-west on the eastern portion of the property is designed so that emergency service vehicles like a fire truck have a turn around location in the development. There are sidewalks adjoining the roadways which lead to the residences and connect with the existing City sidewalks and roads. A community area with a small play structure and grilling station is included near the north central area of the development as well as an additional grilling station near the visitor parking near the southern entrance to the community to provide additional amenities for families moving into the development. These community spaces are designed to facilitate neighbors inside and outside of the development to gather and socialize.

In addition, the community area and location of residential units was shifted so that a potential future connection to the property to the north could be established through that community area via a road if another developer chose to work with this development to connect between the two neighborhoods. At the time of submittal, the property owners to the north are not in the process of developing the site and there are no formal agreements outlining a north connection between the two lots.

Organizational Structure

This project will be a typical condominium structure where units will be individually owned, and the common area amenities will be owned and managed by the condominium association. A draft Declaration of Condominium and Bylaws is included in this SIP submittal outlining the specifics of the Association.

Some examples of the common elements include stormwater management, private drive, private sidewalks, cluster mailboxes, off-street parking stalls, and bicycle parking. Maintenance of these areas will be the responsibility of a Homeowner’s Association that the townhome and zero lot line single-family units’ owners will be members of.

In addition, the community area in the northcentral portion of the site with the play area and grilling station as well as the second grilling station near the exterior (visitor) parking spaces at the southern entrance to the community provide additional common elements for residents to share and enjoy.

Project Schedule

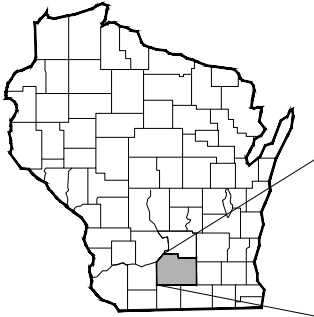
The anticipated schedule for site infrastructure improvements including public and private improvements proposed within the project plan followed by building construction is to begin in summer 2025. The development would be constructed in one phase starting with the public improvements first.

Neighborhood Outreach

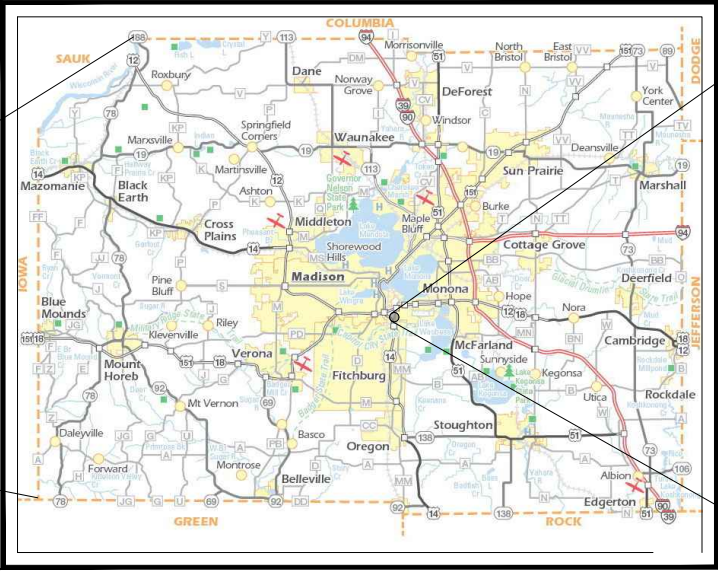
A neighborhood meeting was held on Saturday, January 04, 2025, in regard to the proposed rezoning submittal. The meeting had approximately seven participants. All attendees were supportive of the plans. The neighborhood had previously provided their feedback and support in writing during the comprehensive plan amendment hearing. A second meeting was held on Saturday, February 22, 2025, to discuss the City's comments regarding right of way and update them about recent changes in the plans.

OLIVE TREE RESIDENCES CITY OF FITCHBURG

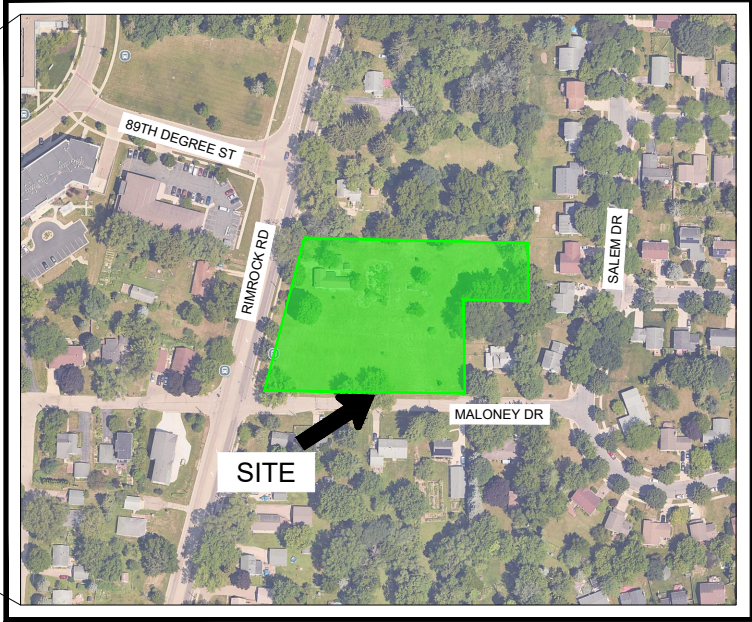
SECTION 11, TOWNSHIP 6N, RANGE 9E



REGIONAL MAP



DANE COUNTY
DANE COUNTY, WISCONSIN



SITE LOCATION MAP
CITY OF FITCHBURG,
DANE COUNTY, WISCONSIN

Sheet List Table

Sheet Number	Sheet Title
C100	TITLE SHEET
C200	EXISTING CONDITIONS & DEMO PLAN
C300	SITE PLAN
C400	GRADING PLAN
C401	EROSION CONTROL PLAN
C402	BASIN DETAILS
C500	UTILITY PLAN
C501	STANFORD WAY PLAN & PROFILE
C502	SUPERIOR WAY PLAN & PROFILE
C503	STORM SEWER PLAN & PROFILE
C504	WATER MAIN PLAN & PROFILE
C600	NOTES
C601	TYPICAL SECTIONS
C602	EROSION CONTROL NOTES
C700	EROSION CONTROL DETAILS
C701	SITE & PAVEMENT DETAILS
C702	SANITARY DETAILS
C703	STORM DETAILS
C704	WATER MAIN DETAILS
L100	LANDSCAPE NOTES
L101	LANDSCAPE DETAILS
L200	PLANTING PLAN

CONTACT INFORMATION

ENGINEER:
SNYDER & ASSOCIATES
BRIAN ARCAND
5010 VOGES ROAD
MADISON, WI 53718
608-838-0444 EXT. 3224

LAND OWNER:
HOOPOE HOLDINGS, LLC
AYESHA LIAQAT
5029 SAINT ANNEES DRIVE
MIDDLETON, WI 53562

ARCHITECT:
CONCEPTS IN ARCHITECTURE, LLC
W125 AMIDON ROAD
BROOKLYN, WI 53521
608-698-3196

CITY OF FITCHBURG:
TIM VOELKER - DIRECTOR OF PUBLIC WORKS
608-270-4261
TRACY FOSS - ASSISTANT DIRECTOR OF PUBLIC WORKS
608-270-4272
5520 LACY RD
FITCHBURG, WI 53711

UTILITY CONTACT INFORMATION

AT&T
CONTACT : LISA GUNDLACH
152 DIXON STREET
MADISON WI 53704
608-252-2006

SPECTRUM
CONTACT : BRANDON STORM
2701 DANIEL STREET
MADISON WI 53718
608-444-9493

MG&E - ELECTRIC
CONTACT : JIM HERFEL
133 BLAIR STREET
MADISON WI 53703
608-252-7224

MG&E - GAS
CONTACT : JANE ROSSING
133 BLAIR STREET
MADISON WI 53703
608-252-7233

UTILITY WARNING

THE UTILITIES SHOWN HAVE BEEN LOCATED FROM FIELD SURVEY INFORMATION AND/OR RECORDS OBTAINED. THE SURVEYOR MAKES NO GUARANTEE THAT THE UTILITIES OR SUBSURFACE FEATURES SHOWN COMPRISE ALL SUCH ITEMS IN THE AREA, EITHER IN SERVICE OR ABANDONED. THE SURVEYOR FURTHER DOES NOT WARRANT THAT THE UTILITIES OR SUBSTANCES FEATURES SHOWN ARE IN EXACT LOCATION INDICATED.



CALL DIGGERS HOTLINE
1-800-242-8511
TOLL FREE

WIS. STATUTE 182.0175 (1974)
REQUIRES MIN. OF 3 WORK DAYS
NOTICE BEFORE YOU EXCAVATE

OLIVE TREE RESIDENCES

TITLE SHEET

CITY OF FITCHBURG, DANE COUNTY, WISCONSIN

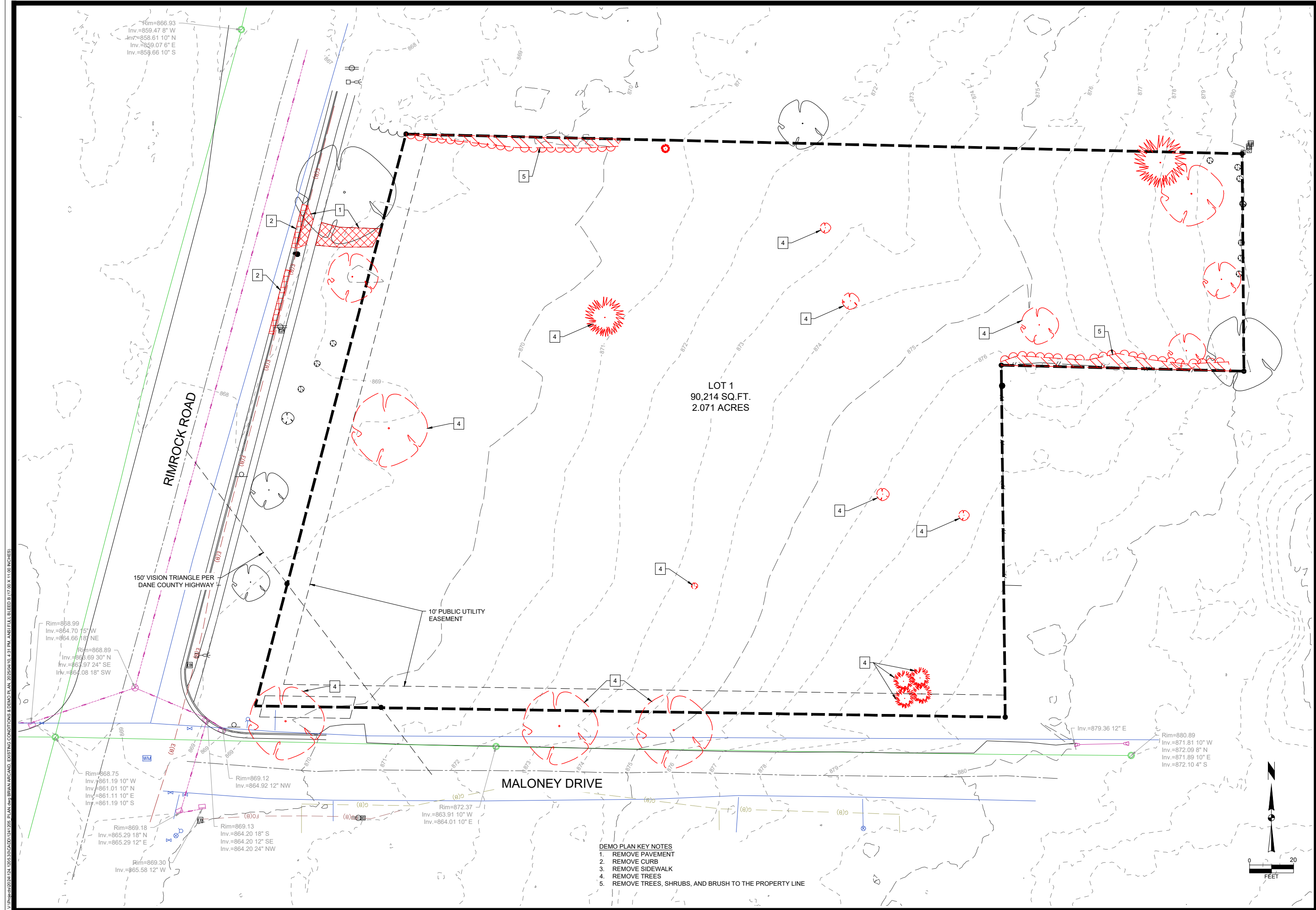
SNYDER & ASSOCIATES, INC.



Project No: 124.1205.30
Sheet **C100**

PIP SUBMITTAL	04-14-25	BCA	
GIP RESUBMITTAL	03-07-25	BCA	
GIP RESUBMITTAL	02-24-25	BCA	
GIP RESUBMITTAL	02-07-25	BCA	
MARK	REVISION	DATE	BY
Engineer: BCA	Checked By: MLC	Scale: 1" = 20'	
Technician: DMS	Date: 11-04-2024	T-R-S: TTN+RRW-SS	
			Sheet C100
			Project No: 124.1205.30

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LOT 1
90,214 SQ.FT.
2.071 ACRES

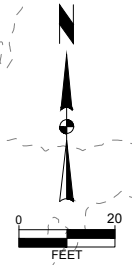
RIMROCK ROAD

150' VISION TRIANGLE PER
DANE COUNTY HIGHWAY

10' PUBLIC UTILITY
EASEMENT

MALONEY DRIVE

- DEMO PLAN KEY NOTES**
1. REMOVE PAVEMENT
 2. REMOVE CURB
 3. REMOVE SIDEWALK
 4. REMOVE TREES
 5. REMOVE TREES, SHRUBS, AND BRUSH TO THE PROPERTY LINE



PIP SUBMITTAL	04-14-25	BCA	MARK	REVISION	DATE	BY
GIP RESUBMITTAL	03-07-25	BCA	Engineer: BCA	Checked By: MLC	Scale: 1" = 20'	
GIP RESUBMITTAL	02-24-25	BCA	Technician: DMS	Date: 11-04-2024	T-R-S: TTN+RRW+SS	
GIP RESUBMITTAL	02-07-25	BCA				

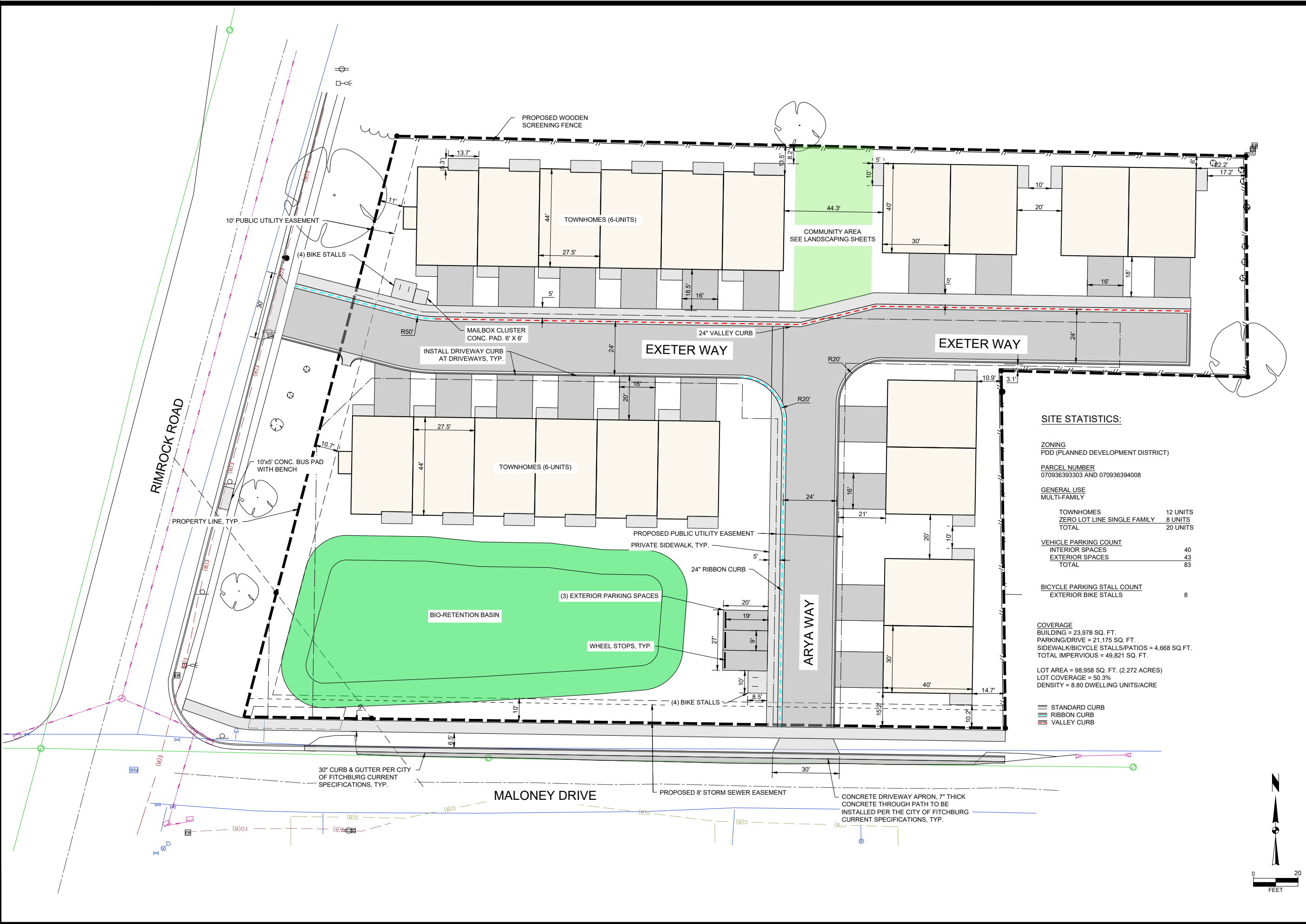
Project No.: 124.1205.30
Sheet C200

OLIVE TREE RESIDENCES
EXISTING CONDITIONS & DEMO PLAN CITY OF FITCHBURG, DANE COUNTY, WISCONSIN
SNYDER & ASSOCIATES, INC.

5010 VOGES ROAD
MADISON, WISCONSIN 53718
608-838-0444 | www.snyder-associates.com

Project No.: 124.1205.30
Sheet C200

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SITE STATISTICS:

ZONING
PDD (PLANNED DEVELOPMENT DISTRICT)

PARCEL NUMBER
070936393303 AND 070936394008

GENERAL USE
MULTI-FAMILY

TOWNHOMES	12 UNITS
ZERO LOT LINE SINGLE FAMILY	8 UNITS
TOTAL	20 UNITS

VEHICLE PARKING COUNT

INTERIOR SPACES	40
EXTERIOR SPACES	43
TOTAL	83

BICYCLE PARKING STALL COUNT

EXTERIOR BIKE STALLS	8
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COVERAGE
 BUILDING = 23,978 SQ. FT.
 PARKING/DRIVE = 21,175 SQ. FT.
 SIDEWALK/BICYCLE STALLS/PATIOS = 4,668 SQ. FT.
 TOTAL IMPERVIOUS = 49,821 SQ. FT.

LOT AREA = 98,958 SQ. FT. (2.272 ACRES)
 LOT COVERAGE = 50.3%
 DENSITY = 8.80 DWELLING UNITS/ACRE

■ STANDARD CURB
 ■ RIBBON CURB
 ■ VALLEY CURB

PIP SUBMITTAL	04-14-25	BCA
GIP RESUBMITTAL	03-07-25	BCA
GIP RESUBMITTAL	02-24-25	BCA
GIP RESUBMITTAL	02-07-25	BCA

MARK	REVISION	DATE	BY
Engineer: BCA	Checked By: MLC	Scale: 1" = 20'	
Technician: DMS	Date: 11-04-2024	T-R-S: TTN+RRW-SS	

Project No.: 124.1205.30

Sheet C300


OLIVE TREE RESIDENCES

CITY OF FITCHBURG, DANE COUNTY, WISCONSIN

SITE PLAN

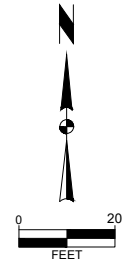
SNYDER & ASSOCIATES, INC.

5010 VOGES ROAD
 MADISON, WISCONSIN 53718
 608-835-0444 | www.snyder-associates.com

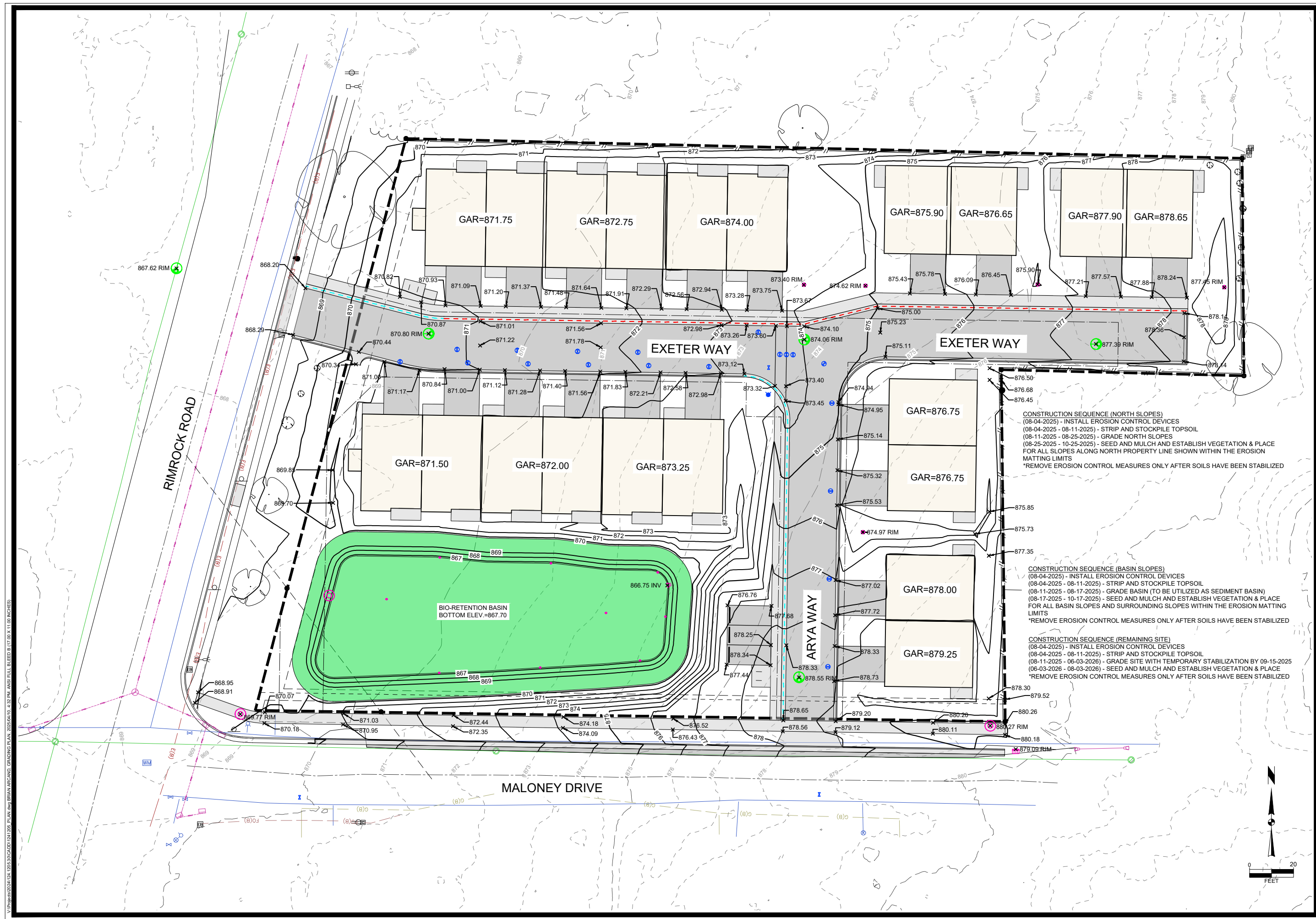

SNYDER & ASSOCIATES

Project No.: 124.1205.30

Sheet C300




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GIP RESUBMITTAL	03-07-25	BCA
GIP RESUBMITTAL	02-24-25	BCA
GIP RESUBMITTAL	02-07-25	BCA
MARK	REVISION	DATE
Engineer: BCA	Checked By: MLC	Scale: 1" = 20'
Technician: DMS	Date: 11-04-2024	T-R-S: TTN+RRW-SS
Project No: 124.1205.30		
Sheet C400		

OLIVE TREE RESIDENCES
GRADING PLAN
 CITY OF FITCHBURG, DANE COUNTY, WISCONSIN
SNYDER & ASSOCIATES, INC.

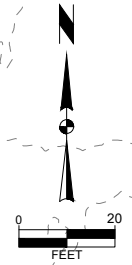


Project No: 124.1205.30
 Sheet C400

CONSTRUCTION SEQUENCE (NORTH SLOPES)
 (08-04-2025) - INSTALL EROSION CONTROL DEVICES
 (08-04-2025 - 08-11-2025) - STRIP AND STOCKPILE TOPSOIL
 (08-11-2025 - 08-25-2025) - GRADE NORTH SLOPES
 (08-25-2025 - 10-25-2025) - SEED AND MULCH AND ESTABLISH VEGETATION & PLACE FOR ALL SLOPES ALONG NORTH PROPERTY LINE SHOWN WITHIN THE EROSION MATTING LIMITS
 *REMOVE EROSION CONTROL MEASURES ONLY AFTER SOILS HAVE BEEN STABILIZED







CONSTRUCTION SEQUENCE (BASIN SLOPES)
 (08-04-2025) - INSTALL EROSION CONTROL DEVICES
 (08-04-2025 - 08-11-2025) - STRIP AND STOCKPILE TOPSOIL
 (08-11-2025 - 08-17-2025) - GRADE BASIN (TO BE UTILIZED AS SEDIMENT BASIN)
 (08-17-2025 - 10-17-2025) - SEED AND MULCH AND ESTABLISH VEGETATION & PLACE FOR ALL BASIN SLOPES AND SURROUNDING SLOPES WITHIN THE EROSION MATTING LIMITS
 *REMOVE EROSION CONTROL MEASURES ONLY AFTER SOILS HAVE BEEN STABILIZED

CONSTRUCTION SEQUENCE (REMAINING SITE)
 (08-04-2025) - INSTALL EROSION CONTROL DEVICES
 (08-04-2025 - 08-11-2025) - STRIP AND STOCKPILE TOPSOIL
 (08-11-2025 - 06-03-2026) - GRADE SITE WITH TEMPORARY STABILIZATION BY 09-15-2025
 (06-03-2026 - 08-03-2026) - SEED AND MULCH AND ESTABLISH VEGETATION & PLACE
 *REMOVE EROSION CONTROL MEASURES ONLY AFTER SOILS HAVE BEEN STABILIZED

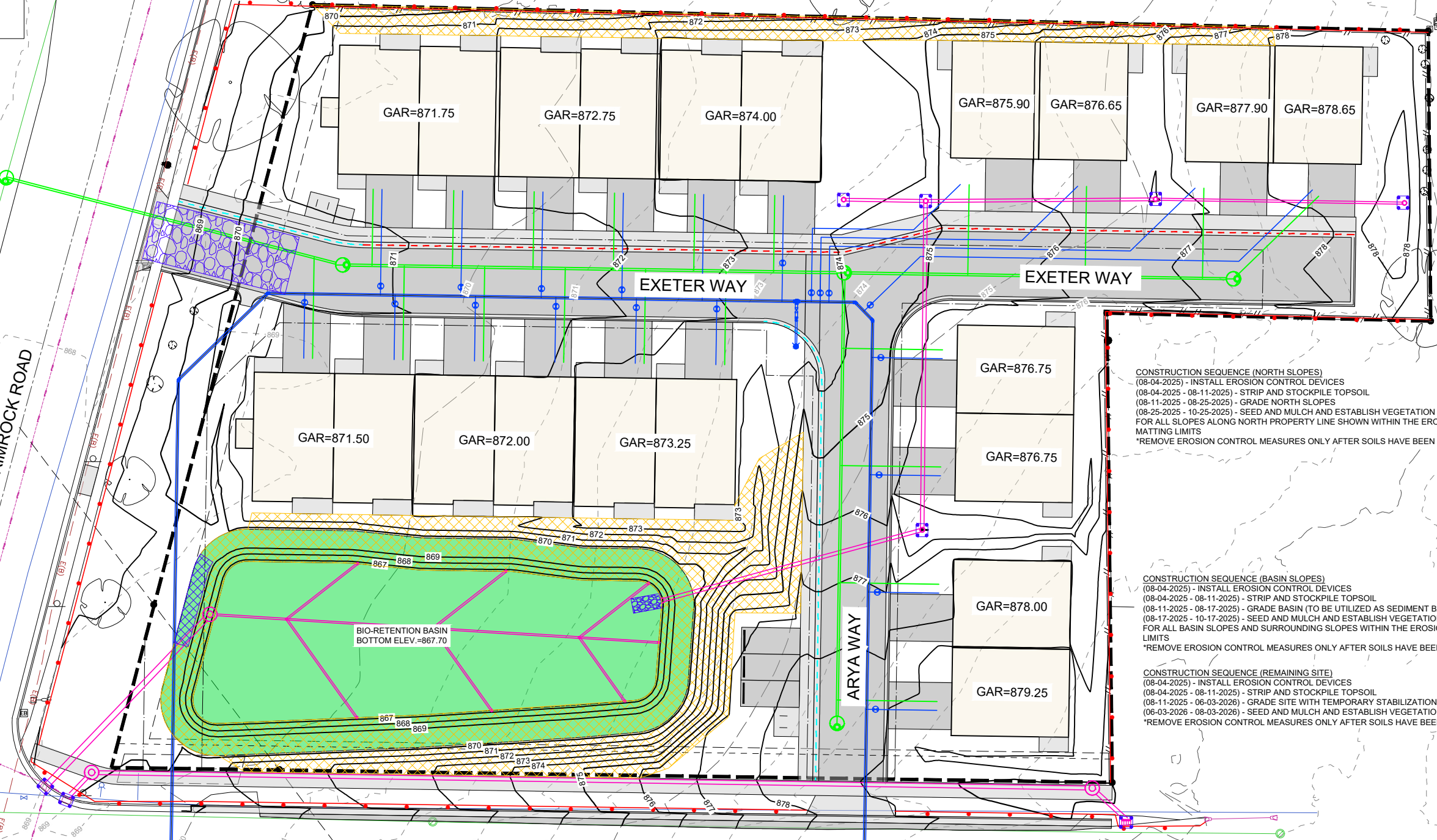


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LEGEND

-  CONSTRUCTION ENTRANCE
-  SILT FENCE
-  INLET PROTECTION
-  EROSION MATTING
-  TURF REINFORCEMENT MAT
-  RIP RAP

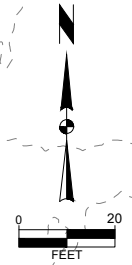
RIMROCK ROAD



CONSTRUCTION SEQUENCE (NORTH SLOPES)
 (08-04-2025) - INSTALL EROSION CONTROL DEVICES
 (08-04-2025 - 08-11-2025) - STRIP AND STOCKPILE TOPSOIL
 (08-11-2025 - 08-25-2025) - GRADE NORTH SLOPES
 (08-25-2025 - 10-25-2025) - SEED AND MULCH AND ESTABLISH VEGETATION & PLACE FOR ALL SLOPES ALONG NORTH PROPERTY LINE SHOWN WITHIN THE EROSION MATTING LIMITS
 *REMOVE EROSION CONTROL MEASURES ONLY AFTER SOILS HAVE BEEN STABILIZED

CONSTRUCTION SEQUENCE (BASIN SLOPES)
 (08-04-2025) - INSTALL EROSION CONTROL DEVICES
 (08-04-2025 - 08-11-2025) - STRIP AND STOCKPILE TOPSOIL
 (08-11-2025 - 08-17-2025) - GRADE BASIN (TO BE UTILIZED AS SEDIMENT BASIN)
 (08-17-2025 - 10-17-2025) - SEED AND MULCH AND ESTABLISH VEGETATION & PLACE FOR ALL BASIN SLOPES AND SURROUNDING SLOPES WITHIN THE EROSION MATTING LIMITS
 *REMOVE EROSION CONTROL MEASURES ONLY AFTER SOILS HAVE BEEN STABILIZED

CONSTRUCTION SEQUENCE (REMAINING SITE)
 (08-04-2025) - INSTALL EROSION CONTROL DEVICES
 (08-04-2025 - 08-11-2025) - STRIP AND STOCKPILE TOPSOIL
 (08-11-2025 - 06-03-2026) - GRADE SITE WITH TEMPORARY STABILIZATION BY 09-15-2025
 (06-03-2026 - 08-03-2026) - SEED AND MULCH AND ESTABLISH VEGETATION & PLACE
 *REMOVE EROSION CONTROL MEASURES ONLY AFTER SOILS HAVE BEEN STABILIZED



MARK	REVISION	DATE	BY
PIP SUBMITTAL	04-14-25	BCA	
GIP RESUBMITTAL	03-07-25	BCA	
GIP RESUBMITTAL	02-24-25	BCA	
GIP RESUBMITTAL	02-07-25	BCA	

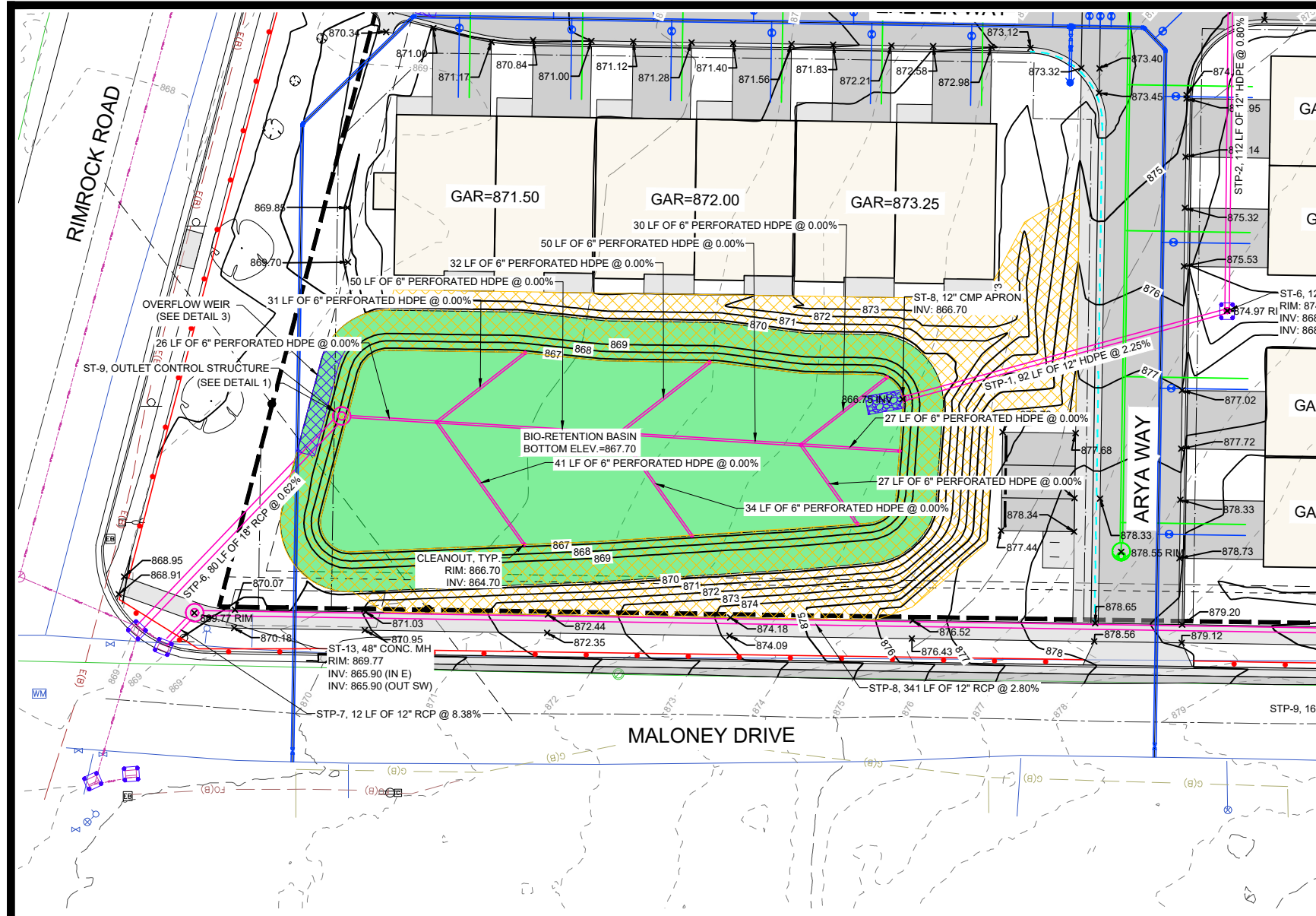
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Technician:	DMS	Date:	11-04-2024
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Project No: 124.1205.30

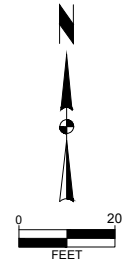
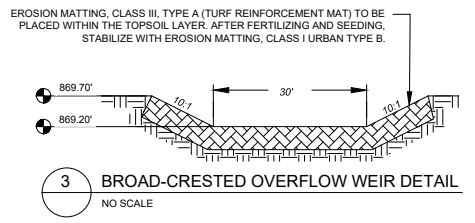
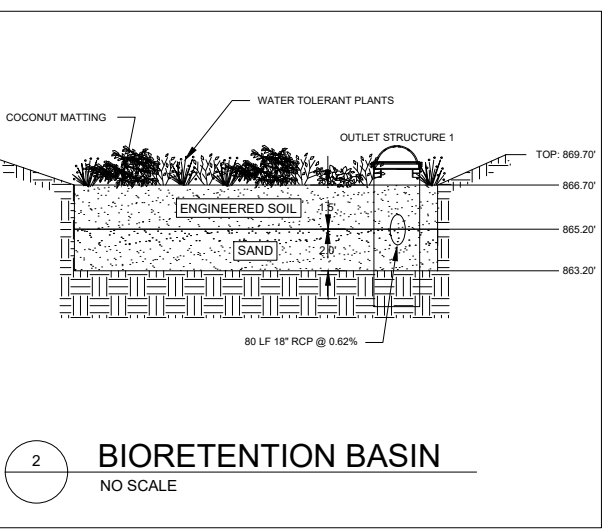
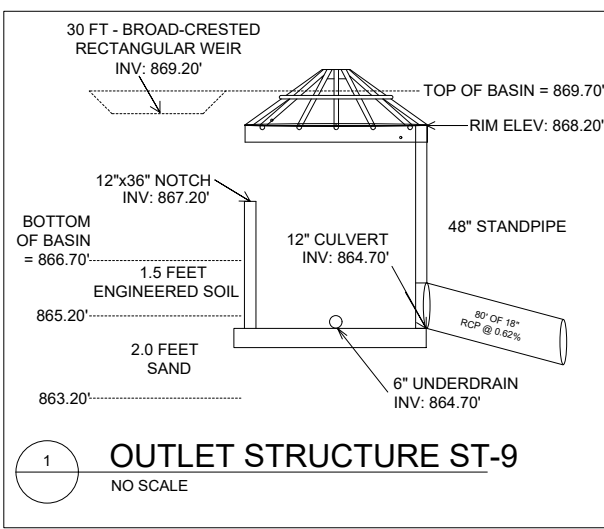
OLIVE TREE RESIDENCES
 EROSION CONTROL PLAN
 CITY OF FITCHBURG, DANE COUNTY, WISCONSIN
SNYDER & ASSOCIATES, INC.



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- BIORETENTION SHALL CONFORM TO WIS. DNR TECH STANDARD 1004.
- ENGINEERED SOIL SHALL CONSIST OF 70%-85% SILICA SAND AND 15%-30% COMPOST WITH A PH OF 5.5-6.5
- BIORETENTION BASINS SHALL BE EXCAVATED AND USED AS SEDIMENT TRAPS DURING CONSTRUCTION. UPON COMPLETION OF CONSTRUCTION AND SITE STABILIZATION, THE BASINS SHALL BE OVER-EXCAVATED 3 FEET MINIMUM AND THEN THE SAND LAYER AND ENGINEERED SOIL SHALL BE PLACED TO WITHIN THREE INCHES OF FINAL GRADE.
- SPECIFIC SPECIES OF PLANTS SHALL BE NATIVE TO THE STATE OF WISCONSIN AND BE ABLE TO WITHSTAND SATURATED SOIL CONDITIONS.
PLANT SPECIES SHALL BE SELECTED FROM THE FOLLOWING LIST:
FORBES: MARSH MILKWEED, HEATH ASTER, NEW ENGLAND ASTER, WILD WHITE INDIGO, SPOTTED JOE PYE WEED, BONESSET PRAIRIE BLAZING STAR, MARSH BLAZING STAR, CARDINAL FLOWER, GREAT BLUE LOBELIA, WILD BERGAMOT, OBEDIENT PLANT, MOUNTAIN MINT, YELLOW CONEFLOWER, BLACK-EYED SUSAN, SWEET BLACK-EYED SUSAN, OHIO GOLDENROD, SPIDERWORT, BLUE VERVAIN AND IRONWEED.
GRASSES, SEDGES & RUSHES: FRINGED BROME, BLUE JOINT GRASS, BEBB'S SEDGE CRAWFORD'S SEDGE FRINGED SEDGE, COMMON FOX SEDGE, CANADA WILD RYE, VIRGINIA WILD RYE, REED MANNA GRASS, SWITCH GRASS, DARK-GREEN BULLRUSH, WOOL GRASS, INDIAN GRASS, PRAIRIE CORD GRASS.
- LIVE PLANTS CAN BE PLANTED IN THE FIELD DURING THE GROWING SEASON FROM MAY 1 THROUGH OCTOBER 1. ANY SUGGESTED PLANTING TIMES NOT IN THIS WINDOW SHALL BE APPROVED BY CONSULTANT OR ENGINEER. IF PLANTING OCCURS OUTSIDE OF THIS WINDOW ADDITIONAL MEASURES MAY NEED TO BE TAKEN (I.E. MULCH) TO ENSURE PLANT SURVIVAL. IN THESE INSTANCES, THE CONTRACT PRICE MAY NEED TO BE ADJUSTED ACCORDINGLY.
- ALL PLANTED MATERIALS WILL BE WARRANTED BY INSTALLATION CONTRACTOR TO BE IN HEALTHY CONDITION WITH A REPLACEMENT GUARANTEE FOR A PERIOD OF ONE YEAR FROM THE DATE OF PLANTING.
- NATIVE PLANTS SHOULD BE WATERED IN AFTER INSTALLATION TO ENSURE THEIR SURVIVAL. THIS TYPICALLY INVOLVES WATERING AT TIME OF INSTALLATION AND 2 TIMES WEEKLY FOR A ONE MONTH PERIOD OR UNTIL GROUND FREEZE UP IF NATURAL RAINFALLS ARE INSUFFICIENT. A SINGLE WATERING EVENT INVOLVES WATERING THE SOIL IN THE PLANTED AREAS TO THE POINT OF SATURATION BUT STOPPING SHORT OF SOIL DISPLACEMENT. SHOULD VERY DRY CONDITIONS DEVELOP WITHIN ONE YEAR OF PLANTING, ADDITIONAL WATERINGS MAY BE NECESSARY. CONSULTANT OR PROJECT ENGINEER WILL DETERMINE THIS AND CONTRACT PRICES MAY BE ADJUSTED TO ACCOMMODATE THIS ACTION.
- PLANTS SHALL BE PLANTED IN THE BIORETENTION AREA AT A MINIMUM OF ONE PLANT PER EVERY SQUARE FOOT.
- UPON COMPLETION OF EXCAVATING & GRADING OPERATIONS, A LOOSE, FRIABLE SEEDBED SHALL BE PREPARED FOR INSTALLATION OF LIVE PLANTS.
- CARE SHALL BE TAKEN TO MINIMIZE SOIL COMPACTION DURING CONSTRUCTION ACTIVITY. BY EXAMPLE OF A STANDARD SOIL PENETROMETER (COMPACTION THE TOPSOIL COMPACTION READINGS SHALL BE LESS THAN 200 PSI AT THE 0-6 INCH DEPTH AND LESS THAN 250 PSI AT THE 6-18 INCH DEPTHS IN ALL AREAS TO BE SEEDED.
- UNDULATIONS OR IRREGULARITIES IN THE PLANTING BED WHICH WOULD INTERFERE WITH A CONSISTENT PLANTING OPERATION SHALL BE LEVELED PRIOR TO FINAL SEEDING.
- FINAL BED SHOULD BE GRADED SUCH THAT THE AREAS TO BE PLANTED CONSIST OF A SMOOTH, FREE DRAINING, EVEN SURFACE WITH A LOOSE POROUS TEXTURE.
- ALL PLANTED MATERIALS WILL BE WARRANTED BY INSTALLATION CONTRACTOR TO BE IN HEALTHY CONDITION WITH A REPLACEMENT GUARANTEE FOR A PERIOD OF ONE YEAR FROM THE DATE OF PLANTING.



PIP SUBMITTAL	04-14-25	BCA	Scale: 1" = 20'	Checked By: MLC Date: 11-04-2024 T-R-S: TTN-RRV-SS
GIP RESUBMITTAL	03-07-25	BCA	BY	
GIP RESUBMITTAL	02-24-25	BCA	REVISION	
GIP RESUBMITTAL	02-07-25	BCA	DATE	
MARK	Engineer: BCA	Technician: DMS	Project No: 124.1205.30	Sheet C402

OLIVE TREE RESIDENCES

CITY OF FITCHBURG, DANE COUNTY, WISCONSIN

SNYDER & ASSOCIATES, INC.

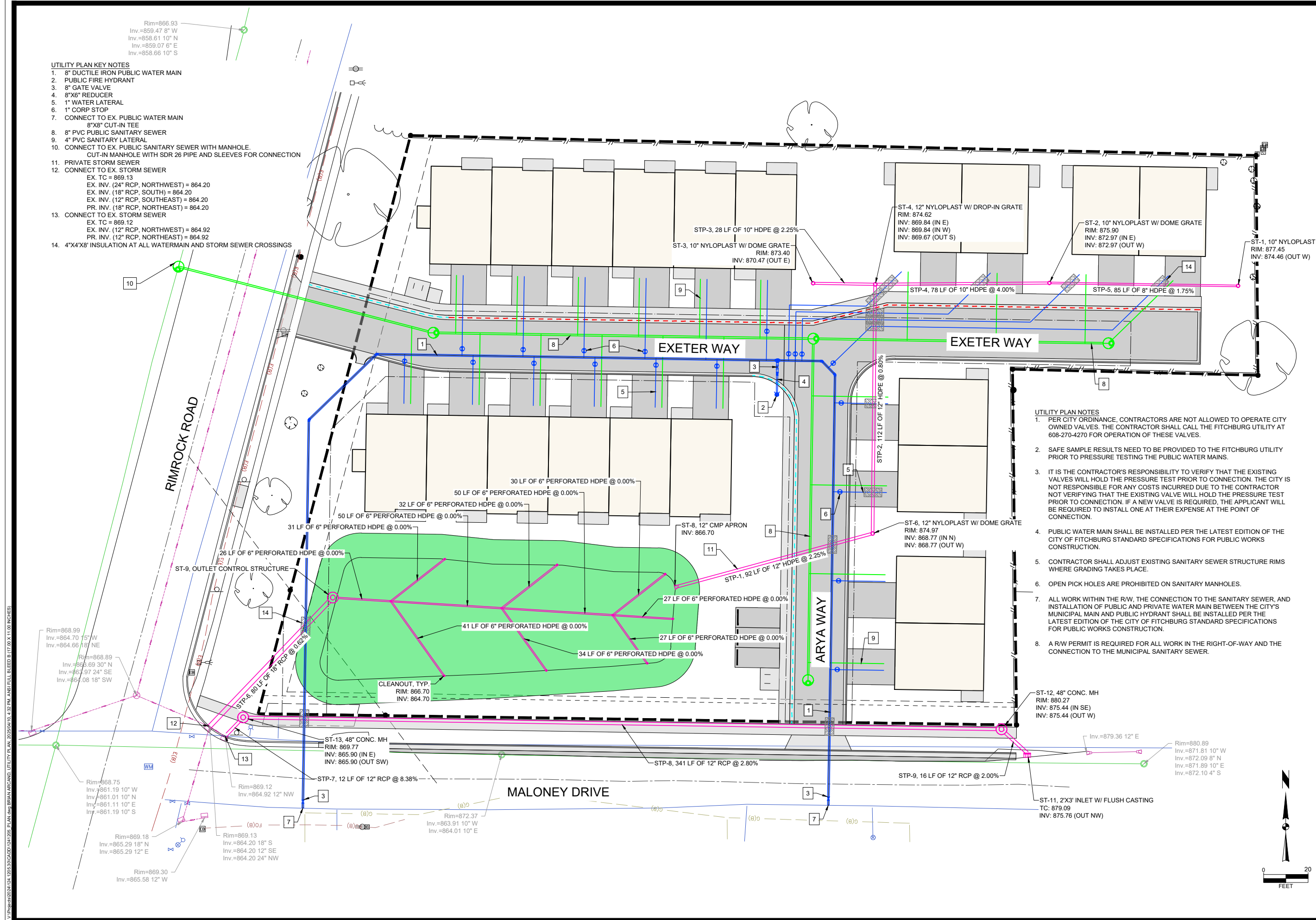
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Project No: 124.1205.30
Sheet C402

UTILITY PLAN KEY NOTES

1. 8" DUCTILE IRON PUBLIC WATER MAIN
2. PUBLIC FIRE HYDRANT
3. 8" GATE VALVE
4. 8"X8" REDUCER
5. 1" WATER LATERAL
6. 1" CORP STOP
7. CONNECT TO EX. PUBLIC WATER MAIN
8"X8" CUT-IN TEE
8. 8" PVC PUBLIC SANITARY SEWER
9. 4" PVC SANITARY LATERAL
10. CONNECT TO EX. PUBLIC SANITARY SEWER WITH MANHOLE.
CUT-IN MANHOLE WITH SDR 26 PIPE AND SLEEVES FOR CONNECTION
11. PRIVATE STORM SEWER
12. CONNECT TO EX. STORM SEWER
EX. TC = 869.13
EX. INV. (24" RCP, NORTHWEST) = 864.20
EX. INV. (18" RCP, SOUTH) = 864.20
EX. INV. (12" RCP, SOUTHEAST) = 864.20
PR. INV. (18" RCP, NORTHEAST) = 864.20
13. CONNECT TO EX. STORM SEWER
EX. TC = 869.12
EX. INV. (12" RCP, NORTHWEST) = 864.92
PR. INV. (12" RCP, NORTHEAST) = 864.92
14. 4"X4"X8" INSULATION AT ALL WATERMAIN AND STORM SEWER CROSSINGS



UTILITY PLAN NOTES

1. PER CITY ORDINANCE, CONTRACTORS ARE NOT ALLOWED TO OPERATE CITY OWNED VALVES. THE CONTRACTOR SHALL CALL THE FITCHBURG UTILITY AT 608-270-4270 FOR OPERATION OF THESE VALVES.
2. SAFE SAMPLE RESULTS NEED TO BE PROVIDED TO THE FITCHBURG UTILITY PRIOR TO PRESSURE TESTING THE PUBLIC WATER MAINS.
3. IT IS THE CONTRACTOR'S RESPONSIBILITY TO VERIFY THAT THE EXISTING VALVES WILL HOLD THE PRESSURE TEST PRIOR TO CONNECTION. THE CITY IS NOT RESPONSIBLE FOR ANY COSTS INCURRED DUE TO THE CONTRACTOR NOT VERIFYING THAT THE EXISTING VALVE WILL HOLD THE PRESSURE TEST PRIOR TO CONNECTION. IF A NEW VALVE IS REQUIRED, THE APPLICANT WILL BE REQUIRED TO INSTALL ONE AT THEIR EXPENSE AT THE POINT OF CONNECTION.
4. PUBLIC WATER MAIN SHALL BE INSTALLED PER THE LATEST EDITION OF THE CITY OF FITCHBURG STANDARD SPECIFICATIONS FOR PUBLIC WORKS CONSTRUCTION.
5. CONTRACTOR SHALL ADJUST EXISTING SANITARY SEWER STRUCTURE RIMS WHERE GRADING TAKES PLACE.
6. OPEN PICK HOLES ARE PROHIBITED ON SANITARY MANHOLES.
7. ALL WORK WITHIN THE R/W, THE CONNECTION TO THE SANITARY SEWER, AND INSTALLATION OF PUBLIC AND PRIVATE WATER MAIN BETWEEN THE CITY'S MUNICIPAL MAIN AND PUBLIC HYDRANT SHALL BE INSTALLED PER THE LATEST EDITION OF THE CITY OF FITCHBURG STANDARD SPECIFICATIONS FOR PUBLIC WORKS CONSTRUCTION.
8. A R/W PERMIT IS REQUIRED FOR ALL WORK IN THE RIGHT-OF-WAY AND THE CONNECTION TO THE MUNICIPAL SANITARY SEWER.

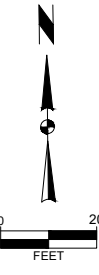
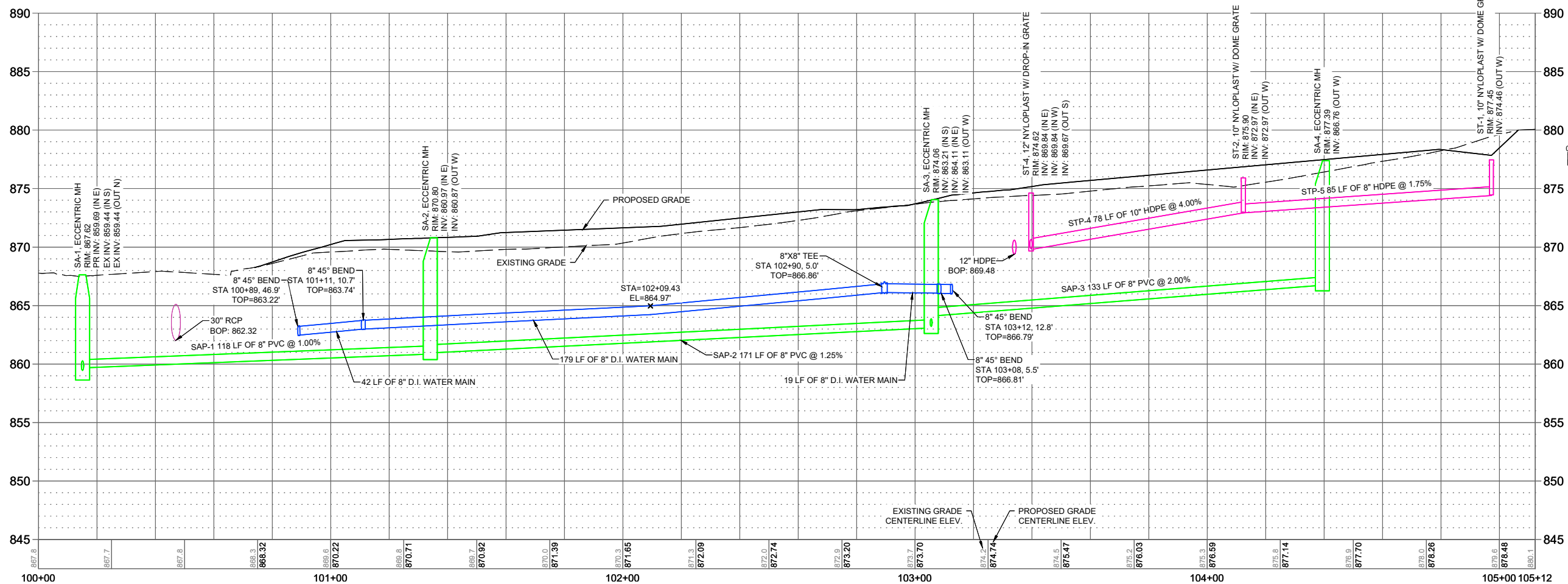
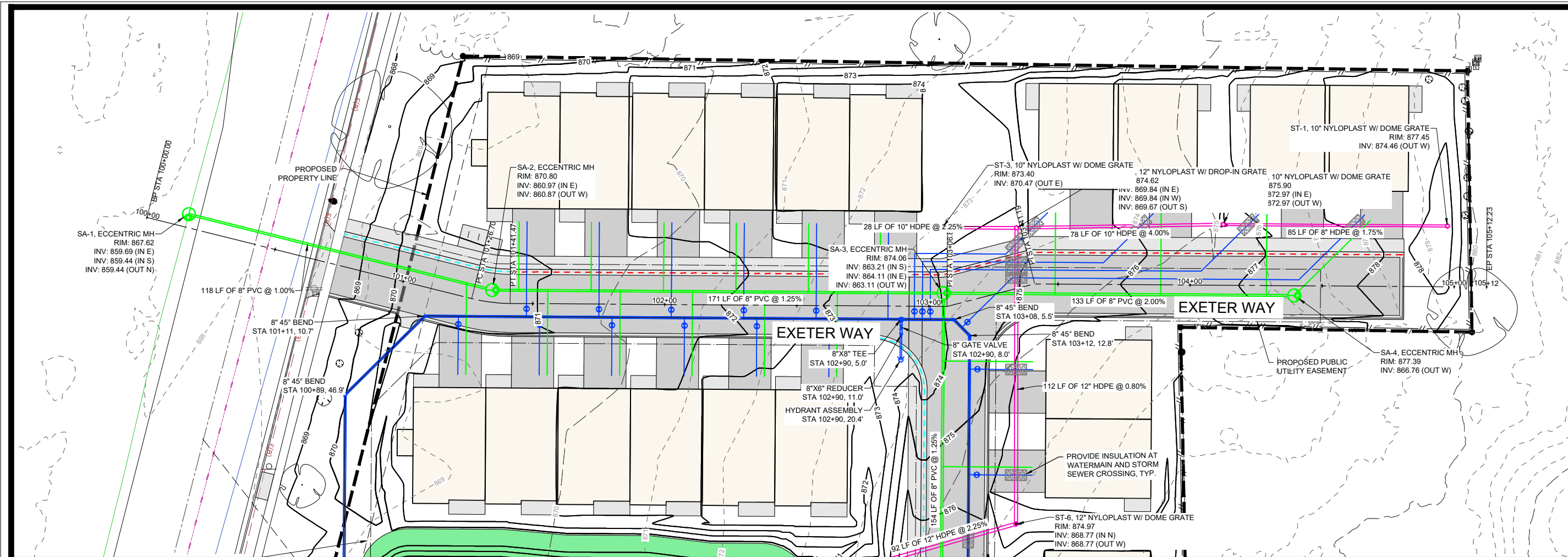
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GIP RESUBMITTAL	03-07-25	BCA	REVISION	
GIP RESUBMITTAL	02-24-25	BCA	REVISION	
GIP RESUBMITTAL	02-07-25	BCA	REVISION	
MARK	BCA	Checked By:	MLC	Scale: 1" = 20'
Engineer:	BCA	Date:	11-04-2024	T-R-S: TTN+RRW-SS
Technician:	DMS			
Project No: 124.1205.30				
Sheet C500				

OLIVE TREE RESIDENCES
UTILITY PLAN
 CITY OF FITCHBURG, DANE COUNTY, WISCONSIN
SNYDER & ASSOCIATES, INC.

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 Sheet C500



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GIP RESUBMITTAL	03-07-25	BCA
GIP RESUBMITTAL	02-24-25	BCA
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Technician: DMS	Date: 11-04-2024	T-R-S: TTN-RRW-SS
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OLIVE TREE RESIDENCES

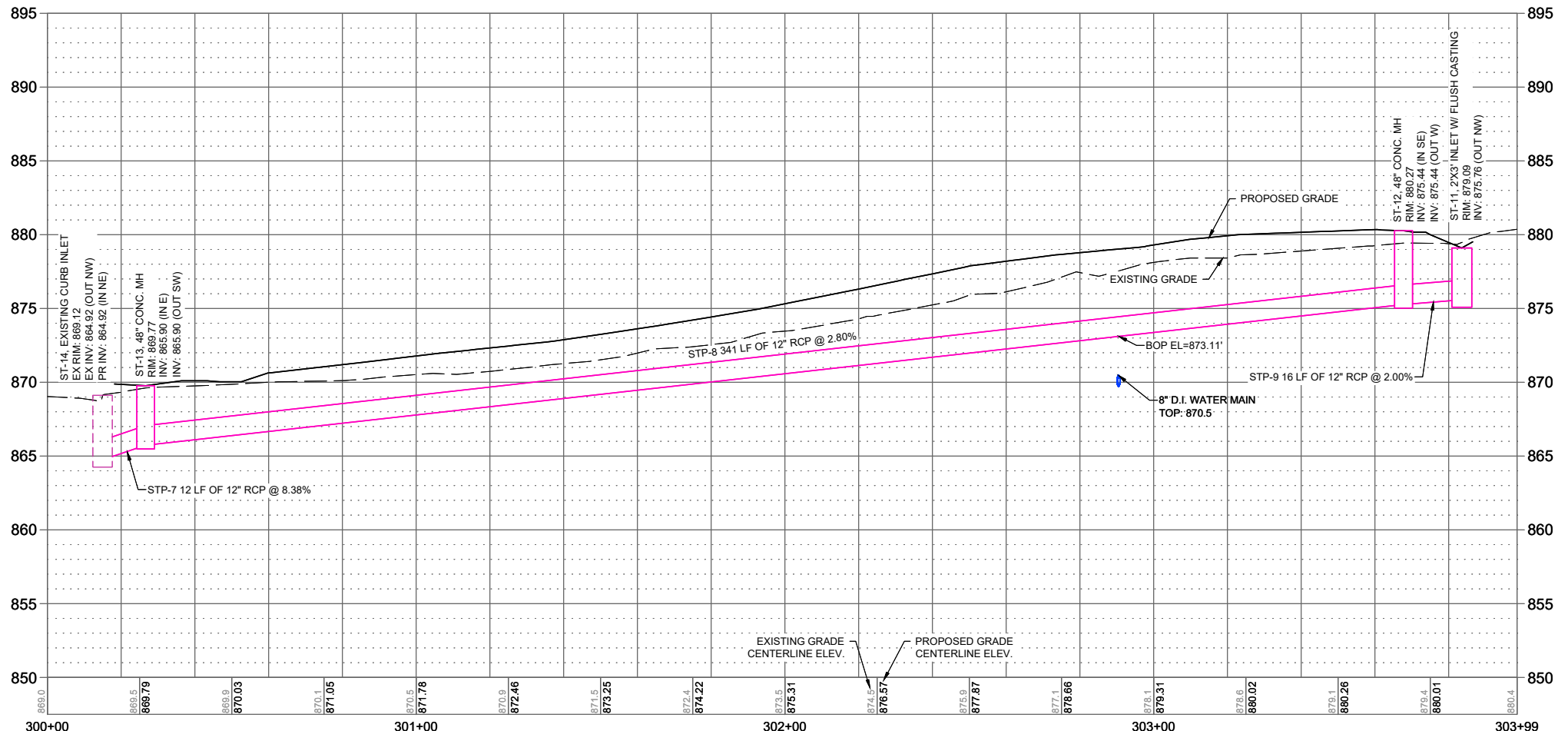
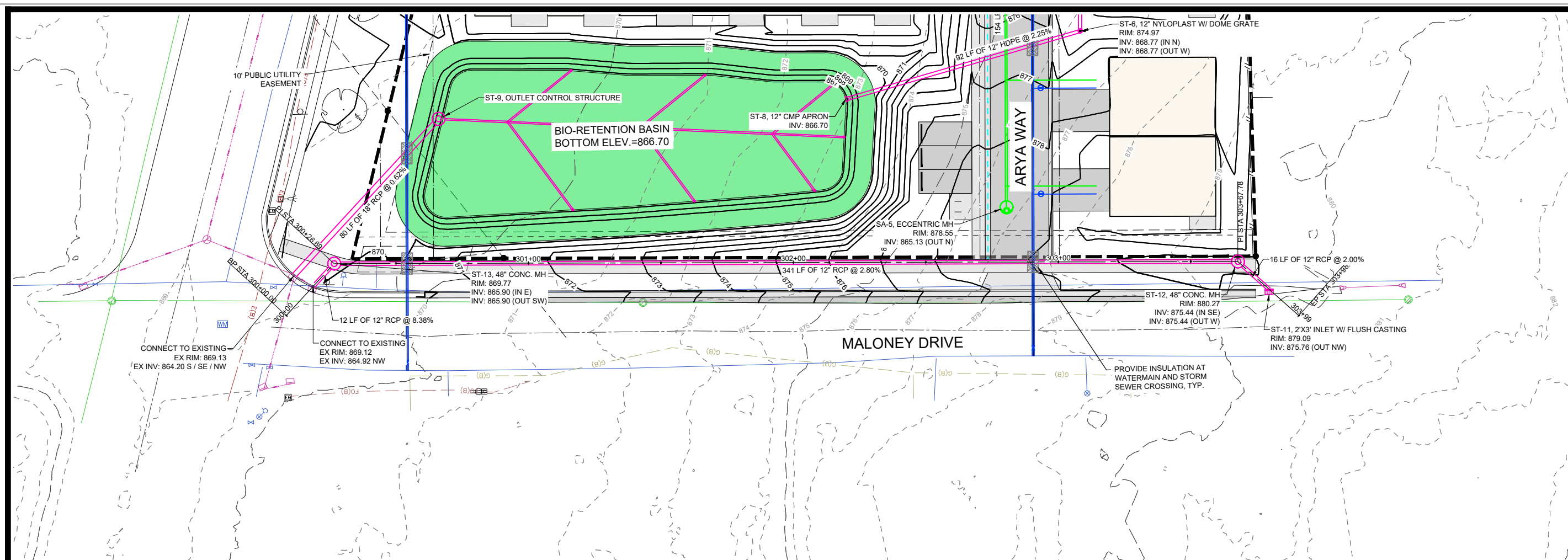
EXETER WAY PLAN & PROFILE

CITY OF FITCHBURG, DANE COUNTY, WISCONSIN

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MARK	REVISION	DATE
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Technician: DMS	Date: 11-04-2024	T-R-S: TTN+RRW+SS

OLIVE TREE RESIDENCES

STORM SEWER PLAN & PROFILE

CITY OF FITCHBURG, DANE COUNTY, WISCONSIN

SNYDER & ASSOCIATES, INC.

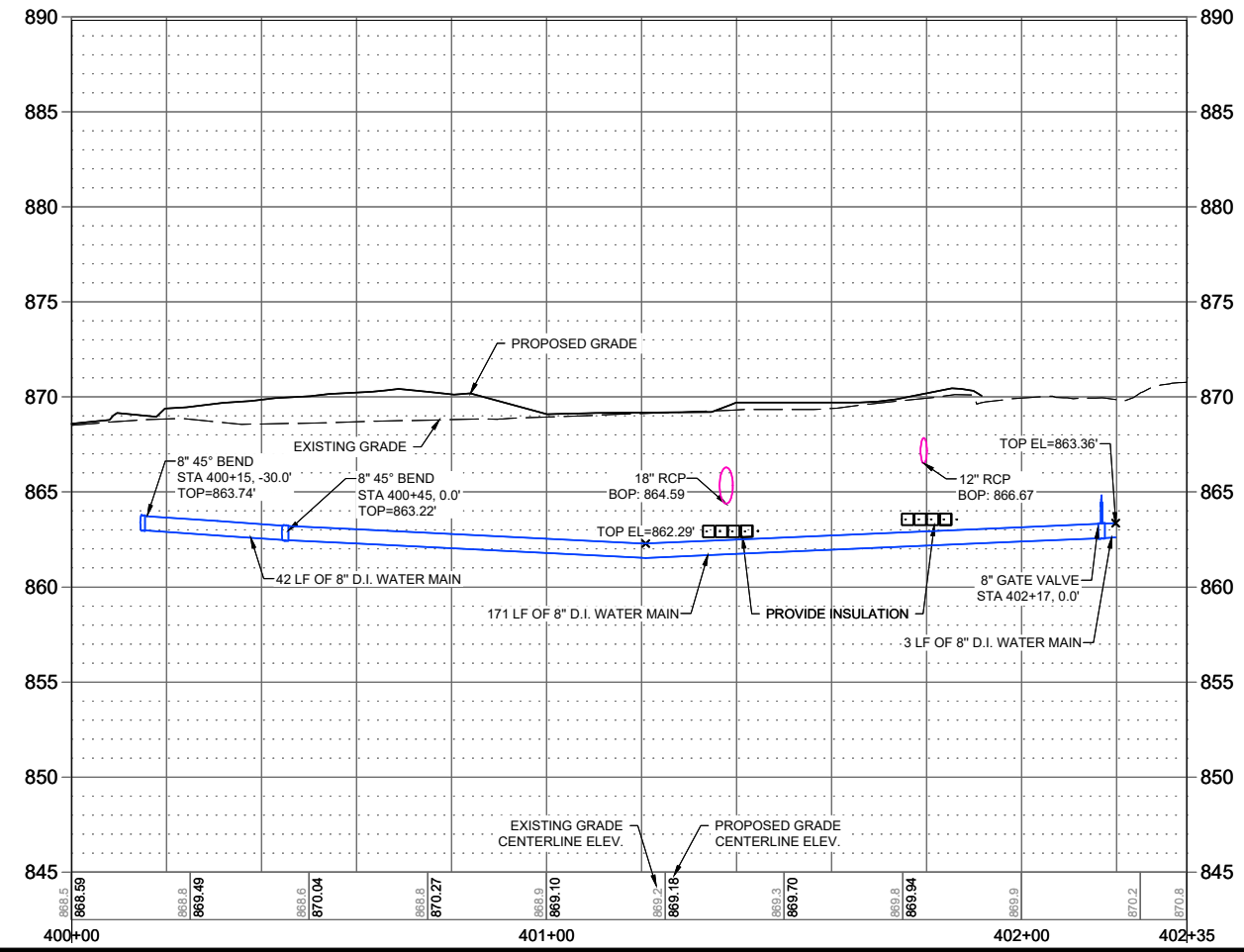
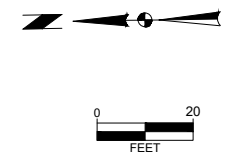
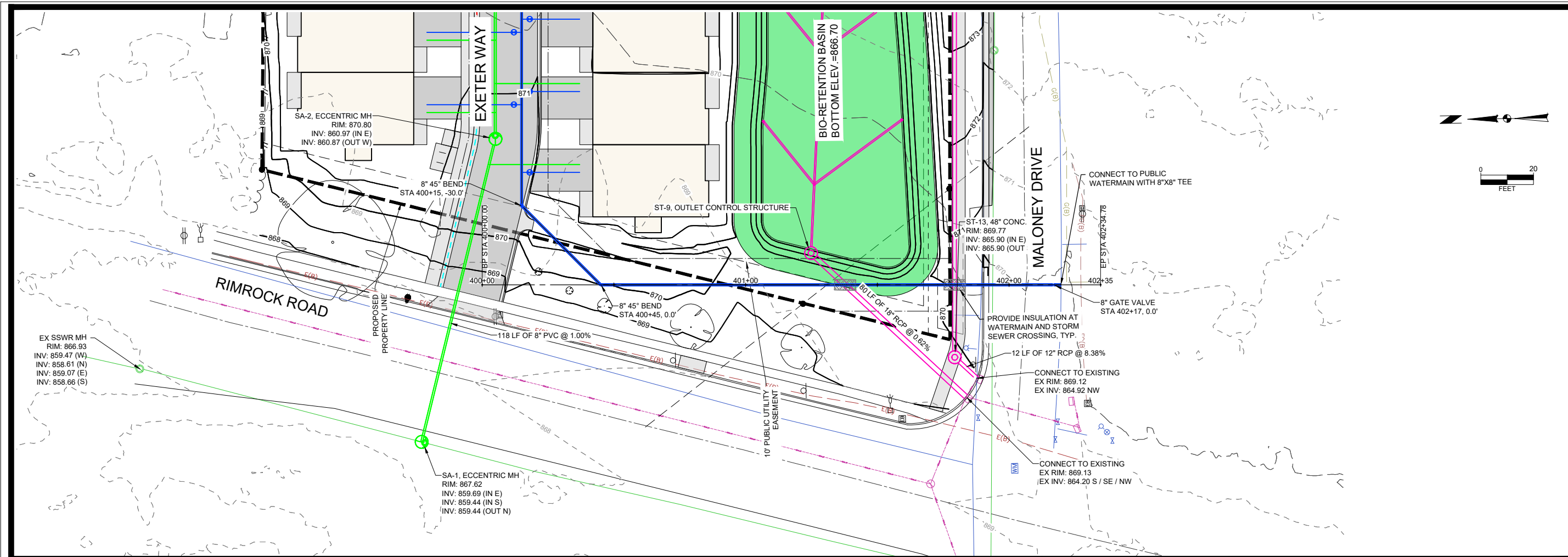
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Project No: 124.1205.30

Sheet C503

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GIP RESUBMITTAL	02-24-25	BCA	Technician: DMS	Date: 11-04-2024	T-R-S: TTN+RRW-SS	
GIP RESUBMITTAL	02-07-25	BCA				

OLIVE TREE RESIDENCES

WATER MAIN PLAN & PROFILE

CITY OF FITCHBURG, DANE COUNTY, WISCONSIN

SNYDER & ASSOCIATES, INC.

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Project No: 124.1205.30

Sheet C504

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GENERAL CONDITIONS

- 1. THE CONTRACTOR SHALL NOTIFY THE OWNER AND THE MUNICIPALITY TWO WORKING DAYS (48 HOURS) PRIOR TO THE START OF CONSTRUCTION.
2. THE CONTRACTOR SHALL INDEMNIFY THE OWNER, THE ENGINEER, AND THE MUNICIPALITY, THEIR AGENTS, ETC, FROM ALL LIABILITY INVOLVED WITH THE CONSTRUCTION, INSTALLATION, AND TESTING OF THE WORK ON THIS PROJECT.
3. SITE SAFETY SHALL BE THE SOLE RESPONSIBILITY OF THE CONTRACTOR.
4. THE BIDDER WILL BE SOLELY RESPONSIBLE FOR DETERMINING QUANTITIES AND SHALL STATE SUCH QUANTITIES IN HIS PROPOSAL. HE SHALL BASE HIS BID ON HIS OWN ESTIMATE OF THE WORK REQUIRED AND SHALL NOT RELY ON THE ENGINEER'S ESTIMATE.
5. THE CONTRACTOR IS RESPONSIBLE FOR VERIFYING SOIL CONDITIONS PRIOR TO COMMENCEMENT OF CONSTRUCTION. A GEOTECHNICAL REPORT IS AVAILABLE FROM THE OWNER. THE CONTRACTOR SHALL ABIDE BY THE RECOMMENDATIONS OF THE GEOTECHNICAL ENGINEER.
6. THE CONTRACTOR IS RESPONSIBLE FOR EXAMINING ALL SITE CONDITIONS PRIOR TO COMMENCEMENT OF CONSTRUCTION AND SHALL COMPARE FIELD CONDITIONS WITH DRAWINGS.
7. THE CONTRACTOR SHALL CONDUCT HIS WORK ACCORDING TO THE REQUIREMENTS OF THE PERMITS.
8. THE CONTRACTOR IS RESPONSIBLE FOR FIELD VERIFYING ALL UTILITY INFORMATION SHOWN ON THE PLANS PRIOR TO THE START OF CONSTRUCTION. THE CONTRACTOR SHALL CALL DIGGER'S HOTLINE AT 1-800-242-8511 TO NOTIFY THE UTILITIES OF HIS INTENTIONS, AND TO REQUEST FIELD STAKING OF EXISTING UTILITIES.
9. CONTRACTOR IS ADVISED THAT ALL MUD AND DEBRIS MUST NOT BE DEPOSITED ONTO THE ADJACENT ROADWAYS PER THE REQUIREMENT OF THE MUNICIPALITY OR OTHER APPROPRIATE GOVERNMENT AGENCIES.
10. ANY ADJACENT PROPERTIES OR ROAD RIGHT-OF-WAYS WHICH ARE DAMAGED DURING CONSTRUCTION MUST BE RESTORED BY THE CONTRACTOR. THE COST OF THE RESTORATION IS CONSIDERED INCIDENTAL, AND SHOULD BE INCLUDED IN THE BID PRICES.

CONCRETE SIDEWALK

- 1. SIDEWALK SHALL BE A MINIMUM OF 5" THICK ON A BASE OF 4" OF 3/4" DENSE AGGREGATE BASE COURSE. SIDEWALKS ACROSS DRIVEWAYS SHALL BE A MINIMUM OF 7" THICK ON A BASE OF 4" 3/4" DENSE AGGREGATE BASE COURSE.
2. SIDEWALKS SHALL MEET ADA REQUIREMENTS.
3. SIDEWALKS SHALL HAVE A MAXIMUM CROSS SLOPE OF 1.5%.
4. CURB RAMPS AND DETECTABLE WARNING FIELDS (TRUNCATED DOMES) WILL BE REQUIRED AT ALL ADA RAMPS. DETECTABLE WARNING FIELDS SHALL BE NEENAH #4898 OR METAPANEL BY METADOME, LLC, UNPAINTED OR APPROVED EQUAL.

MULTI-USE PATH

- 1. HMA PAVEMENT SHALL BE A MINIMUM OF 3.0" THICK ON 8" OF DENSE AGGREGATE BASE COURSE. SEE THE CITY OF FITCHBURG'S STANDARD DETAIL DRAWING 4.05 FOR MORE INFORMATION ABOUT THE MULTI-USE PATH.
2. MULTI-USE TRAILS SHALL MEET ADA REQUIREMENTS WHERE PRACTICAL.

STORM SEWER & STORM WATER MANAGEMENT NOTES

- STORM SEWER AND STORMWATER MANAGEMENT SHALL BE AS FOLLOWS:
1. STORM SEWER PIPE BEDDING SHALL BE CLEAR STONE.
2. MINIMUM COVER FOR ALL STORM SEWER SHALL BE 2'.
3. EXCAVATED MATERIAL FROM THE TRENCH NOT SUITABLE FOR BACKFILL AS DEEMED BY THE PUBLIC SERVICES DIRECTOR SHALL BE HAULED OFF-SITE AND SELECT TRENCH BACKFILL WILL BE REQUIRED.
4. EXTREME CAUTION MUST BE FOLLOWED REGARDING THE COMPACTION OF ALL UTILITY TRENCHES. MECHANICALLY COMPACTED GRANULAR BACKFILL IS REQUIRED UNDER AND WITHIN 5 FEET OF ALL PAVEMENT INCLUDING SIDEWALKS AND FUTURE PARKING AREA AS SPECIFIED ON PLANS. FLOODING OF BACKFILL MATERIAL IS NOT ALLOWED. THE COST OF THIS GRANULAR MATERIAL AND ITS COMPACTION IS CONSIDERED INCIDENTAL AND SHALL BE INCLUDED IN THE COST OF THE PROPOSED UTILITY.
5. PRIOR TO FINAL PAVING OPERATIONS, THE UTILITY CONTRACTOR SHALL ADJUST ALL MANHOLE AND INLET RIMS AND VALVE BOXES TO FINISHED GRADE.
6. THE CONTRACTOR IS RESPONSIBLE FOR PROVIDING THE OWNER WITH A SET OF MARKED-UP PRINTS SHOWING ALL CHANGES MADE DURING THE CONSTRUCTION PROCESS. ANY CHANGES TO THE DRAWINGS OR ADDITIONAL ITEMS MUST BE REPORTED TO THE OWNER.
7. STORM SEWER WITHIN STREET RIGHT-OF-WAYS SHALL BE REINFORCED CONCRETE PIPE.
8. EXCAVATED MATERIAL FROM THE TRENCH NOT SUITABLE FOR BACKFILL AS DEEMED BY THE ENGINEER SHALL BE REMOVED AND REPLACED WITH SELECT TRENCH BACKFILL.
9. MANHOLES 3' DEEP AND GREATER SHALL BE CONSTRUCTED WITH STEPS.
10. INLETS AT LOW POINTS SHALL HAVE TYPE NEENAH TYPE R GRATES. INLETS ON GRADE SHALL BE DIRECTIONAL TYPE L. INLETS SHALL ALL BE STAMPED "DRAINS TO RIVER".
11. ALL INFILTRATION BASINS SHALL INCLUDE ENGINEERED SOILS OR PERMAMATRIX SOIL AMENDMENT APPLIED PER MANUFACTURER RECOMMENDATIONS.
12. ALL STORM WATER MANAGEMENT FACILITIES SHALL BE SEEDED WITH A NATIVE SEED MIXTURE WITHIN THE LIMITS OF THE OUTLOT OR EASEMENT. THE NATIVE SEED MIXTURE SHALL BE APPROVED BY THE ENGINEER.
13. ALL STORM WATER FACILITIES SHALL CONFORM TO WisDNR TECHNICAL STANDARDS FOR PRE AND POST CONSTRUCTION STORM WATER MANAGEMENT.
14. THE LAST TWO PIPES SHALL BE STRAPPED TOGETHER AT END SECTIONS ON ALL PIPES 18" AND GREATER.
15. TRASH GRATES SHALL BE PROVIDED ON ALL END SECTIONS ON ENCLOSED STORM SEWER NETWORKS.
16. EROSION MAT IS REQUIRED FOR ALL RESTORATION ON SLOPES AT OR GREATER THAN 4:1, AND IN AREAS THAT CHANNEL WATER.
17. BIODEGRADABLE EROSION MAT AND BIODEGRADABLE STAPLES ARE REQUIRED ON ALL SLOPES LESS THAN 3:1 OUTSIDE OF DRAINAGE CHANNELS WHERE EROSION MAT IS REQUIRED. EROSION MAT SHALL BE PROVIDED IN ALL STREET TERRACES.
18. SILT FENCE AND INLET PROTECTION REMOVAL IS REQUIRED AFTER VEGETATION HAS BEEN ESTABLISHED.
19. STORM SEWER SHALL BE HDPE UNLESS OTHERWISE SPECIFIED ON PLANS.
20. ADJUSTMENT RINGS SHALL HAVE A MINIMUM HEIGHT OF 4" AND A MAXIMUM HEIGHT OF 12". ADJUSTMENT RINGS FOR STORM MANHOLES SHALL BE POLYETHYLENE PLASTIC OR APPROVED EQUAL. CURB INLET ADJUSTMENT RINGS SHALL BE CONCRETE.

SANITARY SEWER

- 1. SANITARY SEWER SHALL BE PVC AND BEDDED WITH CLASS C BEDDING (CLEAR STONE). SEWER SHALL BE SDR-35 FOR DEPTHS UP TO 20' AND SDR-26 FOR DEPTHS GREATER THAN 20'.
2. TRACER WIRE SHALL BE INSTALLED WITH ALL NEW LATERALS IN ACCORDANCE TO THE STANDARD DETAIL DRAWINGS.
3. TRACER WIRE BOXES SHALL BE PROVIDED. "SEWER" SHALL BE STAMPED IN THE LID OF THE ACCESS BOX.
4. EXCAVATED MATERIAL FROM THE TRENCH NOT SUITABLE FOR BACKFILL AS DEEMED BY THE ENGINEER SHALL BE REMOVED AND REPLACED WITH SELECT TRENCH BACKFILL.
5. MANDREL TESTING IS REQUIRED ON ALL SANITARY SEWER. LOW PRESSURE AIR TESTS ARE REQUIRED ON ALL NEW SANITARY SEWER CONSTRUCTION.
6. LATERAL ENDS SHALL BE CAPPED WITH A GLUED ON CAP AND MARKED WITH A PAINTED 4X4 POST.
7. ALL SANITARY SEWER CONSTRUCTION SHALL MEET THE STANDARD SPECIFICATIONS FOR SEWER AND WATER CONSTRUCTION IN WISCONSIN.

WATER MAIN

- 1. WATER MAIN SHALL BE DUCTILE IRON AND BEDDED WITH TYPE 3 EMBEDMENT (SAND OR SAND SCREENINGS). BEDDING SHALL BE A MINIMUM OF 6" UNDER AND 12" OVER TOP OF THE PIPE.
2. WATER MAIN SHALL BE INSTALLED WITH TRACER WIRE. TRACER WIRE SHALL EXTEND TO THE SURFACE AT ALL HYDRANTS IN A TRACER WIRE ACCESS BOX.
3. MECHANICAL JOINT FITTINGS WITH MEGA LUGS ARE REQUIRED FOR ALL DIRECTIONAL CHANGE FITTINGS AND WATERMAIN ENDS. ALL BOLTS SHALL BE STAINLESS STEEL. ALL FITTINGS SHALL BE "MADE IN AMERICA" CERTIFIED.
4. LATERAL ENDS SHALL BE MARKED WITH A PAINTED 4X4 WOOD POST.
5. WATER MAINS SHALL UNDERGO A PRESSURE AND LEAKAGE TEST. SERVICES SHALL BE TESTED TO THE CURB STOP. SERVICES 4" AND LARGER WITH JOINTED PIPE SHALL BE TESTED AGAINST THE VALVE WITH A SECOND TEST OUT TO THE PLUG. THE SECOND TEST MAY BE OF SHORTER DURATION AS APPROVED BY THE PUBLIC SERVICES DIRECTOR.
6. EXCAVATED MATERIAL FROM THE TRENCH NOT SUITABLE FOR BACKFILL AS DEEMED BY THE ENGINEER SHALL BE REMOVED AND REPLACED WITH SELECT TRENCH BACKFILL.
7. ALL WATER MAIN CONSTRUCTION SHALL MEET THE STANDARD SPECIFICATIONS FOR SEWER AND WATER CONSTRUCTION IN WISCONSIN.
8. ALL WORK WITHIN THE R/W AND INSTALLATION OF PRIVATE WATER MAIN BETWEEN THE CITY'S MUNICIPAL MAIN AND PRIVATE HYDRANTS (INCLUDING PRIVATE HYDRANT) SHALL BE INSTALLED PER THE LATEST EDITION OF THE CITY OF FITCHBURG STANDARD SPECIFICATIONS FOR PUBLIC WORKS CONSTRUCTION.
9. INSULATION SHALL BE PROVIDED AT ALL STORMS SEWER CROSSINGS OF MAINS AND LATERALS.

ADDITIONAL UTILITY NOTES

- 1. THE CONTRACTOR SHALL VERIFY THE LOCATION OF ALL EXISTING UTILITIES PRIOR TO THE START OF CONSTRUCTION.
2. BEFORE PROCEEDING WITH ANY UTILITY CONSTRUCTION, THE CONTRACTOR SHALL EXCAVATE EACH EXISTING LATERAL OR POINT OF CONNECTION AND VERIFY THE LOCATION AND ELEVATION OF ALL UTILITIES. IF ANY EXISTING UTILITIES ARE NOT AS SHOWN ON THE DRAWINGS, THE CONTRACTOR SHALL NOTIFY THE ENGINEER IMMEDIATELY FOR POSSIBLE REDESIGN.
3. PRIOR TO FINAL PAVING OPERATIONS, THE UTILITY CONTRACTOR SHALL ADJUST ALL MANHOLE AND INLET RIMS AND VALVE BOXES TO FINISHED GRADE.
4. THE CONTRACTOR IS RESPONSIBLE FOR PROVIDING THE OWNER WITH A SET OF MARKED-UP PRINTS SHOWING ALL CHANGES MADE DURING THE CONSTRUCTION PROCESS. ANY CHANGES TO THE DRAWINGS OR ADDITIONAL ITEMS MUST BE REPORTED TO THE OWNER.
5. THE PROPOSED IMPROVEMENTS SHALL BE CONSTRUCTED ACCORDING TO WISCONSIN ADMINISTRATIVE CODE. SECTION SPS 382-384, LATEST EDITION, THE STANDARD SPECIFICATIONS FOR SEWER AND WATER CONSTRUCTION IN WISCONSIN, LATEST EDITION, AND THE LOCAL ORDINANCES AND SPECIFICATIONS.
6. ALL CONNECTIONS TO EXISTING PIPES AND MANHOLES SHALL BE CORED CONNECTIONS.
7. PROPOSED SANITARY SEWER, WATER MAIN, AND INTERNALLY CONNECTED STORM SEWER SHOWN ON THIS PLAN SHALL TERMINATE AT POINT FIVE (5) FEET FROM THE EXTERIOR BUILDING WALL. STORM SEWER CONNECTING TO EXTERIOR DOWN SPOUTS SHALL BE PER DETAILS ON THE ARCHITECTURAL PLANS. THE EXACT LOCATION OF ALL DOWN SPOUTS SHALL BE PER THE ARCHITECTURAL PLANS.
8. EXTREME CAUTION MUST BE FOLLOWED REGARDING THE COMPACTION OF ALL UTILITY TRENCHES. MECHANICALLY COMPACTED GRANULAR BACKFILL IS REQUIRED UNDER AND WITHIN 5 FEET OF ALL PAVEMENT INCLUDING SIDEWALKS. FLOODING OF BACKFILL MATERIAL IS NOT ALLOWED. THE COST OF THIS GRANULAR MATERIAL AND ITS COMPACTION IS CONSIDERED INCIDENTAL AND SHALL BE INCLUDED IN THE COST OF THE PROPOSED UTILITY.
9. TRACER WIRE SHALL BE INSTALLED ON ALL BURIED NON-METALLIC SANITARY SEWERS, PRIVATE SANITARY INTERCEPTOR MAIN SEWERS, STORM BUILDING SEWERS, AND PRIVATE STORM INTERCEPTOR MAIN SEWERS THAT DISCHARGE TO MUNICIPAL MAINS. TRACER WIRE SHALL BE A MINIMUM OF 12-GAUGE, INSULATED, SINGLE-CONDUCTOR COPPER WIRE OR EQUIVALENT. TRACER WIRE COLOR SHALL BE BLUE FOR POTABLE WATER, GREEN FOR SANITARY SEWER, AND BROWN FOR STORM SEWER.

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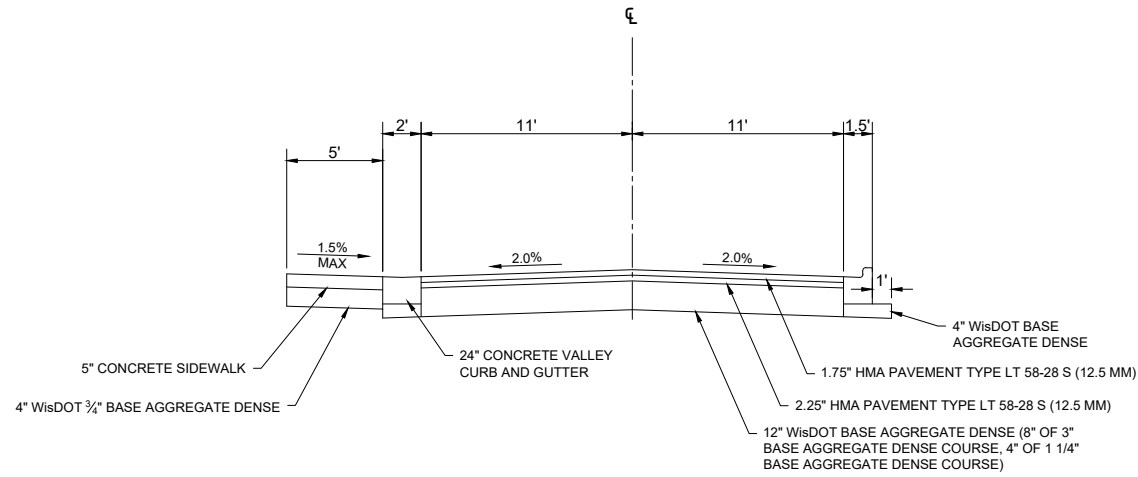
OLIVE TREE RESIDENCES
NOTES
CITY OF FITCHBURG, DANE COUNTY, WISCONSIN
SNYDER & ASSOCIATES, INC.
5010 VOGES ROAD
MADISON, WISCONSIN 53718
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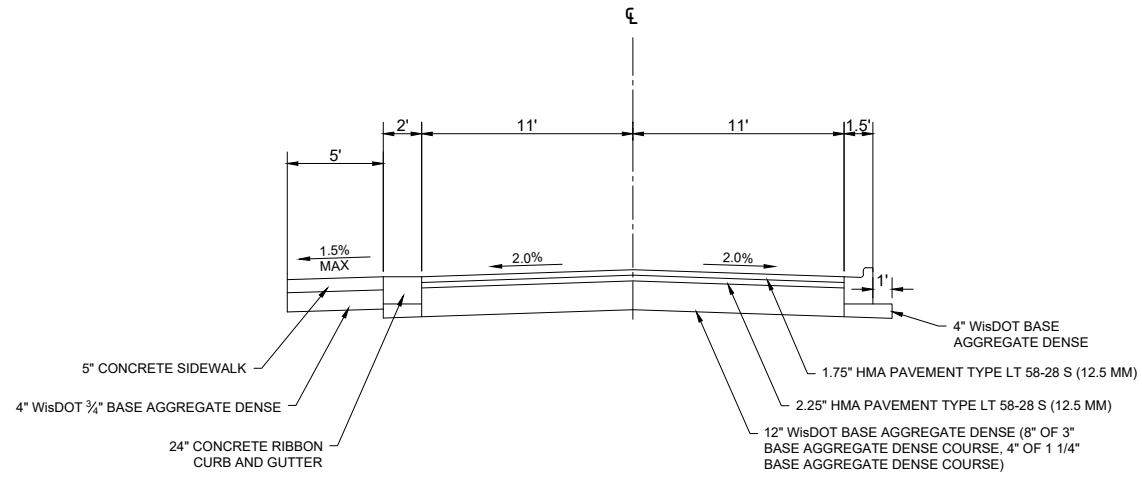
TYPICAL FINISHED SECTION

EXETER WAY
24' FACE-TO-FACE STREET WIDTH



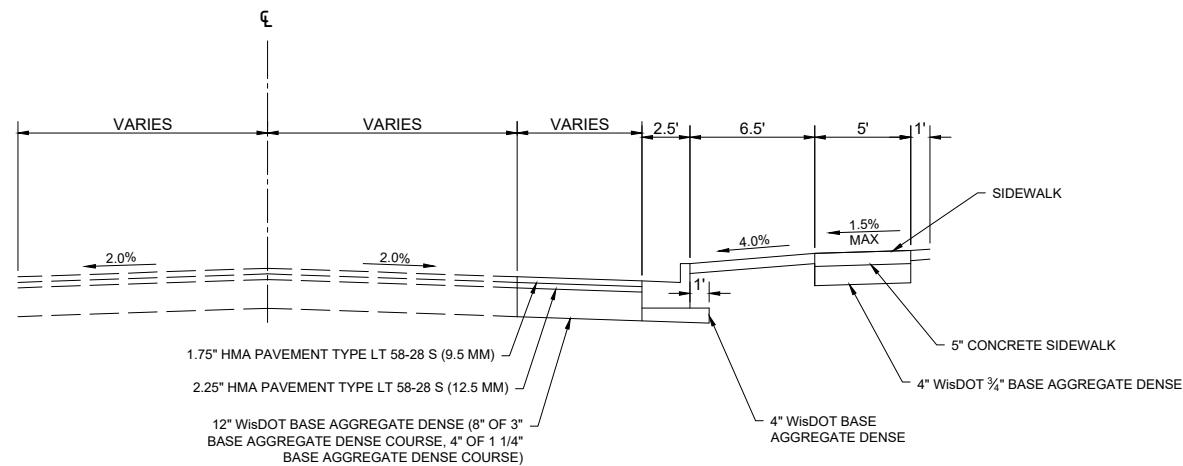
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PAVING

1. THE PROPOSED IMPROVEMENTS SHALL BE CONSTRUCTED ACCORDING TO THE WISCONSIN D.O. T. STANDARD SPECIFICATIONS FOR HIGHWAY AND STRUCTURE CONSTRUCTION, LATEST EDITION, AND THE LOCAL ORDINANCES AND SPECIFICATIONS.
2. PAVING SHALL CONSIST OF FINE GRADING PAVEMENT AREAS, INSTALLATION OF CRUSHED STONE BASE, CONCRETE AND/OR BITUMINOUS PAVEMENT, PAVEMENT MARKING, AND CLEANUP. ALL MATERIALS SHALL BE PROVIDED BY THE CONTRACTOR.
3. TACK COAT SHALL BE IN ACCORDANCE WITH SUBSECTION 455.2.5 OF THE STANDARD SPECIFICATIONS. THE RATE OF APPLICATION SHALL BE 0.025 GAL/SY.
4. CONCRETE FOR CURB, DRIVEWAY, WALKS AND NON-FLOOR SLABS SHALL BE GRADE A (OR GRADE A2 IF PLACING BY SLIP-FORMED PROCESS) AIR ENTRAINED IN ACCORDANCE WITH SECTION 501 FOR THE STANDARD SPECIFICATIONS, WITH A MINIMUM 28 DAY COMPRESSIVE STRENGTH OF 4,000 PSI.
5. CONCRETE CONSTRUCTION SHALL BE IN ACCORDANCE WITH THE FOLLOWING SECTIONS OF THE STANDARD SPECIFICATIONS:
SECTION 415 FOR CONCRETE PAVEMENT
SECTION 601 FOR CONCRETE CURB AND GUTTER
SECTION 602 FOR CONCRETE SIDEWALKS.
6. ALL FINISHED CONCRETE SHALL BE COVERED WITH A LIQUID CURING COMPOUND CONFORMING TO AASHTO M 148, TYPE 2, IN ACCORDANCE WITH SECTION 415 OF THE STANDARD SPECIFICATIONS.
7. PAVEMENT MARKINGS SHALL BE PAINT IN ACCORDANCE WITH SECTION 646 OF THE STANDARD SPECIFICATIONS. (COLOR SHALL BE AS INDICATED ON THE PLANS.) THE FOLLOWING ITEMS SHALL BE PAINTED WITH COLORS NOTED BELOW:
PEDESTRIAN CROSSWALKS: WHITE
LANE STRIPING WHERE SEPARATING TRAFFIC IS MOVING IN OPPOSITE DIRECTIONS: YELLOW
LANE STRIPING WHERE SEPARATING TRAFFIC IS MOVING IN SAME DIRECTIONS: WHITE

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OLIVE TREE RESIDENCES

CITY OF FITCHBURG, DANE COUNTY, WISCONSIN

TYPICAL SECTIONS

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CONSTRUCTION SEQUENCE

- INSTALL AND MAINTAIN THE TEMPORARY GRAVEL CONSTRUCTION ENTRANCE/EXITS AS DESCRIBED IN THE DANE COUNTY EROSION CONTROL AND STORMWATER MANAGEMENT MANUAL. ADDITIONALLY INSTALL CONSTRUCTION EQUIPMENT PARKING AREAS. STABILIZE BARE AREAS IMMEDIATELY WITH GRAVEL AND TEMPORARY VEGETATION AS CONSTRUCTION TAKES PLACE. THE TEMPORARY ACCESS POINT SHALL BE PLACED IN THE LOCATION SHOWN ON THE GRADING AND EROSION CONTROL PLAN. THE ENTRANCE/EXITS WILL BE INSPECTED DAILY. IF THE AGGREGATE WITHIN THE TEMPORARY ACCESS PADS BECOMES COVERED WITH SOIL OR IF SIGNIFICANT QUANTITIES OF SOIL ARE TRACKED ONTO THE EXISTING ROADWAY THEN ADDITIONAL AGGREGATE WILL BE INSTALLED TO ALLOW THE ENTRANCE/EXITS TO FUNCTION PROPERLY.
- INSTALL EROSION AND SEDIMENT CONTROL BARRIERS (SILT FENCE) IMMEDIATELY DOWNSLOPE OF AREAS TO BE DISTURBED DURING CONSTRUCTION AS SHOWN ON THE APPROVED GRADING PLAN. THE BARRIERS MUST BE INSTALLED PARALLEL TO THE SITE CONTOURS TO THE EXTENT PRACTICABLE WITH THE ENDS EXTENDED UPSLOPE ONE TO TWO FEET TO PREVENT FLANKING OF THE RUNOFF. AT NO TIME FROM THE START OF ROUGH GRADING UNTIL SITE STABILIZATION SHALL AN UNBROKEN SLOPE EXIST BETWEEN DISTURBED AREAS AND THE RECEIVING WATERS. THE DANE COUNTY EROSION CONTROL AND STORMWATER MANAGEMENT MANUAL WILL BE REFERENCED FOR THE PROPER INSTALLATION AND MAINTENANCE OF SILT FENCE AND ALL OTHER EROSION CONTROL MEASURES ON THE SITE.
- STRIP TOPSOIL FROM THE AREAS OF THE SITE THAT WILL BE GRADED WITHIN 48 HOURS. ANY AREAS THAT WILL NOT BE IMMEDIATELY GRADED MUST NOT BE STRIPPED OF TOPSOIL UNTIL THE PRECEDING AREAS ARE TOPSOILED, SEEDED AND MULCHED. PLACE SOIL STOCKPILES AT LEAST 25 FEET AWAY FROM ANY DOWNSLOPE STREET, DRIVEWAY, OR DITCH. ALL TOPSOIL PILES WILL HAVE SILT FENCE PLACED ON THEIR DOWNSLOPE SIDES. TOPSOIL PILES WILL BE SEEDED WITH ANNUAL RYE IF THEY ARE IN PLACE FOR MORE THAN 7 DAYS. ANY AREAS LEFT INACTIVE FOR MORE THAN 7 DAYS WILL BE STABILIZED IMMEDIATELY WITH SEED AND MULCH.
- GRADING WILL BE PHASED TO THE EXTENT PRACTICABLE TO LIMIT THE AMOUNT OF THE EXPOSED SOIL AT ANY ONE TIME AND TO PROVIDE A BUFFER BETWEEN THE GRADED AREAS AND THE RECEIVING WATERS. THE INTENT OF THESE GRADING RESTRICTIONS IS TO PROVIDE AN UNDISTURBED BUFFER AREA ALLOWING ADDITIONAL EROSION AND SEDIMENTATION PROTECTION DURING CONSTRUCTION.
- TOPSOIL, SEED AND MULCH ALL AREAS WHICH ARE AT FINAL GRADE AND WHICH WILL NOT BE DISTURBED DURING SUBSEQUENT PHASES OF CONSTRUCTION. ANY AREAS LEFT INACTIVE FOR MORE THAN 7 DAYS MUST BE STABILIZED IMMEDIATELY.
- INSTALL ANY UTILITIES.
- COMPLETE FINAL GRADING FOR PARKING LOT & DRIVES AND STABILIZE WITH GRAVEL.
- COMPLETE FINAL GRADE OF THE SITE.
- UTILITY TRENCHES SHALL BE FILLED WITH SUITABLE BACKFILL MATERIAL AND COMPACTED AS NEEDED. TOPSOIL SHALL BE REPLACED, FERTILIZED, SEEDED AND PROTECTED AS CALLED FOR BELOW IN ITEMS 11 AND 12. UTILITY CONSTRUCTION SHALL BE COORDINATED WITH OTHER GRADING ACTIVITIES SO THAT RESTORATION CAN BE COMPLETED AS SOON AS POSSIBLE AFTER CONSTRUCTION.
- WITHIN 7 DAYS OF THE COMPLETION OF FINAL GRADING, A MINIMUM OF 4 INCHES OF TOPSOIL SHALL BE REPLACED ON ALL DISTURBED SURFACES THAT ARE TO BE REVEGETATED. TOPSOIL SHALL BE UNIFORMLY PLACED, GRADED SMOOTH AND SCARIFIED FOR SEEDING.

- FERTILIZE ALL AREAS TO BE SEEDED OR SODDED WITH 500LBS. PER ACRE OF 16-8-8 (MINIMUM). INCORPORATE THE FERTILIZER INTO THE SOIL BY SCARIFYING AS INDICATED. SEED ALL DISTURBED AREAS WITH THE FOLLOWING SEEDING MIXTURE:
 30.50 LBS/ACRE OF KENTUCKY BLUEGRASS
 17.50 LBS/ACRE OF RED FESCUE
 17.50 LBS/ACRE OF HARD FESCUE
 22.00 LBS/ACRE OF PERENNIAL RYE GRASS
 THE OWNER RESERVES THE RIGHT TO REVISE THE SEEDING MIXTURE SUBJECT TO APPROVAL BY THE LOCAL MUNICIPALITY.

 SOD MAY BE SUBSTITUTED FOR SEEDING ON ALL AREAS TO BE SEEDED AND IS RECOMMENDED FOR ALL AREAS WITH SLOPES OF 5:1 OR STEEPER. MULCH ALL SEEDED AREAS WITH 1.5 TONS PER ACRE OF CLEAN STRAW. STRAW SHALL BE ANCHORED IN PLACE WITH SUITABLE EQUIPMENT OR STAKING WITH TWINE.

 FOR AREAS ON WHICH GRADING IS COMPLETED AFTER SEPTEMBER 30.

 TEMPORARY SEED SHALL INCLUDE A SOIL STABILIZING POLYMER AND COVER CROP OF WINTER RYE (AT A RATE OF 75#/ACRE) AND MUST BE APPLIED AS SOON AS THESE AREAS REACH THEIR FINAL GRADE. ADDITIONAL EROSION CONTROL BARRIERS MAY BE NEEDED DOWNSLOPE OF THESE AREAS UNTIL FINAL SEEDING OR SODDING IS COMPLETED IN SPRING (BY JUNE 1). ANY AREAS WITH SLOPES GREATER THAN 6:1 MUST BE SEEDED AND MULCHED BUT NOT TOPSOILED. AREAS WITH SLOPED LESS THAN 6:1 MUST BE TOPSOILED, SEEDED AND MULCHED. ALL AREAS MUST BE TOPSOILED, SEEDED OR MULCHED AS DESCRIBED ABOVE IN THE FOLLOWING SPRING.
- WHENEVER POSSIBLE, PRESERVE EXISTING TREES, SHRUBS, AND OTHER VEGETATION. TO PREVENT ROOT DAMAGE, DO NOT GRADE, PLACE SOIL PILES, OR PARK VEHICLES NEAR TREES MARKED FOR PRESERVATION.
- SILT FENCE MAINTENANCE:** EROSION CONTROL BARRIERS (SILT FENCE) MUST BE INSPECTED WITHIN 24 HOURS AFTER EACH RAINFALL OF 0.5-INCHES OR MORE, AND DAILY DURING PERIODS OF PROLONGED RAINFALL. REPAIRS OR REPLACEMENT SHALL BE MADE IMMEDIATELY. SEDIMENT DEPOSITS ON THE UPSLOPE SIDE ON THE SILT FENCES SHALL BE REMOVED WHEN THE DEPOSITS REACH HALF THE HEIGHT OF THE SILT FENCE.
- GRAVEL TRACKING PAD MAINTENANCE:** ADDITIONAL STONE IS REQUIRED IF EXISTING STONE BECOMES BURIED OR IF SEDIMENT IS NOT BEING REMOVED EFFECTIVELY FROM TIRES. SEDIMENT THAT IS TRACKED ONTO THE ROADWAY MUST BE REMOVED IMMEDIATELY. TRACKING PADS MAY REQUIRE PERIODIC CLEANING TO MAINTAIN THE EFFECTIVENESS OF THE PRACTICE, WHICH MAY INCLUDE THE REMOVAL AND RE-INSTALLATION OF THE STONE.

EROSION CONTROL NOTES

- THE CONTRACTOR IS RESPONSIBLE FOR OBTAINING COPIES OF ALL PERMITS, INCLUDING WISDNR WPDES DISCHARGE PERMIT (IF APPLICABLE), COUNTY AND LOCAL EROSION CONTROL PERMIT. CONTRACTOR IS RESPONSIBLE FOR ABIDING BY ALL PERMIT REQUIREMENTS AND RESTRICTIONS.
- ALL EROSION CONTROL MEASURES SHALL BE INSTALLED PRIOR TO LAND DISTURBING ACTIVITIES.
- ALL INSTALLATION AND MAINTENANCE OF EROSION CONTROL PRACTICES SHALL BE IN ACCORDANCE WITH THE APPLICABLE WISCONSIN DEPARTMENT OF NATURAL RESOURCES (WisDNR) TECHNICAL STANDARD, FOUND AT: http://dnr.wi.gov/topic/stormwater/standards/const_standards.html OR THE WISCONSIN CONSTRUCTION SITE BEST MANAGEMENT PRACTICE HANDBOOK IF A TECHNICAL STANDARD IS NOT AVAILABLE.
- ALL EROSION CONTROL FACILITIES SHALL BE MAINTAINED THROUGHOUT THE DURATION OF THE PROJECT AND WARRANTY PERIOD IN CONFORMANCE WITH ALL APPLICABLE PERMITS ISSUED FOR THE PROJECT.
- ALL EROSION AND SEDIMENTATION CONTROL PRACTICES SHALL BE INSPECTED WEEKLY AND WITHIN 24 HOURS AFTER EVERY PRECIPITATION EVENT THAT PRODUCES 0.5 INCHES OF RAIN OR MORE DURING A 24 HOUR PERIOD. REPAIRS SHALL BE MADE IMMEDIATELY TO EROSION CONTROL PRACTICES AS NECESSARY.
- TEMPORARY STOCKPILES SHALL BE STABILIZED IF NOT REMOVED IN 10 DAYS. PERIMETER CONTROL ON THE DOWNHILL SIDE SHALL BE IN PLACE AT ALL TIMES (SILT FENCE OR APPROVED EQUAL).
- TEMPORARY SEED MIXTURE SHALL CONFORM TO 630.2.1.5.1.4 OF THE WisDOT STANDARD SPECIFICATIONS USE WINTER WHEAT OR RYE FOR FALL PLANTINGS STARTED AFTER SEPTEMBER 1.
- DISTURBED AREAS THAT CANNOT BE STABILIZED WITH A DENSE GROWTH OF VEGETATION BY SEEDING AND MULCHING DUE TO TEMPERATURE OR TIMING OF CONSTRUCTION, SHALL BE STABILIZED BY APPLYING ANIONIC POLYACRYLAMIDE (PAM) IN ACCORDANCE WITH WisDNR TECHNICAL STANDARD 1050.
- SEDIMENT SHALL BE REMOVED FROM THE SEDIMENT BASINS TO MAINTAIN A THREE FOOT DEPTH OF TREATMENT, MEASURED BELOW THE NORMAL WATER ELEVATION. SEDIMENT WILL BE REMOVED FROM THE DIVERSION DITCHES WHEN IT REACHES HALF THE HEIGHT OF THE DITCH. SEDIMENT WILL BE REMOVED FROM BEHIND THE SILT FENCE AND DITCH CHECKS WHEN IT REACHES HALF THE HEIGHT OF THE FENCE/BALE THE SILT FENCE AND DITCH CHECKS SHALL BE REPAIRED AS NECESSARY TO MAINTAIN A BARRIER.
- ALL WATER FROM CONSTRUCTION DEWATERING SHALL BE TREATED IN ACCORDANCE WITH WisDNR TECHNICAL STANDARD 1061 PRIOR TO DISCHARGE TO WATERS OF THE STATE, WETLANDS, OR OFFSITE.
- THE CONTRACTOR IS RESPONSIBLE FOR INSTALLATION OF ANY ADDITIONAL EROSION CONTROL MEASURES NECESSARY TO PREVENT EROSION AND SEDIMENTATION. ALL DISTURBED AREAS ARE TO DRAIN TO APPROVED SEDIMENT CONTROL MEASURES AT ALL TIMES DURING SITE DEVELOPMENT UNTIL FINAL STABILIZATION IS ACHIEVED. DEPENDING ON HOW THE CONTRACTOR GRADES THE SITE, IT MAY BE NECESSARY TO INSTALL TEMPORARY EROSION CONTROL AND/OR SEDIMENT TRAPS IN VARIOUS LOCATIONS THROUGHOUT THE PROJECT. TEMPORARY SEDIMENT TRAPS SHALL BE DESIGNED, INSTALLED, AND MAINTAINED IN ACCORDANCE WITH WisDNR TECHNICAL STANDARD 1063.
- TRACKED MATERIAL TO ADJACENT STREETS SHALL BE COLLECTED AT THE END OF EACH WORKING DAY OR AS REQUIRED BY THE LOCAL MUNICIPALITY.
- DUST CONTROL SHALL BE PROVIDED AS NECESSARY IN ACCORDANCE WITH WisDNR TECHNICAL STANDARD 106B.
- THE CONTRACTOR IS RESPONSIBLE FOR PROVIDING ALL EROSION CONTROL FACILITIES AND MEASURES NECESSARY TO CONTROL EROSION AND SEDIMENTATION AT THE PROJECT SITE. THESE FACILITIES AND MEASURES MAY OR MAY NOT BE SHOWN ON THE DRAWINGS AND THEIR ABSENCE ON THE DRAWINGS DOES NOT ALLEVIATE THE CONTRACTOR FROM PROVIDING THEM. ANY MEASURES AND FACILITIES SHOWN ON THE DRAWINGS ARE THE MINIMUM ACTIONS REQUIRED.
- ERODED MATERIAL THAT HAS LEFT THE CONSTRUCTION SITE SHALL BE COLLECTED AND RETURNED TO THE SITE BY THE CONTRACTOR.
- AFTER FINAL VEGETATION IS ESTABLISHED, REMOVE ALL EROSION CONTROL FACILITIES. RESTORE AREAS DISTURBED BY THE REMOVALS.
- KEEP A COPY OF THE CURRENT EROSION CONTROL PLAN ON SITE THROUGHOUT THE DURATION OF THE PROJECT.
- COMPLETE AND STABILIZE SEDIMENT BASINS/TRAPS PRIOR TO MASS LAND DISTURBANCE TO CONTROL RUNOFF DURING CONSTRUCTION. REMOVE SEDIMENT AS NEEDED TO MAINTAIN 3 FEET OF DEPTH TO THE OUTLET, AND PROPERLY DISPOSE OF SEDIMENT REMOVED DURING MAINTENANCE. CONSTRUCT AND MAINTAIN THE SEDIMENT BASIN PER WisDNR TECHNICAL STANDARDS.
- PROPERLY DISPOSE OF ALL WASTE AND UNUSED BUILDING MATERIALS (INCLUDING GARBAGE, DEBRIS, CLEANING WASTES, OR OTHER CONSTRUCTION MATERIALS) AND DO NOT ALLOW THESE MATERIALS TO BE CARRIED BY RUNOFF INTO THE RECEIVING CHANNEL.
- FOR NON-CANNELIZED FLOW ON DISTURBED OR CONSTRUCTED SLOPES 4:1, USE CLASS I URBAN, TYPE A EROSION CONTROL MATTING. FOR SLOPES GREATER THAN 4:1 BUT LESS THAN 2.5:1, USE CLASS I URBAN TYPE B. FOR SLOPES GREATER THAN 2.5:1 USE CLASS I TYPE B. SELECT EROSION MATTING FROM APPROPRIATE MATRIX IN WisDOT'S FACILITIES DEVELOPMENT MANUAL AND INSTALL AND MAINTAIN PER WisDNR TECHNICAL STANDARDS.
- FOR CHANNELIZED FLOW ON DISTURBED OR CONSTRUCTED AREAS, PROVIDE CLASS I TYPE B EROSION CONTROL MATTING. ELECT EROSION MATTING FROM APPROPRIATE MATRIX IN WisDOT'S FACILITIES DEVELOPMENT MANUAL; INSTALL AND MAINTAIN PER WisDNR TECHNICAL STANDARDS.
- ALL DISTURBED AREAS WITHIN THE RIGHT-OF-WAY SHALL BE COVERED WITH A BIO-DEGRADABLE EROSION MAT INCLUDING BIO-DEGRADABLE STAPLES.
- ALL BIO-DEGRADABLE EROSION MAT SHALL BE CURLEX NET FREE OR APPROVED EQUAL.
- WATERING OF NEW SEEDING SHALL BE OF A DURATION AND FREQUENCY ADEQUATE TO ENSURE PROPER ESTABLISHMENT OF NEW SEEDING.
- MAKE PROVISIONS FOR WATERING DURING THE FIRST 8 WEEKS FOLLOWING SEEDING OR PLANTING OF DISTURBED AREAS WHENEVER MORE THAN 7 CONSECUTIVE DAYS OF DRY WEATHER OCCUR.

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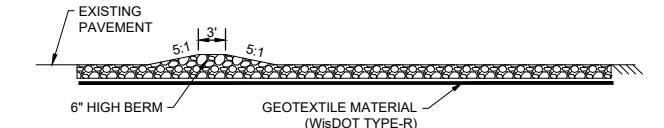
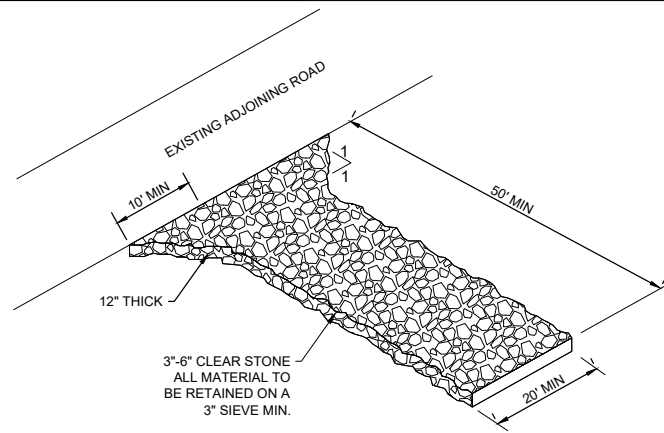
OLIVE TREE RESIDENCES

EROSION CONTROL NOTES CITY OF FITCHBURG, DANE COUNTY, WISCONSIN

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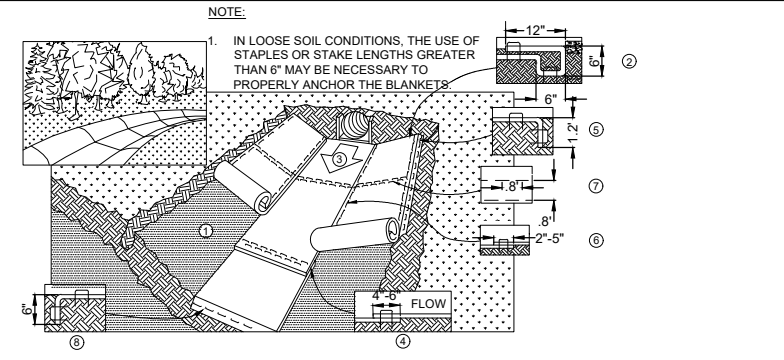
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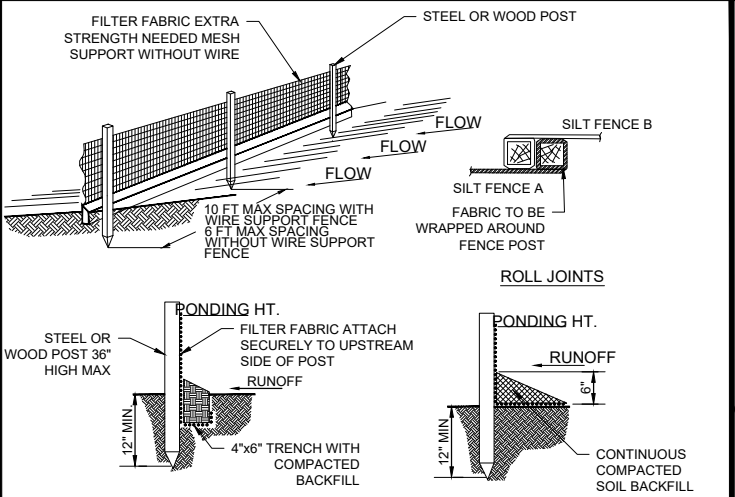
- NOTE:
1. MAINTAIN THE ROCK ENTRANCE TO PREVENT TRACKING ONTO PAVEMENT

1 **STONE ENTRANCE DETAIL**
SCALE: 3"=1'



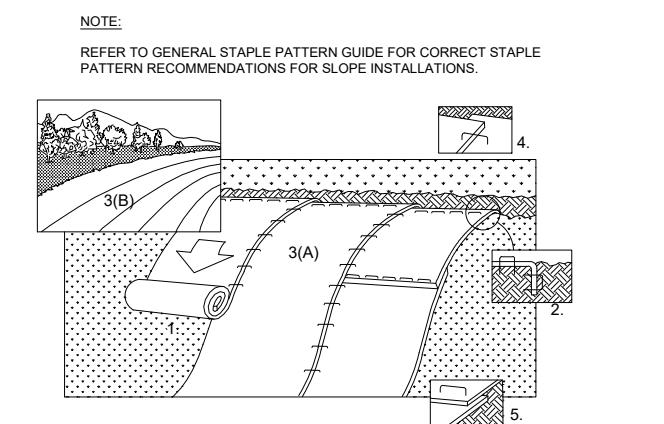
- INSTALLATION:
1. PREPARE SOIL BEFORE INSTALLING BLANKETS, INCLUDING APPLICATION OF FERTILIZER AND SEED.
 2. BEGIN AT THE TOP OF THE CHANNEL BY ANCHORING THE BLANKET IN A 6" DEEP X 6" WIDE TRENCH WITH APPROXIMATELY 12" OF BLANKET EXTENDED BEYOND THE UP-SLOPE PORTION OF THE TRENCH. ANCHOR THE BLANKET WITH A ROW OF STAPLES/STAKES APPROXIMATELY 12" APART IN THE BOTTOM OF THE TRENCH. BACKFILL AND COMPACT THE TRENCH AFTER STAPLING. APPLY SEED TO COMPACTED SOIL AND FOLD REMAINING 12" PORTION OF BLANKET BACK OVER SEED AND COMPACTED SOIL. SECURE BLANKET OVER COMPACTED SOIL WITH A ROW OF STAPLES/STAKES SPACED APPROXIMATELY 12" APART ACROSS THE WIDTH OF THE BLANKET.
 3. ROLL CENTER BLANKET IN DIRECTION OF WATER FLOW IN BOTTOM OF CHANNEL. BLANKETS WILL UNROLL WITH APPROPRIATE SIDE AGAINST THE SOIL SURFACE. ALL BLANKETS MUST BE SECURELY FASTENED TO THE SOIL SURFACE BY PLACING STAPLES/STAKES IN APPROPRIATE LOCATIONS AS RECOMMENDED BY THE MANUFACTURER.
 4. PLACE CONSECUTIVE BLANKETS END OVER END (SHINGLE STYLE) WITH A 4"-6" OVERLAP. USE A DOUBLE ROW OF STAPLES STAGGERED 4" APART AND 4" ON CENTER TO SECURE BLANKETS.
 5. FULL LENGTH EDGE OF BLANKETS AT TOP OF SIDE SLOPE MUST BE ANCHORED WITH A ROW OF STAPLES/STAKES APPROXIMATELY 12" APART IN A 6" DEEP X 6" WIDE TRENCH. BACKFILL AND COMPACT THE TRENCH AFTER STAPLING.
 6. A STAPLE CHECK SLOT IS RECOMMENDED AT 30 TO 40 FOOT INTERVALS. USE A DOUBLE ROW OF STAPLES STAGGERED 4" APART AND 4" ON CENTER OVER ENTIRE WIDTH OF THE CHANNEL.
 7. THE TERMINAL END OF THE BLANKETS MUST BE ANCHORED WITH A ROW OF STAPLES/STAKES APPROXIMATELY 12" APART IN A 6" DEEP X 6" WIDE TRENCH. BACKFILL AND COMPACT THE TRENCH AFTER STAPLING.
 8. EROSION MAT SHALL EXTEND FOR WHICHEVER IS GREATER: UPSLOPE ONE FOOT MIN. VERTICALLY FROM DITCH BOTTOM OR 6" HIGHER THAN DESIGN FLOW DEPTH.
 9. EROSION MAT SHALL BE INSTALLED AND MAINTAINED IN ACCORDANCE WITH WDNr TECHNICAL STANDARDS 1053.

2 **EROSION CONTROL MAT - CHANNEL INSTALLATION**
N.T.S.



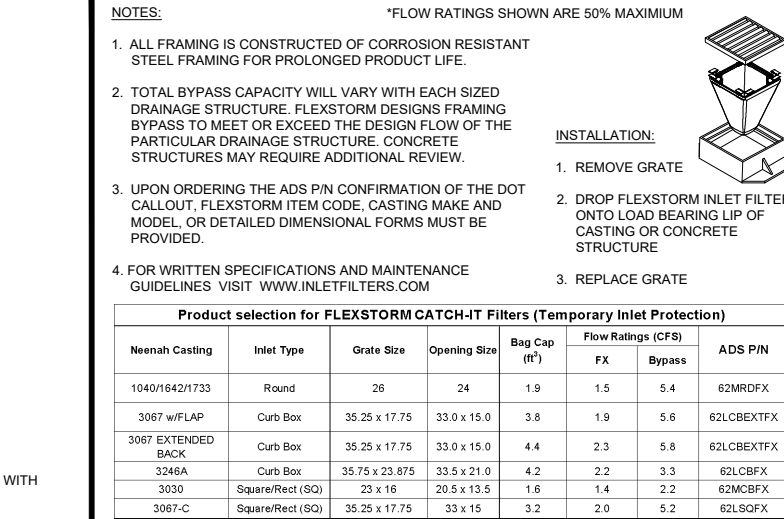
- NOTES:
1. INSPECT FENCE WEEKLY AND AFTER EACH RAIN EVENT OF 0.5 INCHES AND REPAIR IF REQUIRED. REMOVE SEDIMENT WHEN NECESSARY OR WHEN SEDIMENT REACHES 1/2 OF FENCE HEIGHT.
 2. REMOVED SEDIMENT SHALL BE DEPOSITED TO AN AREA THAT WILL NOT CONTRIBUTE SEDIMENT OFF-SITE AND CAN BE PERMANENTLY STABILIZED.
 3. SILT FENCE SHALL BE PLACED ON SLOPE CONTOURS TO MAXIMIZE PONDING EFFICIENCY.
 4. SILT FENCE SHALL BE INSTALLED AND MAINTAINED IN ACCORDANCE WITH WDNr TECHNICAL STANDARD 1056.

3 **SILT FENCE DETAIL**
N.T.S.



- INSTALLATION:
1. PREPARE SOIL BEFORE INSTALLING BLANKETS, INCLUDING APPLICATION OF FERTILIZER AND SEED. NOTE: WHEN USING CELL-O-SEED DO NOT SEED PREPARED AREA. CELL-O-SEED MUST BE INSTALLED WITH PAPER SIDE DOWN.
 2. BEGIN AT THE TOP OF THE SLOPE BY ANCHORING THE BLANKET IN 6" DEEP X 6" WIDE TRENCH. BACKFILL AND COMPACT THE TRENCH AFTER STAPLING.
 3. ROLL THE BLANKETS (A.) DOWN THE SLOPE (B.) HORIZONTALLY ACROSS THE SLOPE
 4. THE EDGES OF PARALLEL BLANKETS MUST BE STAPLED WITH APPROXIMATELY 2" OVERLAP.
 5. WHEN BLANKETS MUST BE SPICED DOWN THE SLOPE, PLACE BLANKETS END OVER END (SHINGLE STYLE) WITH APPROXIMATELY 4" OVERLAP. STAPLE THROUGH OVERLAPPED AREA, APPROXIMATELY 12" APART.
 6. ALL BLANKETS MUST BE SECURELY FASTENED TO THE SLOPE BY PLACING STAPLES/STAKES IN APPROPRIATE LOCATIONS AS RECOMMENDED BY THE MANUFACTURER.
 7. EROSION MAT SHALL BE INSTALLED AND MAINTAINED IN ACCORDANCE WITH WDNr TECHNICAL STANDARD # 1052.

4 **EROSION CONTROL MAT - SLOPE INSTALLATION**
N.T.S.



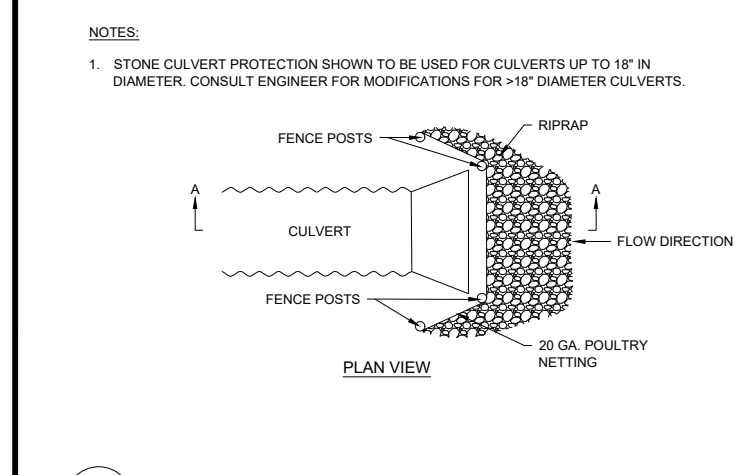
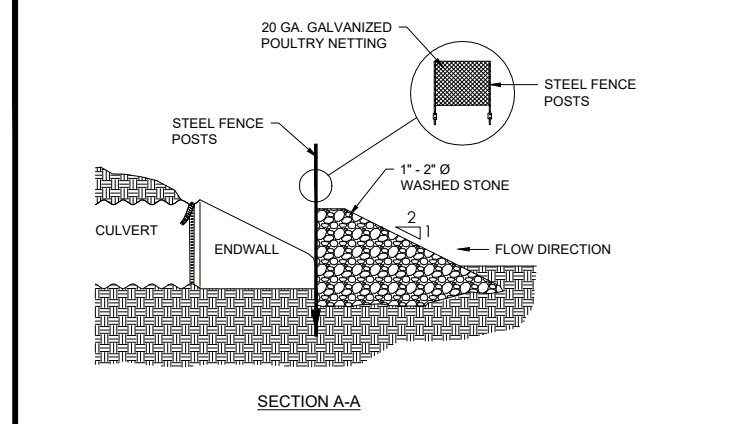
INSTALLATION:

1. REMOVE GRATE
2. DROP FLEXSTORM INLET FILTER ONTO LOAD BEARING LIP OF CASTING OR CONCRETE STRUCTURE
3. REPLACE GRATE

Product selection for FLEXSTORM CATCH-IT Filters (Temporary Inlet Protection)

Neenah Casting	Inlet Type	Grate Size	Opening Size	Bag Cap (ft ²)	Flow Ratings (CFS)		ADS P/N
					FX	Bypass	
1040/1642/1733	Round	26	24	1.9	1.5	5.4	62MRDFX
3067 w/FLAP	Curb Box	35.25 x 17.75	33.0 x 15.0	3.8	1.9	5.8	62LCBEXTFX
3067 EXTENDED BACK	Curb Box	35.25 x 17.75	33.0 x 15.0	4.4	2.3	5.8	62LCBEXTFX
3248A	Curb Box	35.75 x 23.875	33.5 x 21.0	4.2	2.2	3.3	62LCBFX
3030	Square/Rect (SQ)	23 x 16	20.5 x 13.5	1.6	1.4	2.2	62MCBFX
3067-C	Square/Rect (SQ)	35.25 x 17.75	33 x 15	3.2	2.0	5.2	62LSQFX

5 **INLET PROTECTION DETAIL**
N.T.S.



6 **STONE CULVERT PROTECTION**
N.T.S.

PIP SUBMITTAL	04-14-25	BCA	REVISION	DATE	BY
GIP RESUBMITTAL	03-07-25	BCA	Checked By:	M.L.C.	Scale: 1" = #ft
GIP RESUBMITTAL	02-24-25	BCA	Engineer:	BCA	T-R-S: TTN-RRW-SS
GIP RESUBMITTAL	02-07-25	BCA	Technician:	DMS	Date: 11-04-2024

CITY OF FITCHBURG, DANE COUNTY, WISCONSIN

EROSION CONTROL DETAILS

OLIVE TREE RESIDENCES

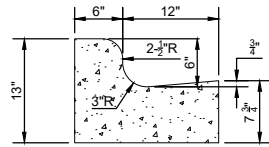
SNYDER & ASSOCIATES, INC.

5010 VOGES ROAD
MADISON, WISCONSIN 53718
608-835-0444 | www.snyder-associates.com

Project No: 124.1205.30
Sheet C700

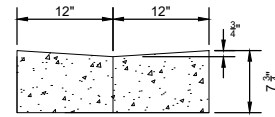
SNYDER & ASSOCIATES

Project No: 124.1205.30
Sheet C700



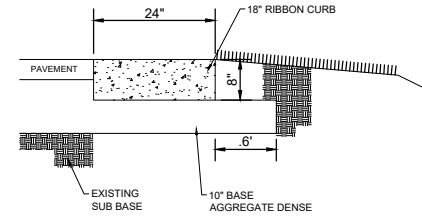
- NOTES:**
- LATERAL CONTRACTION JOINTS SHALL BE PLACED AT INTERVALS OF NOT MORE THAN 15' NOR LESS THAN 6' IN LENGTH. THE JOINTS SHALL BE A MINIMUM OF 3" IN DEPTH. EXPANSION JOINTS SHALL BE PLACED TRANSVERSELY AT RADIUS POINTS ON CURVES OF RADIUS 200' OR LESS AND AT ANGLE POINTS, OR AS DIRECTED BY THE ENGINEER.
 - THE EXPANSION JOINT SHALL BE A ONE PIECE ASPHALTIC MATERIAL HAVING THE SAME DIMENSIONS AS CURB & GUTTER AT THAT STATION AND BE 1/2" THICK. IN ALL CASES, CONCRETE CURB & GUTTER SHALL BE PLACED ON THOROUGHLY COMPACTED CRUSHED STONE.

1 18" STANDARD CONCRETE CURB & GUTTER
N.T.S.



- NOTES:**
- LATERAL CONTRACTION JOINTS SHALL BE PLACED AT INTERVALS OF NOT MORE THAN 15' NOR LESS THAN 6' IN LENGTH. THE JOINTS SHALL BE A MINIMUM OF 3" IN DEPTH. EXPANSION JOINTS SHALL BE PLACED TRANSVERSELY AT RADIUS POINTS ON CURVES OF RADIUS 200' OR LESS AND AT ANGLE POINTS, OR AS DIRECTED BY THE ENGINEER.
 - THE EXPANSION JOINT SHALL BE A ONE PIECE ASPHALTIC MATERIAL HAVING THE SAME DIMENSIONS AS CURB & GUTTER AT THAT STATION AND BE 1/2" THICK. IN ALL CASES, CONCRETE CURB & GUTTER SHALL BE PLACED ON THOROUGHLY COMPACTED CRUSHED STONE.

2 24" VALLEY CONCRETE CURB & GUTTER
N.T.S.

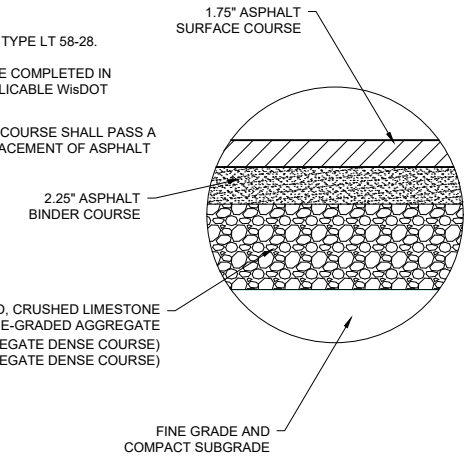


- NOTES:**
- LATERAL CONTRACTION JOINTS SHALL BE PLACED AT INTERVALS OF NOT MORE THAN 15' NOR LESS THAN 6' IN LENGTH. THE JOINTS SHALL BE A MINIMUM OF 3" IN DEPTH. EXPANSION JOINTS SHALL BE PLACED TRANSVERSELY AT RADIUS POINTS ON CURVES OF RADIUS 200' OR LESS AND AT ANGLE POINTS, OR AS DIRECTED BY THE ENGINEER.
 - THE EXPANSION JOINT SHALL BE A ONE PIECE ASPHALTIC MATERIAL HAVING THE SAME DIMENSIONS AS CURB & GUTTER AT THAT STATION AND BE 1/2" THICK. IN ALL CASES, CONCRETE CURB & GUTTER SHALL BE PLACED ON THOROUGHLY COMPACTED CRUSHED STONE.

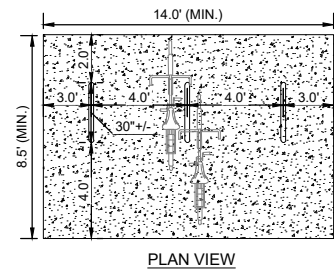
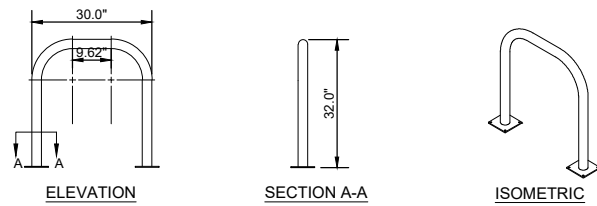
3 RIBBON CURB DETAIL
N.T.S.

NOTES:

- HMA PAVEMENT SHALL BE TYPE LT 58-28.
- ASPHALT PAVING SHALL BE COMPLETED IN CONFORMANCE WITH APPLICABLE WisDOT SPECIFICATION.
- THE CONSTRUCTED BASE COURSE SHALL PASS A PROOF ROLL PRIOR TO PLACEMENT OF ASPHALT PAVING.



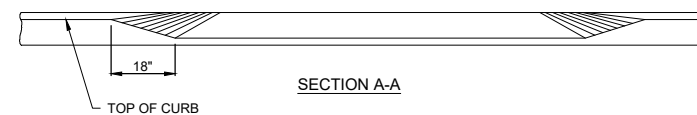
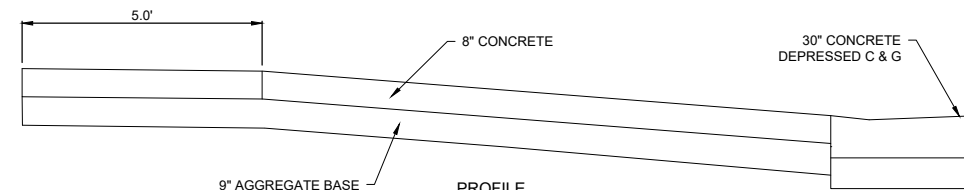
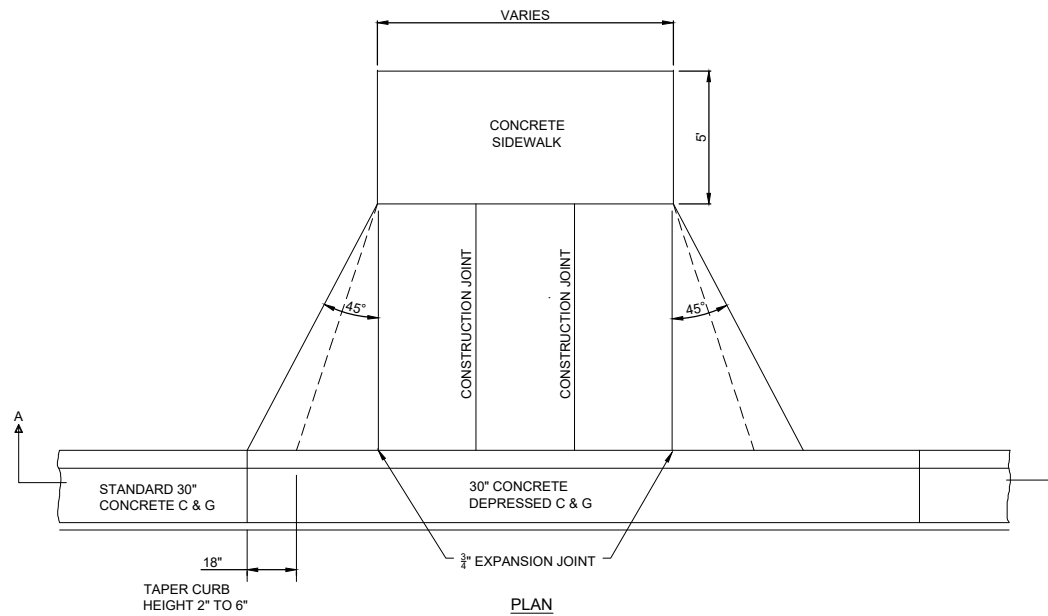
4 MEDIUM DUTY ASPHALT PAVING DETAIL
N.T.S.



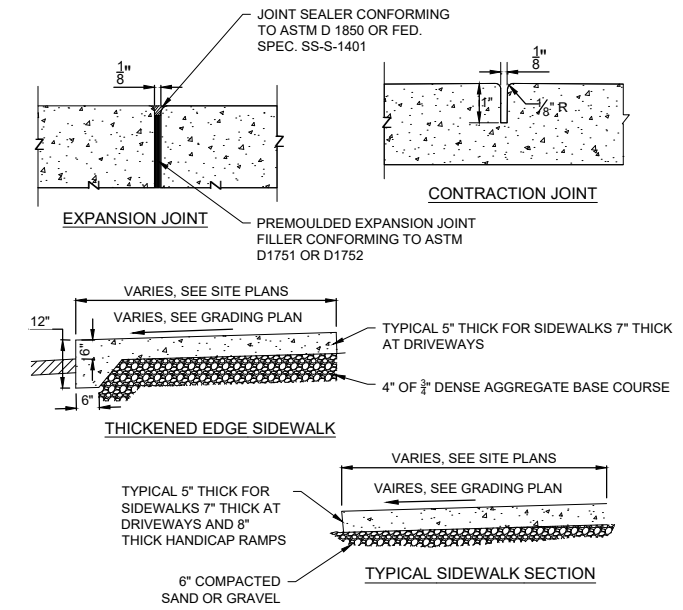
(2) 6" X 6" X .25" SQUARE FLANGE MOUNTING PLATES WITH (4) 5/8" Ø MOUNTING HOLES

- NOTE:**
- INSTALLATION TO BE COMPLETED IN ACCORDANCE WITH MANUFACTURER'S SPECIFICATIONS

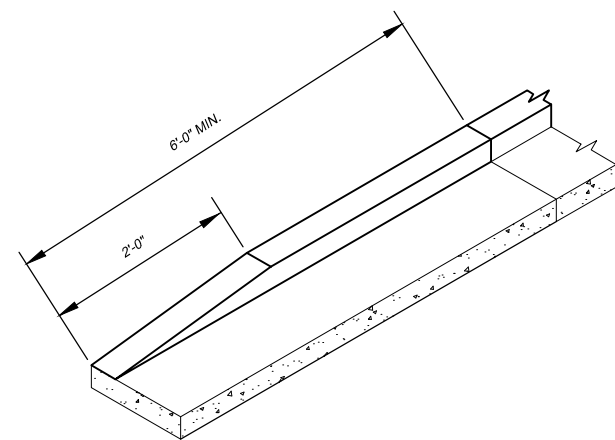
5 BIKE RACK DETAIL
N.T.S.



7 DRIVEWAY DETAIL
N.T.S.



8 SIDEWALK DETAIL
N.T.S.



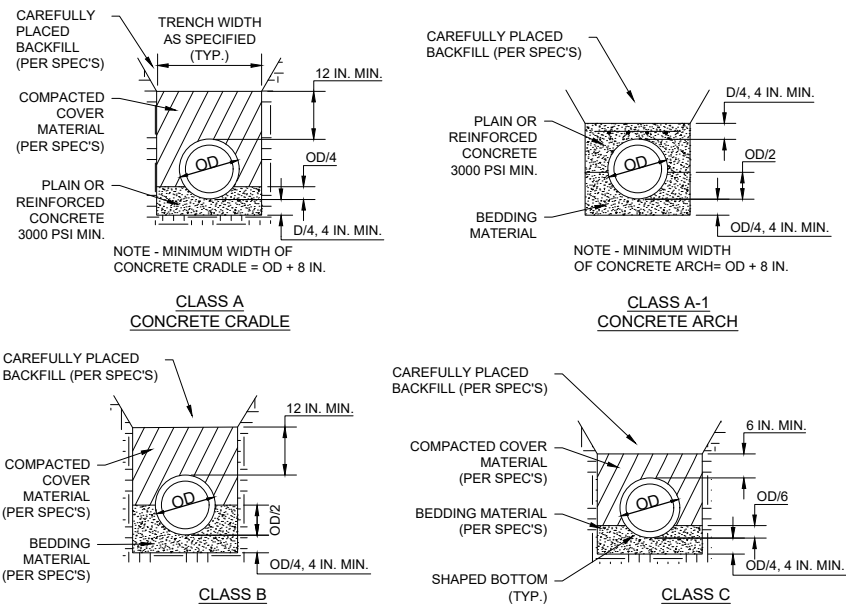
6 TAPER END CURB & GUTTER
N.T.S.

PIP SUBMITTAL	04-14-25	BCA	MARK	REVISION	DATE	BY
GIP RESUBMITTAL	09-07-25	BCA	Engineer: BCA	Checked By: MLC	Scale: 1" =	
GIP RESUBMITTAL	02-24-25	BCA	Technician: DMS	Date: 11-04-2024	T-R-S: TTN-RRW-SS	
GIP RESUBMITTAL	02-07-25	BCA				

Project No: 124.1205.30
Sheet C701

OLIVE TREE RESIDENCES
SITE & PAVEMENT DETAILS
CITY OF FITCHBURG, DANE COUNTY, WISCONSIN
SNYDER & ASSOCIATES, INC.
5010 VOGES ROAD
MADISON, WISCONSIN 53718
608-838-0444 | www.snyder-associates.com

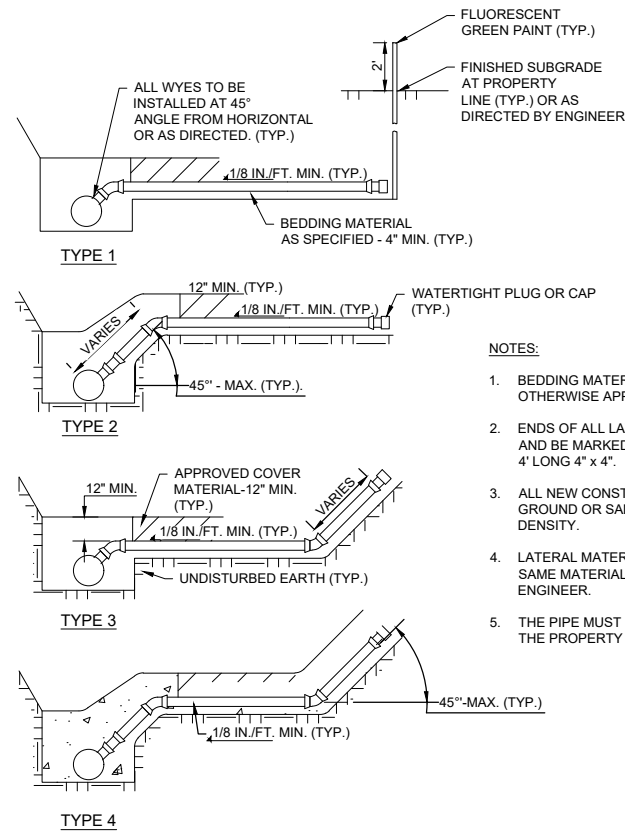




NOTES:

1. ALL PVC AND ABS SEWER MAINS AND LATERALS SHALL BE CLASS "B" MIN., OR AS CALLED FOR IN THE SPECIAL PROVISIONS.
2. ALL BEDDING AND COVER MATERIALS SHALL BE AS SPECIFIED AND SHALL BE SUBJECT TO THE APPROVAL OF THE ENGINEER.
3. UNDERCUT SHALL BE IN ACCORDANCE WITH SECTION 3 OF THE STORM AND SANITARY SEWER STANDARD SPECIFICATIONS.

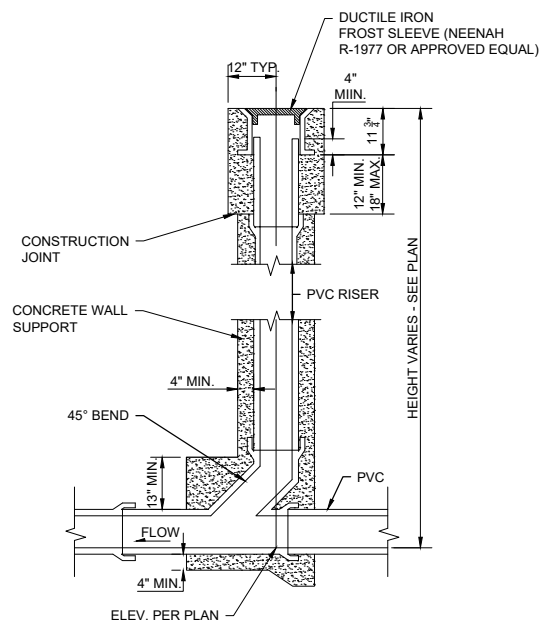
1 SANITARY SEWER BEDDING DETAIL
N.T.S.



NOTES:

1. BEDDING MATERIAL SHALL BE 3/8" CLEAR STONE, UNLESS OTHERWISE APPROVED BY ENGINEER.
2. ENDS OF ALL LATERALS TO BE 10 FT. MIN. COVER AT END, AND BE MARKED BOTH BELOW AND ABOVE SURFACE WITH 4" LONG 4" x 4".
3. ALL NEW CONSTRUCTION TO BE PLACED ON UNDISTURBED GROUND OR SAND COMPACTED TO 95% MAXIMUM DENSITY.
4. LATERAL MATERIAL INCLUDING FITTINGS SHALL BE OF SAME MATERIAL AS THE SEWER MAIN, OR AS DIRECTED BY ENGINEER.
5. THE PIPE MUST EXTEND AT LEAST 5' Laterally BEYOND THE PROPERTY LINE

3 SANITARY LATERAL DETAIL
N.T.S.



2 CLEAN OUT DETAIL
N.T.S.

PIP SUBMITTAL	04-14-25	BCA
GIP RESUBMITTAL	03-07-25	BCA
GIP RESUBMITTAL	02-24-25	BCA
GIP RESUBMITTAL	02-07-25	BCA
MARK	REVISION	DATE
Engineer: BCA	Checked By: MLC	Scale: 1" =
Technician: DMS	Date: 11-04-2024	T-R-S: TTN-RRW-SS
Project No: 124.1205.30		
Sheet C702		

OLIVE TREE RESIDENCES

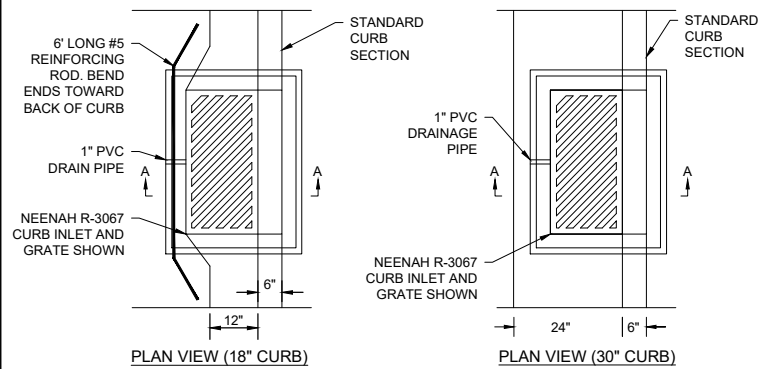
SANITARY DETAILS

CITY OF FITCHBURG, DANE COUNTY, WISCONSIN

SNYDER & ASSOCIATES, INC.

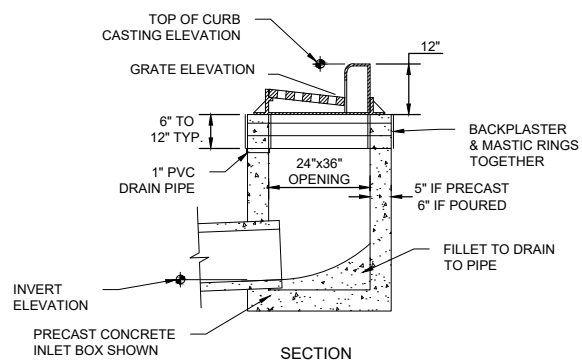
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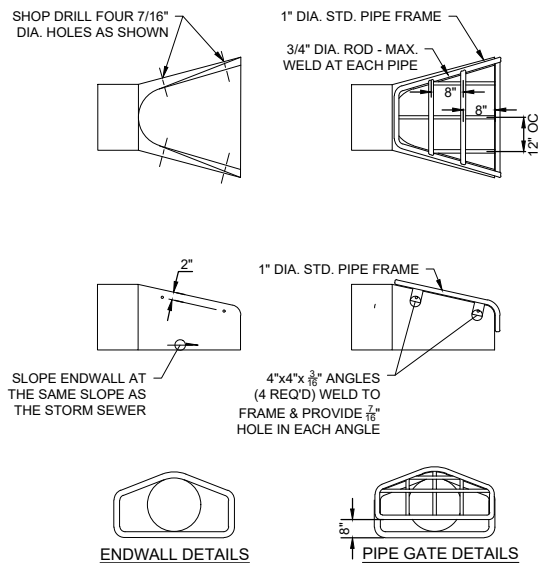


NOTES:

1. TOP OF CURB AND PIPE INVERT ELEVATIONS ARE SHOWN ON THE PLANS.
2. THE GRATE ELEVATION SHALL BE DEPRESSED 0.1' FROM STRAIGHT GUTTER GRADE STARTING 5' FROM THE INLET AND EXTENDING IN BOTH DIRECTIONS.
3. THE CASTING SHALL BE NEENAH FOUNDRY R-3067 CURB INLET WITH REVERSIBLE GRATES WHERE RUNOFF REACHES THE INLET FROM BOTH DIRECTIONS. WHERE RUNOFF REACHES THE INLET FROM ONE DIRECTION A NEENAH R-3067-L CASTING SHALL BE USED. DIRECTIONAL SLOTS TO BE LOCATED TO DIRECT THE FLOW INTO THE STREET INLET.
4. FRAME ADJUSTING RINGS SHALL BE AT LEAST TWO CONCRETE RINGS OF VARIABLE THICKNESS. MASTIC BETWEEN RINGS AND BACKPLASTER A SMOOTH LAYER OF GROUT OVER THE ENTIRE INNER AND OUTER SURFACES OF THE RINGS.



1 RECTANGULAR CURB INLET DETAIL
N.T.S.



NOTE:

1. THE CONTRACTOR SHALL BOLT THE PIPE GATE TO THE CONCRETE ENDWALL WITH FOUR 3/8"x6" MACHINE BOLTS WITH NUTS ON INSIDE WALL.

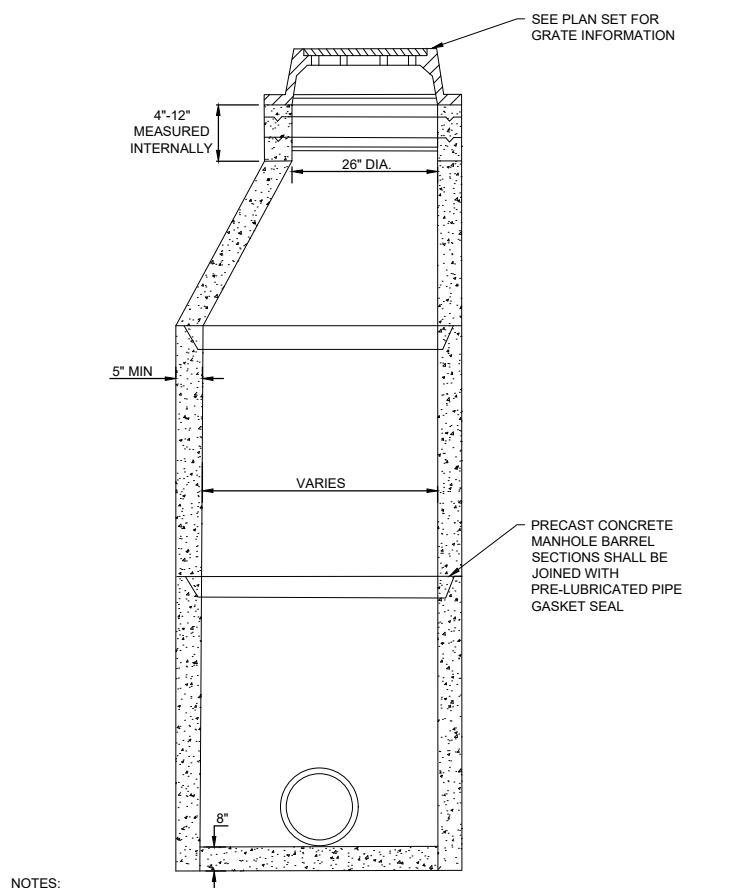
PAINTING SPECIFICATION:

1. THE PIPE GATE SHALL RECEIVE THE FOLLOWING PREPARATION & PAINTING. THE FIRST COAT SHALL BE RUS-OLEUM X-60 RED BARE METAL PRIMER OR APPROVED EQUAL. THE SECOND COAT SHALL BE RUS-OLEUM 960 ZINC CHROMATE PRIMER OR APPROVED EQUAL. THE THIRD COAT SHALL BE RUS-OLEUM 1282 HIGH GLOSS METAL FINISH OR APPROVED EQUAL.

PREPARATION STEPS:

1. BARE METAL SURFACES - TREAT WITH THE THREE-COAT PAINTING SYSTEM LISTED AFTER A THOROUGH SCRAPING, WIRE BRUSHING & CLEANING.
2. EACH COAT OF PAINT SHALL BE APPLIED OVER THE ENTIRE GATE SURFACE.
3. ALLOW 24-48 HOURS DRYING TIME AT 60° OR ABOVE BETWEEN COATS.

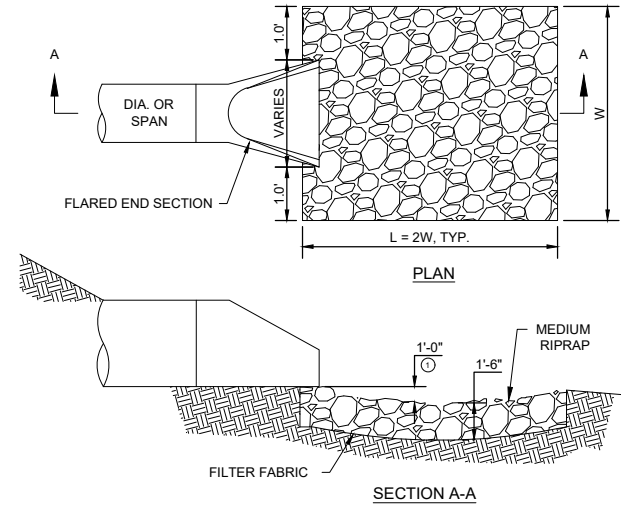
3 STANDARD ENDWALL DETAILS
N.T.S.



NOTES:

1. FOR STRUCTURES LESS THAN 5.0' DEEP A PRECAST REINFORCED CONCRETE FLATTOP IS REQUIRED.
2. WALL THICKNESS SHALL BE 5" FOR 48" MANHOLE AND 6" FOR 60" MANHOLE.
3. THE USE OF WOOD WEDGES OR SHIMS FOR FRAME OR RING ADJUSTMENT IS NOT ALLOWED.
4. MAXIMUM TOTAL CHIMNEY HEIGHT, EXCLUDING MANHOLE FRAME, SHALL NOT EXCEED 16 INCHES, WITH A MINIMUM OF 1 - 2 INCH PRECAST RING.
5. THE ANNULAR SPACE BETWEEN THE PIPE AND MANHOLE WALL SHALL BE FILLED WITH CONCRETE TO THE HEIGHT OF THE BENCH.
6. MANHOLES 3' DEEP AND GREATER SHALL BE CONSTRUCTED WITH STEPS.

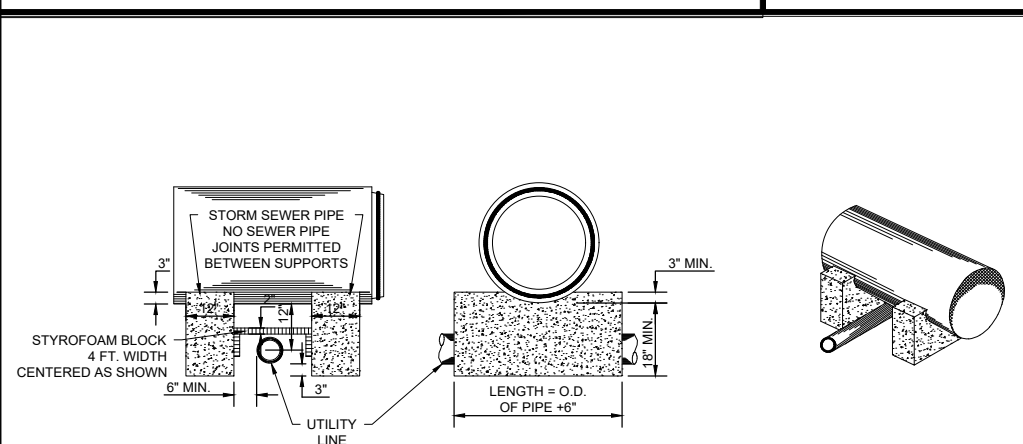
4 STORM SEWER MANHOLE DETAIL
N.T.S.



NOTES:

1. GEOTEXTILE FILTER FABRIC SHALL BE TYPE "HR" UNLESS OTHERWISE SPECIFIED. REFER TO SECTION 401.4.1.
- FOR PIPES GREATER THAN OR EQUAL TO 30" USE 1.5'.

6 ENDWALL RIP-RAP DETAIL
N.T.S.

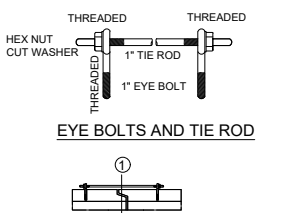


NOTE:

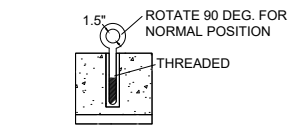
1. EACH PAIR OF SUPPORTS IN ANY SIZE IS ONE PAY ITEM.

2 CONCRETE PIPE SUPPORT
N.T.S.

ALTERNATE 1
EYE BOLT AND TIE ROD ASSEMBLY
(JOINT TIES FOR 72" DIA. AND OVER CONCRETE PIPE)



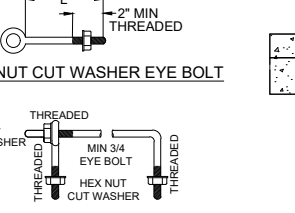
② INSERT. CAST-IN-PLACE WELDED EYE BOLT OR APPROVED EQUAL DURING FABRICATION FOR 1" DIA. EYE BOLT



CAST-IN-PLACE THREADED INSERT LONGITUDINAL SECTIONS

5 CONCRETE PIPE JOINT TIES
N.T.S.

ALTERNATE 2
EYE BOLT AND TIE ROD ASSEMBLY
(JOINT TIES FOR 18" TO 66" DIA. CONCRETE PIPE)

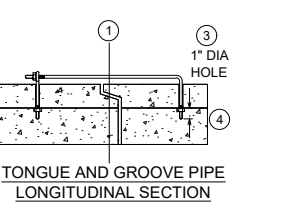
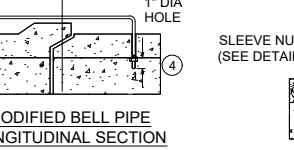


NOTE:
1. TWO EYE BOLTS MAY BE USED WITH A 30° LONG THREADED ROD IN LIEU OF THE 90° DEG BENT TIE ROD EYE BOLT AND TIE ROD

PIPE SIZE	TONGUE AND GROOVE PIPE	MODIFIED BELL PIPE
18" TO 24"	4 1/2"	6 1/4"
30"	5"	7"
36"	5 1/2"	7"
42"	6"	
48"	6 1/2"	
60"	7 1/2"	
66"	8"	

EYE BOLT DIMENSION TABLE

ALTERNATE 3
ADJUSTABLE TIE ROD
(JOINT TIES FOR 12" TO 108" DIA. CONCRETE PIPE)



① > OF TONGUE AND GROOVE OR BELL AND SPIGOT JOINT
② THE INSIDE OF THE THREADED INSERTS SHALL BE CLEAN TO ALLOW THE INSERTION OF THREADED EYE BOLTS
③ HOLES SHALL BE CAST-IN-PLACE OR DRILLED, 12" FROM > OF TONGUE AND GROOVE
④ BOLT PROJECTION INSIDE OF PIPE SHALL NOT EXCEED 2"
⑤ ROD DIAMETER = 1 INCH

LONGITUDINAL SECTION

TONGUE AND GROOVE PIPE LONGITUDINAL SECTION

PIPE DIAMETER	TIE ROD DIAMETER	D	L1	H	R
12" TO 30"	1/2"	1/2"	5"	1/2"	1 3/4"
36" TO 48"	3/4"	3/4"	5"	1/2"	5"
60" TO 104"	1"	1"	7"	1/2"	7 1/2"

ADJUSTABLE TIE ROD TABLE



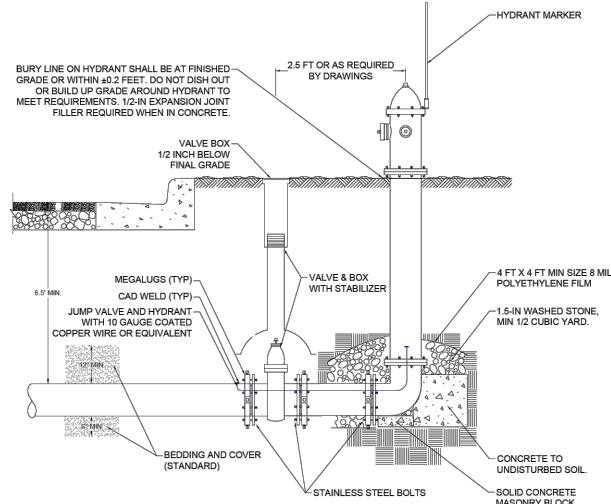
GENERAL NOTES:

1. CONCRETE CULVERT PIPE SHALL BE TIED TOGETHER IN THE MANNER ILLUSTRATED BY THIS DETAIL AND PER STANDARD SPEC. 502.7 (D)
2. THE CONTRACTOR MAY USE EITHER ALTERNATE 1, 2, OR 3 FOR DRAINAGE STRUCTURES. UNLESS OTHERWISE STATED IN THE CONTRACT, THE MATERIALS, FABRICATION AND WORK NECESSARY TO THE CULVERT PIPE AS SHOWN ON THIS DETAIL WILL BE CONSIDERED INCIDENTAL TO THE CULVERT PIPE.

PLACEMENT OF (2) CAST-IN-PLACE INSERTS OR HOLES DURING FABRICATION FOR PIPE SECTIONS REQUIRING TIE RODS

DETAILED DRAWINGS FOR PROPOSED ALTERNATE DESIGNS FOR JOINT TIES SHALL BE SUBMITTED TO THE ENGINEER FOR APPROVAL.

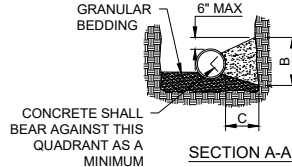
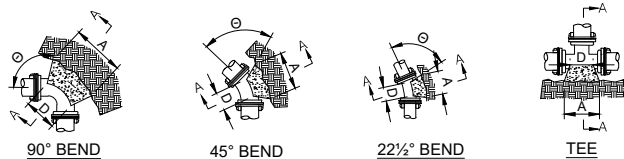
TRANSVERSE SECTION



- NOTE:
- RESTRAIN ENTIRE LENGTH OF HYDRANT LEAD FROM THE TEE THROUGH THE VALVE TO THE HYDRANT
 - INSTALL 8 MIL POLYETHYLENE FILM ON HYDRANT LEAD PER MANUFACTURERS REQUIREMENTS.



FIRE HYDRANT
STANDARD DETAIL DRAWING
DATE: 1/24/2019
SHEET NO.: 7.02



NOTES:

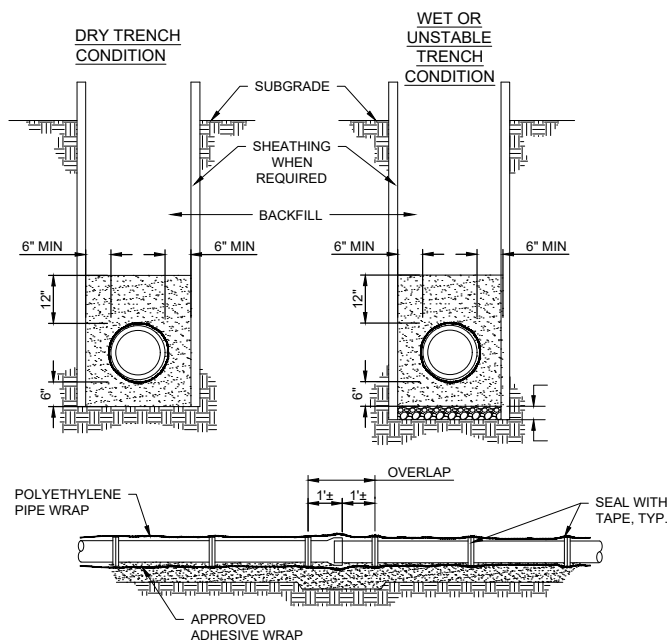
- WOOD BLOCKING MAY NOT BE USED. ONLY SOLID CONCRETE BLOCKS ARE ALLOWED.
- DIMENSION "D" SHALL BE AS LARGE AS POSSIBLE, BUT THE CONCRETE SHALL NOT INTERFERE WITH THE MECHANICAL JOINTS.
- DIMENSION "C" SHALL BE AT LEAST 6 INCHES, AND LARGE ENOUGH TO MAKE THE "9" ANGLE EQUAL TO OR GREATER THAN 45 DEGREES WITH THE DIMENSION "A" AS SHOWN ON THE TABLE, OR GREATER, AND WITH DIMENSION "D" AS LARGE AS POSSIBLE.
- CONCRETE SHALL BE CLASS "CC".
- ALL BUTTRESSED JOINTS SHALL INCLUDE MEGALUGS AND CONCRETE BUTTRESSING.

PIPE SIZE	BUTTRESS DIMENSIONS							
	TEES		22.5° BEND		45° BEND		90° BEND	
	A	B	A	B	A	B	A	B
6	1'-3"	1'-0"	1'-0"	1'-0"	1'-0"	1'-0"	1'-2"	1'-2"
8	1'-6"	1'-4"	1'-0"	1'-0"	1'-4"	1'-2"	1'-10"	1'-6"
10/12	2'-3"	2'-0"	1'-4"	1'-4"	1'-10"	1'-10"	2'-3"	2'-3"
14/18	3'-2"	2'-8"	1'-10"	1'-8"	2'-8"	2'-4"	3'-10"	2'-10"
18/20	4'-0"	3'-0"	2'-4"	2'-0"	3'-3"	2'-10"	5'-0"	3'-4"
22/24	5'-3"	3'-4"	2'-10"	2'-4"	4'-0"	3'-3"	6'-4"	3'-10"
30	6'-3"	4'-3"	3'-6"	3'-0"	5'-4"	3'-10"	8'-0"	4'-8"

* = FOR TEE THIS WILL BE THE BRANCH PIPE

DIMENSIONS IN THE TABLE ARE BASED ON A WATER PRESSURE OF 150 PSI AND SOIL RESISTANCE OF 2000 LBS./SQ.FT.

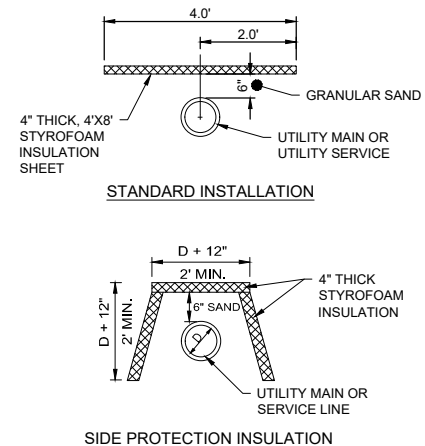
2 BUTTRESS DETAIL
N.T.S.



INSTALLATION:

- PLACE 6" OF BEDDING MATERIAL BENEATH PIPE. PLACE BEDDING MATERIAL AROUND THE PIPE TO THE SPRING LINE. WORK THE MATERIAL IN AND AROUND THE PIPE BY HAND TO PROVIDE UNIFORM SUPPORT. PLACE COVER MATERIAL CAREFULLY TO A LEVEL 12" ABOVE THE PIPE.

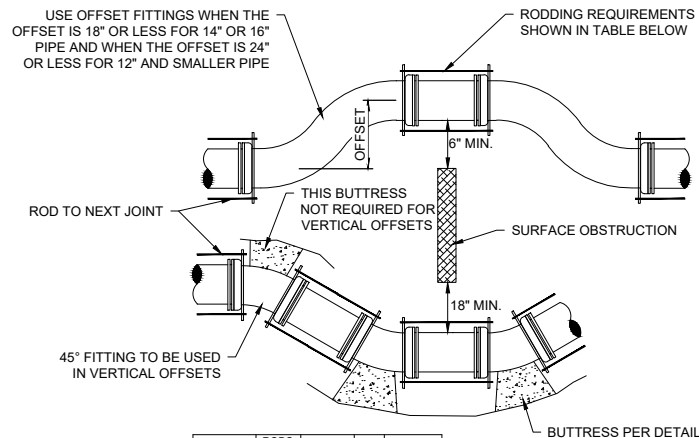
3 WATER PIPE BEDDING DETAIL
N.T.S.



GENERAL NOTES:

- THE SIDE PROTECTION INSTALLATION SHALL BE USED WHERE FROST WILL PENETRATE BELOW THE PIPE INVERT.

4 WATER PIPE INSULATION DETAIL
N.T.S.



NOMINAL PIPE SIZE	RODS NO./DIA.	STRAP SIZE	BOLT DIA.	WASHER SIZE
6	3	1/2 x 2	3/8	1/2 x 3 x 5
8	4	1/2 x 2	3/8	1/2 x 3 x 5
10	4	1/2 x 2 1/2	1	1/2 x 3 x 5
12	4	1/2 x 2 1/2	1	1/2 x 3 x 5
14	4	1/2 x 2 1/2	1	1/2 x 3 x 5

NOTES:

- ALL OFFSETS SHALL BE RESTRAINED WITH MEGALUGS. WHERE CONCRETE BUTTRESSING CANNOT BE USED, RODDING MUST BE USED IN ADDITION TO THE MEGALUGS.
- RODS AND WASHERS TO BE ASTM A-575 MERCHANT QUALITY 0.17-0.24 CARBON. NUTS TO BE AMERICAN STANDARD HEAVY, NOT PRESSED.
- TIE RODS, BOLTS, NUTS, BANDS AND WASHERS TO BE FURNISHED AND ASSEMBLED BY THE CONTRACTOR.
- ALL STEEL MATERIAL TO BE GALVANIZED OR BE THOROUGHLY COATED WITH ENGINEER APPROVED COATING.
- OFFSET FITTINGS REQUIRE CONTINUOUS RODDING IN ALL POSITIONS.
- VERTICAL OFFSETS SHALL NOT CREATE A HIGH POINT IN THE WATER MAIN. VERTICAL OFFSETS REQUIRE THE SAME RODDING AND BUTTRESSING AS SHOWN ABOVE.

5 OFFSET & RODDING DETAIL
N.T.S.

MARK	REVISION	DATE	BY
PIP SUBMITTAL	04-14-25	BCA	
GIP RESUBMITTAL	03-07-25	BCA	
GIP RESUBMITTAL	02-24-25	BCA	
GIP RESUBMITTAL	02-07-25	BCA	

Checked By: MLC
Engineer: BCA
Technician: DMS
Date: 11-04-2024
Scale: 1" =
T-R-S: TTN+RRW-SS

OLIVE TREE RESIDENCES
WATER MAIN DETAILS
CITY OF FITCHBURG, DANE COUNTY, WISCONSIN
SNYDER & ASSOCIATES, INC. |
5010 VOGES ROAD
MADISON, WISCONSIN 53718
608-838-0444 | www.snyder-associates.com



Project No: 124.1205.30

Sheet C704

GENERAL LANDSCAPE NOTES

- UTILITY WARNING: THE UTILITIES SHOWN HAVE BEEN LOCATED FROM FIELD SURVEY INFORMATION AND/OR RECORDS OBTAINED. THE SURVEYOR MAKES NO GUARANTEE THAT THE UTILITIES SHOWN COMPRISE ALL SUCH UTILITIES IN THE AREA, EITHER IN SERVICE OR ABANDONED. THE SURVEY FURTHER DOES NOT WARRANT THAT THE UTILITIES SHOWN ARE IN THE EXACT LOCATION INDICATED.
- NOTIFY UTILITY OWNERS PRIOR TO BEGINNING ANY CONSTRUCTION. CONTRACTOR IS RESPONSIBLE FOR DETERMINING EXISTENCE, EXACT LOCATION AND DEPTH OF ALL UTILITIES. AVOID DAMAGE TO UTILITIES AND SERVICES DURING CONSTRUCTION. ANY DAMAGE DUE TO THE CONTRACTOR'S CARELESSNESS SHALL BE CORRECTED AT THE CONTRACTOR'S EXPENSE. COORDINATE AND COOPERATE WITH UTILITY COMPANIES DURING CONSTRUCTION.
- THE CONTRACTOR SHALL FOLLOW THE LANDSCAPE PLANS AS CLOSELY AS POSSIBLE. ANY SUBSTITUTION OR ALTERATION SHALL NOT BE ALLOWED WITHOUT APPROVAL OF THE OWNER'S REPRESENTATIVE. OVERALL PLANT QUANTITY AND QUALITY SHALL BE CONSISTENT WITH THE PLANS.
- ALL PLANT MATERIAL SHALL AT LEAST MEET MINIMUM REQUIREMENTS SHOWN IN THE "AMERICAN STANDARDS FOR NURSERY STOCK" (ANSI Z60.1-LATEST EDITION).
- MULCH SHALL NOT BE PLACED AROUND THE COLLAR OF SHRUB OR TREE. PROVIDE A MINIMUM OF 2" BETWEEN MULCH AND COLLAR OF SHRUB OR TREE.
- ALL PLANT MATERIAL SHALL BE GROWN IN ZONE CAPABLE OF WITHSTANDING LOCAL CLIMATE AND GROWING CONDITIONS.
- TREE OR SHRUB SHALL STAND PLUMB. DO NOT ALLOW AIR POCKETS TO FORM WHEN BACK FILLING.
- LIVE PLANTS CAN BE PLANTED IN THE FIELD DURING THE GROWING SEASON FROM MAY 1 THROUGH OCTOBER 1. ANY SUGGESTED PLANTING TIMES NOT IN THIS WINDOW SHALL BE APPROVED BY LANDSCAPE ARCHITECT. IF PLANTING OCCURS OUTSIDE OF THIS WINDOW, ADDITIONAL MEASURES MAY NEED TO BE TAKEN (I.E. MULCH) TO ENSURE PLANT SURVIVAL. IN THESE INSTANCES, THE CONTRACT PRICE WILL NEED TO BE ADJUSTED ACCORDINGLY.
- PLANTS SHOULD BE WATERED IN AFTER INSTALLATION TO ENSURE THEIR SURVIVAL. THIS TYPICALLY INVOLVES WATERING AT TIME OF INSTALLATION AND 2 TIMES WEEKLY FOR A ONE MONTH PERIOD OR UNTIL GROUND FREEZE UP IF NATURAL RAINFALLS ARE INSUFFICIENT. A SINGLE WATERING EVENT INVOLVES WATERING THE SOIL IN THE PLANTED AREAS TO THE POINT OF SATURATION BUT STOPPING SHORT OF SOIL DISPLACEMENT. SHOULD VERY DRY CONDITIONS DEVELOP WITHIN ONE YEAR OF PLANTING, ADDITIONAL WATERINGS MAY BE NECESSARY. CONSULTANT OR LANDSCAPE ARCHITECT WILL DETERMINE THIS AND CONTRACT PRICES MAY BE ADJUSTED TO ACCOMMODATE THIS ACTION.
- ALL PLANT MATERIAL SHALL BE SPECIMEN QUALITY, HEALTHY, FREE OF DISEASE AND INSECTS AND SHALL HAVE HEALTHY, WELL-DEVELOPED ROOT SYSTEMS. PLANTS SHALL ALSO BE FREE FROM PHYSICAL DAMAGE OR OTHER CONDITIONS THAT WOULD PREVENT VIGOROUS GROWTH.
- ALL PROPOSED PLANTS SHALL BE LOCATED AS SHOWN ON PLANS. ALL TREES TO BE PLANTED A MINIMUM DISTANCE OF 5 FEET FROM PAVEMENTS AND 6 FEET FROM ALL HYDRANTS.
- CONTRACTOR IS RESPONSIBLE FOR PLANTS AWAITING INSTALLATION AND SHALL PROTECT THEM FROM INJURY AND THEFT.
- THE CONTRACTOR IS RESPONSIBLE FOR VERIFYING ALL PLANT QUANTITIES. GRAPHIC QUANTITIES TAKES PRECEDENCE OVER WRITTEN QUANTITIES.
- THE OWNER'S REPRESENTATIVE RESERVES THE RIGHT TO INSPECT AND TAG ALL PLANT MATERIAL PRIOR TO SHIPPING TO THE SITE. IN ALL CASES, THE OWNER'S REPRESENTATIVE MAY REJECT PLANT MATERIAL AT THE SITE IF MATERIAL IS DAMAGED, DISEASED, OR DECLINING IN HEALTH AT THE TIME OF ONSITE INSPECTIONS OR IF THE PLANT MATERIAL DOES NOT MEET THE MINIMUM SPECIFIED STANDARD IDENTIFIED ON THE PLANS. THE CONTRACTOR SHALL COORDINATE WITH THE OWNER'S REPRESENTATIVE FOR INSPECTION AND APPROVAL OF ALL MATERIALS AND PRODUCTS PRIOR TO INSTALLATION.
- THE OWNER'S REPRESENTATIVE MAY ELECT TO UPSIZE PLANT MATERIAL AT THEIR DISCRETION BASED ON SELECTION, AVAILABILITY, OR TO ENHANCE SPECIFIC AREAS OF THE PROJECT. THE CONTRACTOR SHALL VERIFY PLANT MATERIAL SIZES WITH OWNER'S REPRESENTATIVE PRIOR TO PURCHASING, SHIPPING OR STOCKING OF PLANT MATERIALS. SUBMIT CHANGE ORDER REQUEST TO OWNER'S REPRESENTATIVE FOR APPROVAL IF ADDITIONAL COST IS REQUESTED BY THE CONTRACTOR PRIOR TO INSTALLATION. RE-STOCKING CHARGES WILL NOT BE APPROVED IF THE CONTRACTOR FAILS TO SUBMIT A REQUEST FOR MATERIAL CHANGES.
- THE CONTRACTOR SHALL WARRANT ALL CONTRACTED WORK AND MATERIALS FOR A PERIOD OF ONE YEAR AFTER SUBSTANTIAL COMPLETION HAS BEEN ISSUED BY THE OWNER'S REPRESENTATIVE FOR THE ENTIRE PROJECT UNLESS OTHERWISE SPECIFIED IN THE CONTRACT DOCUMENTS.
- LANDSCAPE MATERIAL LOCATIONS SHALL HAVE PRECEDENCE OVER IRRIGATION MAINLINE AND LATERAL LOCATIONS. IF IRRIGATION IS INCLUDED, COORDINATE INSTALLATION OF IRRIGATION EQUIPMENT SO THAT IT DOES NOT INTERFERE WITH THE PLANTING OF TREES OR OTHER LANDSCAPE MATERIAL.
- THE LANDSCAPE CONTRACTOR SHALL BE RESPONSIBLE FOR ENSURING POSITIVE DRAINAGE EXISTS IN ALL LANDSCAPE AREAS. SURFACE DRAINAGE ON LANDSCAPE AREAS SHALL NOT FLOW TOWARD STRUCTURES AND FOUNDATIONS. MAINTAIN SLOPE AWAY FROM FOUNDATIONS PER THE GEOTECHNICAL REPORT RECOMMENDATIONS. ALL LANDSCAPE AREAS BETWEEN WALKS AND CURBS SHALL DRAIN FREELY TO THE CURB UNLESS OTHERWISE IDENTIFIED ON THE GRADING PLAN. IN NO CASE SHALL THE GRADE, TURF THATCH, OR OTHER LANDSCAPE MATERIALS DAM WATER AGAINST WALKS. MINIMUM SLOPES ON LANDSCAPE AREAS SHALL BE 2%; MAXIMUM SLOPE SHALL BE 25% UNLESS SPECIFICALLY IDENTIFIED ON THE PLANS OR APPROVED BY THE OWNER'S REPRESENTATIVE.
- PRIOR TO INSTALLATION OF PLANT MATERIALS, AREAS THAT HAVE BEEN COMPACTED OR DISTURBED BY CONSTRUCTION ACTIVITY SHALL BE THOROUGHLY LOOSENEED TO A DEPTH OF 8" - 12".
- ALL LANDSCAPED AREAS ARE TO RECEIVE ORGANIC SOIL PREPARATION PER RATE IDENTIFIED BY A SOIL TEST.
- TREES SHALL NOT BE LOCATED IN DRAINAGE SWALES, DRAINAGE AREAS, OR UTILITY EASEMENTS. CONTACT OWNER'S REPRESENTATIVE FOR RELOCATION OF PLANTS IN QUESTIONABLE AREAS PRIOR TO INSTALLATION.

GENERAL LANDSCAPE NOTES CONT.

- THE CENTER OF EVERGREEN TREES SHALL NOT BE PLACED CLOSER THAN 8' AND THE CENTER OF ORNAMENTAL TREES CLOSER THAN 6' FROM A SIDEWALK, STREET OR DRIVE LANE. EVERGREEN TREES SHALL NOT BE LOCATED ANY CLOSER THAN 15' FROM IRRIGATION ROTOR HEADS. NOTIFY OWNER'S REPRESENTATIVE IF TREE LOCATIONS CONFLICT WITH THESE STANDARDS FOR FURTHER DIRECTION.
- ALL EVERGREEN TREES SHALL BE FULLY BRANCHED TO THE GROUND AND SHALL NOT EXHIBIT SIGNS OF ACCELERATED GROWTH AS DETERMINED BY THE OWNER'S REPRESENTATIVE.
- ALL TREES ARE TO BE STAKED AND GUYED PER DETAILS FOR A PERIOD OF 1 YEAR. THE CONTRACTOR SHALL BE RESPONSIBLE FOR REMOVING STAKES AT THE END OF 1 YEAR FROM ACCEPTANCE OF LANDSCAPE INSTALLATION BY THE OWNER'S REPRESENTATIVE. OBTAIN APPROVAL BY OWNER'S REPRESENTATIVE PRIOR TO REMOVAL.
- ALL TREES INSTALLED ABOVE RETAINING WALLS UTILIZING GEO-GRID MUST BE HAND DUG TO PROTECT GEO-GRID. IF GEO-GRID MUST BE CUT TO INSTALL TREES, APPROVAL MUST BE GIVEN BY OWNER'S REPRESENTATIVE PRIOR TO DOING WORK.
- ALL TREES IN SEED OR TURF AREAS SHALL RECEIVE MULCH RINGS. OBTAIN APPROVAL FROM OWNER'S REPRESENTATIVE FOR ANY TREES THAT WILL NOT BE MULCHED FOR EXCESSIVE MOISTURE REASONS.
- EXISTING TURF AREAS THAT ARE DISTURBED DURING CONSTRUCTION, ESTABLISHMENT AND THE MAINTENANCE PERIOD SHALL BE RESTORED WITH NEW SOD TO MATCH EXISTING TURF SPECIES. DISTURBED NATIVE AREAS WHICH ARE TO REMAIN SHALL BE OVER SEEDED AND RESTORED WITH SPECIFIED SEED MIX.
- WHEN COMPLETE, ALL GRADES SHALL BE WITHIN +/- 1/8" OF FINISHED GRADES AS SHOWN ON THE PLANS.
- WHEN PLANTER POTS ARE SHOWN ON PLANS, CONTRACTOR SHALL INCLUDE THE FOLLOWING: PLANTER MIX, ANNUAL FLOWER PLANTING PROGRAM (INCLUDES 2 PLANTINGS FOR THE 1ST YEAR (SPRING AND FALL) AND WINTER HAND-WATERING AS NEEDED, UNLESS OTHERWISE SPECIFIED, CONTRACTOR TO PROVIDE ANNUAL PLANTING SELECTION FOR REVIEW BY OWNER. IRRIGATION FOR PLANTERS TO BE ON SEPARATE ZONE(S). CONTRACTOR TO COORDINATE PLACEMENT OF NECESSARY SLEEVING PRIOR TO PLACEMENT OF PAVEMENT.
- PRIOR TO THE PLACEMENT OF MULCH AND WEED FABRIC, A GRANULAR, PRE-EMERGENT, WEED CONTROL AGENT SHALL BE ADDED TO ALL PLANTING BEDS IN ACCORDANCE WITH THE MANUFACTURER'S INSTRUCTION, EXCEPT AROUND ORNAMENTAL GRASSES.
- THE CONTRACTOR IS EXPECTED TO KNOW AND UNDERSTAND THE CITY AND COUNTY SPECIFICATIONS FOR LANDSCAPE AND IRRIGATION. IN CASES OF DISCREPANCIES THE HIGHER OF THE TWO STANDARDS SHALL HAVE PRECEDENCE.

GENERAL NOTES

- DRAWINGS ARE INTENDED TO BE PRINTED ON 22" X 34" PAPER. PRINTING THESE DRAWINGS AT A DIFFERENT SIZE WILL IMPACT THE SCALE. VERIFY THE GRAPHIC SCALE BEFORE REFERENCING ANY MEASUREMENTS ON THESE SHEETS. THE RECIPIENT OF THESE DRAWINGS SHALL BE RESPONSIBLE FOR ANY ERRORS RESULTING FROM INCORRECT PRINTING, COPYING, OR ANY OTHER CHANGES THAT ALTER THE SCALE OF THE DRAWINGS.
- VERIFY ALL PLAN DIMENSIONS PRIOR TO START OF CONSTRUCTION. NOTIFY THE OWNER'S REPRESENTATIVE TO ADDRESS ANY QUESTIONS OR CLARIFY ANY DISCREPANCIES.
- WRITTEN DIMENSIONS TAKE PRECEDENCE OVER SCALED DIMENSIONS.
- GEOTECHNICAL SOILS REPORT RECOMMENDATIONS SHALL BE FOLLOWED DURING CONSTRUCTION. THE CONTRACTOR SHALL USE THESE CONTRACT DOCUMENTS AS A BASIS FOR THE BID.
- CONTRACTOR SHALL CONFIRM THAT SITE CONDITIONS ARE SIMILAR TO THE PLANS, WITHIN TOLERANCES STATED IN THE CONTRACT DOCUMENTS, AND SATISFACTORY TO THE CONTRACTOR PRIOR TO START OF WORK. SHOULD SITE CONDITIONS BE DIFFERENT THAN REPRESENTED ON THE PLANS OR UNSATISFACTORY TO THE CONTRACTOR, THE CONTRACTOR SHALL CONTACT THE OWNER'S REPRESENTATIVE FOR CLARIFICATION AND FURTHER DIRECTION.
- THE CONTRACTOR IS RESPONSIBLE TO PAY FOR, AND OBTAIN, ANY REQUIRED APPLICATIONS, PERMITTING, LICENSES, INSPECTIONS AND METERS ASSOCIATED WITH WORK.
- THE CONTRACTOR SHALL BE RESPONSIBLE FOR ANY FINES OR PENALTIES ASSESSED TO THE OWNER RELATING TO ANY VIOLATIONS OR NON-CONFORMANCE WITH THE PLANS, CONTRACT DOCUMENTS, JURISDICTIONAL CODES, AND REGULATORY AGENCIES.
- THE CONTRACTOR SHALL BE RESPONSIBLE FOR COORDINATION OF ALL UTILITY LOCATES PRIOR TO ANY EXCAVATION. REFER TO ENGINEERING UTILITY PLANS FOR ALL PROPOSED UTILITY LOCATIONS AND DETAILS. NOTIFY OWNER'S REPRESENTATIVE IF EXISTING OR PROPOSED UTILITIES INTERFERE WITH THE ABILITY TO PERFORM WORK.
- UNLESS IDENTIFIED ON THE PLANS FOR DEMOLITION OR REMOVAL, THE CONTRACTOR IS RESPONSIBLE FOR THE COST TO REPAIR UTILITIES, ADJACENT OR EXISTING LANDSCAPE, ADJACENT OR EXISTING PAVING, OR ANY PUBLIC AND PRIVATE PROPERTY THAT IS DAMAGED BY THE CONTRACTOR OR THEIR SUBCONTRACTOR'S OPERATIONS DURING INSTALLATION, ESTABLISHMENT OR DURING THE SPECIFIED MAINTENANCE PERIOD. ALL DAMAGES SHALL BE REPAIRED TO PRE-CONSTRUCTION CONDITIONS AS DETERMINED BY THE OWNER'S REPRESENTATIVE. CONTRACTOR SHALL BE RESPONSIBLE FOR LOGGING ANY DAMAGES PRIOR TO START OF CONSTRUCTION AND DURING THE CONTRACT PERIOD.
- ALL WORK SHALL BE CONFINED TO THE AREA WITHIN THE CONSTRUCTION LIMITS AS SHOWN ON THE PLANS. ANY AREAS OR IMPROVEMENTS DISTURBED OUTSIDE THESE LIMITS SHALL BE RETURNED TO THEIR ORIGINAL CONDITION AT THE CONTRACTOR'S EXPENSE. IN THE EVENT THE CONTRACTOR REQUIRES A MODIFICATION TO THE CONSTRUCTION LIMITS, WRITTEN PERMISSION MUST BE OBTAINED FROM THE OWNER'S REPRESENTATIVE PRIOR TO ANY DISTURBANCE OUTSIDE OF THE LIMITS OF WORK.
- THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE REPAIR OF ANY OF THEIR TRENCHES OR EXCAVATIONS THAT SETTLE.

GENERAL NOTES CONT.

- THE CONTRACTOR SHALL BE RESPONSIBLE TO PREPARE AND SUBMIT A TRAFFIC CONTROL PLAN TO THE APPROPRIATE JURISDICTIONAL AGENCIES AND THE OWNER'S REPRESENTATIVE IF THEIR WORK AND OPERATIONS AFFECT OR IMPACT THE PUBLIC RIGHTS-OF-WAY. OBTAIN APPROVAL PRIOR TO ANY WORK WHICH AFFECTS OR IMPACTS THE PUBLIC RIGHTS-OF-WAY. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ANY FINES OR PENALTIES ASSESSED TO THE OWNER RELATING TO THIS REQUIREMENT DURING THE CONTRACT PERIOD.
- SIGHT TRIANGLES AND SIGHT LINES SHALL REMAIN UNOBSTRUCTED BY EQUIPMENT, CONSTRUCTION MATERIALS, PLANT MATERIAL OR ANY OTHER VISUAL OBSTACLE DURING THE CONTRACT PERIOD AND AT MATURITY OF PLANTS PER LOCAL JURISDICTIONAL REQUIREMENTS.
- NO PLANT MATERIAL OTHER THAN GROUND COVER IS ALLOWED TO BE PLANTED ADJACENT TO FIRE HYDRANTS AS STIPULATED BY JURISDICTIONAL REQUIREMENTS.
- COORDINATE SITE ACCESS, STAGING, STORAGE AND CLEANOUT AREAS WITH OWNER'S REPRESENTATIVE.
- CONTRACTOR IS RESPONSIBLE FOR PROVIDING TEMPORARY SAFETY FENCING AND BARRIERS AROUND ALL IMPROVEMENTS SUCH AS WALLS, PLAY STRUCTURES, EXCAVATIONS, ETC. ASSOCIATED WITH THEIR WORK UNTIL SUCH FACILITIES ARE COMPLETELY INSTALLED PER THE PLANS AND MANUFACTURER'S RECOMMENDATIONS.
- CONTRACTOR SHALL BE RESPONSIBLE FOR PROTECTION OF THEIR MATERIAL STOCK PILES AND WORK FROM VANDALISM, EROSION OR UNINTENDED DISTURBANCE DURING THE CONSTRUCTION PERIOD AND UNTIL FINAL ACCEPTANCE IS ISSUED.
- THE CONTRACTOR SHALL KNOW, UNDERSTAND AND ABIDE BY ANY STORM WATER POLLUTION PREVENTION PLAN (SWPPP) ASSOCIATED WITH THE SITE. IF A STORM WATER POLLUTION PREVENTION PLAN IS NOT PROVIDED BY THE OWNER'S REPRESENTATIVE, REQUEST A COPY BEFORE PERFORMANCE OF ANY SITE WORK.
- MAINTAIN ANY STORM WATER MANAGEMENT FACILITIES THAT EXIST ON SITE FOR FULL FUNCTIONALITY. THE CONTRACTOR SHALL INSTALL AND MAINTAIN ANY NEW STORM WATER MANAGEMENT FACILITIES THAT ARE IDENTIFIED IN THE SCOPE OF WORK TO FULL FUNCTIONALITY. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ANY FINES OR PENALTIES ASSESSED TO THE OWNER FOR FAILURE TO MAINTAIN STORM WATER MANAGEMENT FACILITIES DURING THE CONTRACT PERIOD.
- THE CONTRACTOR SHALL PREVENT SEDIMENT, DEBRIS AND ALL OTHER POLLUTANTS FROM EXITING THE SITE OR ENTERING THE STORM SEWER SYSTEM DURING ALL DEMOLITION OR CONSTRUCTION OPERATIONS THAT ARE PART OF THE LANDSCAPE INSTALLATION. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ANY FINES OR PENALTIES ASSESSED TO THE OWNER RELATING TO THESE REQUIREMENTS DURING THEIR CONTRACTED COURSE OF WORK.
- THE CONTRACTOR SHALL BE RESPONSIBLE TO PREVENT ANY IMPACTS TO ADJACENT WATERWAYS, WETLANDS, OR OTHER ENVIRONMENTALLY SENSITIVE AREAS RESULTING FROM WORK DONE AS PART OF THIS PROJECT. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ANY FINES OR PENALTIES ASSESSED TO THE OWNER RELATING TO THESE STANDARDS DURING THEIR CONTRACTED COURSE OF WORK.
- THE CONTRACTOR AND/OR THEIR AUTHORIZED AGENTS SHALL ENSURE THAT ALL LOADS OF CONSTRUCTION MATERIAL IMPORTED TO OR EXPORTED FROM THE PROJECT SITE SHALL BE PROPERLY COVERED TO PREVENT LOSS OF MATERIAL DURING TRANSPORT. TRANSPORTATION METHODS ON PUBLIC RIGHT-OF WAYS SHALL CONFORM TO JURISDICTIONAL REQUIREMENTS. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ANY FINES OR PENALTIES ASSESSED TO THE OWNER RELATING TO THESE REQUIREMENTS.
- THE CLEANING OF EQUIPMENT IS PROHIBITED AT THE JOB SITE UNLESS AUTHORIZED BY THE OWNER'S REPRESENTATIVE IN A DESIGNATED AREA. THE DISCHARGE OF WATER, WASTE CONCRETE, POLLUTANTS, OR OTHER MATERIALS SHALL ONLY OCCUR IN AREAS DESIGNED FOR SUCH USE AND APPROVED BY THE OWNER'S REPRESENTATIVE.
- THE CLEANING OF CONCRETE EQUIPMENT IS PROHIBITED AT THE JOB SITE EXCEPT IN DESIGNATED CONCRETE WASHOUT AREAS. THE DISCHARGE OF WATER CONTAINING WASTE CONCRETE IN THE STORM SEWER IS PROHIBITED.
- LOCAL STATE AND FEDERAL JURISDICTIONAL REQUIREMENTS, RESTRICTIONS OR PROCEDURES SHALL SUPERSEDE THESE PLANS. NOTES WHEN MORE STRINGENT. NOTIFY THE OWNER'S REPRESENTATIVE IF CONFLICTS OCCUR.

PLANT SCHEDULE

SYMBOL	CODE	QTY	BOTANICAL NAME	COMMON NAME	SIZE	TYPE
TREES						
	AC2	4	Acer platanoides 'Columnare'	Columnar Norway Maple	1.5" Cal.	B&B
	GP	4	Ginkgo biloba 'Princeton Sentry'	Princeton Sentry Maidenhair Tree	1.5" Cal.	B&B
	QB	2	Quercus bicolor	Swamp White Oak	1.5" Cal.	B&B
	QN	2	Quercus robur x bicolor 'Nadler'	Kindred Spirit® Oak	1.5" Cal.	B&B
EVERGREEN TREES						
	JS	12	Juniperus scopulorum 'Skyrocket'	Skyrocket Juniper	4' Ht.	B&B
	TB	34	Thuja occidentalis 'Brandon'	Brandon Arborvitae	4' Ht.	B&B
ORNAMENTAL TREES						
	CE	3	Cercis canadensis	Eastern Redbud Multi-trunk	1.5" Cal.	B&B
	MA	3	Malus x 'Adirondack'	Adirondack Crabapple	1.5" Cal.	B&B
SHRUBS						
	BG	16	Buxus x 'Green Gem'	Green Gem Boxwood	3 gal.	Pot
	CF	14	Cornus sericea 'Farrow' TM	Arctic Fire Red Twig Dogwood	3 gal.	Pot
	HJ	10	Hydrangea paniculata 'Jane'	Little Lime® Panicle Hydrangea	3 gal.	Pot
	JB	26	Juniperus horizontalis 'Bar Harbor'	Bar Harbor Creeping Juniper	3 gal.	Pot
	PO	32	Physocarpus opulifolius 'Donna May' TM	Little Devil Dwarf Ninebark	3 gal.	Pot
	PP2	35	Pinus mugo 'Pumilio'	Dwarf Mugo Pine	3 gal.	Pot
	SD	14	Spiraea x 'NCSX2' TM	Double Play Doozie Spirea	3 gal.	Pot
	SO	21	Syringa x 'SMNJRP' TM	Bloomerang Dwarf Pink Lilac	3 gal.	Pot
GRASSES						
	BB	71	Bouteloua gracilis 'Blonde Ambition'	Blonde Ambition Blue Grama	1 gal.	Pot
	CK	46	Calamagrostis x acutiflora 'Karl Foerster'	Karl Foerster Feather Reed Grass	1 gal.	Pot
	PS	32	Panicum virgatum 'Shenandoah'	Shenandoah Switch Grass	1 gal.	Pot
	SP	59	Sporobolus heterolepis	Prairie Dropseed	1 gal.	Pot
PERENNIALS						
	AS2	114	Allium x 'Serendipity'	Serendipity Ornamental Onion	1 gal.	Pot
GROUND COVERS						
	NN	4,683 sf	Native Seed Mix	See Construction Notes for Type	seed	
	RM	7,342 sf	Rock Mulch	See Construction Notes for Type	---	
	TD	30,532 sf	Turf Seed	See Construction Notes for Type	seed	
BIORETENTION PLUGS						
	BP	7,742	Bio Plugs	Bio Plugs	4"	Plug

OLIVE TREE RESIDENCES

LANDSCAPE NOTES

CITY OF FITCHBURG, DANE COUNTY, WISCONSIN

SNYDER & ASSOCIATES, INC.



Project No: 124.1205.30

Sheet L100

PIP SUBMITTAL 04-14-25 BCA
 GIP RESUBMITTAL 03-07-25 BCA
 GIP RESUBMITTAL 02-24-25 BCA
 GIP RESUBMITTAL 02-07-25 BCA

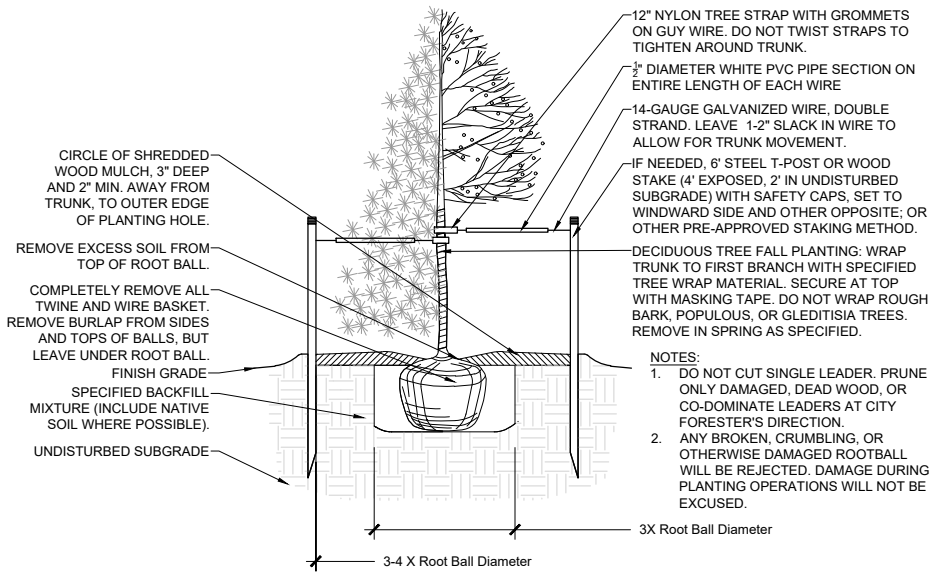
MARK: _____
 REVISION: _____
 DATE: _____

Checked By: MLC
 Engineer: BCA
 Technician: DNS

Scale: 1" = #'
 T-R-S: TTN-HRW-SS
 Date: 11-04-2024

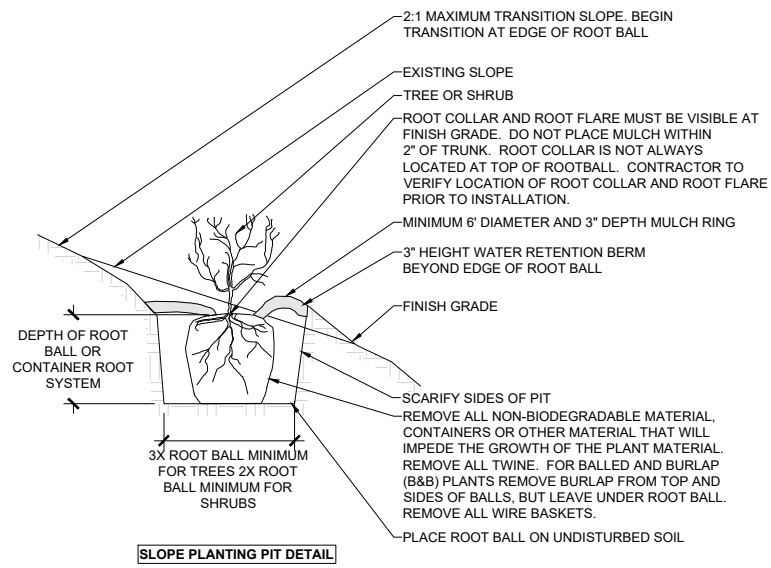
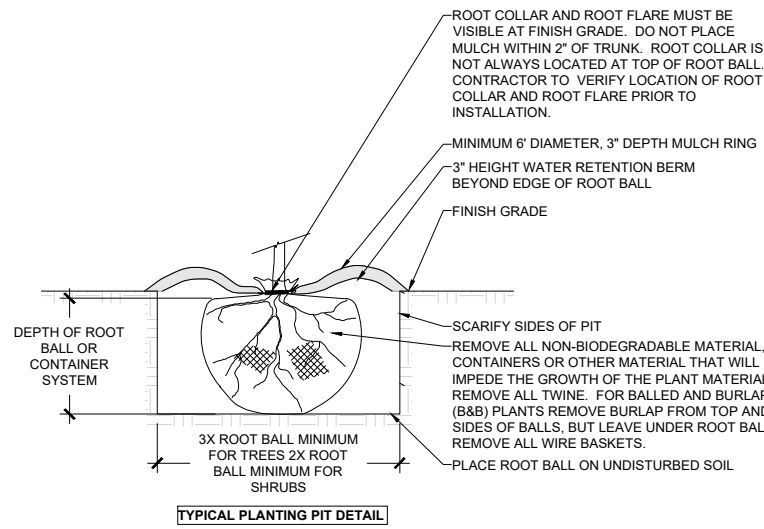
Project No: 124.1205.30
 Sheet L100

5010 VOEGES ROAD
 MADISON, WISCONSIN 53718
 608-638-0444 | www.snyder-associates.com



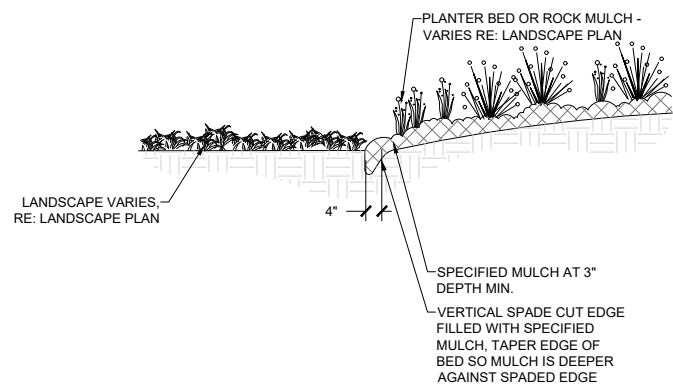
1 TREE PLANTING

SCALE: 1/2" = 1'-0"



2 PLANTING PIT

NO SCALE



NOTE:

- IF IRRIGATION HEAD IS LOCATED ADJACENT TO MULCH BEDS, OFFSET HEAD INTO GRASS AREA TO ENSURE STABLE SUPPORT.

3 SPADE CUT EDGE

SCALE: 1/2" = 1'-0"



NOTES:

- SUPPLIER: BUFFTECH
- PRODUCT: BUFFTECH FENCING
- STYLE: GALVESTON CERTAGRAIN TEXTURE
- HEIGHT: 96"
- COLOR: ARCTIC BLEND
- CONTACT: 800.782.8777
- INSTALL PER MANUFACTURER SPECIFICATIONS
- REFER TO LANDSCAPE PLAN FOR INSTALL LOCATION

4 FENCE

SCALE: 3/4" = 1'-0"

PIP SUBMITTAL	04-14-25	BCA	DATE	BY
GIP RESUBMITTAL	03-07-25	BCA	DATE	BY
GIP RESUBMITTAL	02-24-25	BCA	DATE	BY
GIP RESUBMITTAL	02-07-25	BCA	DATE	BY
MARK	REVISION	DATE	BY	
Engineer: BCA	Checked By: MLC	Scale: 1" = #'		
Technician: DMS	Date: 11-04-2024	T-R-S: TTN-RRW-SS		

OLIVE TREE RESIDENCES

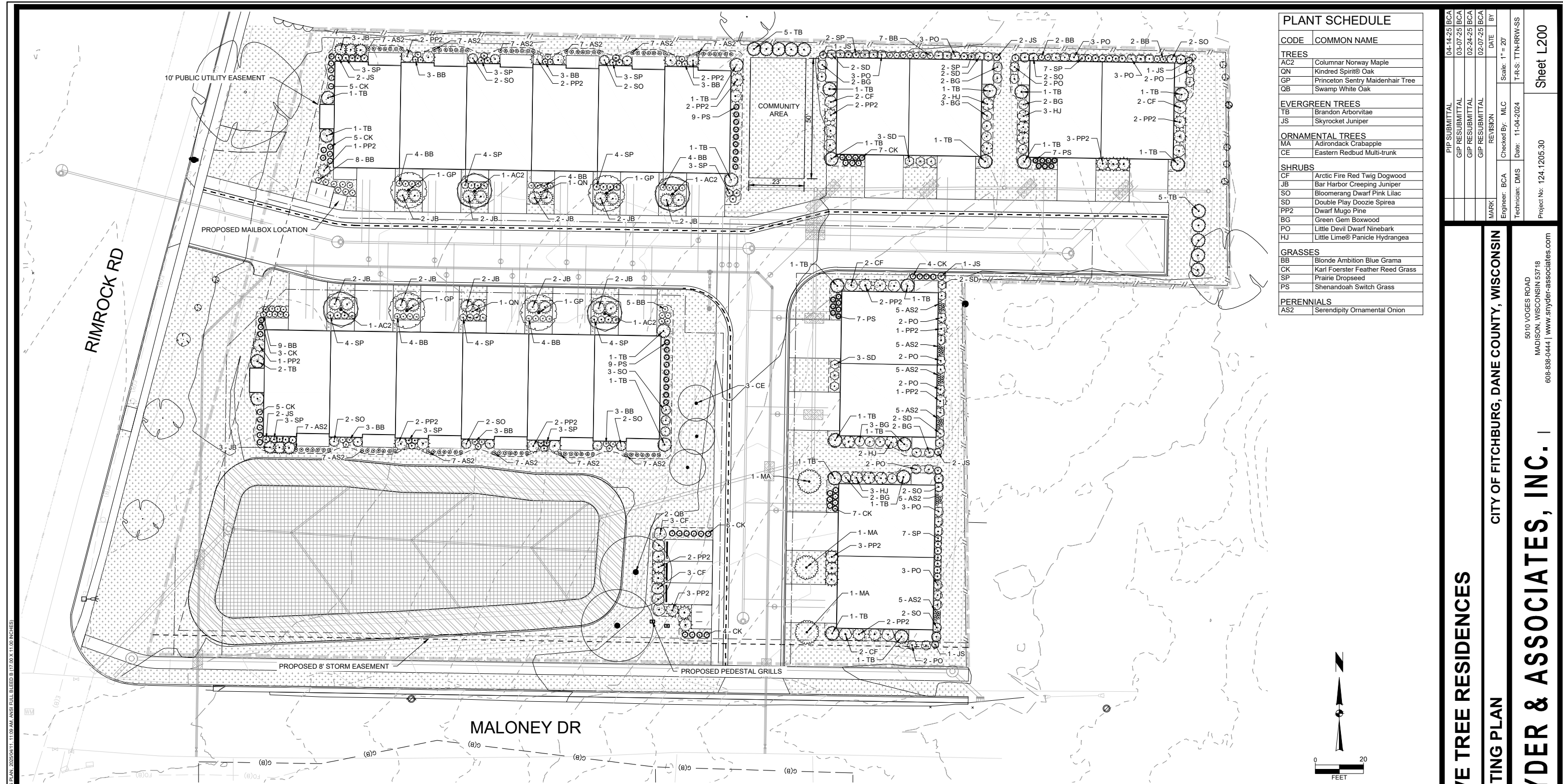
CITY OF FITCHBURG, DANE COUNTY, WISCONSIN

LANDSCAPE DETAILS

SNYDER & ASSOCIATES, INC.

5010 VOGES ROAD
MADISON, WISCONSIN 53718
608-838-0444 | www.snyder-associates.com





PLANT SCHEDULE	
CODE	COMMON NAME
TREES	
AC2	Columnar Norway Maple
QN	Kindred Spirit® Oak
GP	Princeton Sentry Maidenhair Tree
QB	Swamp White Oak
EVERGREEN TREES	
TB	Brandon Arborvitae
JS	Skyrocket Juniper
ORNAMENTAL TREES	
MA	Adirondack Crabapple
CE	Eastern Redbud Multi-trunk
SHRUBS	
CF	Arctic Fire Red Twig Dogwood
JB	Bar Harbor Creeping Juniper
SO	Blooming Dwarf Pink Lilac
SD	Double Play Doozie Spirea
PP2	Dwarf Mugo Pine
BG	Green Gem Boxwood
PO	Little Devil Dwarf Ninebark
HJ	Little Lime® Panicle Hydrangea
GRASSES	
BB	Blonde Ambition Blue Grama
CK	Karl Foerster Feather Reed Grass
SP	Prairie Dropseed
PS	Shenandoah Switch Grass
PERENNIALS	
AS2	Serendipity Ornamental Onion

PIP SUBMITTAL	04-14-25	BCA	DATE	BY
GIP RESUBMITTAL	03-07-25	BCA	DATE	BY
GIP RESUBMITTAL	02-24-25	BCA	DATE	BY
GIP RESUBMITTAL	02-07-25	BCA	DATE	BY
MARK	REVISION	DATE	BY	
Engineer: BCA	Checked By: MLC	Scale: 1" = 20'		
Technician: DNS	Date: 11-04-2024	T-R-S: TTN-RRW-SS		

Sheet L200

Project No: 124.1205.30

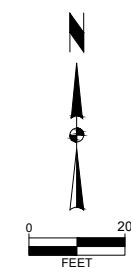
CITY OF FITCHBURG, DANE COUNTY, WISCONSIN

5010 VOEGES ROAD
MADISON, WISCONSIN 53718
608-838-0444 | www.snyder-associates.com

SNYDER & ASSOCIATES, INC.

OLIVE TREE RESIDENCES

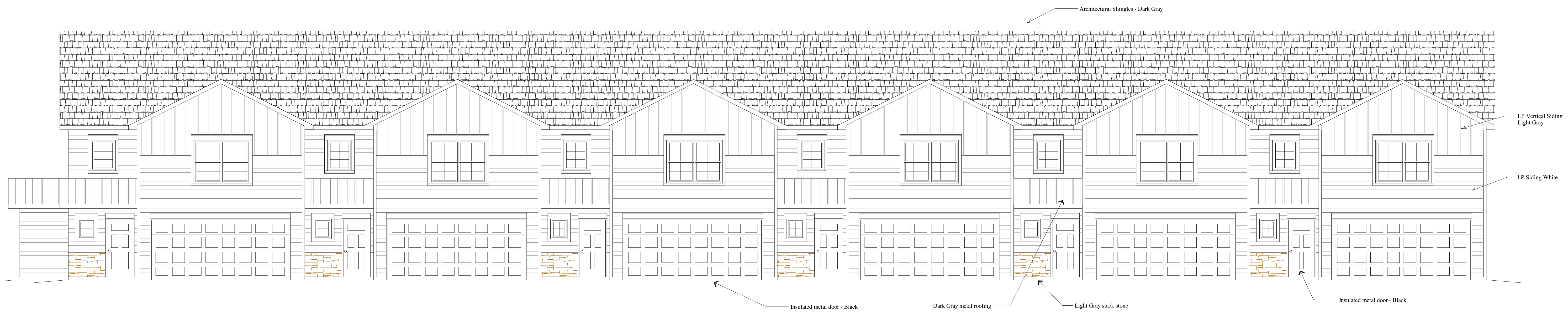
PLANTING PLAN



- LEGEND AND NOTES**
- EXISTING TREE TO REMAIN
 - SPADE CUT EDGER, RE: DETAIL 3/L-101
 - FENCE, RE: DETAIL 4/L-101
 - PROPOSED PEDESTAL GRILL
- NATIVE SEED SHALL BE LAND RESTORATION SEED MIX FOR MEDIUM SOILS PROVIDED BY PRAIRIE NURSERY (prairienursery.com) OR APPROVED EQUAL. HYDROMULCHING AND HYDROSEEDING NOT PERMITTED.
 - ROCK MULCH SHALL BE INSTALLED AT A 3" DEPTH OVER GEOTEXTILE WEED CONTROL FABRIC. MULCH BEDS SHALL HAVE A SPADE CUT EDGER WHEN PERIMETER IS NOT CONCRETE CURB, BUILDING OR HARDSAPCE SURFACE. NO WEED FABRIC AT GROUND COVER OR PERENNIAL PLANTS. ROCK MULCH SHALL BE AMERICAN 2" PROVIDED BY MADISON BLOCK AND STONE (madisonblockandstone.com)
 - TURF SEED SHALL BE SUN AND SHADE PARK MIX GRASS SEED FROM MADISON BLOCK AND STONE (madisonblockandstone.com)

SYMBOL	CODE	BOTANICAL NAME	COMMON NAME
GROUND COVERS			
	NN	Native Seed Mix	See Construction Notes for Type
	RM	Rock Mulch	See Construction Notes for Type
	TD	Turf Seed	See Construction Notes for Type
BIORETENTION PLUGS			
	BP	Bio Plugs	Bio Plugs

V:\p\124120530\124.1205.30\ADD\124.1205.30.LAND PLAN.dwg ANDY VESSMANN PLANTING PLAN 20250411 1:00 PM ANSI FULL BLEED B (17.00 x 11.00 INCHES)



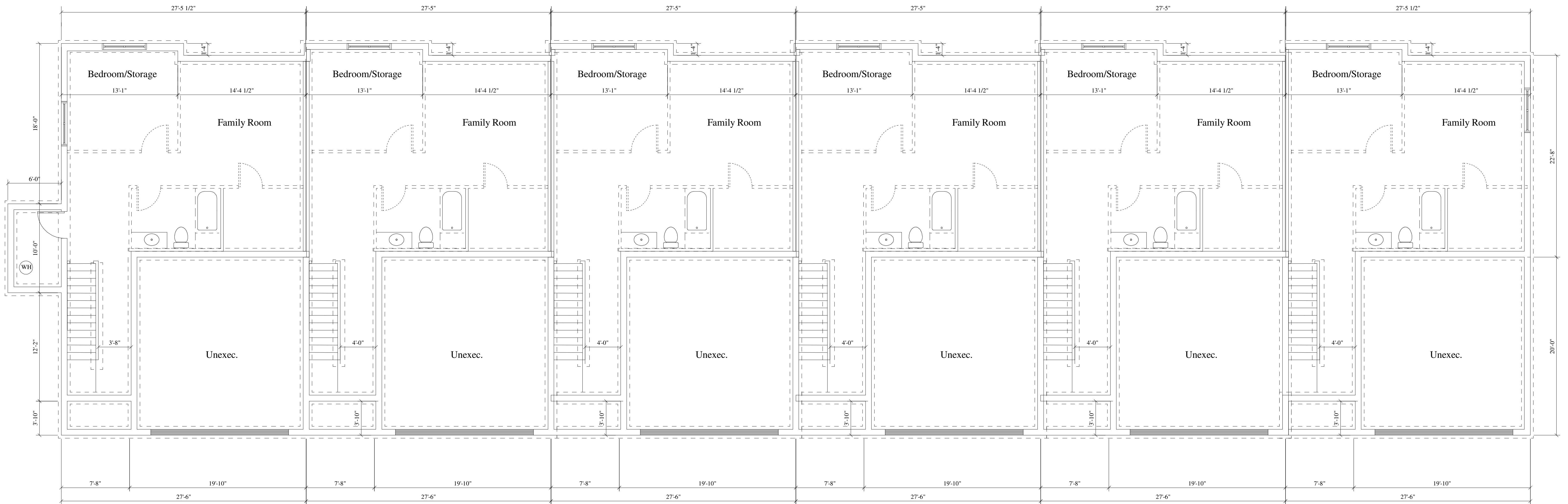
Front Elevation

Scale = 3/16"=1'-0"



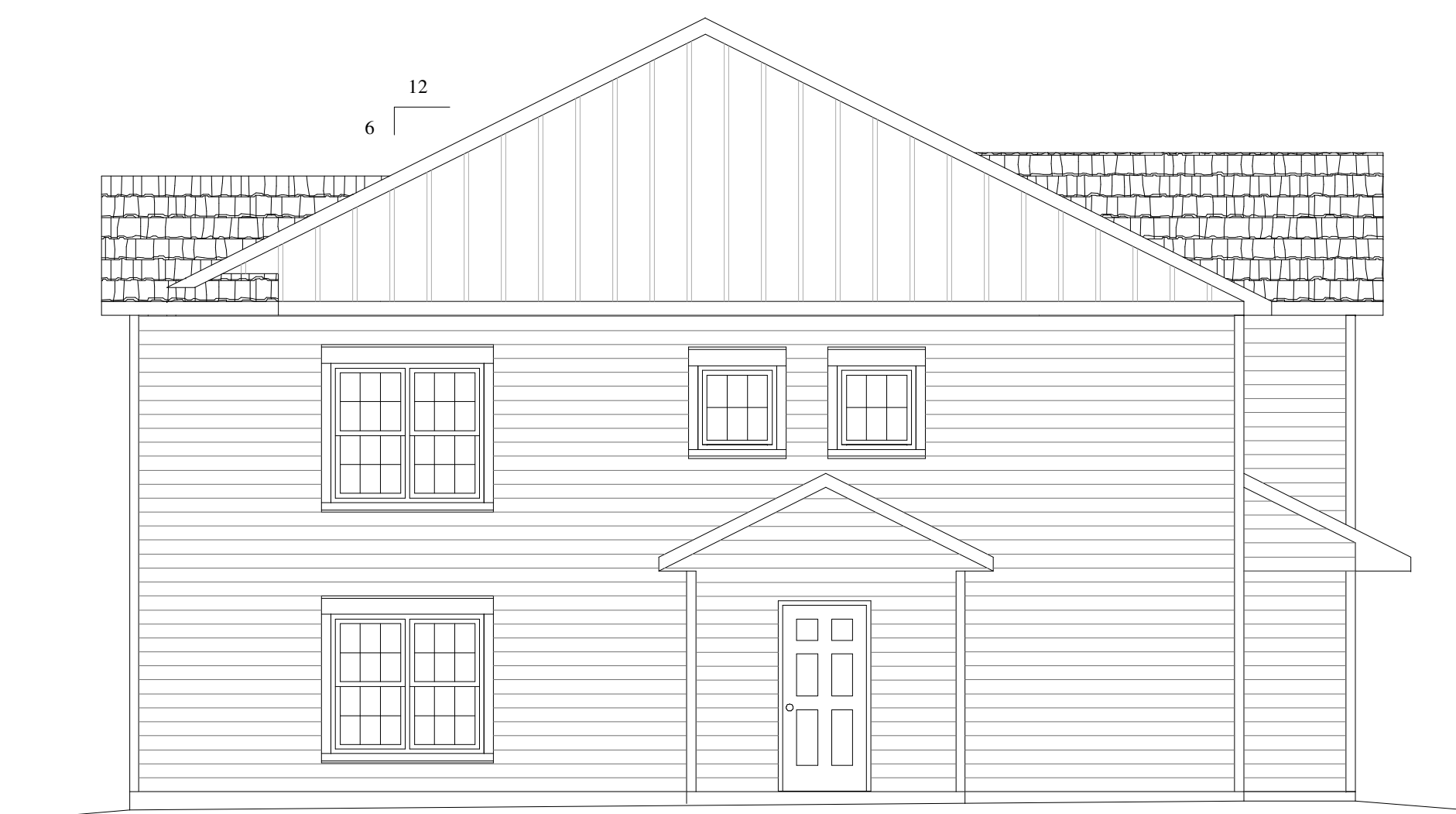
Rear Elevation

Scale = 3/16"=1'-0"



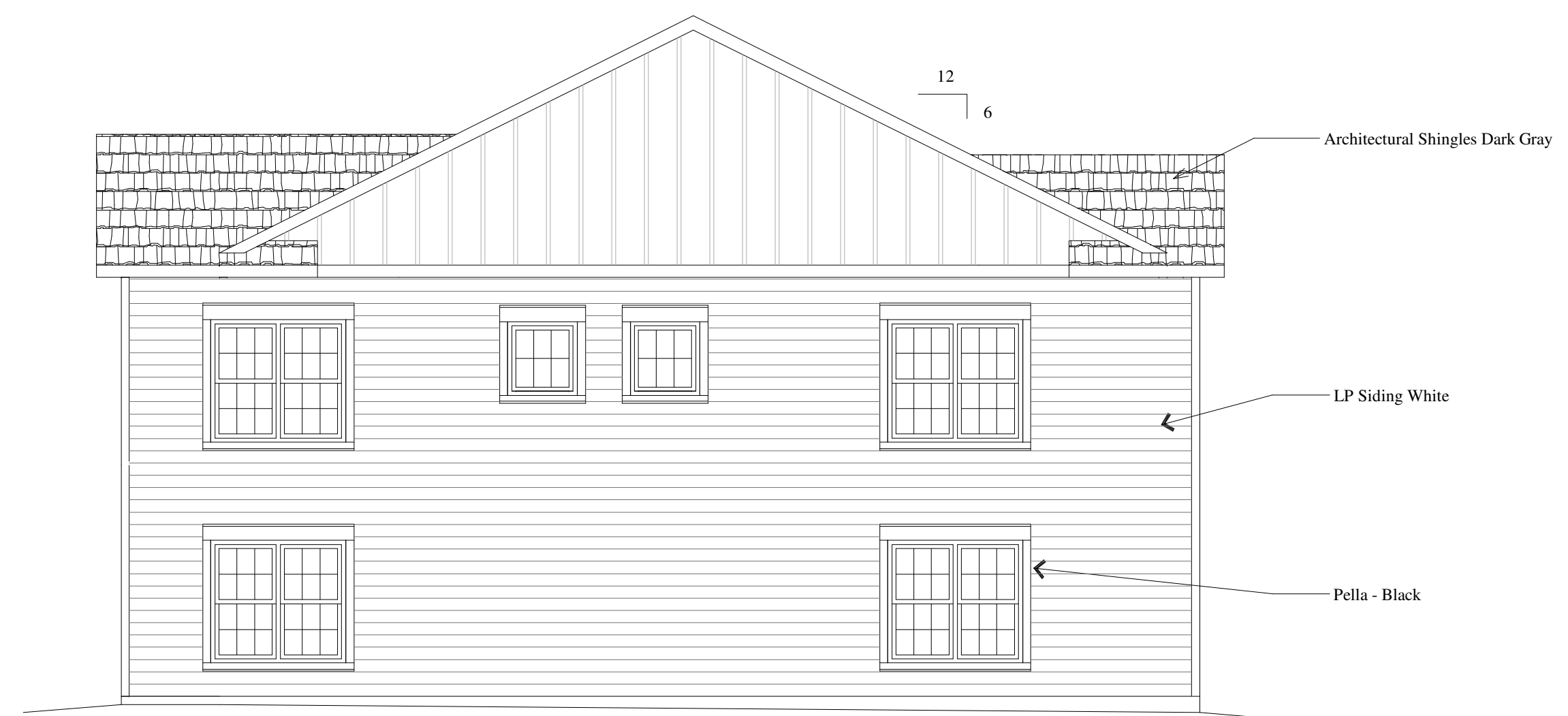
Lower Level Plan

Scale = 3/16"=1'-0"



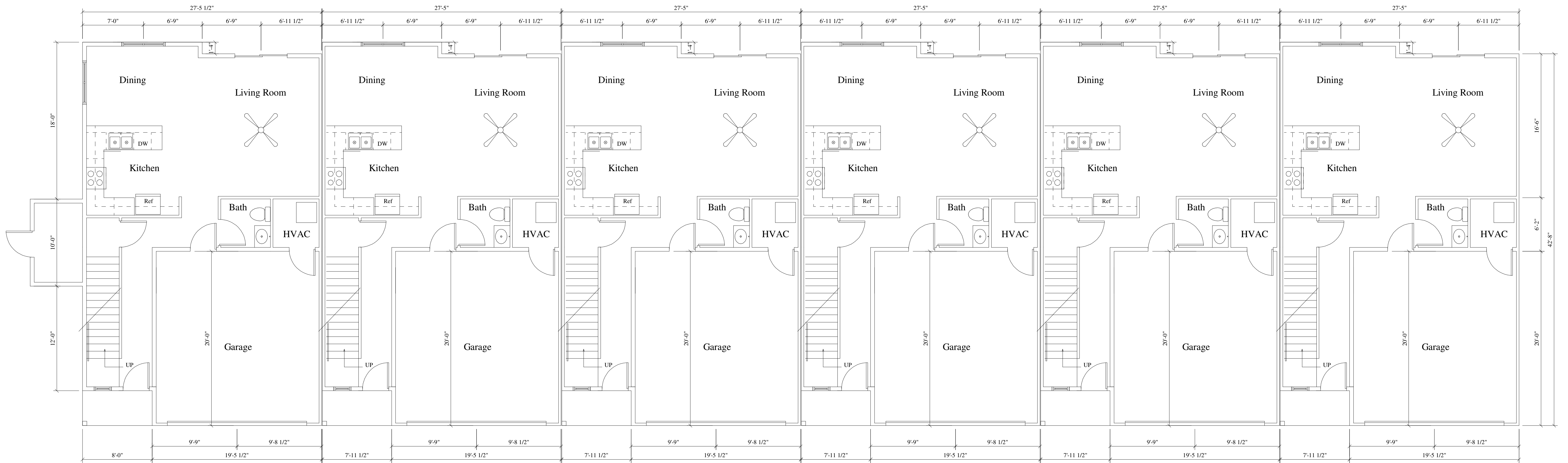
Left Elevation

Scale = 3/16"=1'-0"



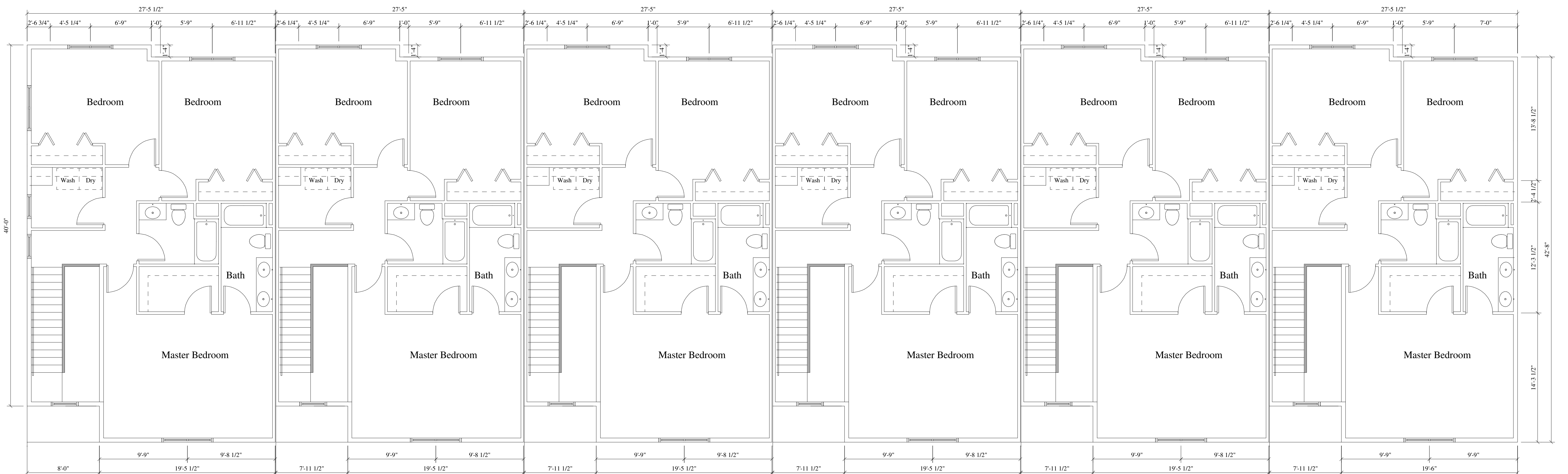
Right Elevation

Scale = 3/16"=1'-0"



First Floor Plan

Scale = 3/16"=1'-0"



Second Floor Plan

Scale = 3/16"=1'-0"

Jeffery Groenier, Architect
 W125 Amidon Road
 Brooklyn, WI 53521
 608-698-3196
 This document contains confidential or proprietary information of Concepts in Architecture, LLC. Neither this document nor the information herein is to be reproduced, distributed, used, or disclosed without authorization.

Proposed for:
Concepts
 In
Architecture, LLC

Project: **6 Unit**
 Address: **Fitchburg, WI**

Date: **11-25-2024**
 Scale: **As Noted**
 Job #: **13-01**

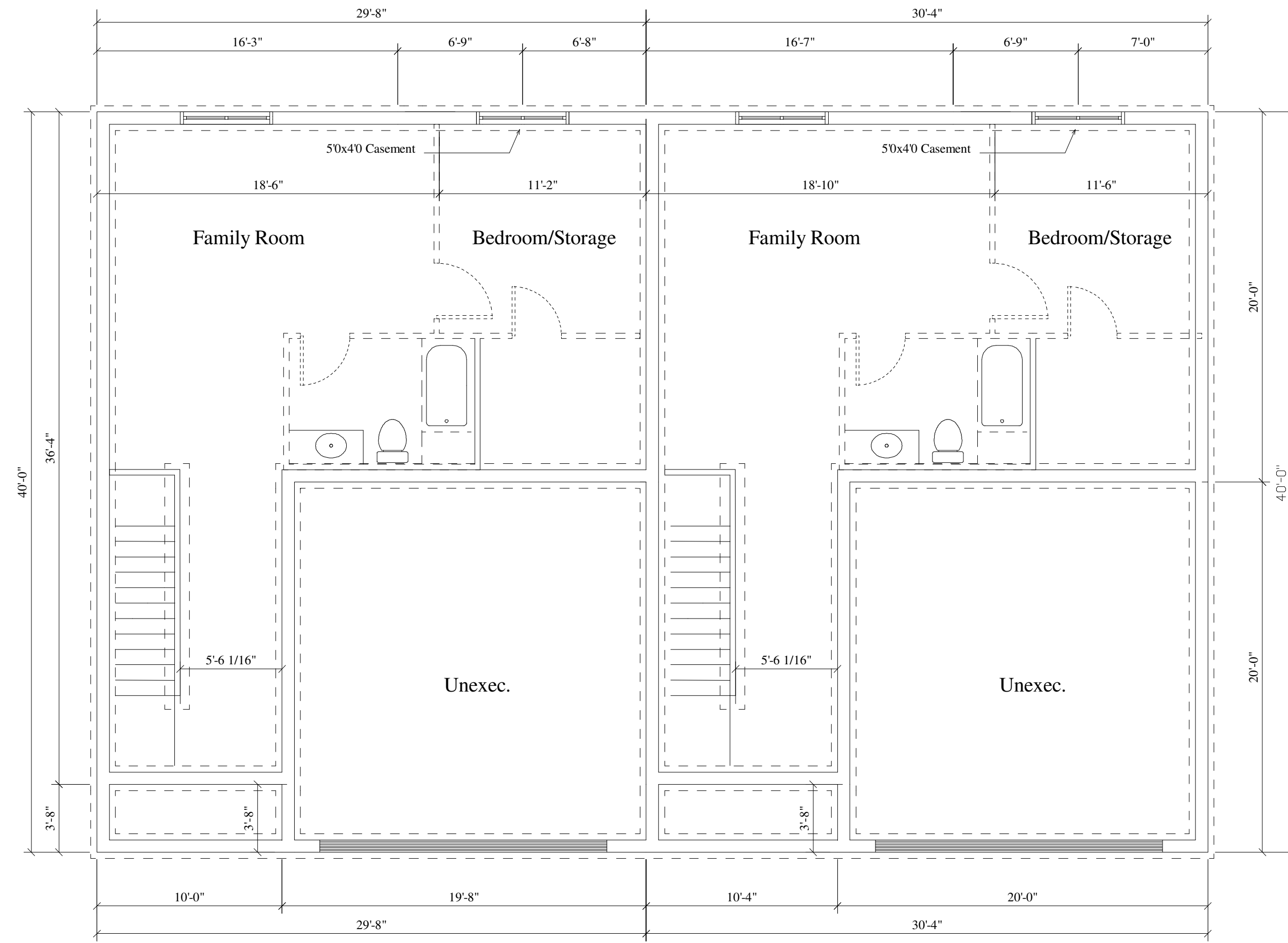
Sheet Title: **Floor Plans**

SHEET
A1



Left Elevation

Scale = 3/16"=1'-0"



Floor Plans

Scale = 1/4"=1'-0"



Rear Elevation

Scale = 1/4"=1'-0"

Proposed for:

Address:

Project: Duplex Plan

Address: Fitchburg, WI

Sheet Title: Elevations

Date: 11-25-2024

Scale: As Noted

Job #: 13-01

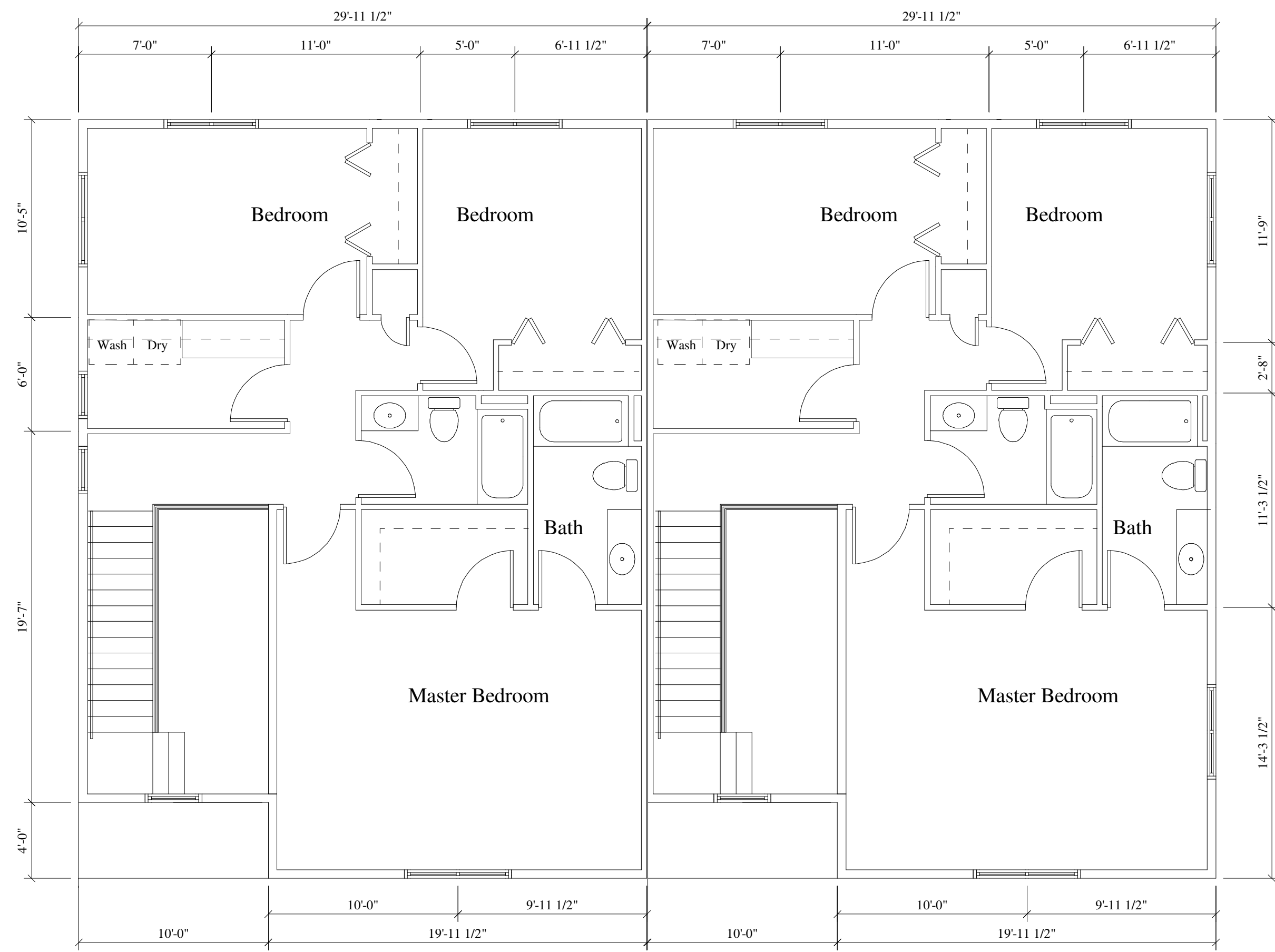
SHEET

A2

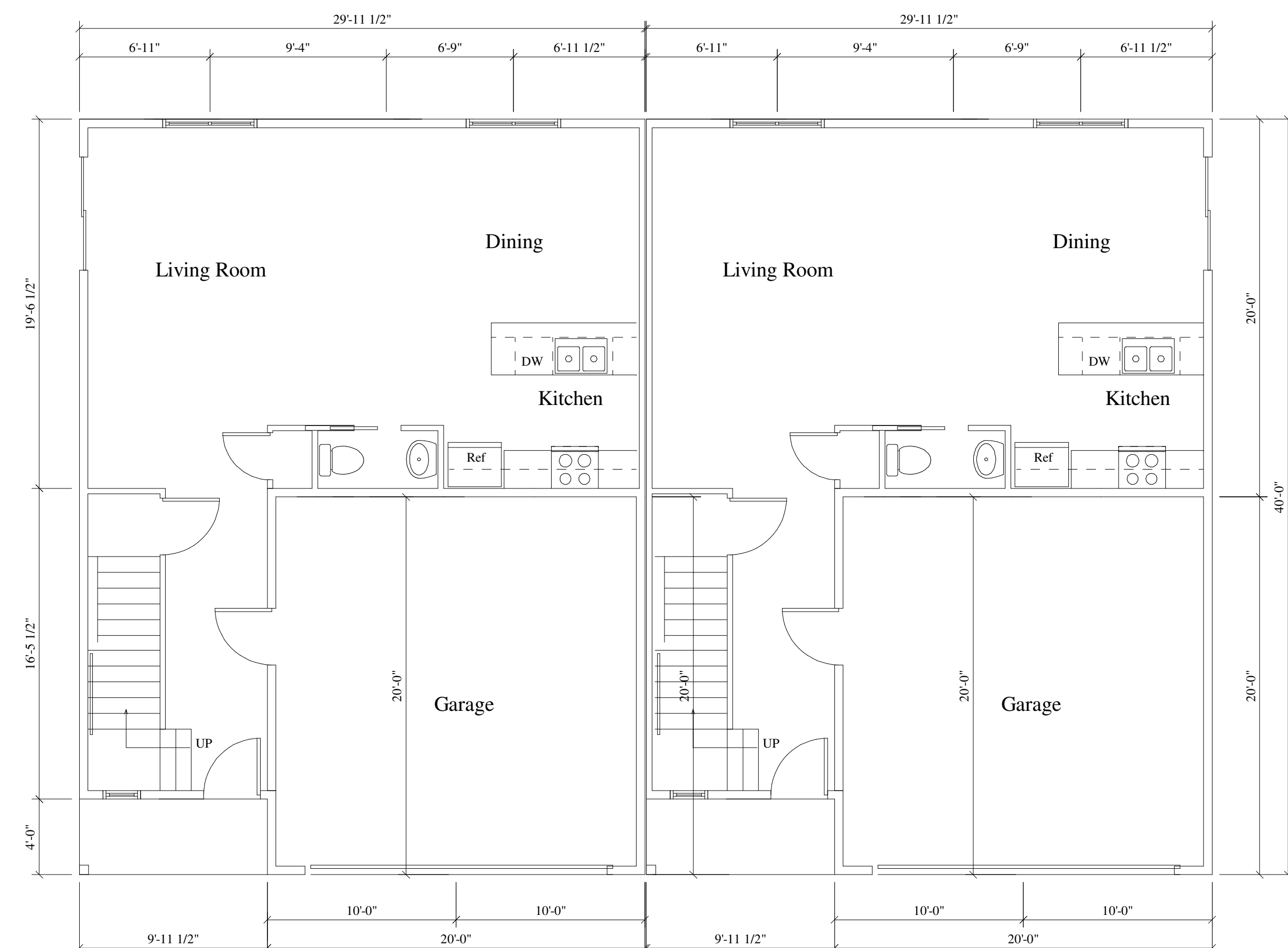
Concepts
In
Architecture, LLC

Jeffery Groenier, Architect
W125 Amidon Road
Brooklyn, WI 53521
608-698-3196

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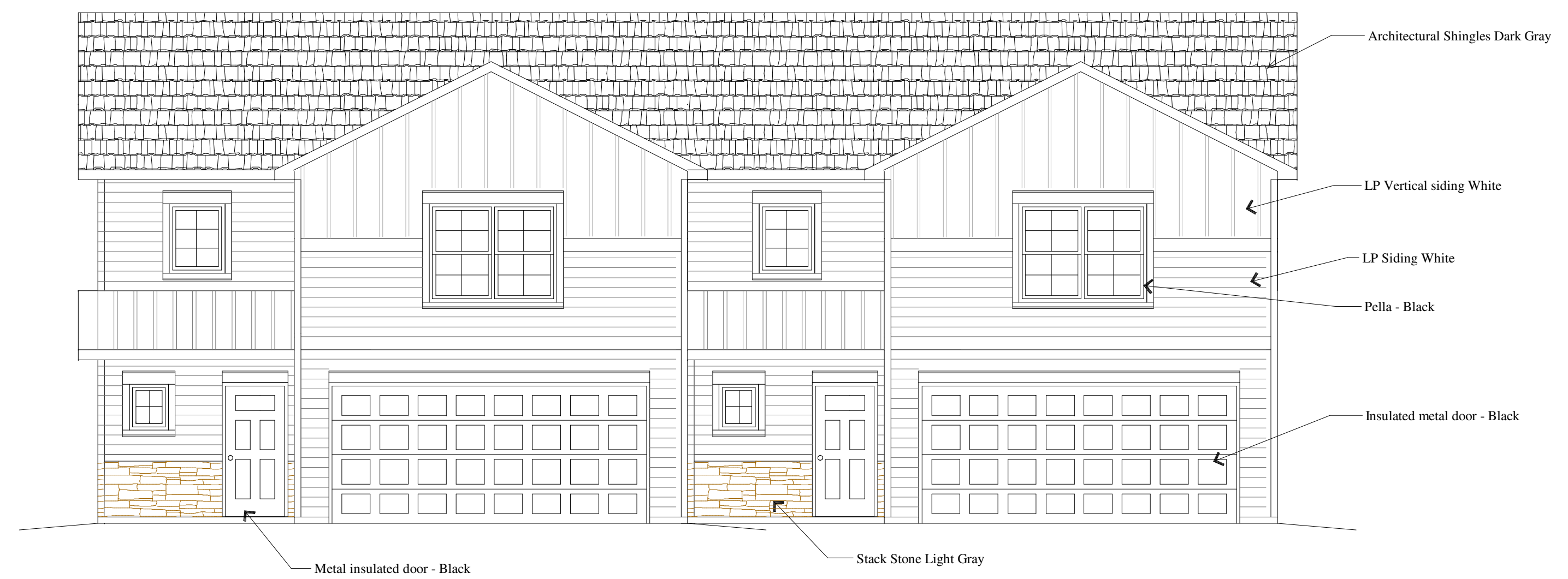
Floor Plans
Scale = 3/16"=1'-0"



Floor Plans
Scale = 3/16"=1'-0"



Right Elevation
Scale = 3/16"=1'-0"



Front Elevation
Scale = 3/16"=1'-0"

Jeffery Groenier, Architect
W125 Amidon Road
Brooklyn, WI 53521
608-698-3196

Concepts
In
Architecture, LLC

Proposed for:
Address:

Project: Duplex Plan
Address: Fitchburg, WI
Sheet Title: Elevations

Date: 11-25-2024
Scale: As Noted
Job #: 13-01

SHEET
A1

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Olive Tree Residences Condominium Association, Inc.
Declaration of Condominium and Bylaws
Pursuant to Chapter 703 of the Wisconsin Statutes

This Agreement (the “Agreement”) is made and entered into on this ____ day of _____, 2025, by and between the owners of condominium units (the “Owners”) in the Olive Tree Residences Condominium Association (the “Association”).

ARTICLE 1: INTRODUCTION

Section 1: Name and Location

The name of the Association is **Olive Tree Residences Condominium Association, Inc.**, located in Fitchburg, Wisconsin. The community consists of 20 residential homes, comprised of 12 townhomes and 8 duplex homes.

Section 2: Legal Authority

This Declaration is made pursuant to and in accordance with the Wisconsin Condominium Ownership Act (Chapter 703, Wis. Stat.).

ARTICLE 2: DEFINITIONS

- **Association:** Olive Tree Residences Condominium Association, Inc.
 - **Board:** The Board of Directors of the Association.
 - **Common Elements:** Areas shared by all unit owners as defined under Wis. Stat. §703.02.
 - **Limited Common Elements:** Elements assigned to one or more units but maintained by the Association.
 - **Unit:** A single residence within the Association.
 - **Unit Owner:** A person or entity holding legal title to a Unit.
 - **“Private Roadways”** refers to the internal roads within the Condominium Community that are owned and maintained by the Association.
 - **“Park Space”** refers to the outdoor, shared recreational areas designated for community enjoyment.
 - **“Dog Walking Areas”** refers to areas where dogs may be walked, as designated by the Association.
-

ARTICLE 3: MEMBERSHIP AND VOTING RIGHTS

All Unit Owners are members of the Association. Each Unit is entitled to one (1) vote in Association matters.

ARTICLE 4: OCCUPANCY AND LEASING RESTRICTIONS

Section 4.1: Owner Occupancy or Management Requirement

All Units must be either owner-occupied or managed by a licensed Wisconsin property management company. Proof of residency or management agreement must be filed with the Association.

Section 4.2: Leasing Restrictions

- Leases must be for a minimum of 12 months.
- Short-term rentals (under 30 days) are prohibited.
- A copy of each lease agreement must be provided to the Board.
- Owners are responsible for tenant compliance with Association rules.

ARTICLE 5: ASSESSMENTS AND FEES

Section 5.1: Regular Assessments

The Board shall assess and collect fees annually to fund the operation, maintenance, and reserves of the Association. Initial annual assessments:

- \$1,800 per townhome
- \$1,500 per duplex home

Section 5.2: Special Assessments

Special assessments for capital improvements or emergency expenses may be levied with approval of at least two-thirds (2/3) of Unit Owners.

ARTICLE 6: MAINTENANCE AND REPAIR RESPONSIBILITIES

Unit Owners shall be responsible for:

- Interior maintenance (walls, flooring, appliances)
- Plumbing and HVAC systems

The Association shall be responsible for:

- Roofs, siding, exterior painting
- Driveways, sidewalks
- Landscaping and lawn care
- Snow removal

- Maintenance of Common Elements

Section 6.1 Private Roadways

The Association is responsible for the regular maintenance, repair, and snow removal of the private roadways within the Condominium Community.

- The Association shall ensure that the private roadways remain in good condition, free of significant damage or hazards.
- Owners shall refrain from any actions that may harm or obstruct the roadways.
- In the event of damage caused by an Owner, that Owner shall be responsible for the cost of repairs.

Section 6.2 Snow Removal

- The Association shall be responsible for the removal of snow from the private roadways and any shared pedestrian pathways.
- Snow removal shall occur within a reasonable time frame after snowfall to ensure safe access to and from all condominium units.
- Owners are required to clear snow from their individual driveways or parking spaces if applicable.

Section 6.3 Common Area Maintenance

- The Association shall maintain all common areas, including landscaping, parking areas, and park space, ensuring these areas are clean and free from trash or debris.
- Owners shall report any maintenance issues related to common areas to the Association for prompt resolution.

ARTICLE 7: BOARD OF DIRECTORS

- The Board shall consist of five (5) members elected by the Unit Owners.
- Directors serve staggered two-year terms.
- The Board shall meet quarterly and as needed.
- Duties include budgeting, collecting assessments, enforcing rules, and overseeing maintenance.

ARTICLE 8: RULES AND REGULATIONS

The following rules apply to all residents:

1. No commercial business activities in Units.

2. Quiet hours are 10:00 PM – 7:00 AM.
 3. Garbage must be stored in closed containers and not visible from the street.
 4. No unregistered or inoperable vehicles on property.
 5. Architectural changes require prior written Board approval.
 6. Pets limited to two per household; must be leashed in Common Elements.
 7. No open storage of items on porches or balconies.
-

ARTICLE 9: USE OF COMMON SPACES

Section 9.1 Respectful Use of Common Spaces

- All Owners and their guests shall respect the shared nature of common spaces and use them in a manner that does not interfere with the enjoyment of others.
- Noise levels shall be kept to a reasonable level in all common areas, including hallways, parking lots, and the park space, especially during quiet hours, from 10:00 PM to 8:00 AM.
- Any activities in the common areas that may disturb the peace and quiet of the community, including loud parties or excessive noise, are strictly prohibited.

Section 9.2 Park Space

- The park space is to be used exclusively for recreational and leisure activities by the Owners and their guests.
 - No permanent structures, fencing, or private items may be placed in the park space without the prior written consent of the Association.
-

ARTICLE 10: DOG WALKING POLICY

Section 10.1 Leash Requirement

- All dogs must be kept on a leash while being walked within the Condominium Community, including the park space and common areas.
- Owners are responsible for cleaning up after their pets. Waste bags must be disposed of in designated trash bins provided by the Association.

Section 10.2 Designated Dog Walking Areas

- The Association may designate specific areas within the Condominium Community where dogs may be walked, to help prevent any conflicts or disturbances with other residents.
 - Owners must adhere to any posted signage or guidelines regarding dog walking.
-

ARTICLE 11: PARKING POLICY

Section 11.1 Designated Parking Areas

- Parking is permitted only in the designated parking areas. Parking in fire lanes, walkways, or other restricted areas is strictly prohibited.
- Each Owner shall park in their designated parking space or visitor parking space as appropriate.
- Unauthorized vehicles parked in restricted or non-designated areas may be towed at the vehicle owner's expense.

Section 11.2 Guest Parking

- Owners may permit guests to use visitor parking spaces, but these spaces are limited in number and are reserved for short-term use only.
- Owners shall ensure that guests park only in the visitor-designated areas, and not in spaces reserved for other Owners.

Section 11.3 Abandoned or Inoperable Vehicles

- No Owner shall park an abandoned, inoperable, or non-licensed vehicle in the parking areas. Vehicles in violation of this rule shall be subject to removal at the Owner's expense.
-

ARTICLE 13: INSURANCE

Association Insurance:

- Master property insurance covering Common Elements and exteriors
- General liability insurance
- Directors and Officers liability insurance

Owner Responsibility:

- HO-6 individual unit insurance including interior fixtures, personal property, and liability
-

ARTICLE 14: ENFORCEMENT AND PENALTIES

Section 14.1 Enforcement

- The Association may issue notices of violation to any Owner or resident who does not comply with the terms and conditions of this Agreement.
- Repeated or severe violations may result in fines or other penalties, as determined by the Board of Directors of the Association.
- Monetary fines (up to \$100/day)

- Suspension of voting rights
- Legal action for injunctive relief or collection

Section 14.2 Dispute Resolution

- Any disputes or disagreements arising from the interpretation or enforcement of this Agreement shall be resolved through mediation or arbitration, as determined by the Board of Directors.

ARTICLE 15: AMENDMENTS

These Bylaws may be amended with the approval of 67% of the Unit Owners. Proposed amendments must be distributed at least 30 days before the vote.

ARTICLE 16: MISCELLANEOUS

- The fiscal year of the Association shall be the calendar year.
- All notices may be delivered via mail or electronic communication.
- These Bylaws supersede all prior governing documents.

ARTICLE VIII: EFFECTIVE DATE

This Agreement shall be effective as of the date first written above and shall remain in effect until amended or replaced by the Owners in accordance with the terms set forth in this Agreement.

IN WITNESS WHEREOF, the undersigned Owners have executed this Agreement as of the date first above written.

Signatures of Owners:

1. _____

(Owner Name & Unit Number)

2. _____

(Owner Name & Unit Number)

**Planned Development District
Granting General Implementation Plan
Zoning for the Olive Tree Condos GIP in
Section 06, T6N, R9E, City of Fitchburg,
Dane County, Wisconsin**

Return to: Fitchburg City Clerk
5520 Lacy Road
Fitchburg, WI 53711

Parcel No's: 225/0709-363-9330-3
225/0709-363-9400-8

Legal Description:

Parcel A:

A parcel of land lying in and being a part of the South $\frac{1}{2}$ of the South $\frac{1}{2}$ of the Southwest $\frac{1}{4}$ of Section 36, Township 7 North, Range 9 East, in the Town of Madison, Dane County, Wisconsin, and described more fully as follows: Beginning at a point (iron stake) which is 364 feet South of an iron stake (which is a point on the North line of the above mentioned South $\frac{1}{2}$ of the South $\frac{1}{2}$ of the Southwest $\frac{1}{4}$, and 1382 feet West of the Northeast corner thereof); thence South 99 feet to an iron stake; thence West parallel to said North line 435.5 feet to an iron stake at public highway; thence North $14^{\circ}15'$ East along said public highway, 101.8 feet to an iron stake; thence East parallel to said North line 408.6 feet to the point of beginning.

Parcel B:

Part of the South $\frac{1}{2}$ of the South $\frac{1}{2}$ of the Southwest $\frac{1}{4}$ of Section 36, Township 7 North, Range 9 East, in the Town of Madison, Dane County, Wisconsin, and which is more fully described as follows: Beginning 1379.5 feet West of the Northeast corner of said South $\frac{1}{2}$ of the South $\frac{1}{2}$ of the Southwest $\frac{1}{4}$ (said point previously being described as West 1382.0 feet); thence South $1^{\circ}26'$ West, 652.0 feet to the South line of Section 36, said point being the Southeast corner of parcel described in Volume 509, on page 407 of Deeds, Dane County Registry; thence West along center line of a 50.0 foot road, 110.0 feet to the point of beginning of this description, said point also being the Southwest corner of parcel described in Volume 516, on page 38 of Deeds, Dane County Registry; thence continue West along said center line of 50.0 foot road, 377.0 feet more or less to intersect center line public highway; thence North $14^{\circ}15'$ East along center line said public highway, 197.7 feet; thence East parallel to the South line of Town Road, 325.5 feet

more or less to the Northwest corner of parcel described in Volume 516, on Page 38, of Deeds, Dane County Registry; thence Southerly along West line of above mentioned parcel, 164.0 feet to the North line of 50.0 foot road; thence continue Southerly on said West line, 25.0 feet to the center line of highway and the point of beginning; EXCEPTING THEREFROM those lands conveyed to the Town of Madison in Quit Claim Deed recorded in Volume 593 of Deeds, Page 254 as Document No. 851999

Mayor Arata-Fratta
Introduced by

Planning
Prepared by

Plan Commission
Referred to

February 18 & March 18, 2025
Date

ORDINANCE NO. 2025-O-05
ZONING ORDINANCE AMENDMENT
GRANTING GENERAL IMPLEMENTATION PLAN ZONING
FOR THE OLIVE TREE CONDOS GIP

WHEREAS, pursuant to Fitchburg Ordinance No. 87-0-06, Section 16, Zoning District Maps were adopted within the corporate limits of the City of Fitchburg until expressly altered by the City Council, and

WHEREAS, Ayesha Liaqat, Agent for Hoopoe Holdings LLC, has submitted an application (RZ-2583-25) to rezone property from R-L (Low Density Residential) to PDD-GIP (Planned Development District - General Implementation Plan) zoning to allow for a commercial development along McKee Road, more fully described in the legal description above, and

WHEREAS, the Plan Commission has reviewed, after public hearing of February 18, 2025, as well as reviewed again on March 18, 2025, the application in accord with ordinance standards and recommends approval of RZ-2583-25,

NOW THEREFORE the City Council of the City of Fitchburg, Dane County, Wisconsin does ordain as follows:

- (A) PDD-GIP zoning is hereby granted for the properties more fully described in the legal description above, in accord with submitted plans and information, which accompanied the rezoning application submitted on January 20, 2025, with revised materials submitted on February 7, 2025, and further revised on March 7, 2025. The documents referred to above are hereby made a part of this ordinance, and with the following additional requirements:
1. No other permit or approval is waived or deemed satisfied except for the approval provided herein.
 2. Standards of the PDD-GIP Ordinance are specified in greater detail in the Olive Tree Condos General Implementation Plan and shall include:
 - a. Total Units: 20 residential units
 - b. Permitted Uses: Attached condominium units
 - i. Accessory Occupancies: Generally consistent with accessory standards of Chapter 22, and to be finalized during SIP

- ii. No Conditional Uses
- c. Building Height: 28 feet maximum
- d. Maximum Impervious Surface Ratio: 55%
- e. Minimum Open Space: 45%
- f. Setbacks from property lines:
 - i. Rimrock Property Line: 10 feet
 - ii. Maloney Property Line: 10 feet
 - iii. Rear and side: 6 feet minimum
 - iv. Attached single-family buildings shall maintain a minimum of 10 feet of separation between buildings
- 3. Upon approval by Plan Commission and Council, the applicant shall provide the original signed and notarized PDD-GIP document to the city within 30 days of the date of Council adoption for recordation.
- 4. A Subdivision Improvement Agreement is required prior to signing the CSM. The CSM and Subdivision Improvement Agreement shall be recorded prior to any building permits.
- 5. Installation of public improvements need to substantially complete prior to the release of full building permits. See city ordinances, Sec. 24-14, for early start permit requirements.
- 6. The plans for this development shall be submitted to Dane County for review and comment. Dane County's requirements for the land division and the constructions plans shall be addressed.
- 7. Maloney will be reconstructed as an urban section. A waiver of assessment shall be executed for the street improvements prior to the city signing the CSM.
- 8. Water impact fees shall be paid for each lot at the time of building permit issuance.
- 9. The developer shall provide a designated US Post Office location for Centralized Mode of Delivery.
- 10. An Erosion Control & Stormwater Management permit is required.
- 11. A stormwater maintenance agreement (recorded with at the Dane County Register of Deeds) is required. Note that stormwater is discharged to the City of Madison storm infrastructure. Stormwater management plans shall be submitted to the City of Madison for review and approval.
- 12. Private street names shall be approved by the Zoning Administrator.
- 13. Signage shall conform to the requirements of the City's Chapter 26 sign ordinance.
- 14. Applicant's responsibility to satisfy all Public Works and Fire Department requirements.

(B) This ordinance shall take effect following its publication, the consent of the property owner, or the recording of a plat, whichever occurs last. However, in accord with section 22-596 of the zoning code, owners shall consent within 30 days of approval for the PDD-GIP zoning to be in effect.

(C) Applicant shall pay cost of ordinance publication to avoid a two Council meeting approval process.

The above and foregoing ordinance was duly adopted by the City Council of the City of Fitchburg, at a regular meeting held on the 8th of April, 2025.

Tracy Oldenburg, City Clerk

Approved: April 8, 2025

Julia Arata-Fratta, Mayor

Published: April 15, 2025

STATE OF WISCONSIN)ss.
COUNTY OF DANE

Personally came before me this ____ day of _____, 2025, the above named Tracy Oldenburg, and Julia Arata-Fratta to me known to be the City Clerk and Mayor (respectively) of the City of Fitchburg, and the persons who executed the foregoing instrument and acknowledged the same.

Notary Public, State of Wisconsin

Printed Name of Notary Public _____
My Commission Expires: _____

Consent of the Property Owner

Name: Ayesha Liagat *Just!*

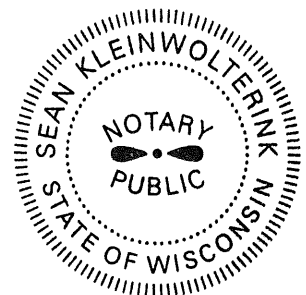
Date: 04/09/25

Title CEO / owner of Hoopoe Holdings LLC

STATE OF WISCONSIN)ss.
COUNTY OF DANE

Personally came before me this 9th day of April, 2025, the above named Ayesha Liagat to me known to be CEO/owner, of Hoopoe Holdings LLC and the person who executed the foregoing instrument and acknowledged the same.

Sean Kleinwolterink
Notary Public, State of Wisconsin



Printed Name of Notary Public Sean Kleinwolterink
My Commission Expires: 3/16/28

Consent of Mortgage Holder:

[Signature]
Mortgage Holder

Date: 4/9/25

STATE OF WISCONSIN)ss.
COUNTY OF DANE

Personally came before me this 9th day of April, 2025, the above named
John Schroder to me known to be the Vice President

of Wings Credit Union and the person who executed the foregoing instrument
and acknowledged the same.

[Signature]
Notary Public, State of Wisconsin

Printed Name of Notary Public Sean Kleinwolterink
My Commission Expires: 3/16/28



Drafted By: City of Fitchburg

DESCRIPTION

Lot 1, Certified Survey Map Number _____ as recorded in Volume _____ of Certified Survey Maps, on pages _____ as Document Number _____, Dane County Registry and located in part of the Southwest Quarter of the Southwest Quarter of Section 36, Township 7 North, Range 9 East, City of Fitchburg, Dane County, Wisconsin. This description contains 90,363 square feet or 2.074 acres.

NOTES:

- 1) The building plans provided by the Client and do not represent as built conditions.
- 2) Interior dimensions for floor plans are approximate and based on drawings provided to the surveyor from the Client.
- 3) Unit areas are approximate and shown per information provided to the surveyor from the Client.
- 4) Garage aprons, concrete stoops, balconies and screen porches are limited common elements to the appurtenant unit.
- 5) All the areas within the condominium plat and outside the units, except those areas designated as limited common elements, are common elements.
- 6) See sheets 2-4 for Floor Plans and Unit Details.
- 7) Property is subject to any and all easements and agreements, both recorded and unrecorded.

SURVEYOR'S CERTIFICATE

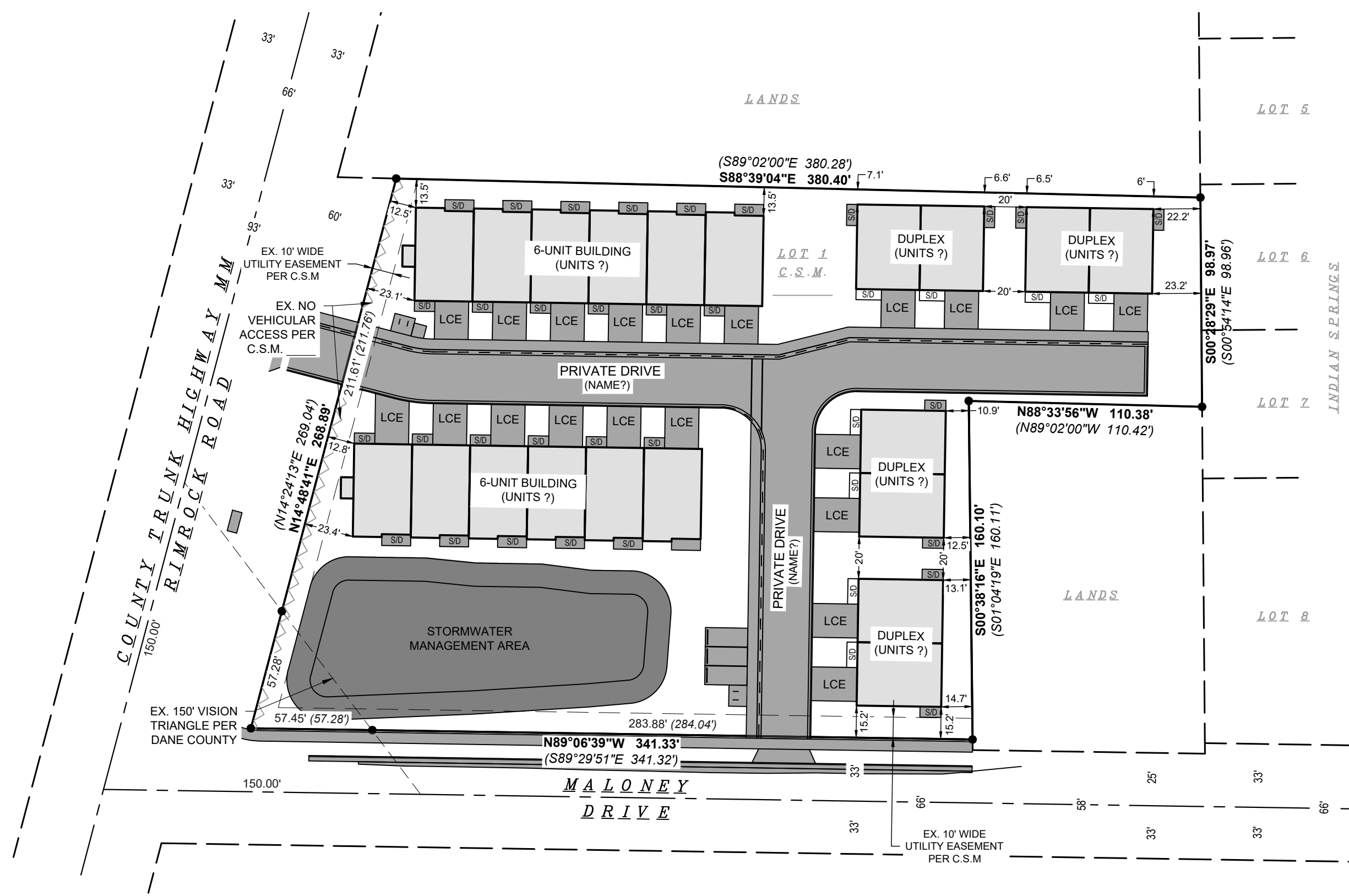
I, Adam R. Gross, Professional Land Surveyor, No. 3017, hereby certify that in full compliance with the provisions of Chapter 703 of the Wisconsin Statutes, and the City of Fitchburg and Dane County's Subdivision Regulations regarding condominium plat review, I have surveyed and mapped the following described lands and that this survey is an accurate representation of the exterior boundary lines and the location of the buildings and improvements to be constructed upon the property.

Dated this _____ day of _____, 20____.

Signed: _____
 Adam R. Gross, P.L.S. No. 3017
 Snyder & Associates, Inc.
 5010 Voges Road
 Madison, WI 53718
 608-838-0444
 agross@snyder-associates.com

LEGEND

- 3/4" REBAR FOUND
 - SD STOOP/DECK
 - LCE LIMITED COMMON ELEMENT
- DISTANCES ARE MEASURED TO THE NEAREST HUNDREDTH OF A FOOT.



There are no objections to this condominium with respect to Sec. 703 Wis. Stats. and is hereby approved for recording.

Dated this _____ day of _____, 20____.

Dane County Planning and Development

RECORDED DATA

CERTIFICATE OF REGISTER OF DEEDS

Received for recording this _____ day of _____, 20____, at _____ o'clock M. and recorded in Volume _____ of Condominium Plats, on pages _____, as Doc. No. _____.

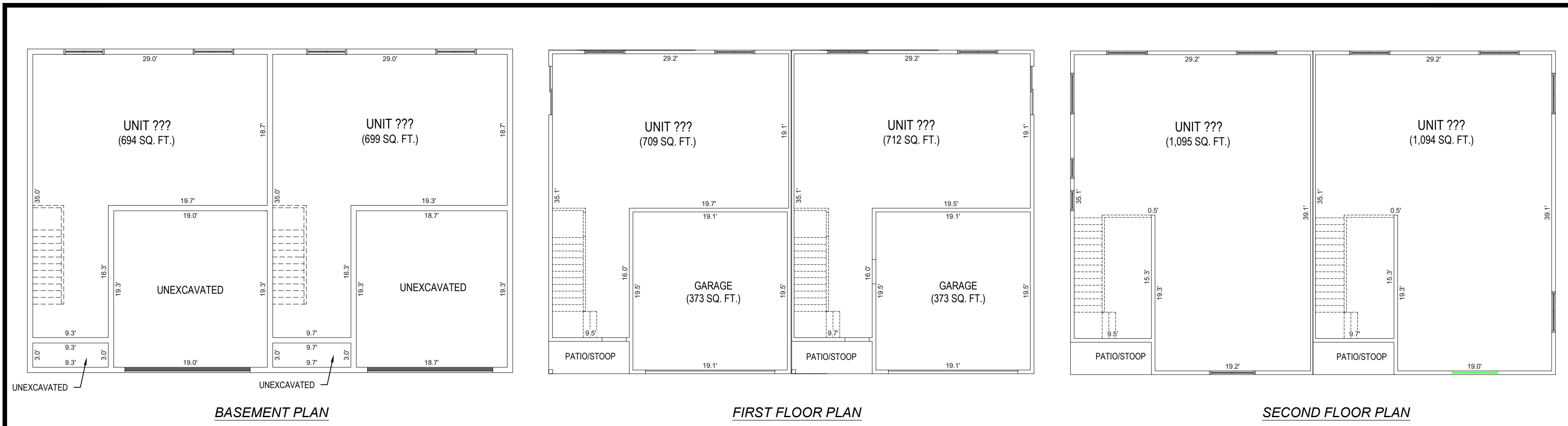
Dane County Register of Deeds

	SURVEYED FOR: Hoopoe Holdings, LLC 5029 Saint Annes Drive Middleton, WI 53550	SURVEYED BY: Snyder & Associates, Inc. 5010 Voges Road Madison, WI 53718 (608) 838-0444 www.snyder-associates.com
	FN: 124.1205.30 DATE: 04-18-25 REVISIONS: REV1 _____ REV2 _____ REV3 _____ SHEET 1 OF 4	

OLIVE TREE RESIDENCES, A CONDOMINIUM PLAT

LOT 1, CERTIFIED SURVEY MAP NUMBER _____, AS RECORDED IN VOLUME _____ OF CERTIFIED SURVEY MAPS, ON PAGES _____, AS DOCUMENT NUMBER _____, DANE COUNTY REGISTRY AND LOCATED IN PART OF THE SOUTHWEST QUARTER OF THE SOUTHWEST QUARTER OF SECTION 36, TOWNSHIP 7 NORTH, RANGE 9 EAST, CITY OF FITCHBURG, DANE COUNTY, WISCONSIN.

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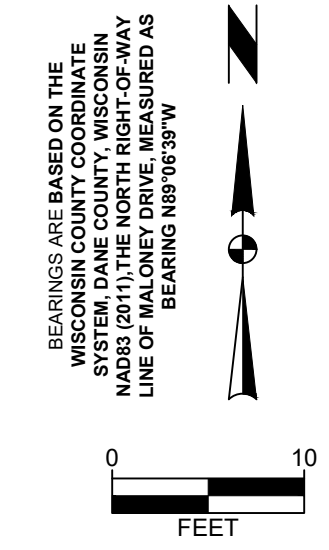
BASEMENT PLAN

FIRST FLOOR PLAN

SECOND FLOOR PLAN

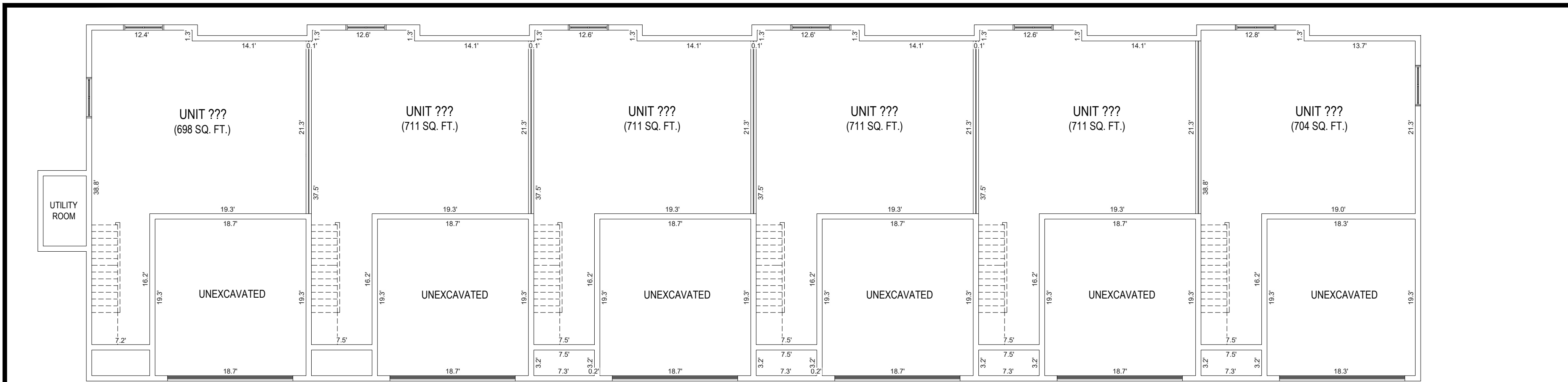
NOTES:

- 1) The building plans provided by the Client and do not represent as built conditions.
- 2) Interior dimensions for floor plans are approximate and based on drawings provided to the surveyor from the Client.
- 3) Unit areas are approximate and shown per information provided to the surveyor from the Client.
- 4) Garage aprons, concrete stoops, balconies and screen porches are limited common elements to the appurtenant unit.
- 5) All the areas within the condominium plat and outside the units, except those areas designated as limited common elements, are common elements.
- 6) See sheets 2-4 for Floor Plans and Unit Details.
- 7) Property is subject to any and all easements and agreements, both recorded and unrecorded.

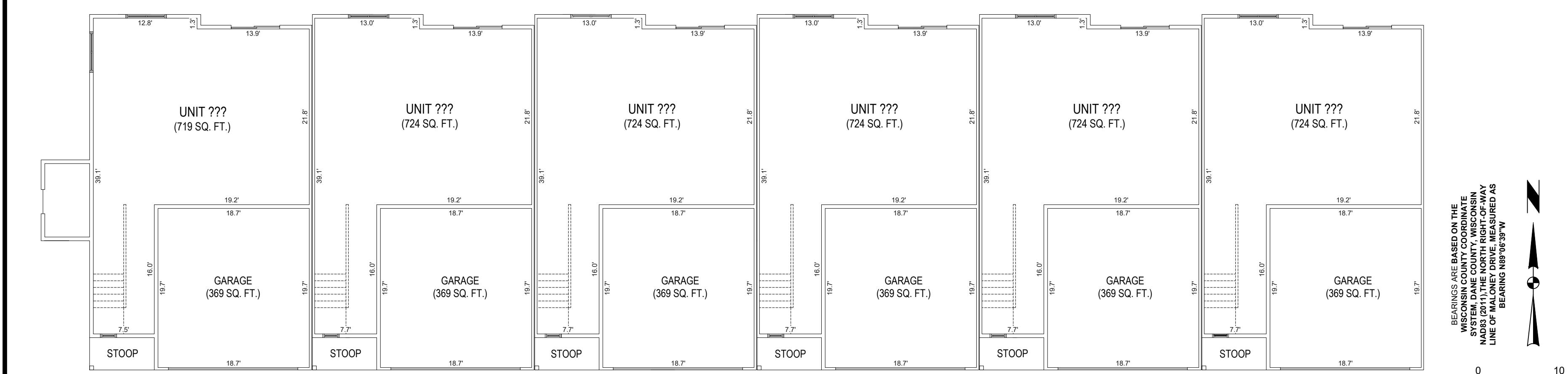


	SURVEYED FOR: Hoopoe Holdings, LLC 5029 Saint Annas Drive Middleton, WI 53550	SURVEYED BY: Snyder & Associates, Inc. 5010 Voges Road Madison, WI 53718 (608) 838-0444 www.snyder-associates.com	OLIVE TREE RESIDENCES, A CONDOMINIUM PLAT LOT 1, CERTIFIED SURVEY MAP NUMBER _____, AS RECORDED IN VOLUME _____ OF CERTIFIED SURVEY MAPS, ON PAGES _____, AS DOCUMENT NUMBER _____, DANE COUNTY REGISTRY AND LOCATED IN PART OF THE SOUTHWEST QUARTER OF THE SOUTHWEST QUARTER OF SECTION 36, TOWNSHIP 7 NORTH, RANGE 9 EAST, CITY OF FITCHBURG, DANE COUNTY, WISCONSIN.	FN: 124.1205.30 DATE: 04-18-25 REVISIONS: REV1 _____ REV2 _____ REV3 _____ SHEET 2 OF 4
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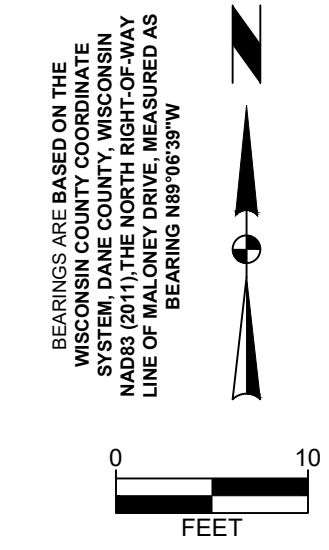
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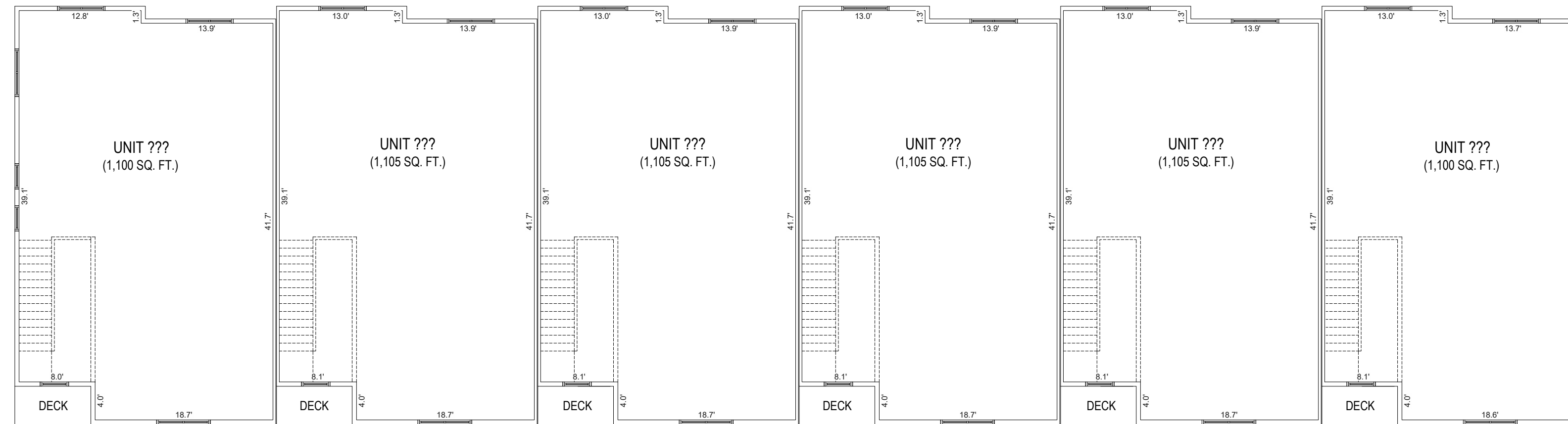
BASEMENT PLAN



FIRST FLOOR PLAN



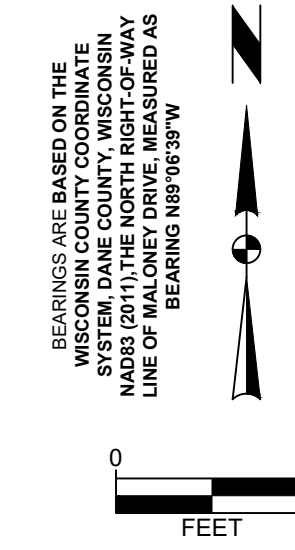
	SURVEYED FOR: Hoopoe Holdings, LLC 5029 Saint Annas Drive Middleton, WI 53550	SURVEYED BY: Snyder & Associates, Inc. 5010 Voges Road Madison, WI 53718 (608) 838-0444 www.snyder-associates.com	OLIVE TREE RESIDENCES, A CONDOMINIUM PLAT LOT 1, CERTIFIED SURVEY MAP NUMBER _____, AS RECORDED IN VOLUME _____ OF CERTIFIED SURVEY MAPS, ON PAGES _____, AS DOCUMENT NUMBER _____, DANE COUNTY REGISTRY AND LOCATED IN PART OF THE SOUTHWEST QUARTER OF THE SOUTHWEST QUARTER OF SECTION 36, TOWNSHIP 7 NORTH, RANGE 9 EAST, CITY OF FITCHBURG, DANE COUNTY, WISCONSIN.	FN: 124.1205.30 DATE: 04-18-25 REVISIONS: REV1 REV2 REV3
				SHEET 3 OF 4




SECOND FLOOR PLAN

NOTES:

- 1) The building plans provided by the Client and do not represent as built conditions.
- 2) Interior dimensions for floor plans are approximate and based on drawings provided to the surveyor from the Client.
- 3) Unit areas are approximate and shown per information provided to the surveyor from the Client.
- 4) Garage aprons, concrete stoops, balconies and screen porches are limited common elements to the appurtenant unit.
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	<small>V:\Projects\2025\124.1205.30\CADD\1241205_SURV-CND00.dwg</small>			SHEET 4 OF 4

STORMWATER MAGAGEMENT AND EROSION CONTROL PLAN

Olive Tree Residences

City of Fitchburg, WI | April 14, 2025

Prepared for:

HOOPOE HOLDINGS, LLC
5029 Saint Annes Drive
Middleton, WI 53597

Snyder & Associates, Inc. Project No. 124.1205.30

Prepared by:

<u>Brian C. Arcand, P.E.</u>	<u>4/14/2025</u>
Name	Date

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Post-Development Drainage Area Map	Appendix D
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Post-Development Hydrology	Appendix F
Water Quality and Infiltration.....	Appendix G
Storm Sewer Catchment Area Map and Calculations.....	Appendix H
Universal Soil Loss Equation for Construction Sites	Appendix I
Draft Maintenance Agreement.....	Appendix J
Soil Test Pits	Appendix K



IOWA | MISSOURI | NEBRASKA | SOUTH DAKOTA | WISCONSIN

1. INTRODUCTION

The purpose of this stormwater management and erosion control plan is to evaluate the impacts of the proposed development on stormwater runoff leaving the site. To protect receiving waters and lands, runoff caused by development generally must be treated, detained and, if appropriate, infiltrated per Municipal, County, CARPC, and State regulations.

The proposed site is located at 2735 Rimrock Road in the City of Fitchburg, Section 36, T 7 N, R 9 E.

The project area is approximately 2.3 acres and will consist of two 6-unit townhomes, four duplexes (20 total units), and a stormwater management area.

The stormwater system requirements include:

- ◆ Comply with NR-151 requirements.
- ◆ Maintain the pre-developed peak flow runoff rates for the 1, 2, 10, 100, and 200-year storm events.
- ◆ Safely pass the 500-year storm event.
- ◆ Infiltrate 90% of the pre-development infiltration volume, based on average annual rainfall.
- ◆ 80% of total suspended solids removal for water quality.
- ◆ Thermal control.
- ◆ Effectively treat oil and grease for the first 0.5 inches of runoff during rainfall events.
- ◆ Provide sediment control during construction, limiting construction sediment loss to 5 tons per acre per year.

2. STORMWATER RUNOFF ANALYSIS

a. Pre-Developed and Post-Developed Conditions

The existing site is currently two empty lots. The soil survey map referenced in Appendix A indicates the soils in the vicinity of the site consist mainly of Batavia silt loam (Bb) and Whalan silt loam (Wx). These soils have a Hydrologic Soil Group Rating of primarily “B” and “C” type soils (Appendix A).

The project will consist of two 6-unit townhomes, four duplexes, and a stormwater management area. See the Grading and Erosion Control Plan in Appendix B.

The City of Madison is conducting a flood study in this area and has preliminarily determined that Maloney Drive overtops and runoff cuts across this site. They have shared these flows and they have been incorporated into the stormwater modeling for this development for all storm events.

b. Pre-Developed and Post-Developed Peak Discharge Rates

The site is designed to maintain peak discharge rates as required by the City of Fitchburg and Dane County for the 1, 2, 10, 100, and 200-year storms and safely pass the 500-year storm, in addition to accounting for local flooding with flows provided by the City of Madison as described above and provided in Table 2-1 below (Appendices E and F). Some of the project site will run directly offsite. Runoff from these uncaptured areas is intended to be from mainly grassed areas.

Table 2-1: Pre-Development

Storm Event (Yr.)	Total Flow without Flooding (cfs)	Total Flow from Flooding (cfs)	Total Flow (cfs)
1	0.58	3.1	3.58
2	1.11	3.9	4.88
10	3.85	7.3	10.90
100	11.18	15.7	26.43
200	13.96	18.7	32.15
500	18.64	23.8	41.82

Table 2-2: Post-Development

Storm Event (Yr.)	Total Flow (cfs)	Total Flow With No Controls (cfs)
1	2.10	8.02
2	3.39	10.01
10	9.93	17.87
100	17.32	35.91
200	28.91	42.23
500	43.54	52.73

Table 2-3: Stormwater Management Systems

Storm Event (Yr.)	High Water Level – 1P
1	867.48
2	867.62
10	868.15
100	869.26
200	869.50
500	869.68

c. Total Suspended Solids Removal

As runoff flows through a site it picks up and carries sediment. This sediment will flow off site if it does not settle out prior to discharging. WinSLAMM modeling was used to determine the extent of TSS removal that will be met for the proposed development. Appendix G includes the WinSLAMM calculations for water quality.

Table 2-4: Total Suspended Solid Calculations

	Particulate Solids Yield (lbs.)	Percent Particulate Solids Reduction
Total of All Land Uses without Controls	579.2	
Outfall Total with Controls	66.49	88.52
Annualized Total After Outfall Controls	66.68	

d. Infiltration

Per the City of Madison Ordinance, the site is required to infiltrate 90% of the pre-developed infiltration volume for the proposed development. Infiltration calculations can be found in Appendix G.

Table 2-5: Total Infiltration

Condition	Runoff Volume (cu. ft.)	Percent Infiltrated
Pre-Development	19,381	
Post-Development	14,844	102.3

e. Thermal Control

The proposed project area is located within a thermally sensitive area (Appendix A). Runoff from the site will be infiltrated to pre-development conditions and the “first flush” of stormwater will mitigate the thermal impacts of runoff when the water leaves the site via the bioretention basin.

f. Oil and Grease Control

The first 0.5 inch of rainfall across the parking lot must be treated for oil and grease. This requirement will be met by utilizing the bioretention basin.

3. STORM SEWER DESIGN

Storm sewer will be sized to handle the 200-year storm event without surcharging in order to properly direct flow to the given stormwater management systems for the 200-year storm event. Additionally, the 500-year event for the site will be safely routed to the public right-of-way. Storm sewer calculations and drainage exhibit can be found in Appendix H.

4. EROSION CONTROL

a. Erosion Control Devices and Practices

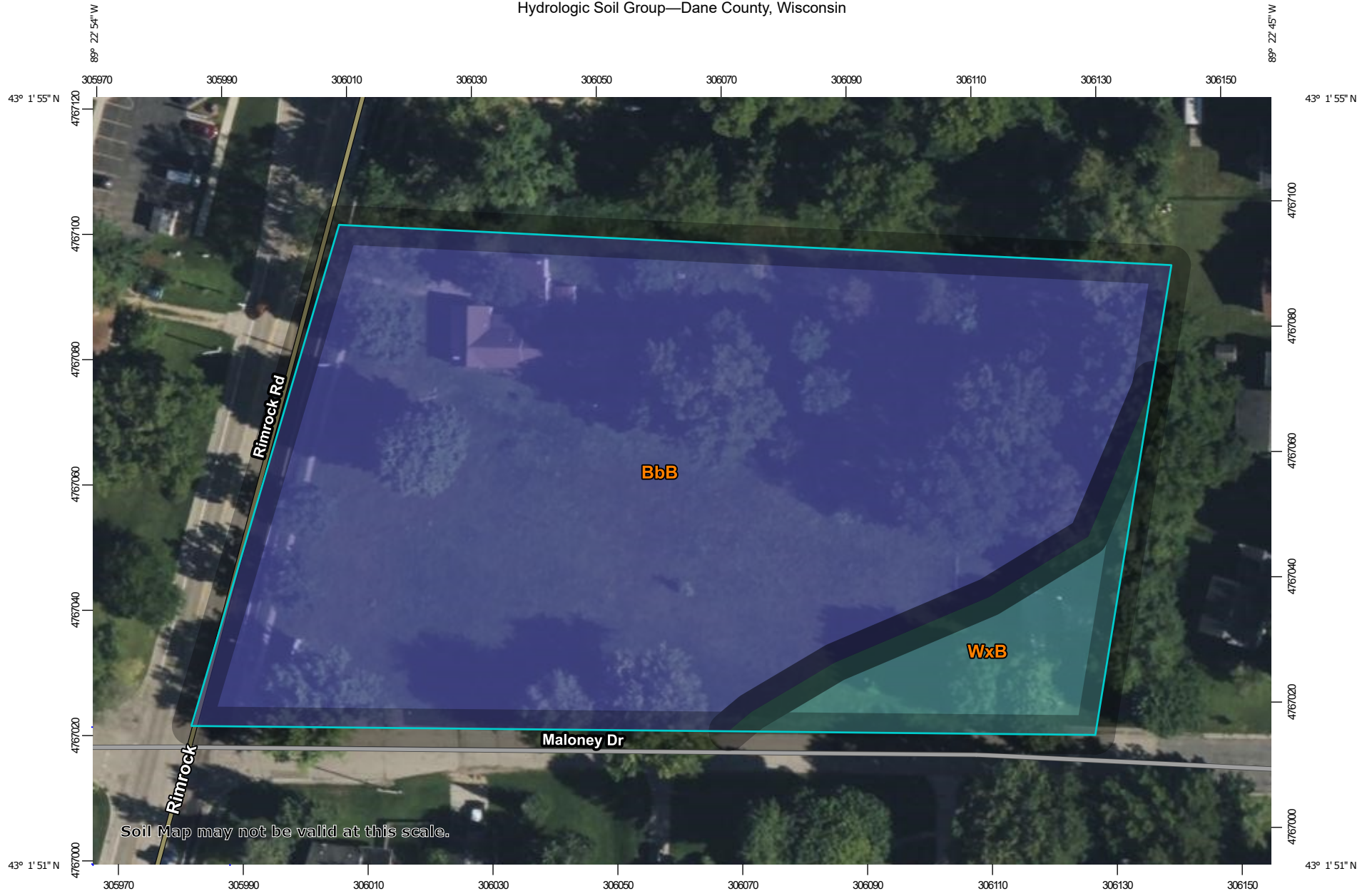
Sediment discharge from construction sites must be limited to 5.0 tons/acre/year. The Universal Soil Loss Equation Worksheet for Construction Sites will be used to calculate the soil loss for the proposed development. Silt fence, stone construction entrances/tracking pads, erosion matting, and inlet protection will be utilized to reduce soil loss before and during construction. Upon completion of construction these areas will be re-graded and restored. The contractor will minimize areas of exposed soil and will temporarily seed as necessary. These measures will keep sediment discharge below 5.0 tons/acre/year. USLE worksheets and an exhibit of flow paths can be found in Appendix I.

b. Monitoring and Maintenance

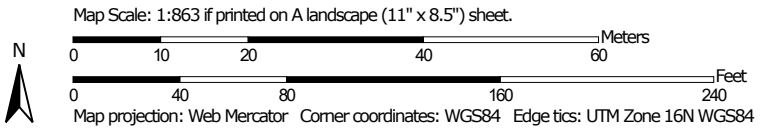
A draft maintenance agreement for all private portions of the stormwater management can be found in Appendix J.

APPENDIX A
SITE MAPS

Hydrologic Soil Group—Dane County, Wisconsin




Soil Map may not be valid at this scale.




MAP LEGEND

Area of Interest (AOI)









 Area of Interest (AOI)

Soils

Soil Rating Polygons





 A
 A/D
 B
 B/D
 C
 C/D
 D
 Not rated or not available

Soil Rating Lines


 A
 A/D
 B
 B/D
 C
 C/D
 D
 Not rated or not available

Soil Rating Points






 A
 A/D
 B
 B/D

 C
 C/D
 D
 Not rated or not available

Water Features

 Streams and Canals

Transportation

 Rails
 Interstate Highways
 US Routes
 Major Roads
 Local Roads

Background

 Aerial Photography

MAP INFORMATION

The soil surveys that comprise your AOI were mapped at 1:15,800.

Warning: Soil Map may not be valid at this scale.

Enlargement of maps beyond the scale of mapping can cause misunderstanding of the detail of mapping and accuracy of soil line placement. The maps do not show the small areas of contrasting soils that could have been shown at a more detailed scale.

Please rely on the bar scale on each map sheet for map measurements.

Source of Map: Natural Resources Conservation Service
 Web Soil Survey URL:
 Coordinate System: Web Mercator (EPSG:3857)

Maps from the Web Soil Survey are based on the Web Mercator projection, which preserves direction and shape but distorts distance and area. A projection that preserves area, such as the Albers equal-area conic projection, should be used if more accurate calculations of distance or area are required.

This product is generated from the USDA-NRCS certified data as of the version date(s) listed below.

Soil Survey Area: Dane County, Wisconsin
 Survey Area Data: Version 23, Sep 3, 2024

Soil map units are labeled (as space allows) for map scales 1:50,000 or larger.

Date(s) aerial images were photographed: Aug 4, 2022—Sep 13, 2022

The orthophoto or other base map on which the soil lines were compiled and digitized probably differs from the background imagery displayed on these maps. As a result, some minor shifting of map unit boundaries may be evident.

Hydrologic Soil Group

Map unit symbol	Map unit name	Rating	Acres in AOI	Percent of AOI
BbB	Batavia silt loam, gravelly substratum, 2 to 6 percent slopes	B	2.4	89.6%
WxB	Whalan silt loam, 2 to 6 percent slopes	C	0.3	10.4%
Totals for Area of Interest			2.7	100.0%

Description

Hydrologic soil groups are based on estimates of runoff potential. Soils are assigned to one of four groups according to the rate of water infiltration when the soils are not protected by vegetation, are thoroughly wet, and receive precipitation from long-duration storms.

The soils in the United States are assigned to four groups (A, B, C, and D) and three dual classes (A/D, B/D, and C/D). The groups are defined as follows:

Group A. Soils having a high infiltration rate (low runoff potential) when thoroughly wet. These consist mainly of deep, well drained to excessively drained sands or gravelly sands. These soils have a high rate of water transmission.

Group B. Soils having a moderate infiltration rate when thoroughly wet. These consist chiefly of moderately deep or deep, moderately well drained or well drained soils that have moderately fine texture to moderately coarse texture. These soils have a moderate rate of water transmission.

Group C. Soils having a slow infiltration rate when thoroughly wet. These consist chiefly of soils having a layer that impedes the downward movement of water or soils of moderately fine texture or fine texture. These soils have a slow rate of water transmission.

Group D. Soils having a very slow infiltration rate (high runoff potential) when thoroughly wet. These consist chiefly of clays that have a high shrink-swell potential, soils that have a high water table, soils that have a claypan or clay layer at or near the surface, and soils that are shallow over nearly impervious material. These soils have a very slow rate of water transmission.

If a soil is assigned to a dual hydrologic group (A/D, B/D, or C/D), the first letter is for drained areas and the second is for undrained areas. Only the soils that in their natural condition are in group D are assigned to dual classes.

Rating Options

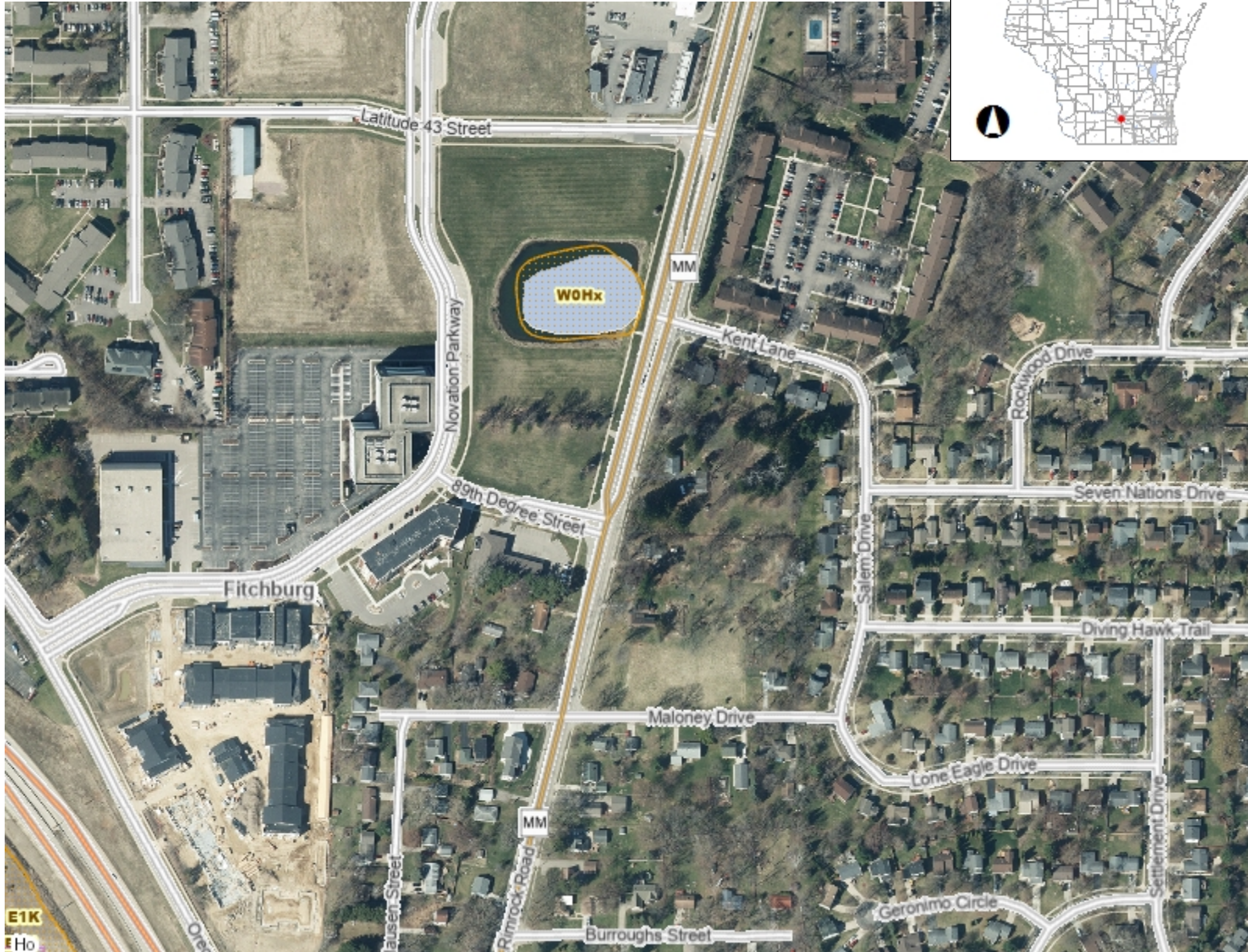
Aggregation Method: Dominant Condition

Component Percent Cutoff: None Specified

Tie-break Rule: Higher



Surface Water Data Viewer Map



Legend

- Wetland Indicators
- Ponds/Open Water
- Lake Class Areas
- Riverine/ditch Class Areas
- Wetland Class Areas
- Wetland Class Points
- Dammed pond
- Excavated pond
- Filled/draind wetland
- Wetland too small to delineate
- Filled excavated pond
- Filled Points
- Wetland Class Areas
- Filled Areas
- Wetland Identifications and Confirmations
- NRCS Wetspots
- Municipality
- State Boundaries
- County Boundaries
- Major Roads**
 - Interstate Highway
 - State Highway
 - US Highway
- County and Local Roads**
 - County HWY
 - Local Road
- Railroads
- Tribal Lands
- Railroads
- Rivers and Streams
- Intermittent Streams
- Lakes and Open water

Notes

0.1 0 0.06 0.1 Miles

NAD_1983_HARN_Wisconsin_TM

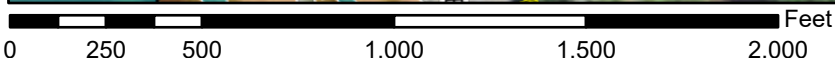
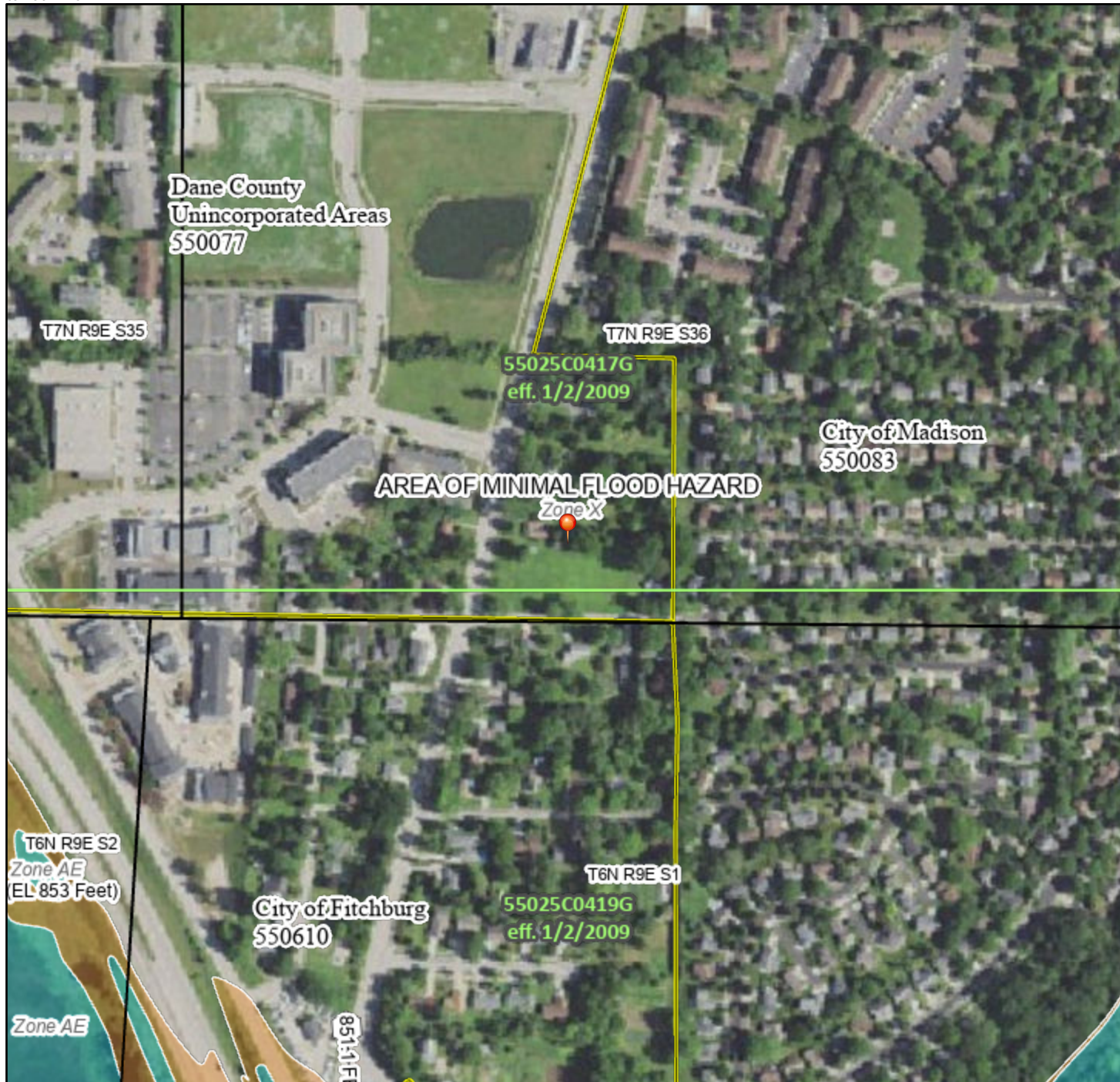
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DISCLAIMER: The information shown on these maps has been obtained from various sources, and are of varying age, reliability and resolution. These maps are not intended to be used for navigation, nor are these maps an authoritative source of information about legal land ownership or public access. No warranty, expressed or implied, is made regarding accuracy, applicability for a particular use, completeness, or legality of the information depicted on this map. For more information, see the DNR Legal Notices web page: <http://dnr.wi.gov/legal/>

National Flood Hazard Layer FIRMMette



89°23'9"W 43°2'7"N



1:6,000 89°22'31"W 43°1'41"N

Basemap Imagery Source: USGS National Map 2023

Legend

SEE FIS REPORT FOR DETAILED LEGEND AND INDEX MAP FOR FIRM PANEL LAYOUT

SPECIAL FLOOD HAZARD AREAS		Without Base Flood Elevation (BFE) Zone A, V, A99
		With BFE or Depth Zone AE, AO, AH, VE, AR
		Regulatory Floodway

OTHER AREAS OF FLOOD HAZARD		0.2% Annual Chance Flood Hazard, Areas of 1% annual chance flood with average depth less than one foot or with drainage areas of less than one square mile Zone X
		Future Conditions 1% Annual Chance Flood Hazard Zone X
		Area with Reduced Flood Risk due to Levee. See Notes. Zone X
		Area with Flood Risk due to Levee Zone D

OTHER AREAS		NO SCREEN Area of Minimal Flood Hazard Zone X
		Effective LOMRs
		Area of Undetermined Flood Hazard Zone D

GENERAL STRUCTURES		Channel, Culvert, or Storm Sewer
		Levee, Dike, or Floodwall

OTHER FEATURES		20.2 Cross Sections with 1% Annual Chance Water Surface Elevation
		17.5 Coastal Transect
		Base Flood Elevation Line (BFE)

OTHER FEATURES		Limit of Study
		Jurisdiction Boundary
		Coastal Transect Baseline
		Profile Baseline
		Hydrographic Feature

MAP PANELS		Digital Data Available
		No Digital Data Available
		Unmapped



The pin displayed on the map is an approximate point selected by the user and does not represent an authoritative property location.

This map complies with FEMA's standards for the use of digital flood maps if it is not void as described below. The basemap shown complies with FEMA's basemap accuracy standards



The flood hazard information is derived directly from the authoritative NFHL web services provided by FEMA. This map was exported on **10/30/2024 at 12:36 PM** and does not reflect changes or amendments subsequent to this date and time. The NFHL and effective information may change or become superseded by new data over time.

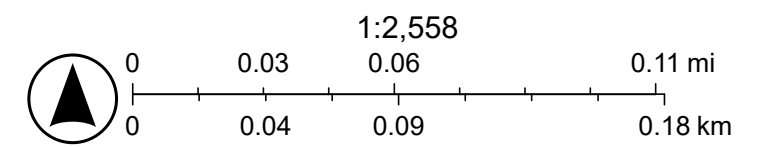
This map image is void if the one or more of the following map elements do not appear: basemap imagery, flood zone labels, legend, scale bar, map creation date, community identifiers, FIRM panel number, and FIRM effective date. Map images for unmapped and unmodernized areas cannot be used for regulatory purposes.

Dane County Map



10/30/2024, 9:04:55 AM

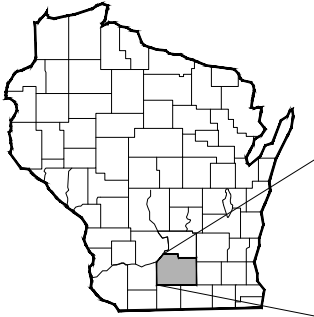
-  Parcels
-  Environmental Corridor



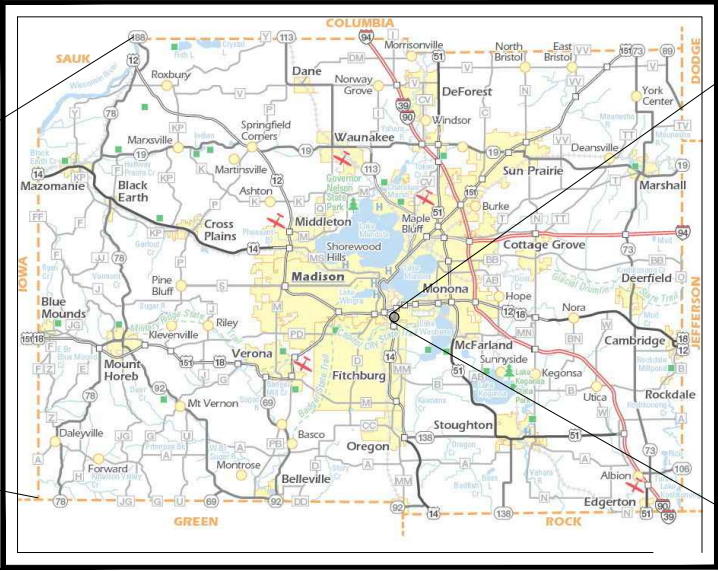
APPENDIX B
GRADING & EROSION CONTROL PLAN

OLIVE TREE RESIDENCES CITY OF FITCHBURG

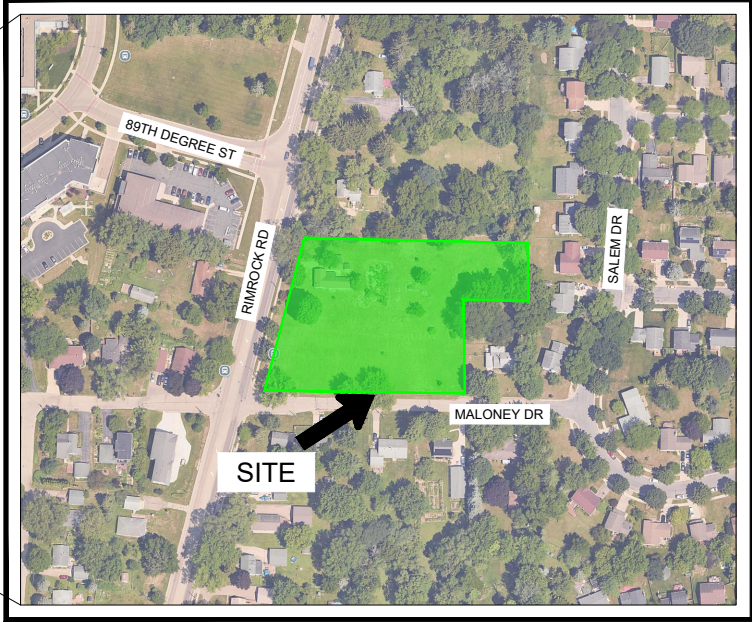
SECTION 11, TOWNSHIP 6N, RANGE 9E



REGIONAL MAP



DANE COUNTY
DANE COUNTY, WISCONSIN



SITE LOCATION MAP
CITY OF FITCHBURG,
DANE COUNTY, WISCONSIN

Sheet List Table

Sheet Number	Sheet Title
C100	TITLE SHEET
C200	EXISTING CONDITIONS & DEMO PLAN
C300	SITE PLAN
C400	GRADING PLAN
C401	EROSION CONTROL PLAN
C402	BASIN DETAILS
C500	UTILITY PLAN
C501	STANFORD WAY PLAN & PROFILE
C502	SUPERIOR WAY PLAN & PROFILE
C503	STORM SEWER PLAN & PROFILE
C504	WATER MAIN PLAN & PROFILE
C600	NOTES
C601	TYPICAL SECTIONS
C602	EROSION CONTROL NOTES
C700	EROSION CONTROL DETAILS
C701	SITE & PAVEMENT DETAILS
C702	SANITARY DETAILS
C703	STORM DETAILS
C704	WATER MAIN DETAILS
L100	LANDSCAPE NOTES
L101	LANDSCAPE DETAILS
L200	PLANTING PLAN

CONTACT INFORMATION

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BRIAN ARCAND
5010 VOGES ROAD
MADISON, WI 53718
608-838-0444 EXT. 3224

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HOOPOE HOLDINGS, LLC
AYESHA LIAQAT
5029 SAINT ANNEES DRIVE
MIDDLETON, WI 53562

ARCHITECT:
CONCEPTS IN ARCHITECTURE, LLC
W125 AMIDON ROAD
BROOKLYN, WI 53521
608-698-3196

CITY OF FITCHBURG:
TIM VOELKER - DIRECTOR OF PUBLIC WORKS
608-270-4261
TRACY FOSS - ASSISTANT DIRECTOR OF PUBLIC WORKS
608-270-4272
5520 LACY RD
FITCHBURG, WI 53711

UTILITY CONTACT INFORMATION

AT&T
CONTACT : LISA GUNDLACH
152 DIXON STREET
MADISON WI 53704
608-252-2006

SPECTRUM
CONTACT : BRANDON STORM
2701 DANIEL STREET
MADISON WI 53718
608-444-9493

MG&E - ELECTRIC
CONTACT : JIM HERFEL
133 BLAIR STREET
MADISON WI 53703
608-252-7224

MG&E - GAS
CONTACT : JANE ROSSING
133 BLAIR STREET
MADISON WI 53703
608-252-7233

UTILITY WARNING

THE UTILITIES SHOWN HAVE BEEN LOCATED FROM FIELD SURVEY INFORMATION AND/OR RECORDS OBTAINED. THE SURVEYOR MAKES NO GUARANTEE THAT THE UTILITIES OR SUBSURFACE FEATURES SHOWN COMPRISE ALL SUCH ITEMS IN THE AREA, EITHER IN SERVICE OR ABANDONED. THE SURVEYOR FURTHER DOES NOT WARRANT THAT THE UTILITIES OR SUBSTANCES FEATURES SHOWN ARE IN EXACT LOCATION INDICATED.



CALL DIGGERS HOTLINE
1-800-242-8511
TOLL FREE

WIS. STATUTE 182.0175 (1974)
REQUIRES MIN. OF 3 WORK DAYS
NOTICE BEFORE YOU EXCAVATE

OLIVE TREE RESIDENCES

TITLE SHEET

CITY OF FITCHBURG, DANE COUNTY, WISCONSIN

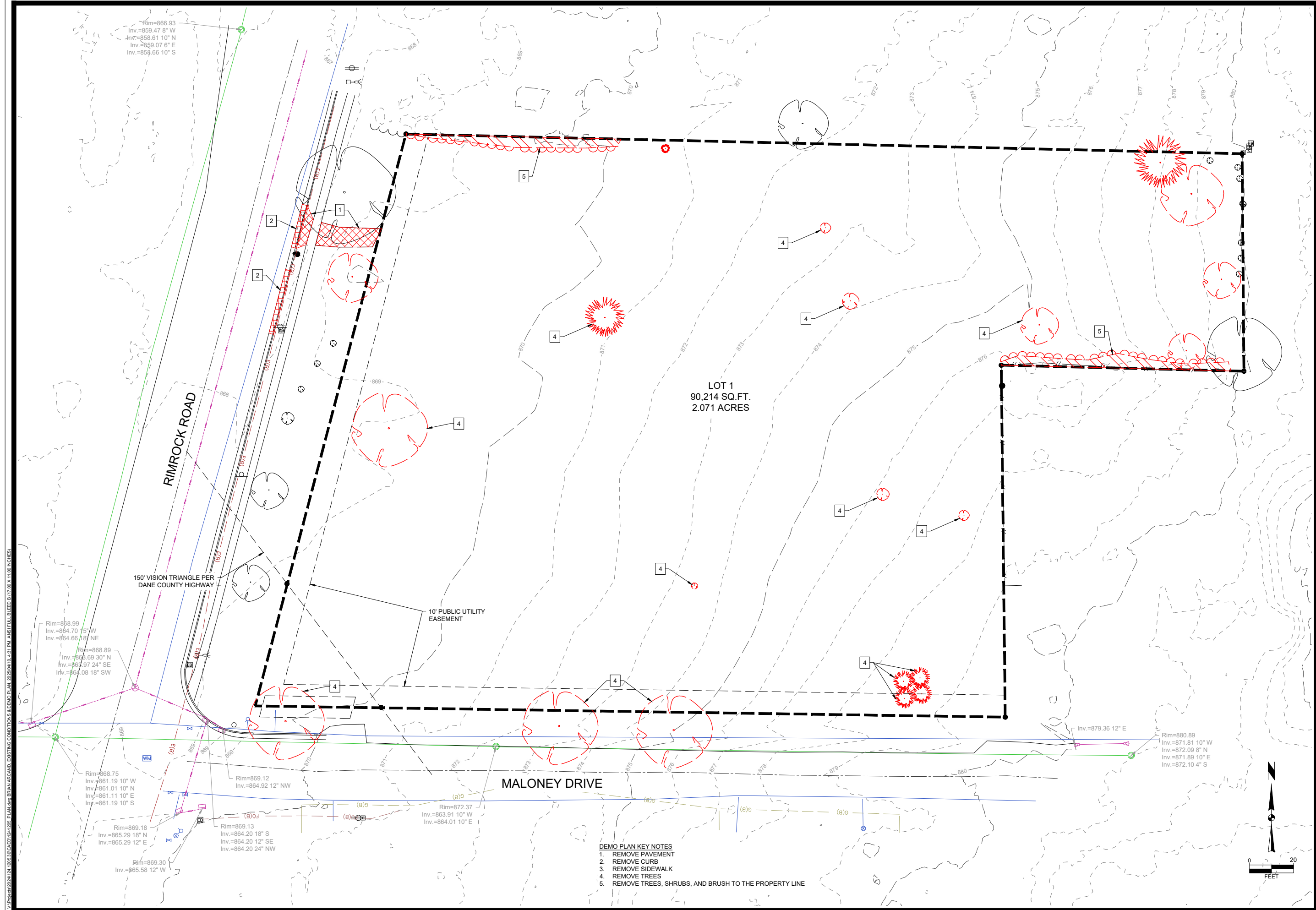
SNYDER & ASSOCIATES, INC.



Project No: 124.1205.30
Sheet **C100**

PIP SUBMITTAL	04-14-25	BCA	
GIP RESUBMITTAL	03-07-25	BCA	
GIP RESUBMITTAL	02-24-25	BCA	
GIP RESUBMITTAL	02-07-25	BCA	
MARK	REVISION	DATE	BY
Engineer: BCA	Checked By: MLC	Scale: 1" = 20'	
Technician: DMS	Date: 11-04-2024	T-R-S: TTN+RRW-SS	
			Sheet C100
			Project No: 124.1205.30

V:\proweb\1024124.1205.30\CADD\124.1205.PLAN.dwg, BRIAN ARCAND, TITLE SHEET, 2025/04/10, 4:37 PM, ANSI FULL BLEED B (17.00 X 11.00 INCHES)



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Inv.=859.47 8" W
Inv.=858.61 10" N
Inv.=859.07 6" E
Inv.=859.66 10" S

Rim=868.99
Inv.=864.70 75" W
Inv.=864.66 18" NE

Rim=868.89
Inv.=863.69 30" N
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Rim=869.13
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Inv.=864.01 10" E

Inv.=879.36 12" E

Rim=880.89
Inv.=871.81 10" W
Inv.=872.09 8" N
Inv.=871.89 10" E
Inv.=872.10 4" S

- DEMO PLAN KEY NOTES**
1. REMOVE PAVEMENT
 2. REMOVE CURB
 3. REMOVE SIDEWALK
 4. REMOVE TREES
 5. REMOVE TREES, SHRUBS, AND BRUSH TO THE PROPERTY LINE

PIP SUBMITTAL	04-14-25	BCA	MARK	REVISION	DATE	BY
GIP RESUBMITTAL	03-07-25	BCA	Engineer: BCA	Checked By: MLC	Scale: 1" = 20'	
GIP RESUBMITTAL	02-24-25	BCA	Technician: DMS	Date: 11-04-2024	T-R-S: TTN+RRW+SS	
GIP RESUBMITTAL	02-07-25	BCA				

Project No.: 124.1205.30
Sheet C200

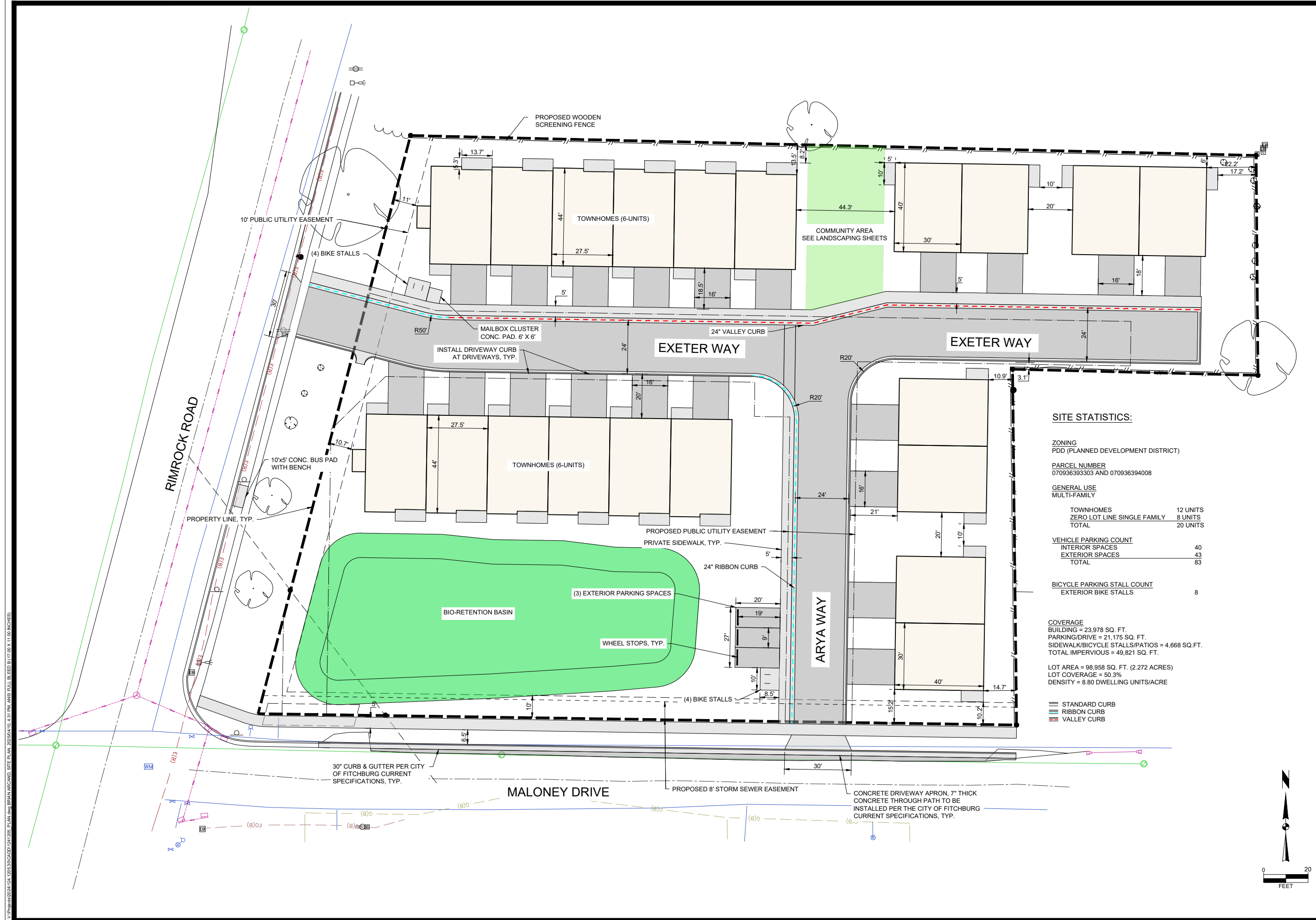
OLIVE TREE RESIDENCES
EXISTING CONDITIONS & DEMO PLAN CITY OF FITCHBURG, DANE COUNTY, WISCONSIN
SNYDER & ASSOCIATES, INC.

5010 VOGES ROAD
MADISON, WISCONSIN 53718
608-838-0444 | www.snyder-associates.com

SNYDER & ASSOCIATES

Project No: 124.1205.30
Sheet C200

I:\Projects\124.1205.30\124.1205.30\124.1205.30_Plan_4.dwg: BRUNN ARCAD, EXISTING CONDITIONS & DEMO PLAN, 2025/04/01, 03:11 PM, ANSI/ILL BLEED B (7.00 X 11.00 INCHES)



SITE STATISTICS:

ZONING
PDD (PLANNED DEVELOPMENT DISTRICT)

PARCEL NUMBER
070936393303 AND 070936394008

GENERAL USE
MULTI-FAMILY

TOWNHOMES	12 UNITS
ZERO LOT LINE SINGLE FAMILY	8 UNITS
TOTAL	20 UNITS

VEHICLE PARKING COUNT	
INTERIOR SPACES	40
EXTERIOR SPACES	43
TOTAL	83

BICYCLE PARKING STALL COUNT	
EXTERIOR BIKE STALLS	8

COVERAGE
BUILDING = 23,978 SQ. FT.
PARKING/DRIVE = 21,175 SQ. FT.
SIDEWALK/BICYCLE STALLS/PATIOS = 4,668 SQ. FT.
TOTAL IMPERVIOUS = 49,821 SQ. FT.

LOT AREA = 98,958 SQ. FT. (2.272 ACRES)
LOT COVERAGE = 50.3%
DENSITY = 8.80 DWELLING UNITS/ACRE

- STANDARD CURB
- RIBBON CURB
- VALLEY CURB

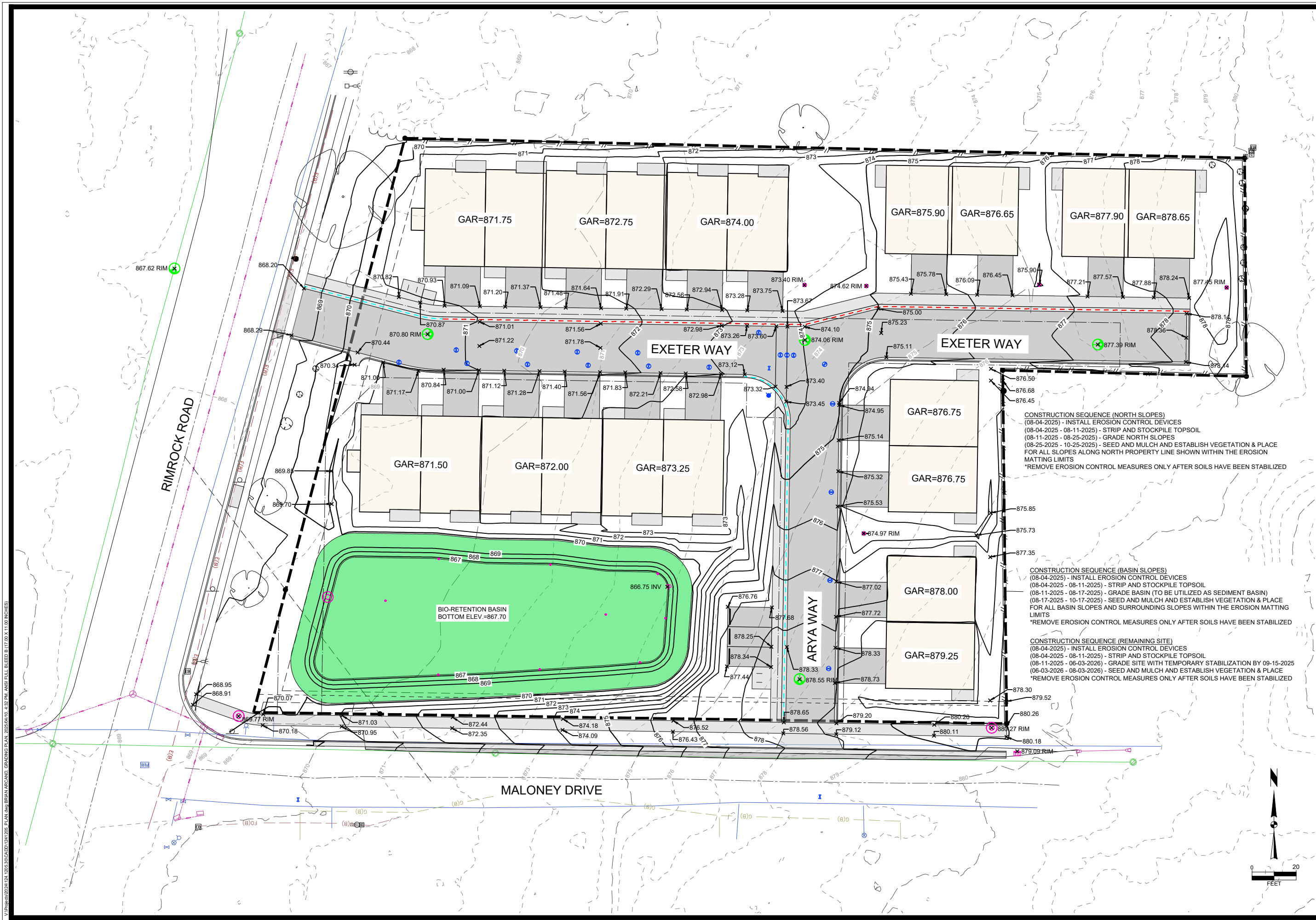
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GIP RESUBMITTAL	03-07-25	BCA
GIP RESUBMITTAL	02-24-25	BCA
GIP RESUBMITTAL	02-07-25	BCA
MARK	REVISION	DATE
Engineer: BCA	Checked By: MLC	Scale: 1" = 20'
Technician: DMS	Date: 11-04-2024	T-R-S: TTN+RRW-SS
Project No.: 124.1205.30		Sheet C300

OLIVE TREE RESIDENCES
SITE PLAN
 CITY OF FITCHBURG, DANE COUNTY, WISCONSIN
SNYDER & ASSOCIATES, INC.



V:\pww\10224124_1205.30\CADD\124.1205.PLAN.dwg BRUNN ARCAD, SITE PLAN, 2025/04/10, 4:31 PM, ANSI FULL BLEED (17.00 X 11.00 INCHES)

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CONSTRUCTION SEQUENCE (NORTH SLOPES)
 (08-04-2025) - INSTALL EROSION CONTROL DEVICES
 (08-04-2025 - 08-11-2025) - STRIP AND STOCKPILE TOPSOIL
 (08-11-2025 - 08-25-2025) - GRADE NORTH SLOPES
 (08-25-2025 - 10-25-2025) - SEED AND MULCH AND ESTABLISH VEGETATION & PLACE FOR ALL SLOPES ALONG NORTH PROPERTY LINE SHOWN WITHIN THE EROSION MATTING LIMITS
 *REMOVE EROSION CONTROL MEASURES ONLY AFTER SOILS HAVE BEEN STABILIZED

CONSTRUCTION SEQUENCE (BASIN SLOPES)
 (08-04-2025) - INSTALL EROSION CONTROL DEVICES
 (08-04-2025 - 08-11-2025) - STRIP AND STOCKPILE TOPSOIL
 (08-11-2025 - 08-17-2025) - GRADE BASIN (TO BE UTILIZED AS SEDIMENT BASIN)
 (08-17-2025 - 10-17-2025) - SEED AND MULCH AND ESTABLISH VEGETATION & PLACE FOR ALL BASIN SLOPES AND SURROUNDING SLOPES WITHIN THE EROSION MATTING LIMITS
 *REMOVE EROSION CONTROL MEASURES ONLY AFTER SOILS HAVE BEEN STABILIZED

CONSTRUCTION SEQUENCE (REMAINING SITE)
 (08-04-2025) - INSTALL EROSION CONTROL DEVICES
 (08-04-2025 - 08-11-2025) - STRIP AND STOCKPILE TOPSOIL
 (08-11-2025 - 06-03-2026) - GRADE SITE WITH TEMPORARY STABILIZATION BY 09-15-2025
 (06-03-2026 - 08-03-2026) - SEED AND MULCH AND ESTABLISH VEGETATION & PLACE
 *REMOVE EROSION CONTROL MEASURES ONLY AFTER SOILS HAVE BEEN STABILIZED

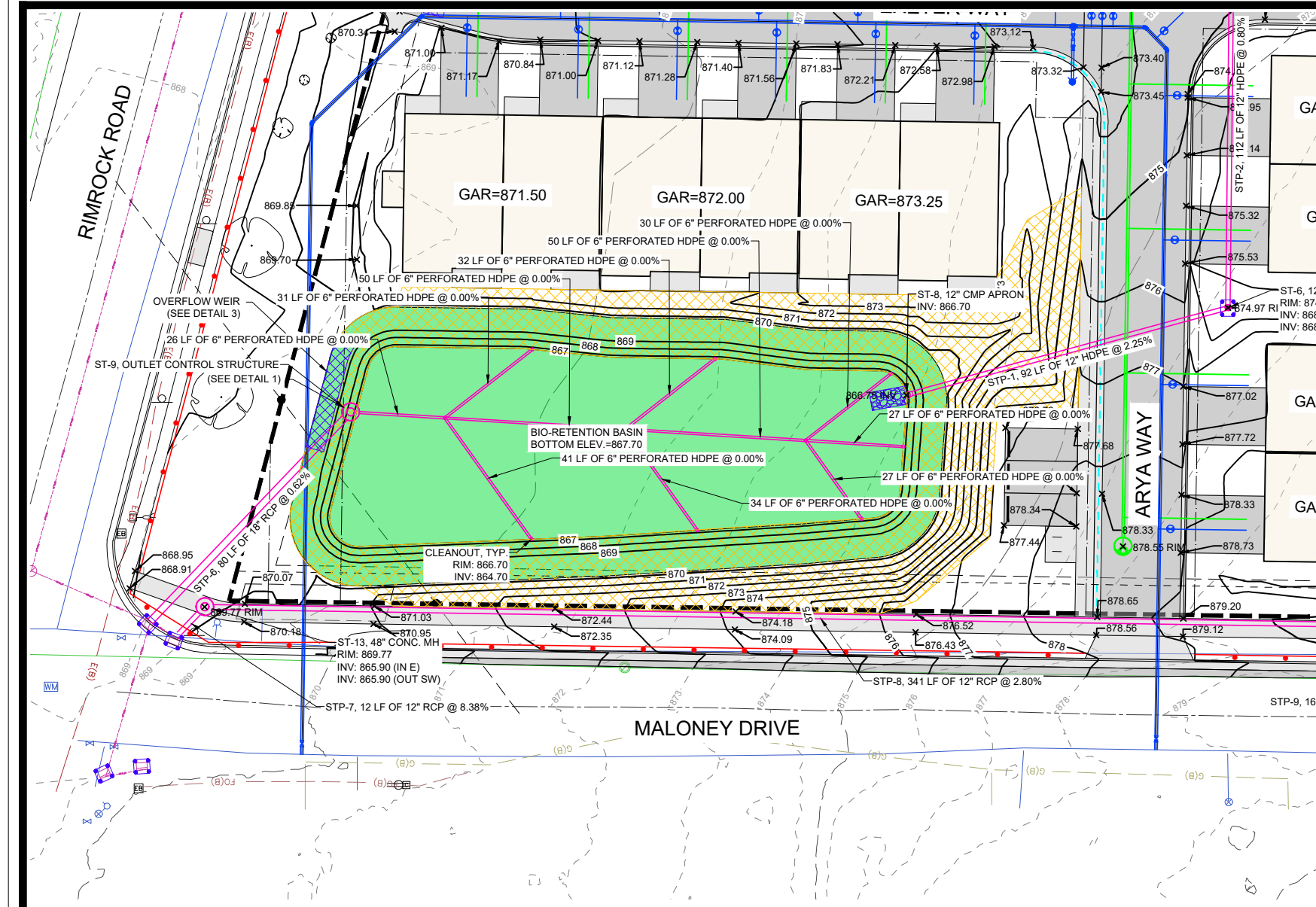


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GIP RESUBMITTAL	03-07-25	BCA
GIP RESUBMITTAL	02-24-25	BCA
GIP RESUBMITTAL	02-07-25	BCA
MARK	REVISION	DATE
Engineer: BCA	Checked By: MLC	Scale: 1" = 20'
Technician: DMS	Date: 11-04-2024	T-R-S: TTN+RRW-SS
Project No: 124.1205.30		
Sheet C400		

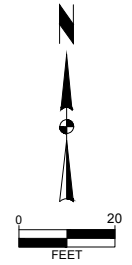
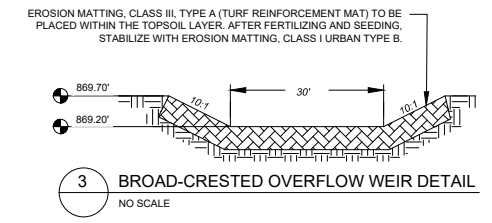
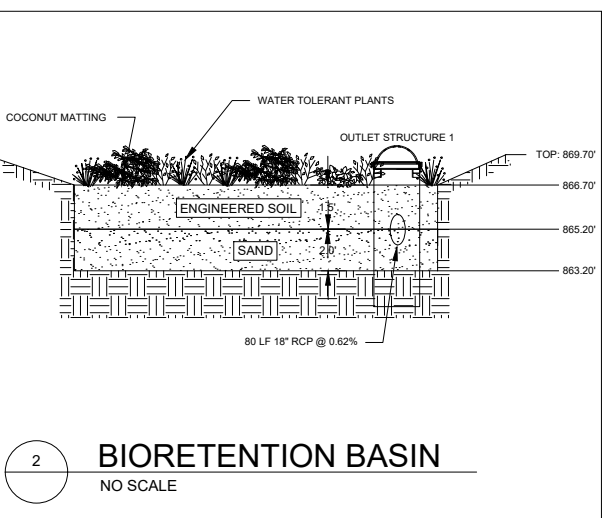
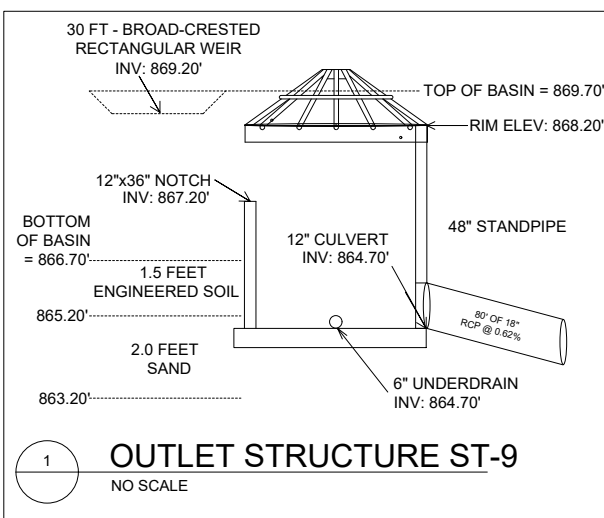
OLIVE TREE RESIDENCES
 GRADING PLAN
 CITY OF FITCHBURG, DANE COUNTY, WISCONSIN
SNYDER & ASSOCIATES, INC.
 5010 VOGES ROAD
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Project No: 124.1205.30
 Sheet C400



- BIORETENTION SHALL CONFORM TO WIS. DNR TECH STANDARD 1004.
- ENGINEERED SOIL SHALL CONSIST OF 70%-85% SILICA SAND AND 15%-30% COMPOST WITH A PH OF 5.5-6.5
- BIORETENTION BASINS SHALL BE EXCAVATED AND USED AS SEDIMENT TRAPS DURING CONSTRUCTION. UPON COMPLETION OF CONSTRUCTION AND SITE STABILIZATION, THE BASINS SHALL BE OVER-EXCAVATED 3 FEET MINIMUM AND THEN THE SAND LAYER AND ENGINEERED SOIL SHALL BE PLACED TO WITHIN THREE INCHES OF FINAL GRADE.
- SPECIFIC SPECIES OF PLANTS SHALL BE NATIVE TO THE STATE OF WISCONSIN AND BE ABLE TO WITHSTAND SATURATED SOIL CONDITIONS.
PLANT SPECIES SHALL BE SELECTED FROM THE FOLLOWING LIST:
FORBES: MARSH MILKWEED, HEATH ASTER, NEW ENGLAND ASTER, WILD WHITE INDIGO, SPOTTED JOE PYE WEED, BONESSET PRAIRIE BLAZING STAR, MARSH BLAZING STAR, CARDINAL FLOWER, GREAT BLUE LOBELIA, WILD BERGAMOT, OBEDIENT PLANT, MOUNTAIN MINT, YELLOW CONEFLOWER, BLACK-EYED SUSAN, SWEET BLACK-EYED SUSAN, OHIO GOLDENROD, SPIDERWORT, BLUE VERVAIN AND IRONWEED.
GRASSES, SEDGES & RUSHES: FRINGED BROME, BLUE JOINT GRASS, BEBB'S SEDGE CRAWFORD'S SEDGE FRINGED SEDGE, COMMON FOX SEDGE, CANADA WILD RYE, VIRGINIA WILD RYE, REED MANNA GRASS, SWITCH GRASS, DARK-GREEN BULLRUSH, WOOL GRASS, INDIAN GRASS, PRAIRIE CORD GRASS.
- LIVE PLANTS CAN BE PLANTED IN THE FIELD DURING THE GROWING SEASON FROM MAY 1 THROUGH OCTOBER 1. ANY SUGGESTED PLANTING TIMES NOT IN THIS WINDOW SHALL BE APPROVED BY CONSULTANT OR ENGINEER. IF PLANTING OCCURS OUTSIDE OF THIS WINDOW ADDITIONAL MEASURES MAY NEED TO BE TAKEN (I.E. MULCH) TO ENSURE PLANT SURVIVAL. IN THESE INSTANCES, THE CONTRACT PRICE MAY NEED TO BE ADJUSTED ACCORDINGLY.
- ALL PLANTED MATERIALS WILL BE WARRANTED BY INSTALLATION CONTRACTOR TO BE IN HEALTHY CONDITION WITH A REPLACEMENT GUARANTEE FOR A PERIOD OF ONE YEAR FROM THE DATE OF PLANTING.
- NATIVE PLANTS SHOULD BE WATERED IN AFTER INSTALLATION TO ENSURE THEIR SURVIVAL. THIS TYPICALLY INVOLVES WATERING AT TIME OF INSTALLATION AND 2 TIMES WEEKLY FOR A ONE MONTH PERIOD OR UNTIL GROUND FREEZE UP IF NATURAL RAINFALLS ARE INSUFFICIENT. A SINGLE WATERING EVENT INVOLVES WATERING THE SOIL IN THE PLANTED AREAS TO THE POINT OF SATURATION BUT STOPPING SHORT OF SOIL DISPLACEMENT. SHOULD VERY DRY CONDITIONS DEVELOP WITHIN ONE YEAR OF PLANTING, ADDITIONAL WATERINGS MAY BE NECESSARY. CONSULTANT OR PROJECT ENGINEER WILL DETERMINE THIS AND CONTRACT PRICES MAY BE ADJUSTED TO ACCOMMODATE THIS ACTION.
- PLANTS SHALL BE PLANTED IN THE BIORETENTION AREA AT A MINIMUM OF ONE PLANT PER EVERY SQUARE FOOT.
- UPON COMPLETION OF EXCAVATING & GRADING OPERATIONS, A LOOSE, FRIABLE SEEDBED SHALL BE PREPARED FOR INSTALLATION OF LIVE PLANTS.
- CARE SHALL BE TAKEN TO MINIMIZE SOIL COMPACTION DURING CONSTRUCTION ACTIVITY. BY EXAMPLE OF A STANDARD SOIL PENETROMETER (COMPACTION THE TOPSOIL COMPACTION READINGS SHALL BE LESS THAN 200 PSI AT THE 0-6 INCH DEPTH AND LESS THAN 250 PSI AT THE 6-18 INCH DEPTHS IN ALL AREAS TO BE SEEDED.
- UNDULATIONS OR IRREGULARITIES IN THE PLANTING BED WHICH WOULD INTERFERE WITH A CONSISTENT PLANTING OPERATION SHALL BE LEVELED PRIOR TO FINAL SEEDING.
- FINAL BED SHOULD BE GRADED SUCH THAT THE AREAS TO BE PLANTED CONSIST OF A SMOOTH, FREE DRAINING, EVEN SURFACE WITH A LOOSE POROUS TEXTURE.
- ALL PLANTED MATERIALS WILL BE WARRANTED BY INSTALLATION CONTRACTOR TO BE IN HEALTHY CONDITION WITH A REPLACEMENT GUARANTEE FOR A PERIOD OF ONE YEAR FROM THE DATE OF PLANTING.



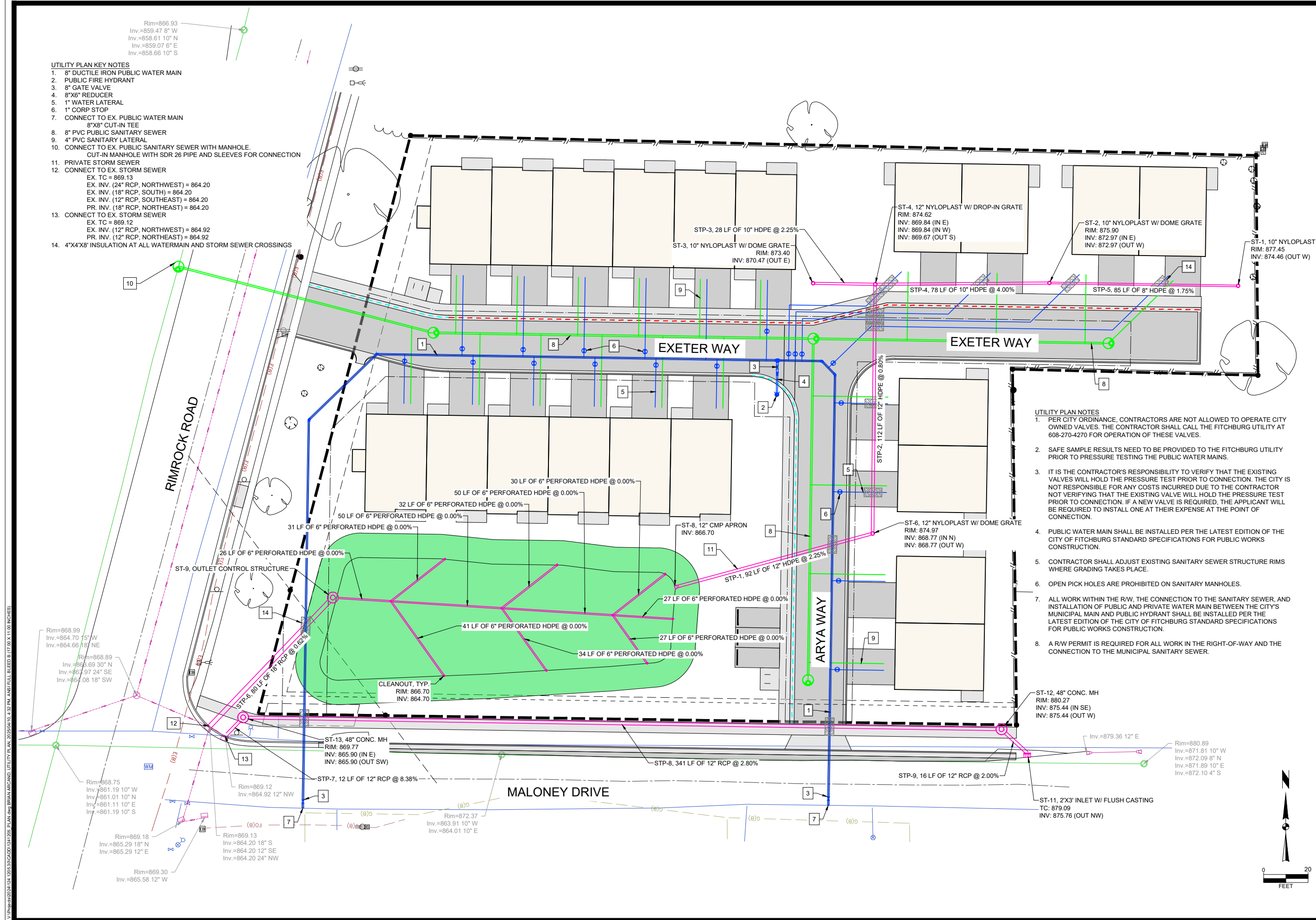
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GIP RESUBMITTAL	03-07-25	BCA	Engineer:	BCA	11-04-2024	TIN-RRV-SS
GIP RESUBMITTAL	02-24-25	BCA	Checked By:	MJC		
GIP RESUBMITTAL	02-07-25	BCA	Scale:	1" = 20'		

OLIVE TREE RESIDENCES
BASIN DETAILS
CITY OF FITCHBURG, DANE COUNTY, WISCONSIN
SNYDER & ASSOCIATES, INC.
 5010 VOGES ROAD
 MADISON, WISCONSIN 53718
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UTILITY PLAN KEY NOTES

1. 8" DUCTILE IRON PUBLIC WATER MAIN
2. PUBLIC FIRE HYDRANT
3. 8" GATE VALVE
4. 8"X8" REDUCER
5. 1" WATER LATERAL
6. 1" CORP STOP
7. CONNECT TO EX. PUBLIC WATER MAIN
8"X8" CUT-IN TEE
8. 8" PVC PUBLIC SANITARY SEWER
9. 4" PVC SANITARY LATERAL
10. CONNECT TO EX. PUBLIC SANITARY SEWER WITH MANHOLE.
CUT-IN MANHOLE WITH SDR 26 PIPE AND SLEEVES FOR CONNECTION
11. PRIVATE STORM SEWER
12. CONNECT TO EX. STORM SEWER
EX. TC = 869.13
EX. INV. (24" RCP, NORTHWEST) = 864.20
EX. INV. (18" RCP, SOUTH) = 864.20
EX. INV. (12" RCP, SOUTHEAST) = 864.20
PR. INV. (18" RCP, NORTHEAST) = 864.20
13. CONNECT TO EX. STORM SEWER
EX. TC = 869.12
EX. INV. (12" RCP, NORTHWEST) = 864.92
PR. INV. (12" RCP, NORTHEAST) = 864.92
14. 4"X4"X8" INSULATION AT ALL WATERMAIN AND STORM SEWER CROSSINGS



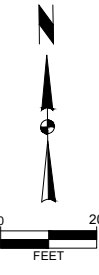
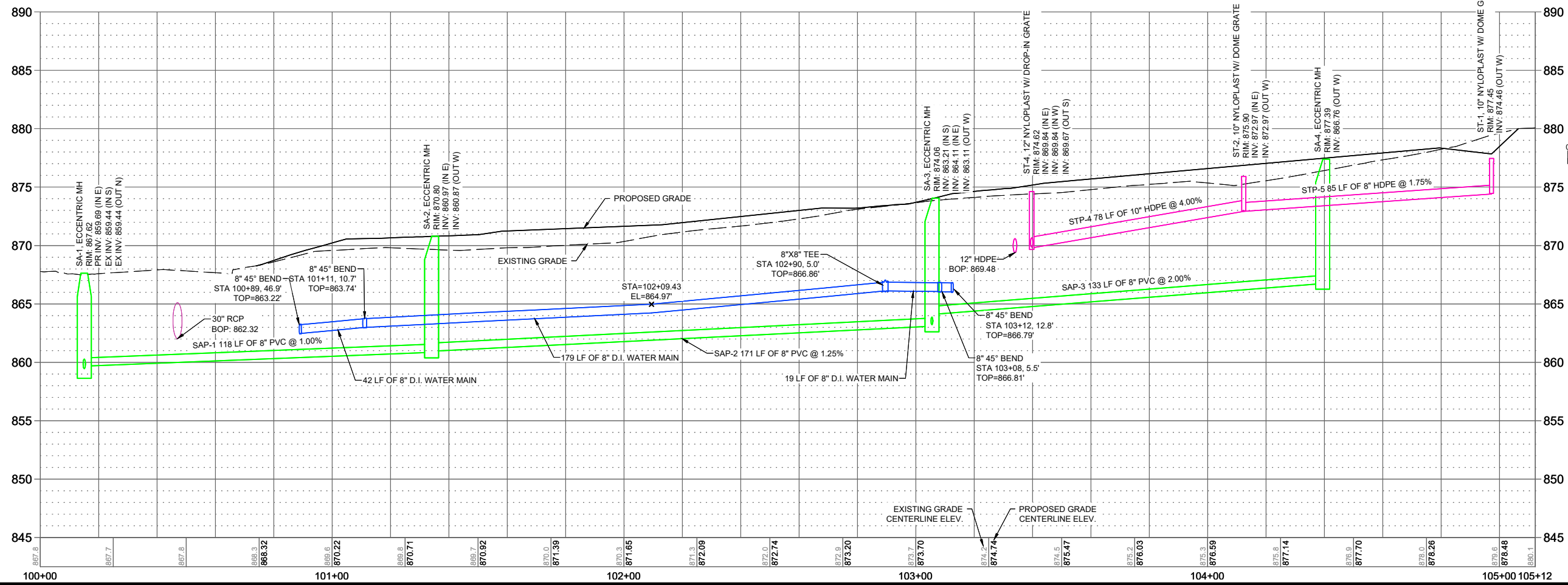
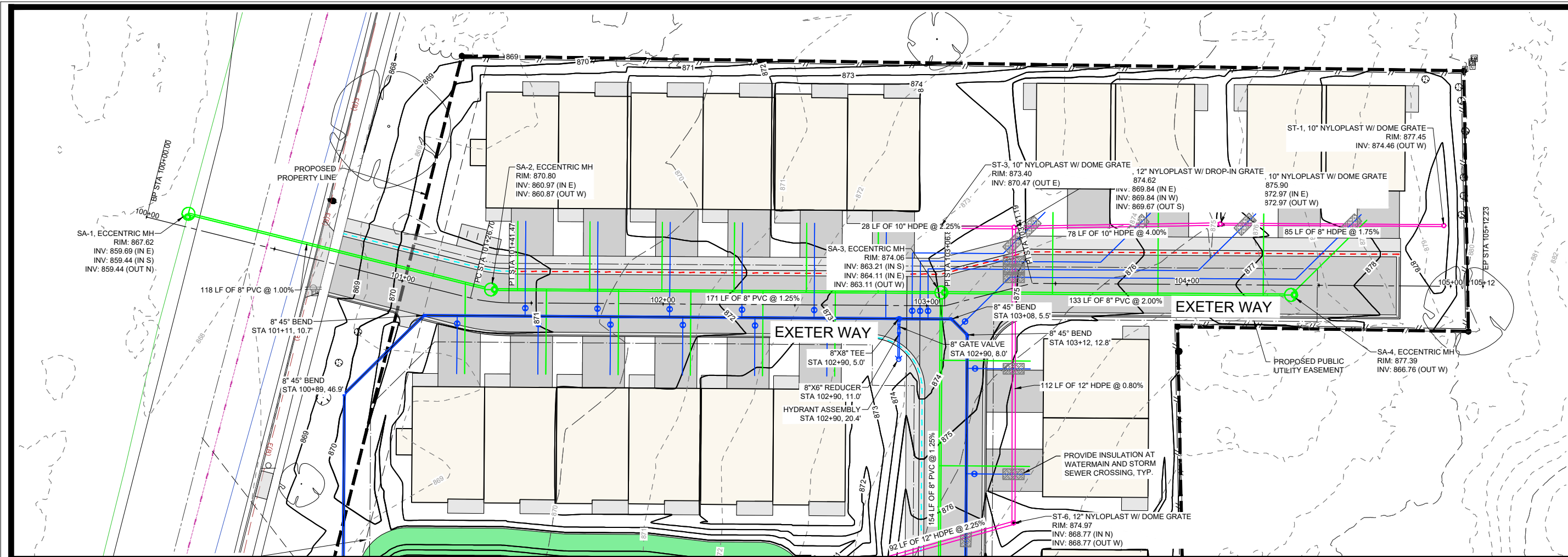
UTILITY PLAN NOTES

1. PER CITY ORDINANCE, CONTRACTORS ARE NOT ALLOWED TO OPERATE CITY OWNED VALVES. THE CONTRACTOR SHALL CALL THE FITCHBURG UTILITY AT 608-270-4270 FOR OPERATION OF THESE VALVES.
2. SAFE SAMPLE RESULTS NEED TO BE PROVIDED TO THE FITCHBURG UTILITY PRIOR TO PRESSURE TESTING THE PUBLIC WATER MAINS.
3. IT IS THE CONTRACTOR'S RESPONSIBILITY TO VERIFY THAT THE EXISTING VALVES WILL HOLD THE PRESSURE TEST PRIOR TO CONNECTION. THE CITY IS NOT RESPONSIBLE FOR ANY COSTS INCURRED DUE TO THE CONTRACTOR NOT VERIFYING THAT THE EXISTING VALVE WILL HOLD THE PRESSURE TEST PRIOR TO CONNECTION. IF A NEW VALVE IS REQUIRED, THE APPLICANT WILL BE REQUIRED TO INSTALL ONE AT THEIR EXPENSE AT THE POINT OF CONNECTION.
4. PUBLIC WATER MAIN SHALL BE INSTALLED PER THE LATEST EDITION OF THE CITY OF FITCHBURG STANDARD SPECIFICATIONS FOR PUBLIC WORKS CONSTRUCTION.
5. CONTRACTOR SHALL ADJUST EXISTING SANITARY SEWER STRUCTURE RIMS WHERE GRADING TAKES PLACE.
6. OPEN PICK HOLES ARE PROHIBITED ON SANITARY MANHOLES.
7. ALL WORK WITHIN THE R/W, THE CONNECTION TO THE SANITARY SEWER, AND INSTALLATION OF PUBLIC AND PRIVATE WATER MAIN BETWEEN THE CITY'S MUNICIPAL MAIN AND PUBLIC HYDRANT SHALL BE INSTALLED PER THE LATEST EDITION OF THE CITY OF FITCHBURG STANDARD SPECIFICATIONS FOR PUBLIC WORKS CONSTRUCTION.
8. A R/W PERMIT IS REQUIRED FOR ALL WORK IN THE RIGHT-OF-WAY AND THE CONNECTION TO THE MUNICIPAL SANITARY SEWER.

PIP SUBMITTAL	04-14-25	BCA	DATE	1" = 20'
GIP RESUBMITTAL	03-07-25	BCA	REVISION	
GIP RESUBMITTAL	02-24-25	BCA	Checked By:	MLC
GIP RESUBMITTAL	02-07-25	BCA	Date:	11-04-2024
			Engineer:	BCA
			Technician:	DMS
			T-R-S:	TIN+RRW+SS

OLIVE TREE RESIDENCES
UTILITY PLAN
 CITY OF FITCHBURG, DANE COUNTY, WISCONSIN
SNYDER & ASSOCIATES, INC.





PIP SUBMITTAL	04-14-25	BCA	MARK	REVISION	DATE	BY
GIP RESUBMITTAL	03-07-25	BCA	Engineer: BCA	Checked By: MLC	Scale: 1" = 20'	
GIP RESUBMITTAL	02-24-25	BCA	Technician: DMS	Date: 11-04-2024	T-R-S: TTN-RRW-SS	
GIP RESUBMITTAL	02-07-25	BCA				

OLIVE TREE RESIDENCES

EXETER WAY PLAN & PROFILE

CITY OF FITCHBURG, DANE COUNTY, WISCONSIN

SNYDER & ASSOCIATES, INC.

5010 VOGES ROAD
MADISON, WISCONSIN 53718
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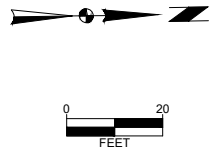
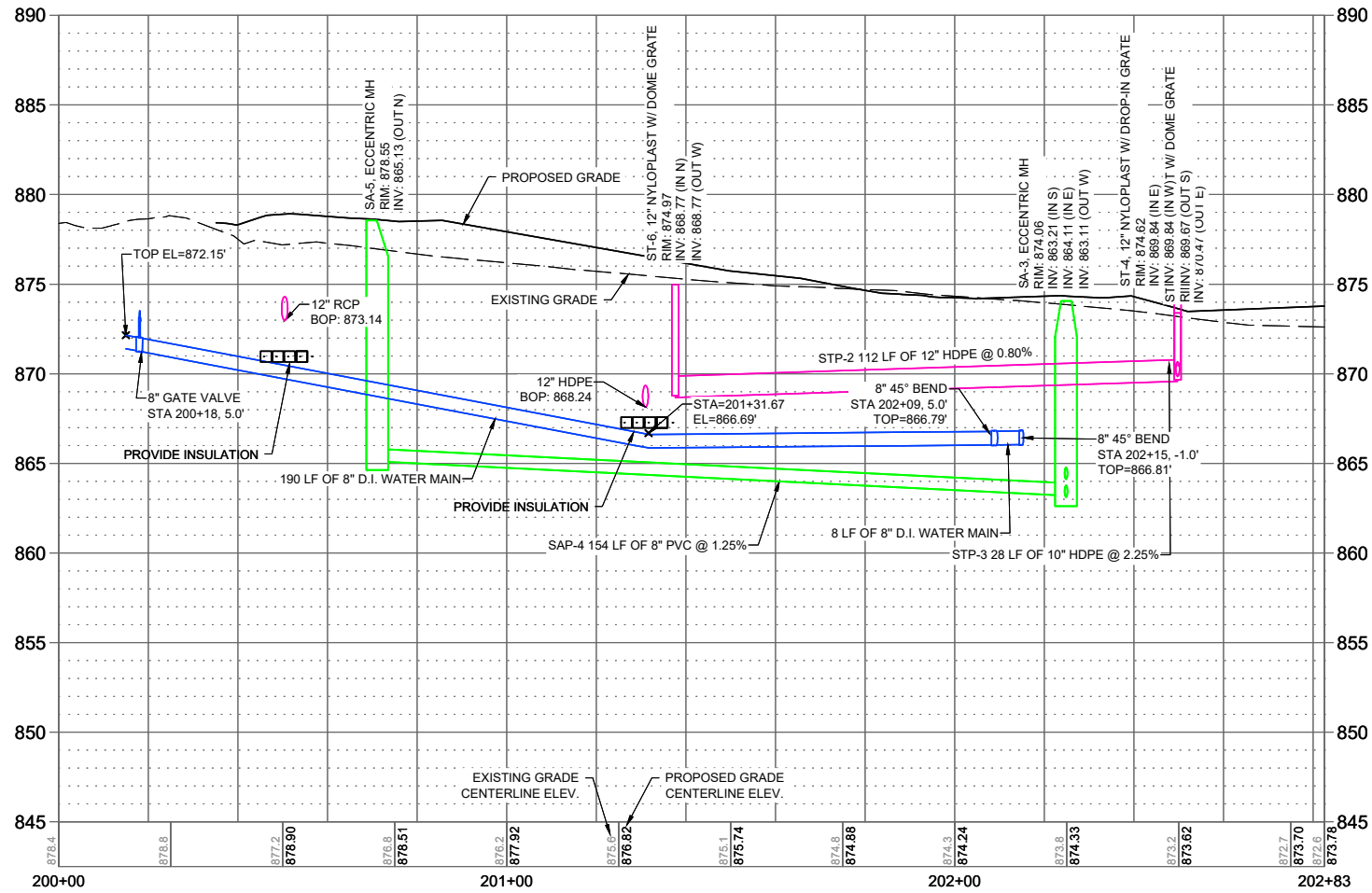
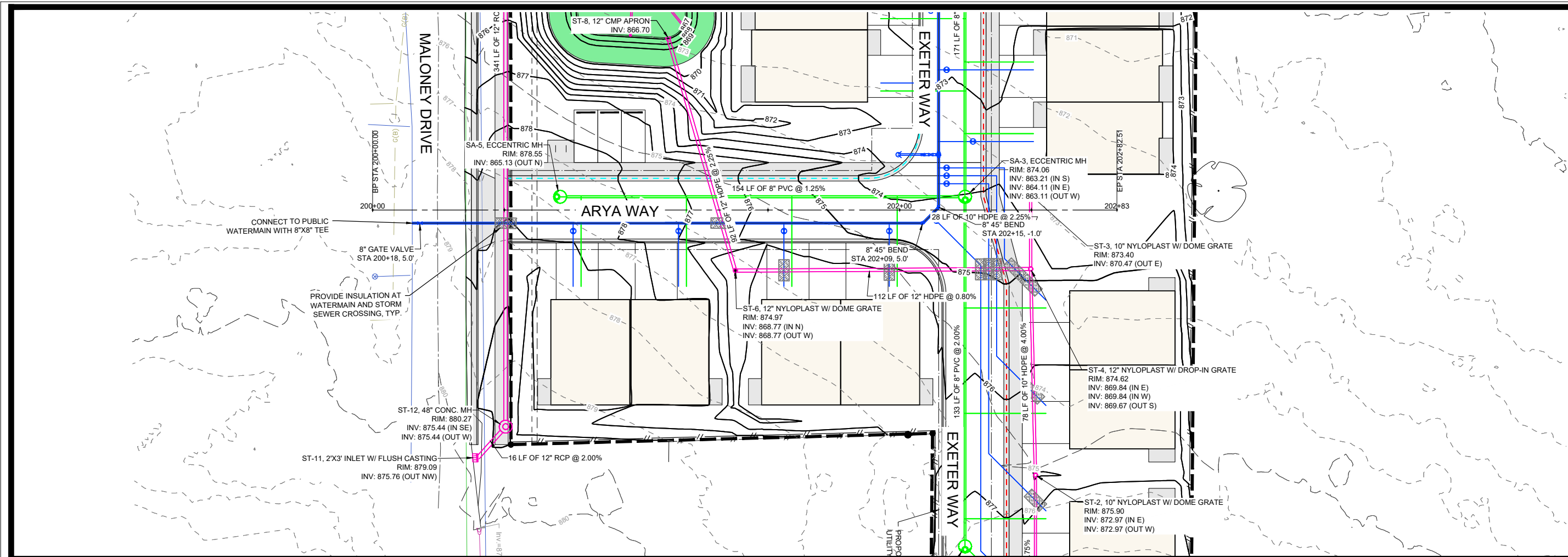
Project No: 124.1205.30

Sheet C501

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Sheet C501

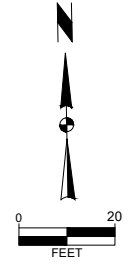
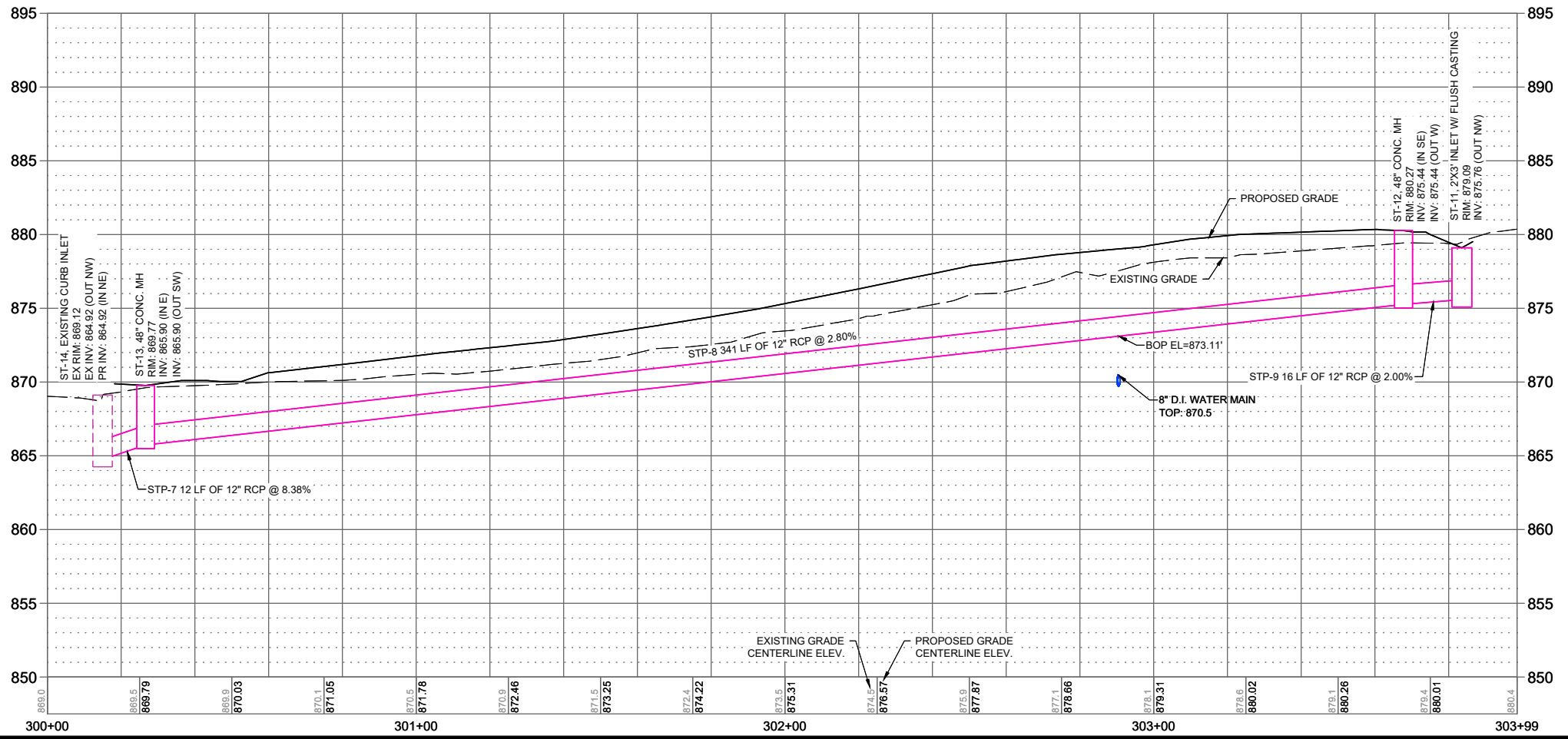
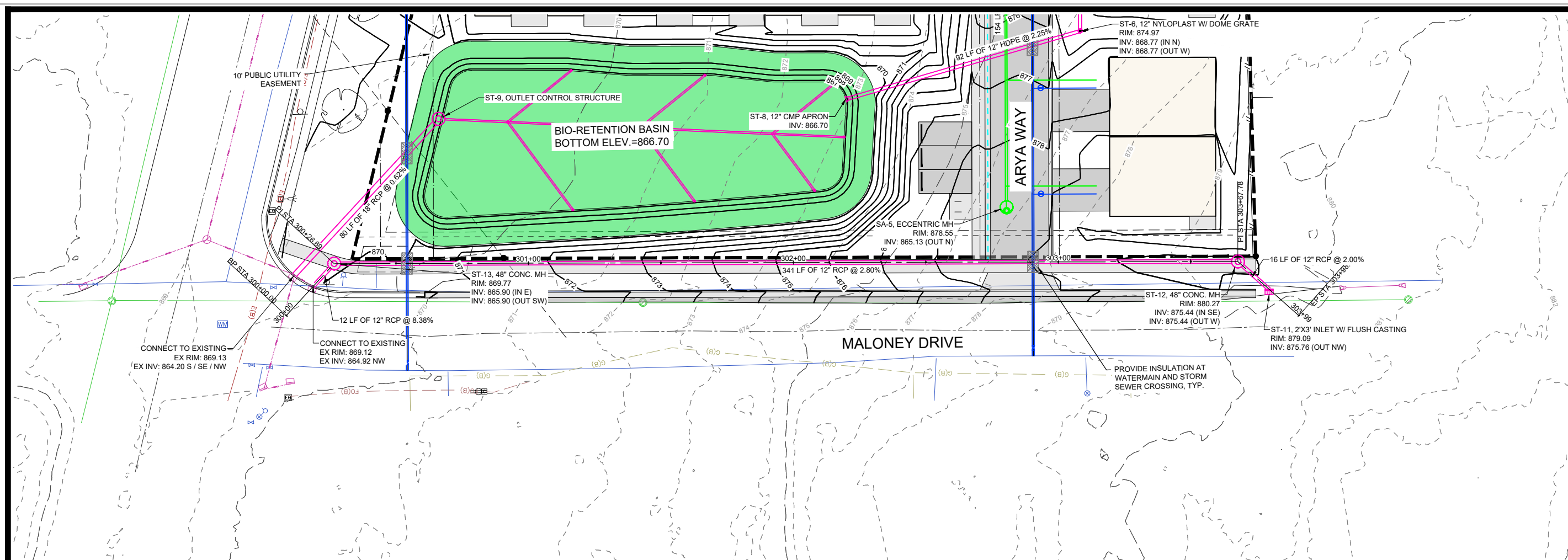
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GIP RESUBMITTAL	03-07-25	BCA
GIP RESUBMITTAL	02-24-25	BCA
GIP RESUBMITTAL	02-07-25	BCA
MARK	REVISION	DATE
Engineer: BCA	Checked By: MLC	Scale: 1" = ##'
Technician: DMS	Date: 11-04-2024	T-R-S: TTN+RRW+SS
Project No.: 124.1205.30		
Sheet C502		

OLIVE TREE RESIDENCES
ARYA WAY PLAN & PROFILE
 CITY OF FITCHBURG, DANE COUNTY, WISCONSIN
SNYDER & ASSOCIATES, INC.
 5010 VOGES ROAD
 MADISON, WISCONSIN 53718
 608-835-0444 | www.snyder-associates.com





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GIP RESUBMITTAL	02-07-25	BCA
MARK	REVISION	DATE
Engineer: BCA	Checked By: MLC	Scale: 1" = ##'
Technician: DMS	Date: 11-04-2024	T-R-S: TTN+RRW-SS

OLIVE TREE RESIDENCES

STORM SEWER PLAN & PROFILE

CITY OF FITCHBURG, DANE COUNTY, WISCONSIN

SNYDER & ASSOCIATES, INC.

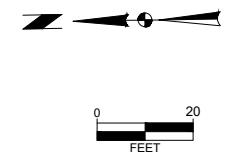
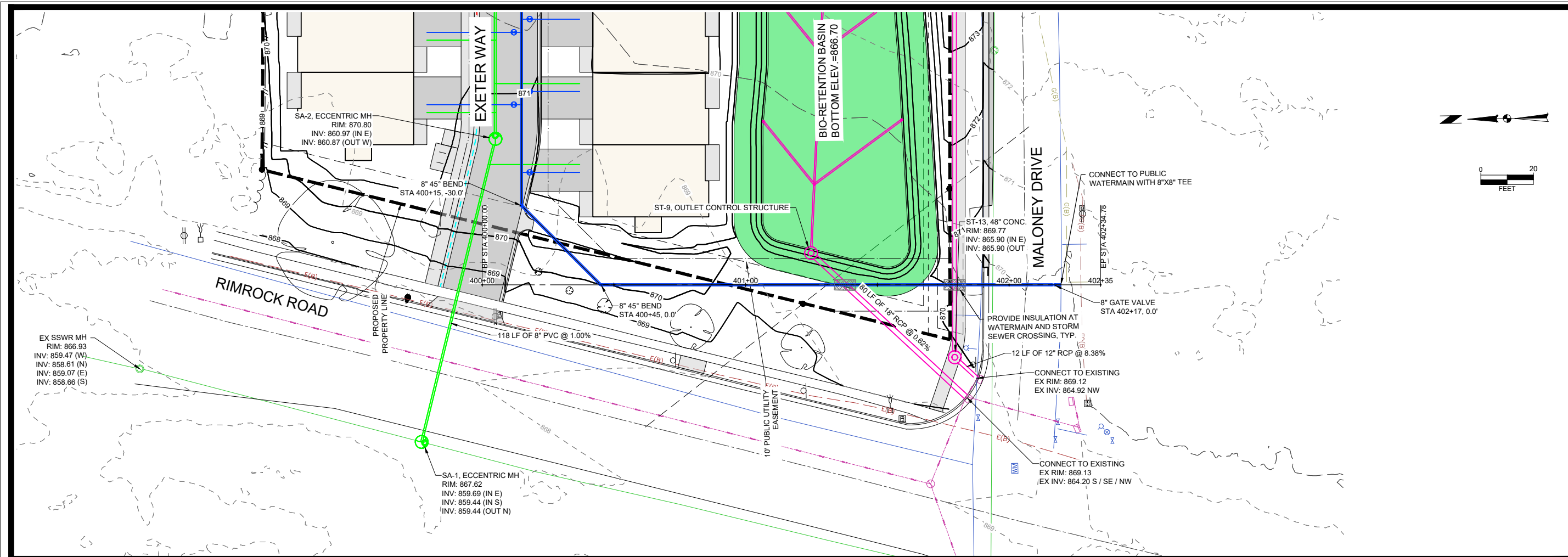
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SNYDER & ASSOCIATES

Project No: 124.1205.30

Sheet C503

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PIP SUBMITTAL	04-14-25	BCA	MARK	REVISION	DATE	BY
GIP RESUBMITTAL	03-07-25	BCA	Engineer: BCA	Checked By: MLC	Scale: 1" = ##'	
GIP RESUBMITTAL	02-24-25	BCA	Technician: DMS	Date: 11-04-2024	T-R-S: TTN+RRW-SS	
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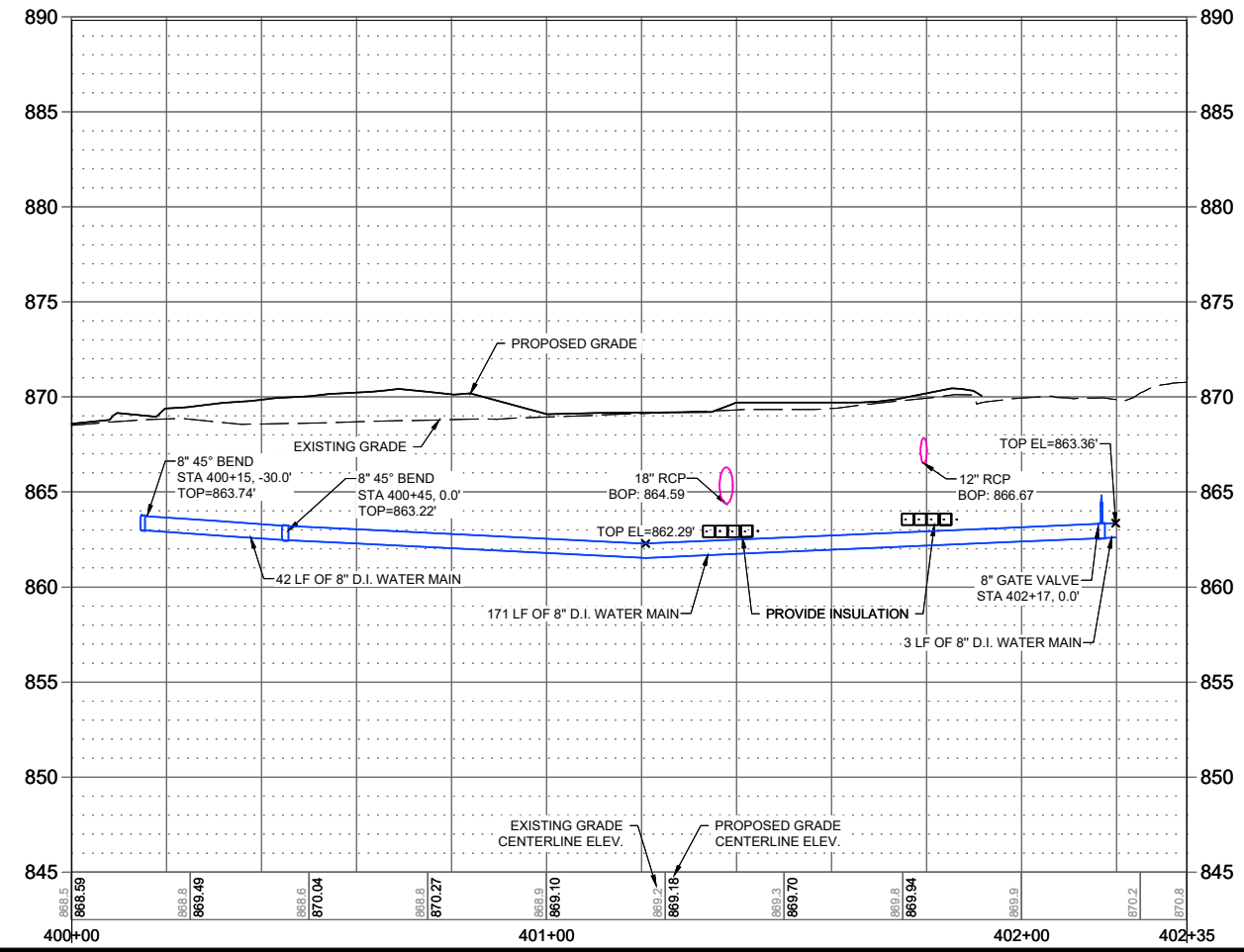
Project No: 124.1205.30
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OLIVE TREE RESIDENCES
CITY OF FITCHBURG, DANE COUNTY, WISCONSIN

WATER MAIN PLAN & PROFILE

SNYDER & ASSOCIATES, INC.

5010 VOGES ROAD
MADISON, WISCONSIN 53718
608-835-0444 | www.snyder-associates.com



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GENERAL CONDITIONS

- 1. THE CONTRACTOR SHALL NOTIFY THE OWNER AND THE MUNICIPALITY TWO WORKING DAYS (48 HOURS) PRIOR TO THE START OF CONSTRUCTION.
2. THE CONTRACTOR SHALL INDEMNIFY THE OWNER, THE ENGINEER, AND THE MUNICIPALITY, THEIR AGENTS, ETC. FROM ALL LIABILITY INVOLVED WITH THE CONSTRUCTION, INSTALLATION, AND TESTING OF THE WORK ON THIS PROJECT.
3. SITE SAFETY SHALL BE THE SOLE RESPONSIBILITY OF THE CONTRACTOR.
4. THE BIDDER WILL BE SOLELY RESPONSIBLE FOR DETERMINING QUANTITIES AND SHALL STATE SUCH QUANTITIES IN HIS PROPOSAL. HE SHALL BASE HIS BID ON HIS OWN ESTIMATE OF THE WORK REQUIRED AND SHALL NOT RELY ON THE ENGINEER'S ESTIMATE.
5. THE CONTRACTOR IS RESPONSIBLE FOR VERIFYING SOIL CONDITIONS PRIOR TO COMMENCEMENT OF CONSTRUCTION. A GEOTECHNICAL REPORT IS AVAILABLE FROM THE OWNER. THE CONTRACTOR SHALL ABIDE BY THE RECOMMENDATIONS OF THE GEOTECHNICAL ENGINEER.
6. THE CONTRACTOR IS RESPONSIBLE FOR EXAMINING ALL SITE CONDITIONS PRIOR TO COMMENCEMENT OF CONSTRUCTION AND SHALL COMPARE FIELD CONDITIONS WITH DRAWINGS.
7. THE CONTRACTOR SHALL CONDUCT HIS WORK ACCORDING TO THE REQUIREMENTS OF THE PERMITS.
8. THE CONTRACTOR IS RESPONSIBLE FOR FIELD VERIFYING ALL UTILITY INFORMATION SHOWN ON THE PLANS PRIOR TO THE START OF CONSTRUCTION. THE CONTRACTOR SHALL CALL DIGGER'S HOTLINE AT 1-800-242-8511 TO NOTIFY THE UTILITIES OF HIS INTENTIONS, AND TO REQUEST FIELD STAKING OF EXISTING UTILITIES.
9. CONTRACTOR IS ADVISED THAT ALL MUD AND DEBRIS MUST NOT BE DEPOSITED ONTO THE ADJACENT ROADWAYS PER THE REQUIREMENT OF THE MUNICIPALITY OR OTHER APPROPRIATE GOVERNMENT AGENCIES.
10. ANY ADJACENT PROPERTIES OR ROAD RIGHT-OF-WAYS WHICH ARE DAMAGED DURING CONSTRUCTION MUST BE RESTORED BY THE CONTRACTOR. THE COST OF THE RESTORATION IS CONSIDERED INCIDENTAL, AND SHOULD BE INCLUDED IN THE BID PRICES.

CONCRETE SIDEWALK

- 1. SIDEWALK SHALL BE A MINIMUM OF 5" THICK ON A BASE OF 4" OF 3/4" DENSE AGGREGATE BASE COURSE. SIDEWALKS ACROSS DRIVEWAYS SHALL BE A MINIMUM OF 7" THICK ON A BASE OF 4" 3/4" DENSE AGGREGATE BASE COURSE.
2. SIDEWALKS SHALL MEET ADA REQUIREMENTS.
3. SIDEWALKS SHALL HAVE A MAXIMUM CROSS SLOPE OF 1.5%.
4. CURB RAMPS AND DETECTABLE WARNING FIELDS (TRUNCATED DOMES) WILL BE REQUIRED AT ALL ADA RAMPS. DETECTABLE WARNING FIELDS SHALL BE NEENAH #4898 OR METAPANEL BY METADOME, LLC, UNPAINTED OR APPROVED EQUAL.

MULTI-USE PATH

- 1. HMA PAVEMENT SHALL BE A MINIMUM OF 3.0" THICK ON 8" OF DENSE AGGREGATE BASE COURSE. SEE THE CITY OF FITCHBURG'S STANDARD DETAIL DRAWING 4.05 FOR MORE INFORMATION ABOUT THE MULTI-USE PATH.
2. MULTI-USE TRAILS SHALL MEET ADA REQUIREMENTS WHERE PRACTICAL.

STORM SEWER & STORM WATER MANAGEMENT NOTES

STORM SEWER AND STORMWATER MANAGEMENT SHALL BE AS FOLLOWS:

- 1. STORM SEWER PIPE BEDDING SHALL BE CLEAR STONE.
2. MINIMUM COVER FOR ALL STORM SEWER SHALL BE 2'.
3. EXCAVATED MATERIAL FROM THE TRENCH NOT SUITABLE FOR BACKFILL AS DEEMED BY THE PUBLIC SERVICES DIRECTOR SHALL BE HAULED OFF-SITE AND SELECT TRENCH BACKFILL WILL BE REQUIRED.
4. EXTREME CAUTION MUST BE FOLLOWED REGARDING THE COMPACTION OF ALL UTILITY TRENCHES. MECHANICALLY COMPACTED GRANULAR BACKFILL IS REQUIRED UNDER AND WITHIN 5 FEET OF ALL PAVEMENT INCLUDING SIDEWALKS AND FUTURE PARKING AREA AS SPECIFIED ON PLANS. FLOODING OF BACKFILL MATERIAL IS NOT ALLOWED. THE COST OF THIS GRANULAR MATERIAL AND ITS COMPACTION IS CONSIDERED INCIDENTAL AND SHALL BE INCLUDED IN THE COST OF THE PROPOSED UTILITY.
5. PRIOR TO FINAL PAVING OPERATIONS, THE UTILITY CONTRACTOR SHALL ADJUST ALL MANHOLE AND INLET RIMS AND VALVE BOXES TO FINISHED GRADE.
6. THE CONTRACTOR IS RESPONSIBLE FOR PROVIDING THE OWNER WITH A SET OF MARKED-UP PRINTS SHOWING ALL CHANGES MADE DURING THE CONSTRUCTION PROCESS. ANY CHANGES TO THE DRAWINGS OR ADDITIONAL ITEMS MUST BE REPORTED TO THE OWNER.
7. STORM SEWER WITHIN STREET RIGHT-OF-WAYS SHALL BE REINFORCED CONCRETE PIPE.
8. EXCAVATED MATERIAL FROM THE TRENCH NOT SUITABLE FOR BACKFILL AS DEEMED BY THE ENGINEER SHALL BE REMOVED AND REPLACED WITH SELECT TRENCH BACKFILL.
9. MANHOLES 3' DEEP AND GREATER SHALL BE CONSTRUCTED WITH STEPS.
10. INLETS AT LOW POINTS SHALL HAVE TYPE NEENAH TYPE R GRATES. INLETS ON GRADE SHALL BE DIRECTIONAL TYPE L. INLETS SHALL ALL BE STAMPED "DRAINS TO RIVER".
11. ALL INFILTRATION BASINS SHALL INCLUDE ENGINEERED SOILS OR PERMAMATRIX SOIL AMENDMENT APPLIED PER MANUFACTURER RECOMMENDATIONS.
12. ALL STORM WATER MANAGEMENT FACILITIES SHALL BE SEEDED WITH A NATIVE SEED MIXTURE WITHIN THE LIMITS OF THE OUTLOT OR EASEMENT. THE NATIVE SEED MIXTURE SHALL BE APPROVED BY THE ENGINEER.
13. ALL STORM WATER FACILITIES SHALL CONFORM TO WisDNR TECHNICAL STANDARDS FOR PRE AND POST CONSTRUCTION STORM WATER MANAGEMENT.
14. THE LAST TWO PIPES SHALL BE STRAPPED TOGETHER AT END SECTIONS ON ALL PIPES 18" AND GREATER.
15. TRASH GRATES SHALL BE PROVIDED ON ALL END SECTIONS ON ENCLOSED STORM SEWER NETWORKS.
16. EROSION MAT IS REQUIRED FOR ALL RESTORATION ON SLOPES AT OR GREATER THAN 4:1, AND IN AREAS THAT CHANNEL WATER.
17. BIODEGRADABLE EROSION MAT AND BIODEGRADABLE STAPLES ARE REQUIRED ON ALL SLOPES LESS THAN 3:1 OUTSIDE OF DRAINAGE CHANNELS WHERE EROSION MAT IS REQUIRED. EROSION MAT SHALL BE PROVIDED IN ALL STREET TERRACES.
18. SILT FENCE AND INLET PROTECTION REMOVAL IS REQUIRED AFTER VEGETATION HAS BEEN ESTABLISHED.
19. STORM SEWER SHALL BE HDPE UNLESS OTHERWISE SPECIFIED ON PLANS.
20. ADJUSTMENT RINGS SHALL HAVE A MINIMUM HEIGHT OF 4" AND A MAXIMUM HEIGHT OF 12". ADJUSTMENT RINGS FOR STORM MANHOLES SHALL BE POLYETHYLENE PLASTIC OR APPROVED EQUAL. CURB INLET ADJUSTMENT RINGS SHALL BE CONCRETE.

SANITARY SEWER

- 1. SANITARY SEWER SHALL BE PVC AND BEDDED WITH CLASS C BEDDING (CLEAR STONE). SEWER SHALL BE SDR-35 FOR DEPTHS UP TO 20' AND SDR-26 FOR DEPTHS GREATER THAN 20'.
2. TRACER WIRE SHALL BE INSTALLED WITH ALL NEW LATERALS IN ACCORDANCE TO THE STANDARD DETAIL DRAWINGS.
3. TRACER WIRE BOXES SHALL BE PROVIDED. "SEWER" SHALL BE STAMPED IN THE LID OF THE ACCESS BOX.
4. EXCAVATED MATERIAL FROM THE TRENCH NOT SUITABLE FOR BACKFILL AS DEEMED BY THE ENGINEER SHALL BE REMOVED AND REPLACED WITH SELECT TRENCH BACKFILL.
5. MANDREL TESTING IS REQUIRED ON ALL SANITARY SEWER. LOW PRESSURE AIR TESTS ARE REQUIRED ON ALL NEW SANITARY SEWER CONSTRUCTION.
6. LATERAL ENDS SHALL BE CAPPED WITH A GLUED ON CAP AND MARKED WITH A PAINTED 4X4 POST.
7. ALL SANITARY SEWER CONSTRUCTION SHALL MEET THE STANDARD SPECIFICATIONS FOR SEWER AND WATER CONSTRUCTION IN WISCONSIN.

WATER MAIN

- 1. WATER MAIN SHALL BE DUCTILE IRON AND BEDDED WITH TYPE 3 EMBEDMENT (SAND OR SAND SCREENINGS). BEDDING SHALL BE A MINIMUM OF 6" UNDER AND 12" OVER TOP OF THE PIPE.
2. WATER MAIN SHALL BE INSTALLED WITH TRACER WIRE. TRACER WIRE SHALL EXTEND TO THE SURFACE AT ALL HYDRANTS IN A TRACER WIRE ACCESS BOX.
3. MECHANICAL JOINT FITTINGS WITH MEGA LUGS ARE REQUIRED FOR ALL DIRECTIONAL CHANGE FITTINGS AND WATERMAIN ENDS. ALL BOLTS SHALL BE STAINLESS STEEL. ALL FITTINGS SHALL BE "MADE IN AMERICA" CERTIFIED.
4. LATERAL ENDS SHALL BE MARKED WITH A PAINTED 4X4 WOOD POST.
5. WATER MAINS SHALL UNDERGO A PRESSURE AND LEAKAGE TEST. SERVICES SHALL BE TESTED TO THE CURB STOP. SERVICES 4" AND LARGER WITH JOINTED PIPE SHALL BE TESTED AGAINST THE VALVE WITH A SECOND TEST OUT TO THE PLUG. THE SECOND TEST MAY BE OF SHORTER DURATION AS APPROVED BY THE PUBLIC SERVICES DIRECTOR.
6. EXCAVATED MATERIAL FROM THE TRENCH NOT SUITABLE FOR BACKFILL AS DEEMED BY THE ENGINEER SHALL BE REMOVED AND REPLACED WITH SELECT TRENCH BACKFILL.
7. ALL WATER MAIN CONSTRUCTION SHALL MEET THE STANDARD SPECIFICATIONS FOR SEWER AND WATER CONSTRUCTION IN WISCONSIN.
8. ALL WORK WITHIN THE R/W AND INSTALLATION OF PRIVATE WATER MAIN BETWEEN THE CITY'S MUNICIPAL MAIN AND PRIVATE HYDRANTS (INCLUDING PRIVATE HYDRANT) SHALL BE INSTALLED PER THE LATEST EDITION OF THE CITY OF FITCHBURG STANDARD SPECIFICATIONS FOR PUBLIC WORKS CONSTRUCTION.
9. INSULATION SHALL BE PROVIDED AT ALL STORMS SEWER CROSSINGS OF MAINS AND LATERALS.

ADDITIONAL UTILITY NOTES

- 1. THE CONTRACTOR SHALL VERIFY THE LOCATION OF ALL EXISTING UTILITIES PRIOR TO THE START OF CONSTRUCTION.
2. BEFORE PROCEEDING WITH ANY UTILITY CONSTRUCTION, THE CONTRACTOR SHALL EXCAVATE EACH EXISTING LATERAL OR POINT OF CONNECTION AND VERIFY THE LOCATION AND ELEVATION OF ALL UTILITIES. IF ANY EXISTING UTILITIES ARE NOT AS SHOWN ON THE DRAWINGS, THE CONTRACTOR SHALL NOTIFY THE ENGINEER IMMEDIATELY FOR POSSIBLE REDESIGN.
3. PRIOR TO FINAL PAVING OPERATIONS, THE UTILITY CONTRACTOR SHALL ADJUST ALL MANHOLE AND INLET RIMS AND VALVE BOXES TO FINISHED GRADE.
4. THE CONTRACTOR IS RESPONSIBLE FOR PROVIDING THE OWNER WITH A SET OF MARKED-UP PRINTS SHOWING ALL CHANGES MADE DURING THE CONSTRUCTION PROCESS. ANY CHANGES TO THE DRAWINGS OR ADDITIONAL ITEMS MUST BE REPORTED TO THE OWNER.
5. THE PROPOSED IMPROVEMENTS SHALL BE CONSTRUCTED ACCORDING TO WISCONSIN ADMINISTRATIVE CODE. SECTION SPS 382-384, LATEST EDITION, THE STANDARD SPECIFICATIONS FOR SEWER AND WATER CONSTRUCTION IN WISCONSIN, LATEST EDITION, AND THE LOCAL ORDINANCES AND SPECIFICATIONS.
6. ALL CONNECTIONS TO EXISTING PIPES AND MANHOLES SHALL BE CORED CONNECTIONS.
7. PROPOSED SANITARY SEWER, WATER MAIN, AND INTERNALLY CONNECTED STORM SEWER SHOWN ON THIS PLAN SHALL TERMINATE AT POINT FIVE (5) FEET FROM THE EXTERIOR BUILDING WALL. STORM SEWER CONNECTING TO EXTERIOR DOWN SPOUTS SHALL BE PER DETAILS ON THE ARCHITECTURAL PLANS. THE EXACT LOCATION OF ALL DOWN SPOUTS SHALL BE PER THE ARCHITECTURAL PLANS.
8. EXTREME CAUTION MUST BE FOLLOWED REGARDING THE COMPACTION OF ALL UTILITY TRENCHES. MECHANICALLY COMPACTED GRANULAR BACKFILL IS REQUIRED UNDER AND WITHIN 5 FEET OF ALL PAVEMENT INCLUDING SIDEWALKS. FLOODING OF BACKFILL MATERIAL IS NOT ALLOWED. THE COST OF THIS GRANULAR MATERIAL AND ITS COMPACTION IS CONSIDERED INCIDENTAL AND SHALL BE INCLUDED IN THE COST OF THE PROPOSED UTILITY.
9. TRACER WIRE SHALL BE INSTALLED ON ALL BURIED NON-METALLIC SANITARY SEWERS, PRIVATE SANITARY INTERCEPTOR MAIN SEWERS, STORM BUILDING SEWERS, AND PRIVATE STORM INTERCEPTOR MAIN SEWERS THAT DISCHARGE TO MUNICIPAL MAINS. TRACER WIRE SHALL BE A MINIMUM OF 12-GAUGE, INSULATED, SINGLE-CONDUCTOR COPPER WIRE OR EQUIVALENT. TRACER WIRE COLOR SHALL BE BLUE FOR POTABLE WATER, GREEN FOR SANITARY SEWER, AND BROWN FOR STORM SEWER.

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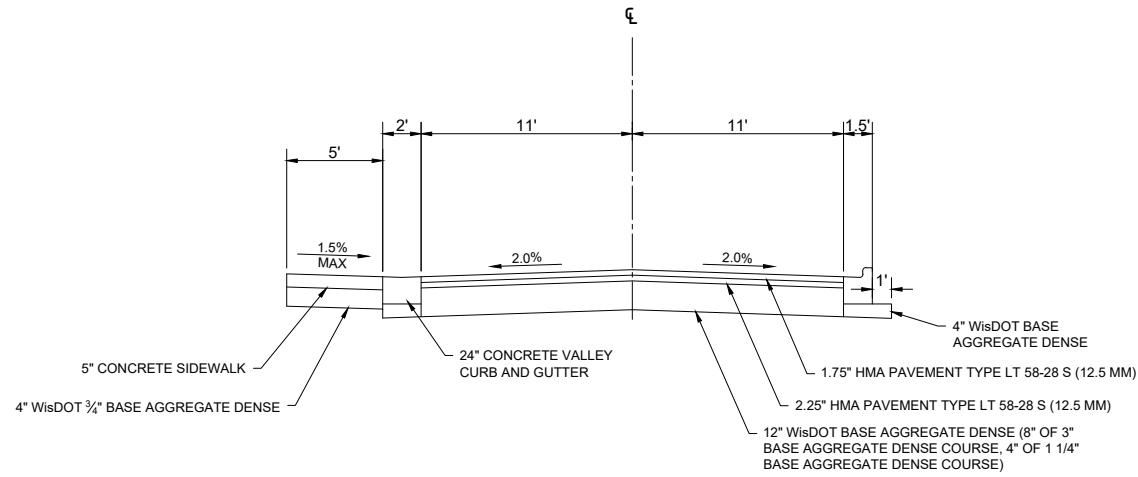
OLIVE TREE RESIDENCES
NOTES
CITY OF FITCHBURG, DANE COUNTY, WISCONSIN
SNYDER & ASSOCIATES, INC.
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Project No: 124.1205.30
Sheet C600

SNYDER & ASSOCIATES logo
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Sheet C600

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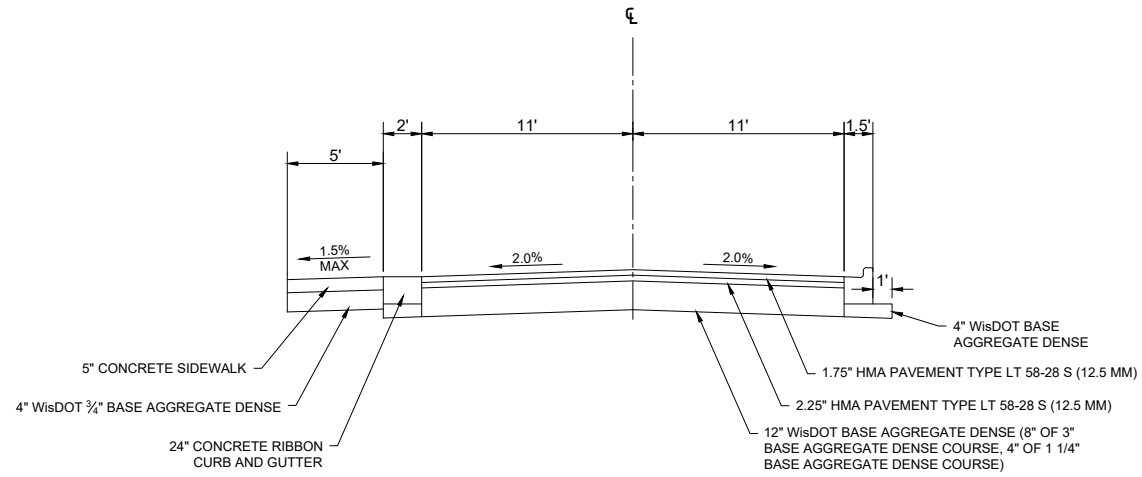
TYPICAL FINISHED SECTION

EXETER WAY
24' FACE-TO-FACE STREET WIDTH



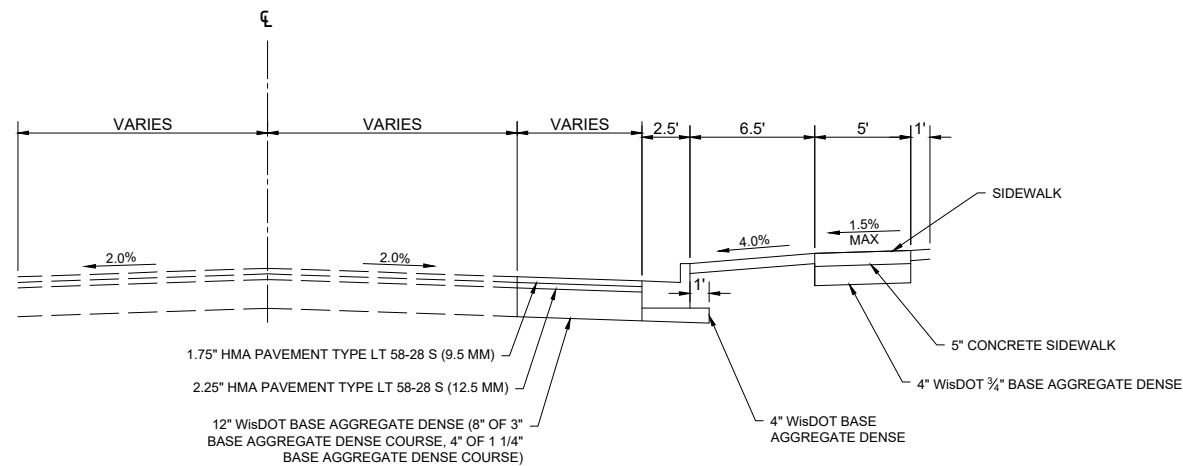
TYPICAL FINISHED SECTION

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24' FACE-TO-FACE STREET WIDTH



TYPICAL FINISHED SECTION

EXISTING MALONEY DRIVE
VARIABLE RIGHT-OF-WAY
VARIABLE STREET WIDTH



PAVING

1. THE PROPOSED IMPROVEMENTS SHALL BE CONSTRUCTED ACCORDING TO THE WISCONSIN D.O. T. STANDARD SPECIFICATIONS FOR HIGHWAY AND STRUCTURE CONSTRUCTION, LATEST EDITION, AND THE LOCAL ORDINANCES AND SPECIFICATIONS.
2. PAVING SHALL CONSIST OF FINE GRADING PAVEMENT AREAS, INSTALLATION OF CRUSHED STONE BASE, CONCRETE AND/OR BITUMINOUS PAVEMENT, PAVEMENT MARKING, AND CLEANUP. ALL MATERIALS SHALL BE PROVIDED BY THE CONTRACTOR.
3. TACK COAT SHALL BE IN ACCORDANCE WITH SUBSECTION 455.2.5 OF THE STANDARD SPECIFICATIONS. THE RATE OF APPLICATION SHALL BE 0.025 GAL/SY.
4. CONCRETE FOR CURB, DRIVEWAY, WALKS AND NON-FLOOR SLABS SHALL BE GRADE A (OR GRADE A2 IF PLACING BY SLIP-FORMED PROCESS) AIR ENTRAINED IN ACCORDANCE WITH SECTION 501 FOR THE STANDARD SPECIFICATIONS, WITH A MINIMUM 28 DAY COMPRESSIVE STRENGTH OF 4,000 PSI.
5. CONCRETE CONSTRUCTION SHALL BE IN ACCORDANCE WITH THE FOLLOWING SECTIONS OF THE STANDARD SPECIFICATIONS:
SECTION 415 FOR CONCRETE PAVEMENT
SECTION 601 FOR CONCRETE CURB AND GUTTER
SECTION 602 FOR CONCRETE SIDEWALKS.
6. ALL FINISHED CONCRETE SHALL BE COVERED WITH A LIQUID CURING COMPOUND CONFORMING TO AASHTO M 148, TYPE 2, IN ACCORDANCE WITH SECTION 415 OF THE STANDARD SPECIFICATIONS.
7. PAVEMENT MARKINGS SHALL BE PAINT IN ACCORDANCE WITH SECTION 646 OF THE STANDARD SPECIFICATIONS. (COLOR SHALL BE AS INDICATED ON THE PLANS.) THE FOLLOWING ITEMS SHALL BE PAINTED WITH COLORS NOTED BELOW:
PEDESTRIAN CROSSWALKS: WHITE
LANE STRIPING WHERE SEPARATING TRAFFIC IS MOVING IN OPPOSITE DIRECTIONS: YELLOW
LANE STRIPING WHERE SEPARATING TRAFFIC IS MOVING IN SAME DIRECTIONS: WHITE

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OLIVE TREE RESIDENCES

CITY OF FITCHBURG, DANE COUNTY, WISCONSIN

TYPICAL SECTIONS

SNYDER & ASSOCIATES, INC.

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CONSTRUCTION SEQUENCE

- INSTALL AND MAINTAIN THE TEMPORARY GRAVEL CONSTRUCTION ENTRANCE/EXITS AS DESCRIBED IN THE DANE COUNTY EROSION CONTROL AND STORMWATER MANAGEMENT MANUAL. ADDITIONALLY INSTALL CONSTRUCTION EQUIPMENT PARKING AREAS. STABILIZE BARE AREAS IMMEDIATELY WITH GRAVEL AND TEMPORARY VEGETATION AS CONSTRUCTION TAKES PLACE. THE TEMPORARY ACCESS POINT SHALL BE PLACED IN THE LOCATION SHOWN ON THE GRADING AND EROSION CONTROL PLAN. THE ENTRANCE/EXITS WILL BE INSPECTED DAILY. IF THE AGGREGATE WITHIN THE TEMPORARY ACCESS PADS BECOMES COVERED WITH SOIL OR IF SIGNIFICANT QUANTITIES OF SOIL ARE TRACKED ONTO THE EXISTING ROADWAY THEN ADDITIONAL AGGREGATE WILL BE INSTALLED TO ALLOW THE ENTRANCE/EXITS TO FUNCTION PROPERLY.
- INSTALL EROSION AND SEDIMENT CONTROL BARRIERS (SILT FENCE) IMMEDIATELY DOWNSLOPE OF AREAS TO BE DISTURBED DURING CONSTRUCTION AS SHOWN ON THE APPROVED GRADING PLAN. THE BARRIERS MUST BE INSTALLED PARALLEL TO THE SITE CONTOURS TO THE EXTENT PRACTICABLE WITH THE ENDS EXTENDED UPSLOPE ONE TO TWO FEET TO PREVENT FLANKING OF THE RUNOFF. AT NO TIME FROM THE START OF ROUGH GRADING UNTIL SITE STABILIZATION SHALL AN UNBROKEN SLOPE EXIST BETWEEN DISTURBED AREAS AND THE RECEIVING WATERS. THE DANE COUNTY EROSION CONTROL AND STORMWATER MANAGEMENT MANUAL WILL BE REFERENCED FOR THE PROPER INSTALLATION AND MAINTENANCE OF SILT FENCE AND ALL OTHER EROSION CONTROL MEASURES ON THE SITE.
- STRIP TOPSOIL FROM THE AREAS OF THE SITE THAT WILL BE GRADED WITHIN 48 HOURS. ANY AREAS THAT WILL NOT BE IMMEDIATELY GRADED MUST NOT BE STRIPPED OF TOPSOIL UNTIL THE PRECEDING AREAS ARE TOPSOILED, SEEDED AND MULCHED. PLACE SOIL STOCKPILES AT LEAST 25 FEET AWAY FROM ANY DOWNSLOPE STREET, DRIVEWAY, OR DITCH. ALL TOPSOIL PILES WILL HAVE SILT FENCE PLACED ON THEIR DOWNSLOPE SIDES. TOPSOIL PILES WILL BE SEEDED WITH ANNUAL RYE IF THEY ARE IN PLACE FOR MORE THAN 7 DAYS. ANY AREAS LEFT INACTIVE FOR MORE THAN 7 DAYS WILL BE STABILIZED IMMEDIATELY WITH SEED AND MULCH.
- GRADING WILL BE PHASED TO THE EXTENT PRACTICABLE TO LIMIT THE AMOUNT OF THE EXPOSED SOIL AT ANY ONE TIME AND TO PROVIDE A BUFFER BETWEEN THE GRADED AREAS AND THE RECEIVING WATERS. THE INTENT OF THESE GRADING RESTRICTIONS IS TO PROVIDE AN UNDISTURBED BUFFER AREA ALLOWING ADDITIONAL EROSION AND SEDIMENTATION PROTECTION DURING CONSTRUCTION.
- TOPSOIL, SEED AND MULCH ALL AREAS WHICH ARE AT FINAL GRADE AND WHICH WILL NOT BE DISTURBED DURING SUBSEQUENT PHASES OF CONSTRUCTION. ANY AREAS LEFT INACTIVE FOR MORE THAN 7 DAYS MUST BE STABILIZED IMMEDIATELY.
- INSTALL ANY UTILITIES.
- COMPLETE FINAL GRADING FOR PARKING LOT & DRIVES AND STABILIZE WITH GRAVEL.
- COMPLETE FINAL GRADE OF THE SITE.
- UTILITY TRENCHES SHALL BE FILLED WITH SUITABLE BACKFILL MATERIAL AND COMPACTED AS NEEDED. TOPSOIL SHALL BE REPLACED, FERTILIZED, SEEDED AND PROTECTED AS CALLED FOR BELOW IN ITEMS 11 AND 12. UTILITY CONSTRUCTION SHALL BE COORDINATED WITH OTHER GRADING ACTIVITIES SO THAT RESTORATION CAN BE COMPLETED AS SOON AS POSSIBLE AFTER CONSTRUCTION.
- WITHIN 7 DAYS OF THE COMPLETION OF FINAL GRADING, A MINIMUM OF 4 INCHES OF TOPSOIL SHALL BE REPLACED ON ALL DISTURBED SURFACES THAT ARE TO BE REVEGETATED. TOPSOIL SHALL BE UNIFORMLY PLACED, GRADED SMOOTH AND SCARIFIED FOR SEEDING.

- FERTILIZE ALL AREAS TO BE SEEDED OR SODDED WITH 500LBS. PER ACRE OF 16-8-8 (MINIMUM). INCORPORATE THE FERTILIZER INTO THE SOIL BY SCARIFYING AS INDICATED. SEED ALL DISTURBED AREAS WITH THE FOLLOWING SEEDING MIXTURE:
 30.50 LBS/ACRE OF KENTUCKY BLUEGRASS
 17.50 LBS/ACRE OF RED FESCUE
 17.50 LBS/ACRE OF HARD FESCUE
 22.00 LBS/ACRE OF PERENNIAL RYE GRASS
 THE OWNER RESERVES THE RIGHT TO REVISE THE SEEDING MIXTURE SUBJECT TO APPROVAL BY THE LOCAL MUNICIPALITY.

 SOD MAY BE SUBSTITUTED FOR SEEDING ON ALL AREAS TO BE SEEDED AND IS RECOMMENDED FOR ALL AREAS WITH SLOPES OF 5:1 OR STEEPER. MULCH ALL SEEDED AREAS WITH 1.5 TONS PER ACRE OF CLEAN STRAW. STRAW SHALL BE ANCHORED IN PLACE WITH SUITABLE EQUIPMENT OR STAKING WITH TWINE.

 FOR AREAS ON WHICH GRADING IS COMPLETED AFTER SEPTEMBER 30.

 TEMPORARY SEED SHALL INCLUDE A SOIL STABILIZING POLYMER AND COVER CROP OF WINTER RYE (AT A RATE OF 75#/ACRE) AND MUST BE APPLIED AS SOON AS THESE AREAS REACH THEIR FINAL GRADE. ADDITIONAL EROSION CONTROL BARRIERS MAY BE NEEDED DOWNSLOPE OF THESE AREAS UNTIL FINAL SEEDING OR SODDING IS COMPLETED IN SPRING (BY JUNE 1). ANY AREAS WITH SLOPES GREATER THAN 6:1 MUST BE SEEDED AND MULCHED BUT NOT TOPSOILED. AREAS WITH SLOPED LESS THAN 6:1 MUST BE TOPSOILED, SEEDED AND MULCHED. ALL AREAS MUST BE TOPSOILED, SEEDED OR MULCHED AS DESCRIBED ABOVE IN THE FOLLOWING SPRING.
- WHENEVER POSSIBLE, PRESERVE EXISTING TREES, SHRUBS, AND OTHER VEGETATION. TO PREVENT ROOT DAMAGE, DO NOT GRADE, PLACE SOIL PILES, OR PARK VEHICLES NEAR TREES MARKED FOR PRESERVATION.
- SILT FENCE MAINTENANCE:** EROSION CONTROL BARRIERS (SILT FENCE) MUST BE INSPECTED WITHIN 24 HOURS AFTER EACH RAINFALL OF 0.5-INCHES OR MORE, AND DAILY DURING PERIODS OF PROLONGED RAINFALL. REPAIRS OR REPLACEMENT SHALL BE MADE IMMEDIATELY. SEDIMENT DEPOSITS ON THE UPSLOPE SIDE ON THE SILT FENCES SHALL BE REMOVED WHEN THE DEPOSITS REACH HALF THE HEIGHT OF THE SILT FENCE.
- GRAVEL TRACKING PAD MAINTENANCE:** ADDITIONAL STONE IS REQUIRED IF EXISTING STONE BECOMES BURIED OR IF SEDIMENT IS NOT BEING REMOVED EFFECTIVELY FROM TIRES. SEDIMENT THAT IS TRACKED ONTO THE ROADWAY MUST BE REMOVED IMMEDIATELY. TRACKING PADS MAY REQUIRE PERIODIC CLEANING TO MAINTAIN THE EFFECTIVENESS OF THE PRACTICE, WHICH MAY INCLUDE THE REMOVAL AND RE-INSTALLATION OF THE STONE.

EROSION CONTROL NOTES

- THE CONTRACTOR IS RESPONSIBLE FOR OBTAINING COPIES OF ALL PERMITS, INCLUDING WISDNR WPDES DISCHARGE PERMIT (IF APPLICABLE), COUNTY AND LOCAL EROSION CONTROL PERMIT. CONTRACTOR IS RESPONSIBLE FOR ABIDING BY ALL PERMIT REQUIREMENTS AND RESTRICTIONS.
- ALL EROSION CONTROL MEASURES SHALL BE INSTALLED PRIOR TO LAND DISTURBING ACTIVITIES.
- ALL INSTALLATION AND MAINTENANCE OF EROSION CONTROL PRACTICES SHALL BE IN ACCORDANCE WITH THE APPLICABLE WISCONSIN DEPARTMENT OF NATURAL RESOURCES (WisDNR) TECHNICAL STANDARD, FOUND AT: http://dnr.wi.gov/topic/stormwater/standards/const_standards.html OR THE WISCONSIN CONSTRUCTION SITE BEST MANAGEMENT PRACTICE HANDBOOK IF A TECHNICAL STANDARD IS NOT AVAILABLE.
- ALL EROSION CONTROL FACILITIES SHALL BE MAINTAINED THROUGHOUT THE DURATION OF THE PROJECT AND WARRANTY PERIOD IN CONFORMANCE WITH ALL APPLICABLE PERMITS ISSUED FOR THE PROJECT.
- ALL EROSION AND SEDIMENTATION CONTROL PRACTICES SHALL BE INSPECTED WEEKLY AND WITHIN 24 HOURS AFTER EVERY PRECIPITATION EVENT THAT PRODUCES 0.5 INCHES OF RAIN OR MORE DURING A 24 HOUR PERIOD. REPAIRS SHALL BE MADE IMMEDIATELY TO EROSION CONTROL PRACTICES AS NECESSARY.
- TEMPORARY STOCKPILES SHALL BE STABILIZED IF NOT REMOVED IN 10 DAYS. PERIMETER CONTROL ON THE DOWNHILL SIDE SHALL BE IN PLACE AT ALL TIMES (SILT FENCE OR APPROVED EQUAL).
- TEMPORARY SEED MIXTURE SHALL CONFORM TO 630.2.1.5.1.4 OF THE WisDOT STANDARD SPECIFICATIONS USE WINTER WHEAT OR RYE FOR FALL PLANTINGS STARTED AFTER SEPTEMBER 1.
- DISTURBED AREAS THAT CANNOT BE STABILIZED WITH A DENSE GROWTH OF VEGETATION BY SEEDING AND MULCHING DUE TO TEMPERATURE OR TIMING OF CONSTRUCTION, SHALL BE STABILIZED BY APPLYING ANIONIC POLYACRYLAMIDE (PAM) IN ACCORDANCE WITH WisDNR TECHNICAL STANDARD 1050.
- SEDIMENT SHALL BE REMOVED FROM THE SEDIMENT BASINS TO MAINTAIN A THREE FOOT DEPTH OF TREATMENT, MEASURED BELOW THE NORMAL WATER ELEVATION. SEDIMENT WILL BE REMOVED FROM THE DIVERSION DITCHES WHEN IT REACHES HALF THE HEIGHT OF THE DITCH. SEDIMENT WILL BE REMOVED FROM BEHIND THE SILT FENCE AND DITCH CHECKS WHEN IT REACHES HALF THE HEIGHT OF THE FENCE/BALE THE SILT FENCE AND DITCH CHECKS SHALL BE REPAIRED AS NECESSARY TO MAINTAIN A BARRIER.
- ALL WATER FROM CONSTRUCTION DEWATERING SHALL BE TREATED IN ACCORDANCE WITH WisDNR TECHNICAL STANDARD 1061 PRIOR TO DISCHARGE TO WATERS OF THE STATE, WETLANDS, OR OFFSITE.
- THE CONTRACTOR IS RESPONSIBLE FOR INSTALLATION OF ANY ADDITIONAL EROSION CONTROL MEASURES NECESSARY TO PREVENT EROSION AND SEDIMENTATION. ALL DISTURBED AREAS ARE TO DRAIN TO APPROVED SEDIMENT CONTROL MEASURES AT ALL TIMES DURING SITE DEVELOPMENT UNTIL FINAL STABILIZATION IS ACHIEVED. DEPENDING ON HOW THE CONTRACTOR GRADES THE SITE, IT MAY BE NECESSARY TO INSTALL TEMPORARY EROSION CONTROL AND/OR SEDIMENT TRAPS IN VARIOUS LOCATIONS THROUGHOUT THE PROJECT. TEMPORARY SEDIMENT TRAPS SHALL BE DESIGNED, INSTALLED, AND MAINTAINED IN ACCORDANCE WITH WisDNR TECHNICAL STANDARD 1063.
- TRACKED MATERIAL TO ADJACENT STREETS SHALL BE COLLECTED AT THE END OF EACH WORKING DAY OR AS REQUIRED BY THE LOCAL MUNICIPALITY.
- DUST CONTROL SHALL BE PROVIDED AS NECESSARY IN ACCORDANCE WITH WisDNR TECHNICAL STANDARD 106B.
- THE CONTRACTOR IS RESPONSIBLE FOR PROVIDING ALL EROSION CONTROL FACILITIES AND MEASURES NECESSARY TO CONTROL EROSION AND SEDIMENTATION AT THE PROJECT SITE. THESE FACILITIES AND MEASURES MAY OR MAY NOT BE SHOWN ON THE DRAWINGS AND THEIR ABSENCE ON THE DRAWINGS DOES NOT ALLEVIATE THE CONTRACTOR FROM PROVIDING THEM. ANY MEASURES AND FACILITIES SHOWN ON THE DRAWINGS ARE THE MINIMUM ACTIONS REQUIRED.
- ERODED MATERIAL THAT HAS LEFT THE CONSTRUCTION SITE SHALL BE COLLECTED AND RETURNED TO THE SITE BY THE CONTRACTOR.
- AFTER FINAL VEGETATION IS ESTABLISHED, REMOVE ALL EROSION CONTROL FACILITIES. RESTORE AREAS DISTURBED BY THE REMOVALS.
- KEEP A COPY OF THE CURRENT EROSION CONTROL PLAN ON SITE THROUGHOUT THE DURATION OF THE PROJECT.
- COMPLETE AND STABILIZE SEDIMENT BASINS/TRAPS PRIOR TO MASS LAND DISTURBANCE TO CONTROL RUNOFF DURING CONSTRUCTION. REMOVE SEDIMENT AS NEEDED TO MAINTAIN 3 FEET OF DEPTH TO THE OUTLET, AND PROPERLY DISPOSE OF SEDIMENT REMOVED DURING MAINTENANCE. CONSTRUCT AND MAINTAIN THE SEDIMENT BASIN PER WisDNR TECHNICAL STANDARDS.
- PROPERLY DISPOSE OF ALL WASTE AND UNUSED BUILDING MATERIALS (INCLUDING GARBAGE, DEBRIS, CLEANING WASTES, OR OTHER CONSTRUCTION MATERIALS) AND DO NOT ALLOW THESE MATERIALS TO BE CARRIED BY RUNOFF INTO THE RECEIVING CHANNEL.
- FOR NON-CHANNELIZED FLOW ON DISTURBED OR CONSTRUCTED SLOPES 4:1, USE CLASS I URBAN, TYPE A EROSION CONTROL MATTING. FOR SLOPES GREATER THAN 4:1 BUT LESS THAN 2.5:1, USE CLASS I URBAN TYPE B. FOR SLOPES GREATER THAN 2.5:1 USE CLASS I TYPE B. SELECT EROSION MATTING FROM APPROPRIATE MATRIX IN WisDOT'S FACILITIES DEVELOPMENT MANUAL AND INSTALL AND MAINTAIN PER WisDNR TECHNICAL STANDARDS.
- FOR CHANNELIZED FLOW ON DISTURBED OR CONSTRUCTED AREAS, PROVIDE CLASS I TYPE B EROSION CONTROL MATTING. ELECT EROSION MATTING FROM APPROPRIATE MATRIX IN WisDOT'S FACILITIES DEVELOPMENT MANUAL; INSTALL AND MAINTAIN PER WisDNR TECHNICAL STANDARDS.
- ALL DISTURBED AREAS WITHIN THE RIGHT-OF-WAY SHALL BE COVERED WITH A BIO-DEGRADABLE EROSION MAT INCLUDING BIO-DEGRADABLE STAPLES.
- ALL BIO-DEGRADABLE EROSION MAT SHALL BE CURLEX NET FREE OR APPROVED EQUAL.
- WATERING OF NEW SEEDING SHALL BE OF A DURATION AND FREQUENCY ADEQUATE TO ENSURE PROPER ESTABLISHMENT OF NEW SEEDING.
- MAKE PROVISIONS FOR WATERING DURING THE FIRST 8 WEEKS FOLLOWING SEEDING OR PLANTING OF DISTURBED AREAS WHENEVER MORE THAN 7 CONSECUTIVE DAYS OF DRY WEATHER OCCUR.

I:\Projects\2014\1251\CONSTRUCTION\EROSION CONTROL NOTES\20140913\PKANS\FULL BLEED BY (7,700,110) (INCHES)


PIP SUBMITTAL	04-14-25	BCA
GIP RESUBMITTAL	03-07-25	BCA
GIP RESUBMITTAL	02-24-25	BCA
GIP RESUBMITTAL	02-07-25	BCA
MARK	REVISION	BY
Engineer: BCA	Checked By: MJC	Scale: 1" =
Technician: DMS	Date: 11-04-2024	T-R-S: TTN-RRW-SS
Project No: 124.1205.30		
Sheet C602		

OLIVE TREE RESIDENCES

EROSION CONTROL NOTES CITY OF FITCHBURG, DANE COUNTY, WISCONSIN

SNYDER & ASSOCIATES, INC.

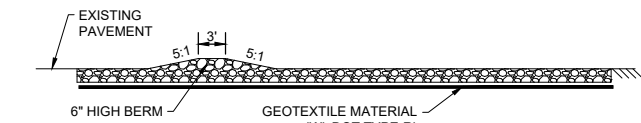
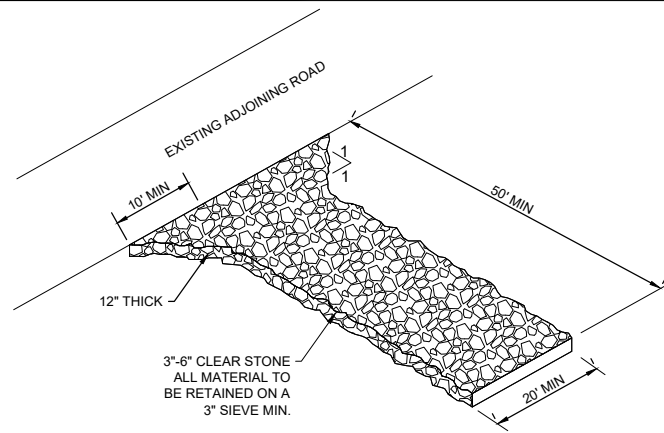
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SNYDER & ASSOCIATES

Project No: 124.1205.30

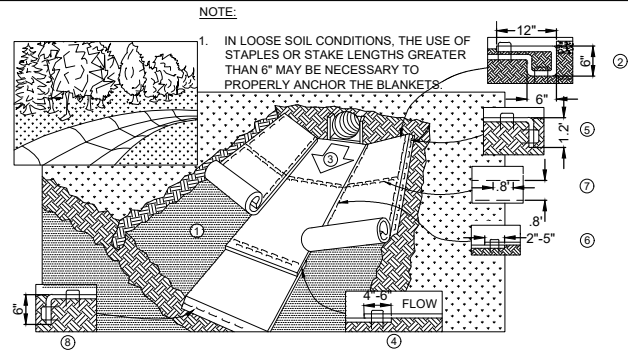
Sheet C602



NOTE:

1. MAINTAIN THE ROCK ENTRANCE TO PREVENT TRACKING ONTO PAVEMENT

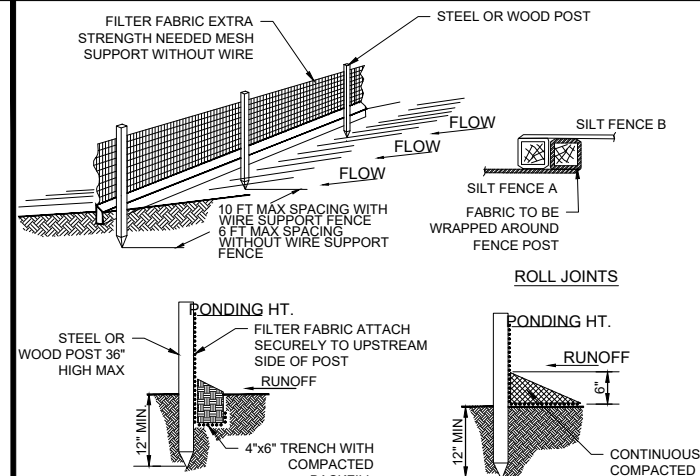
1 **STONE ENTRANCE DETAIL**
SCALE: 3"=1'



INSTALLATION:

1. PREPARE SOIL BEFORE INSTALLING BLANKETS, INCLUDING APPLICATION OF FERTILIZER AND SEED.
2. BEGIN AT THE TOP OF THE CHANNEL BY ANCHORING THE BLANKET IN A 6" DEEP X 6" WIDE TRENCH WITH APPROXIMATELY 12" OF BLANKET EXTENDED BEYOND THE UP-SLOPE PORTION OF THE TRENCH. ANCHOR THE BLANKET WITH A ROW OF STAPLES/STAKES APPROXIMATELY 12" APART IN THE BOTTOM OF THE TRENCH. BACKFILL AND COMPACT THE TRENCH AFTER STAPLING. APPLY SEED TO COMPACTED SOIL AND FOLD REMAINING 12" PORTION OF BLANKET BACK OVER SEED AND COMPACTED SOIL. SECURE BLANKET OVER COMPACTED SOIL WITH A ROW OF STAPLES/STAKES SPACED APPROXIMATELY 12" APART ACROSS THE WIDTH OF THE BLANKET.
3. ROLL CENTER BLANKET IN DIRECTION OF WATER FLOW IN BOTTOM OF CHANNEL. BLANKETS WILL UNROLL WITH APPROPRIATE SIDE AGAINST THE SOIL SURFACE. ALL BLANKETS MUST BE SECURELY FASTENED TO THE SOIL SURFACE BY PLACING STAPLES/STAKES IN APPROPRIATE LOCATIONS AS RECOMMENDED BY THE MANUFACTURER.
4. PLACE CONSECUTIVE BLANKETS END OVER END (SHINGLE STYLE) WITH A 4"-6" OVERLAP. USE A DOUBLE ROW OF STAPLES STAGGERED 4" APART AND 4" ON CENTER TO SECURE BLANKETS.
5. FULL LENGTH EDGE OF BLANKETS AT TOP OF SIDE SLOPE MUST BE ANCHORED WITH A ROW OF STAPLES/STAKES APPROXIMATELY 12" APART IN A 6" DEEP X 6" WIDE TRENCH. BACKFILL AND COMPACT THE TRENCH AFTER STAPLING.
6. A STAPLE CHECK SLOT IS RECOMMENDED AT 30 TO 40 FOOT INTERVALS. USE A DOUBLE ROW OF STAPLES STAGGERED 4" APART AND 4" ON CENTER OVER ENTIRE WIDTH OF THE CHANNEL.
7. THE TERMINAL END OF THE BLANKETS MUST BE ANCHORED WITH A ROW OF STAPLES/STAKES APPROXIMATELY 12" APART IN A 6" DEEP X 6" WIDE TRENCH. BACKFILL AND COMPACT THE TRENCH AFTER STAPLING.
8. EROSION MAT SHALL EXTEND FOR WHICHEVER IS GREATER: UPSLOPE ONE FOOT MIN. VERTICALLY FROM DITCH BOTTOM OR 6" HIGHER THAN DESIGN FLOW DEPTH.
9. EROSION MAT SHALL BE INSTALLED AND MAINTAINED IN ACCORDANCE WITH WDNR TECHNICAL STANDARDS 1053.

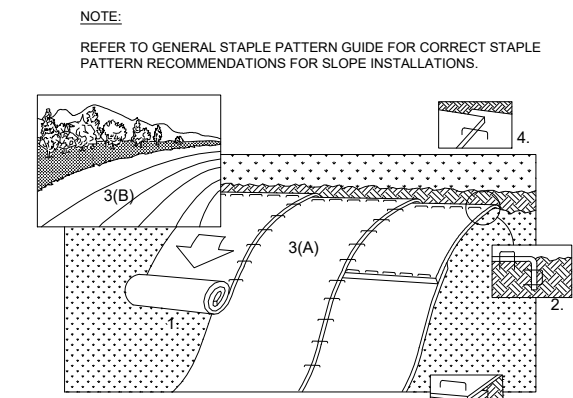
2 **EROSION CONTROL MAT - CHANNEL INSTALLATION**
N.T.S.



NOTES:

1. INSPECT FENCE WEEKLY AND AFTER EACH RAIN EVENT OF 0.5 INCHES AND REPAIR IF REQUIRED. REMOVE SEDIMENT WHEN NECESSARY OR WHEN SEDIMENT REACHES 1/2 OF FENCE HEIGHT.
2. REMOVED SEDIMENT SHALL BE DEPOSITED TO AN AREA THAT WILL NOT CONTRIBUTE SEDIMENT OFF-SITE AND CAN BE PERMANENTLY STABILIZED.
3. SILT FENCE SHALL BE PLACED ON SLOPE CONTOURS TO MAXIMIZE PONDING EFFICIENCY.
4. SILT FENCE SHALL BE INSTALLED AND MAINTAINED IN ACCORDANCE WITH WDNR TECHNICAL STANDARD 1056.

3 **SILT FENCE DETAIL**
N.T.S.



INSTALLATION:

1. PREPARE SOIL BEFORE INSTALLING BLANKETS, INCLUDING APPLICATION OF FERTILIZER AND SEED. NOTE: WHEN USING CELL-O-SEED DO NOT SEED PREPARED AREA. CELL-O-SEED MUST BE INSTALLED WITH PAPER SIDE DOWN.
2. BEGIN AT THE TOP OF THE SLOPE BY ANCHORING THE BLANKET IN 6" DEEP X 6" WIDE TRENCH. BACKFILL AND COMPACT THE TRENCH AFTER STAPLING.
3. ROLL THE BLANKETS (A.) DOWN THE SLOPE (B.) HORIZONTALLY ACROSS THE SLOPE
4. THE EDGES OF PARALLEL BLANKETS MUST BE STAPLED WITH APPROXIMATELY 2" OVERLAP.
5. WHEN BLANKETS MUST BE SPICED DOWN THE SLOPE, PLACE BLANKETS END OVER END (SHINGLE STYLE) WITH APPROXIMATELY 4" OVERLAP. STAPLE THROUGH OVERLAPPED AREA, APPROXIMATELY 12" APART.
6. ALL BLANKETS MUST BE SECURELY FASTENED TO THE SLOPE BY PLACING STAPLES/STAKES IN APPROPRIATE LOCATIONS AS RECOMMENDED BY THE MANUFACTURER.
7. EROSION MAT SHALL BE INSTALLED AND MAINTAINED IN ACCORDANCE WITH WDNR TECHNICAL STANDARD # 1052.

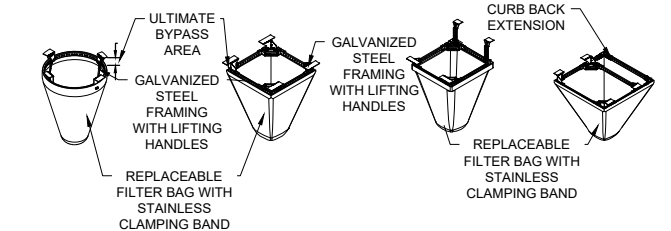
4 **EROSION CONTROL MAT - SLOPE INSTALLATION**
N.T.S.

- NOTES:
- *FLOW RATINGS SHOWN ARE 50% MAXIMUM
1. ALL FRAMING IS CONSTRUCTED OF CORROSION RESISTANT STEEL FRAMING FOR PROLONGED PRODUCT LIFE.
 2. TOTAL BYPASS CAPACITY WILL VARY WITH EACH SIZED DRAINAGE STRUCTURE. FLEXSTORM DESIGNS FRAMING BYPASS TO MEET OR EXCEED THE DESIGN FLOW OF THE PARTICULAR DRAINAGE STRUCTURE. CONCRETE STRUCTURES MAY REQUIRE ADDITIONAL REVIEW.
 3. UPON ORDERING THE ADS PIN CONFIRMATION OF THE DOT CALLOUT, FLEXSTORM ITEM CODE, CASTING MAKE AND MODEL, OR DETAILED DIMENSIONAL FORMS MUST BE PROVIDED.
 4. FOR WRITTEN SPECIFICATIONS AND MAINTENANCE GUIDELINES VISIT WWW.INLETFILTERS.COM

INSTALLATION:

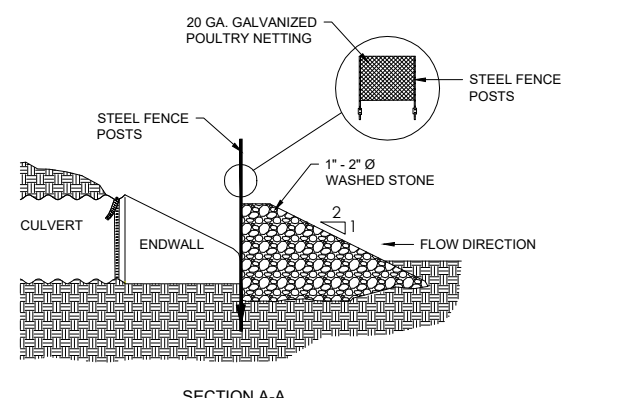
1. REMOVE GRATE
2. DROP FLEXSTORM INLET FILTER ONTO LOAD BEARING LIP OF CASTING OR CONCRETE STRUCTURE
3. REPLACE GRATE

Product selection for FLEXSTORM CATCH-IT Filters (Temporary Inlet Protection)							
Neenah Casting	Inlet Type	Grate Size	Opening Size	Bag Cap (ft ²)	Flow Ratings (CFS)		ADS P/N
					FX	Bypass	
1040/1642/1733	Round	26	24	1.9	1.5	5.4	62MRDFX
3067 w/FLAP	Curb Box	35.25 x 17.75	33.0 x 15.0	3.8	1.9	5.8	62LCBEXTFX
3067 EXTENDED BACK	Curb Box	35.25 x 17.75	33.0 x 15.0	4.4	2.3	5.8	62LCBEXTFX
3248A	Curb Box	35.75 x 23.875	33.5 x 21.0	4.2	2.2	3.3	62LCBFX
3030	Square/Rect (SQ)	23 x 16	20.5 x 13.5	1.6	1.4	2.2	62MCBFX
3067-C	Square/Rect (SQ)	35.25 x 17.75	33 x 15	3.2	2.0	5.2	62LSQFX



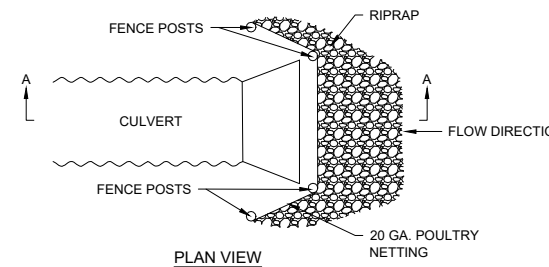
- FLEXSTORM CATCH-IT INLET FILTERS FOR ROUND OPENINGS
- FLEXSTORM CATCH-IT INLET FILTERS FOR SQUARE/RECTANGULAR OPENINGS
- FLEXSTORM CATCH-IT INLET FILTERS FOR ROLLED CURB
- FLEXSTORM CATCH-IT INLET FILTERS FOR CURB BOX OPENINGS (MAGNETIC CURB FLAP)

5 **INLET PROTECTION DETAIL**
N.T.S.



NOTES:

1. STONE CULVERT PROTECTION SHOWN TO BE USED FOR CULVERTS UP TO 18" IN DIAMETER. CONSULT ENGINEER FOR MODIFICATIONS FOR >18" DIAMETER CULVERTS.



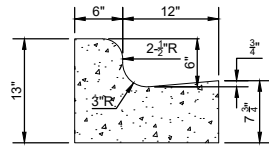
6 **STONE CULVERT PROTECTION**
N.T.S.

PIP SUBMITTAL	04-14-25	BCA	REVISION	DATE	BY
GIP RESUBMITTAL	03-07-25	BCA	Checked By:	MLC	Scale: 1" = #ft
GIP RESUBMITTAL	02-24-25	BCA	Date:	11-04-2024	T-R-S: TTN-RRW-SS
GIP RESUBMITTAL	02-07-25	BCA	Technician:	DMS	Project No: 124.1205.30

Sheet C700

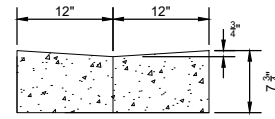
OLIVE TREE RESIDENCES
EROSION CONTROL DETAILS
CITY OF FITCHBURG, DANE COUNTY, WISCONSIN
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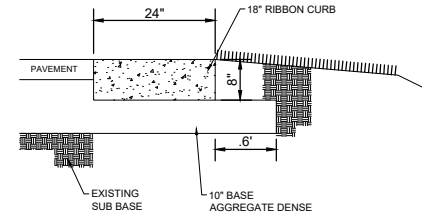
- NOTES:**
- LATERAL CONTRACTION JOINTS SHALL BE PLACED AT INTERVALS OF NOT MORE THAN 15' NOR LESS THAN 6' IN LENGTH. THE JOINTS SHALL BE A MINIMUM OF 3" IN DEPTH. EXPANSION JOINTS SHALL BE PLACED TRANSVERSELY AT RADIUS POINTS ON CURVES OF RADIUS 200' OR LESS AND AT ANGLE POINTS, OR AS DIRECTED BY THE ENGINEER.
 - THE EXPANSION JOINT SHALL BE A ONE PIECE ASPHALTIC MATERIAL HAVING THE SAME DIMENSIONS AS CURB & GUTTER AT THAT STATION AND BE 1/2" THICK. IN ALL CASES, CONCRETE CURB & GUTTER SHALL BE PLACED ON THOROUGHLY COMPACTED CRUSHED STONE.

1 18" STANDARD CONCRETE CURB & GUTTER
N.T.S.



- NOTES:**
- LATERAL CONTRACTION JOINTS SHALL BE PLACED AT INTERVALS OF NOT MORE THAN 15' NOR LESS THAN 6' IN LENGTH. THE JOINTS SHALL BE A MINIMUM OF 3" IN DEPTH. EXPANSION JOINTS SHALL BE PLACED TRANSVERSELY AT RADIUS POINTS ON CURVES OF RADIUS 200' OR LESS AND AT ANGLE POINTS, OR AS DIRECTED BY THE ENGINEER.
 - THE EXPANSION JOINT SHALL BE A ONE PIECE ASPHALTIC MATERIAL HAVING THE SAME DIMENSIONS AS CURB & GUTTER AT THAT STATION AND BE 1/2" THICK. IN ALL CASES, CONCRETE CURB & GUTTER SHALL BE PLACED ON THOROUGHLY COMPACTED CRUSHED STONE.

2 24" VALLEY CONCRETE CURB & GUTTER
N.T.S.

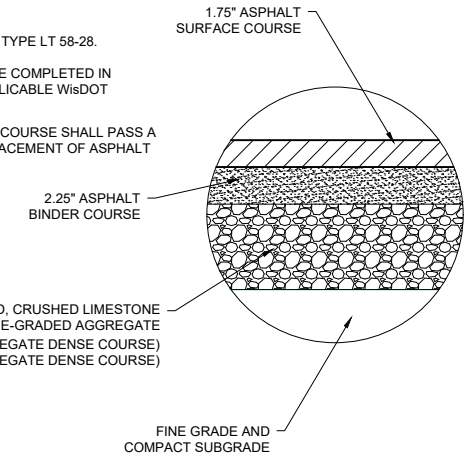


- NOTES:**
- LATERAL CONTRACTION JOINTS SHALL BE PLACED AT INTERVALS OF NOT MORE THAN 15' NOR LESS THAN 6' IN LENGTH. THE JOINTS SHALL BE A MINIMUM OF 3" IN DEPTH. EXPANSION JOINTS SHALL BE PLACED TRANSVERSELY AT RADIUS POINTS ON CURVES OF RADIUS 200' OR LESS AND AT ANGLE POINTS, OR AS DIRECTED BY THE ENGINEER.
 - THE EXPANSION JOINT SHALL BE A ONE PIECE ASPHALTIC MATERIAL HAVING THE SAME DIMENSIONS AS CURB & GUTTER AT THAT STATION AND BE 1/2" THICK. IN ALL CASES, CONCRETE CURB & GUTTER SHALL BE PLACED ON THOROUGHLY COMPACTED CRUSHED STONE.

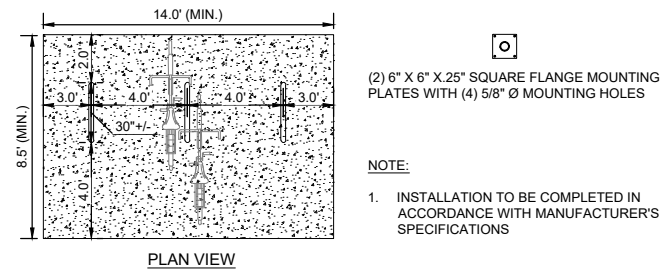
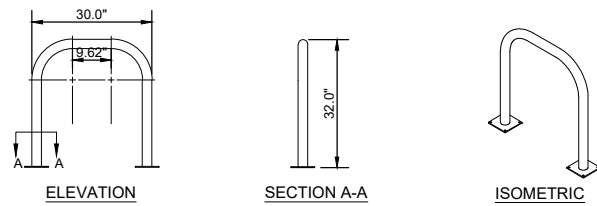
3 RIBBON CURB DETAIL
N.T.S.

NOTES:

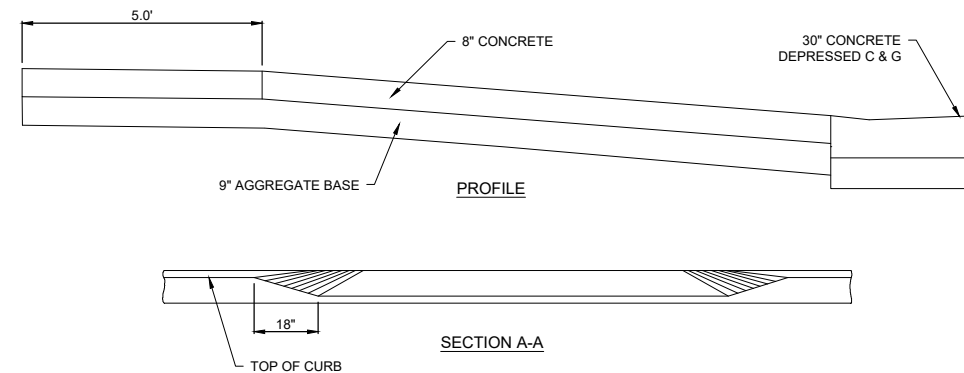
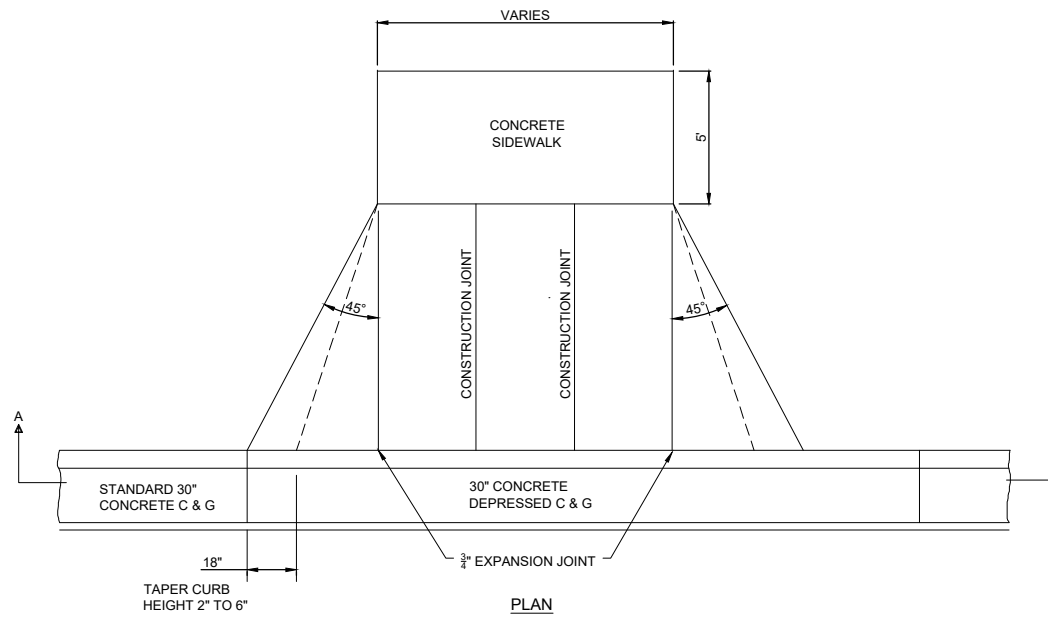
- HMA PAVEMENT SHALL BE TYPE LT 58-28.
- ASPHALT PAVING SHALL BE COMPLETED IN CONFORMANCE WITH APPLICABLE WisDOT SPECIFICATION.
- THE CONSTRUCTED BASE COURSE SHALL PASS A PROOF ROLL PRIOR TO PLACEMENT OF ASPHALT PAVING.



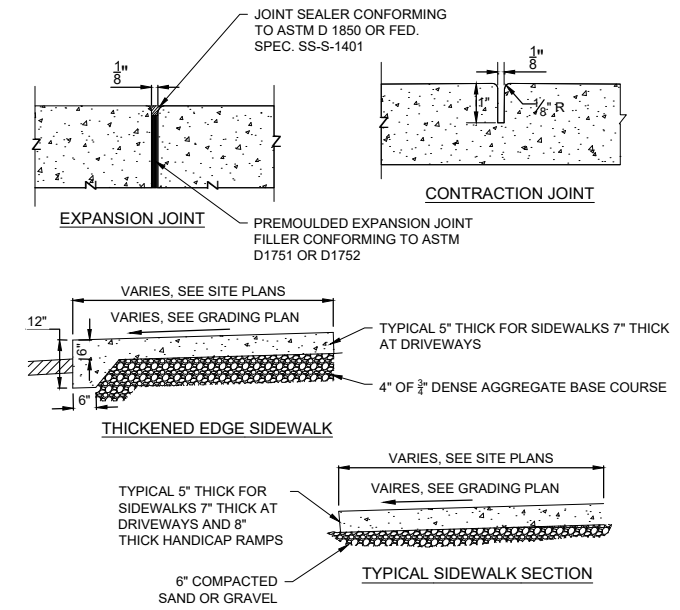
4 MEDIUM DUTY ASPHALT PAVING DETAIL
N.T.S.



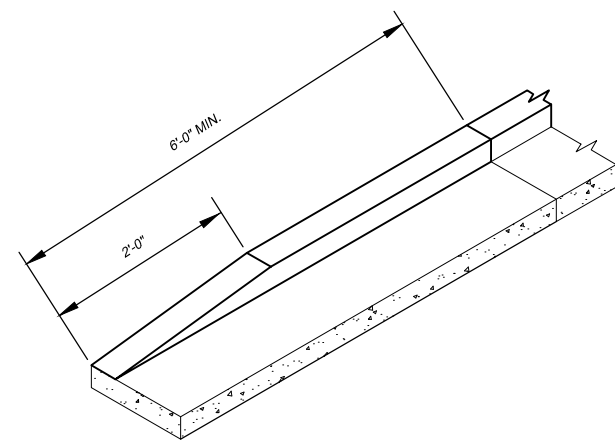
5 BIKE RACK DETAIL
N.T.S.



7 DRIVEWAY DETAIL
N.T.S.



8 SIDEWALK DETAIL
N.T.S.



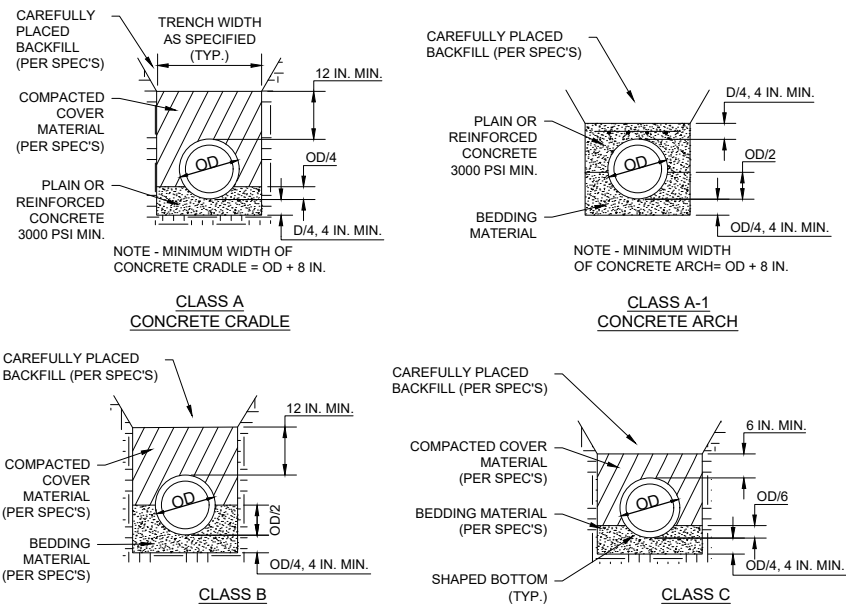
6 TAPER END CURB & GUTTER
N.T.S.

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GIP RESUBMITTAL	09-07-25	BCA	Engineer: BCA	Checked By: MLC	Scale: 1" =	
GIP RESUBMITTAL	02-24-25	BCA	Technician: DMS	Date: 11-04-2024	T-R-S: TTN-RRW-SS	
GIP RESUBMITTAL	02-07-25	BCA				

Project No: 124.1205.30
Sheet C701

OLIVE TREE RESIDENCES
SITE & PAVEMENT DETAILS
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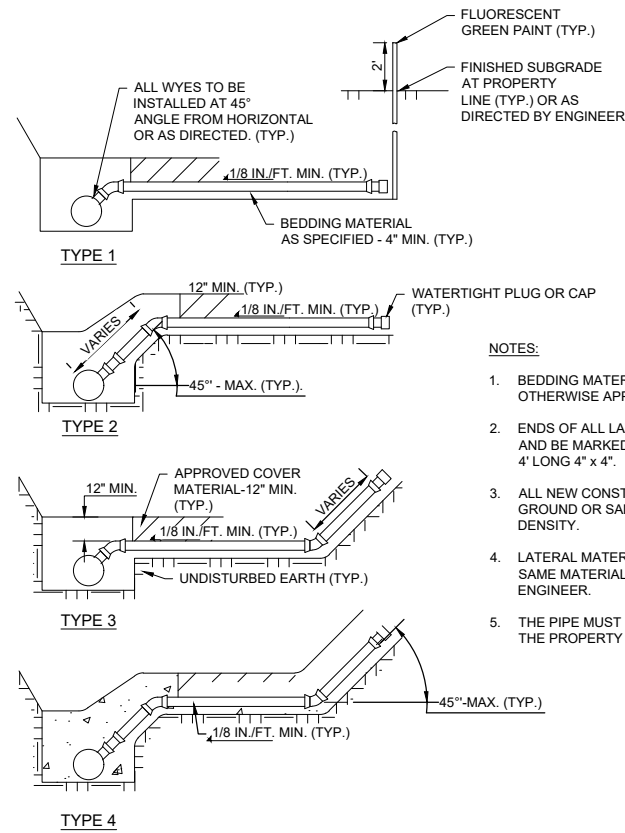




NOTES:

1. ALL PVC AND ABS SEWER MAINS AND LATERALS SHALL BE CLASS "B" MIN., OR AS CALLED FOR IN THE SPECIAL PROVISIONS.
2. ALL BEDDING AND COVER MATERIALS SHALL BE AS SPECIFIED AND SHALL BE SUBJECT TO THE APPROVAL OF THE ENGINEER.
3. UNDERCUT SHALL BE IN ACCORDANCE WITH SECTION 3 OF THE STORM AND SANITARY SEWER STANDARD SPECIFICATIONS.

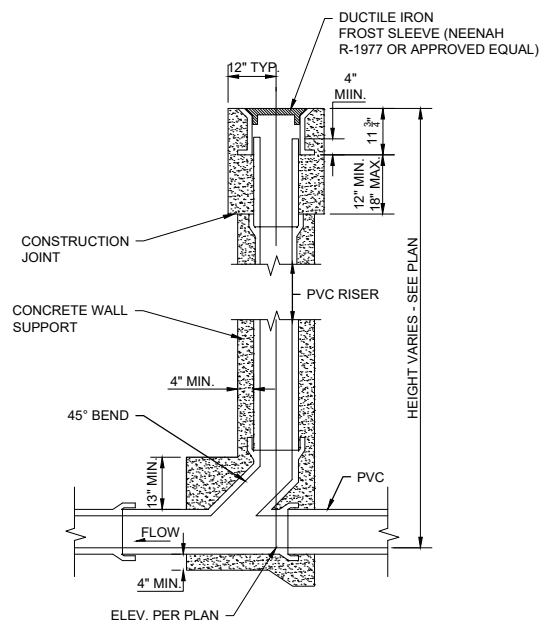
1 SANITARY SEWER BEDDING DETAIL
N.T.S.



NOTES:

1. BEDDING MATERIAL SHALL BE 3/8" CLEAR STONE, UNLESS OTHERWISE APPROVED BY ENGINEER.
2. ENDS OF ALL LATERALS TO BE 10 FT. MIN. COVER AT END, AND BE MARKED BOTH BELOW AND ABOVE SURFACE WITH 4" LONG 4" x 4".
3. ALL NEW CONSTRUCTION TO BE PLACED ON UNDISTURBED GROUND OR SAND COMPACTED TO 95% MAXIMUM DENSITY.
4. LATERAL MATERIAL INCLUDING FITTINGS SHALL BE OF SAME MATERIAL AS THE SEWER MAIN, OR AS DIRECTED BY ENGINEER.
5. THE PIPE MUST EXTEND AT LEAST 5' Laterally BEYOND THE PROPERTY LINE

3 SANITARY LATERAL DETAIL
N.T.S.



2 CLEAN OUT DETAIL
N.T.S.

PIP SUBMITTAL	04-14-25	BCA
GIP RESUBMITTAL	03-07-25	BCA
GIP RESUBMITTAL	02-24-25	BCA
GIP RESUBMITTAL	02-07-25	BCA
MARK	REVISION	DATE
Engineer: BCA	Checked By: MLC	Scale: 1" =
Technician: DMS	Date: 11-04-2024	T-R-S: TTN-RRW-SS

Project No: 124.1205.30

Sheet C702

OLIVE TREE RESIDENCES

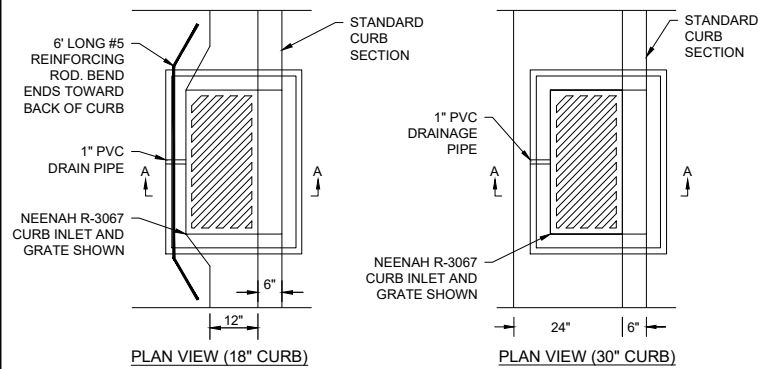
SANITARY DETAILS

CITY OF FITCHBURG, DANE COUNTY, WISCONSIN

SNYDER & ASSOCIATES, INC.

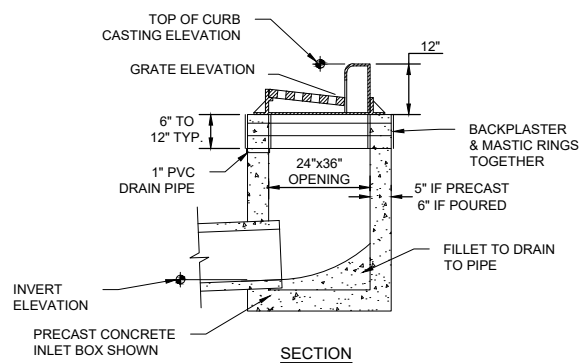
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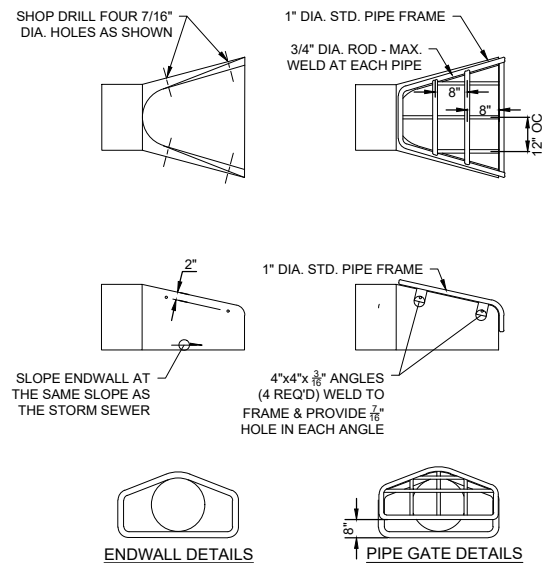


NOTES:

1. TOP OF CURB AND PIPE INVERT ELEVATIONS ARE SHOWN ON THE PLANS.
2. THE GRATE ELEVATION SHALL BE DEPRESSED 0.1' FROM STRAIGHT GUTTER GRADE STARTING 5' FROM THE INLET AND EXTENDING IN BOTH DIRECTIONS.
3. THE CASTING SHALL BE NEENAH FOUNDRY R-3067 CURB INLET WITH REVERSIBLE GRATES WHERE RUNOFF REACHES THE INLET FROM BOTH DIRECTIONS. WHERE RUNOFF REACHES THE INLET FROM ONE DIRECTION A NEENAH R-3067-L CASTING SHALL BE USED. DIRECTIONAL SLOTS TO BE LOCATED TO DIRECT THE FLOW INTO THE STREET INLET.
4. FRAME ADJUSTING RINGS SHALL BE AT LEAST TWO CONCRETE RINGS OF VARIABLE THICKNESS. MASTIC BETWEEN RINGS AND BACKPLASTER A SMOOTH LAYER OF GROUT OVER THE ENTIRE INNER AND OUTER SURFACES OF THE RINGS.



1 RECTANGULAR CURB INLET DETAIL
N.T.S.



NOTE:

1. THE CONTRACTOR SHALL BOLT THE PIPE GATE TO THE CONCRETE ENDWALL WITH FOUR 3/8"x6" MACHINE BOLTS WITH NUTS ON INSIDE WALL.

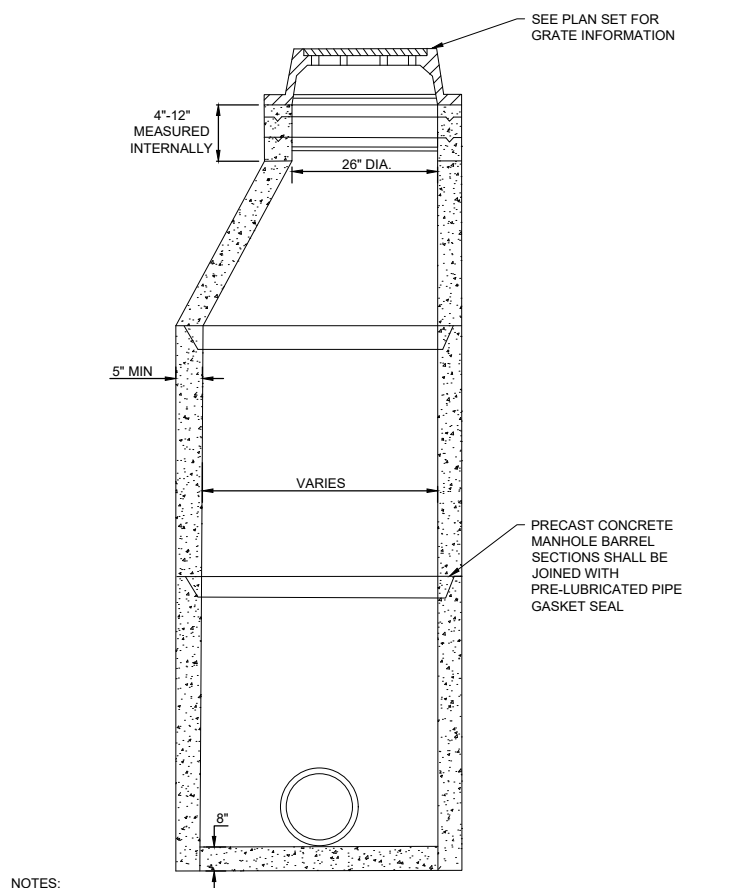
PAINTING SPECIFICATION:

1. THE PIPE GATE SHALL RECEIVE THE FOLLOWING PREPARATION & PAINTING. THE FIRST COAT SHALL BE RUS-OLEUM X-60 RED BARE METAL PRIMER OR APPROVED EQUAL. THE SECOND COAT SHALL BE RUS-OLEUM 960 ZINC CHROMATE PRIMER OR APPROVED EQUAL. THE THIRD COAT SHALL BE RUS-OLEUM 1282 HIGH GLOSS METAL FINISH OR APPROVED EQUAL.

PREPARATION STEPS:

1. BARE METAL SURFACES - TREAT WITH THE THREE-COAT PAINTING SYSTEM LISTED AFTER A THOROUGH SCRAPING, WIRE BRUSHING & CLEANING.
2. EACH COAT OF PAINT SHALL BE APPLIED OVER THE ENTIRE GATE SURFACE.
3. ALLOW 24-48 HOURS DRYING TIME AT 60° OR ABOVE BETWEEN COATS.

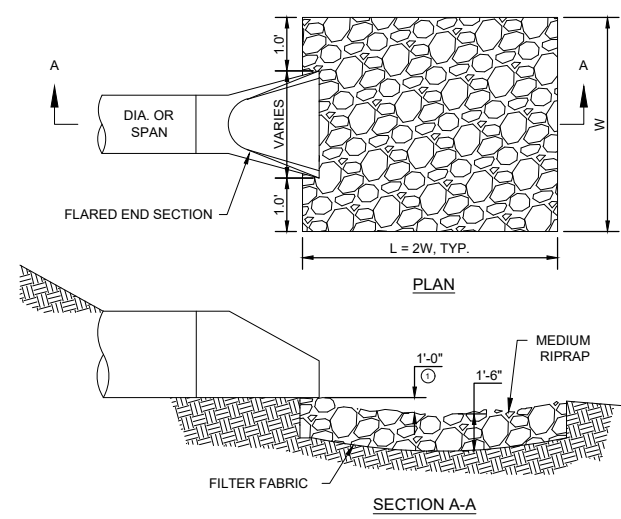
3 STANDARD ENDWALL DETAILS
N.T.S.



NOTES:

1. FOR STRUCTURES LESS THAN 5.0' DEEP A PRECAST REINFORCED CONCRETE FLATTOP IS REQUIRED.
2. WALL THICKNESS SHALL BE 5" FOR 48" MANHOLE AND 6" FOR 60" MANHOLE.
3. THE USE OF WOOD WEDGES OR SHIMS FOR FRAME OR RING ADJUSTMENT IS NOT ALLOWED.
4. MAXIMUM TOTAL CHIMNEY HEIGHT, EXCLUDING MANHOLE FRAME, SHALL NOT EXCEED 16 INCHES, WITH A MINIMUM OF 1 - 2 INCH PRECAST RING.
5. THE ANNULAR SPACE BETWEEN THE PIPE AND MANHOLE WALL SHALL BE FILLED WITH CONCRETE TO THE HEIGHT OF THE BENCH.
6. MANHOLES 3' DEEP AND GREATER SHALL BE CONSTRUCTED WITH STEPS.

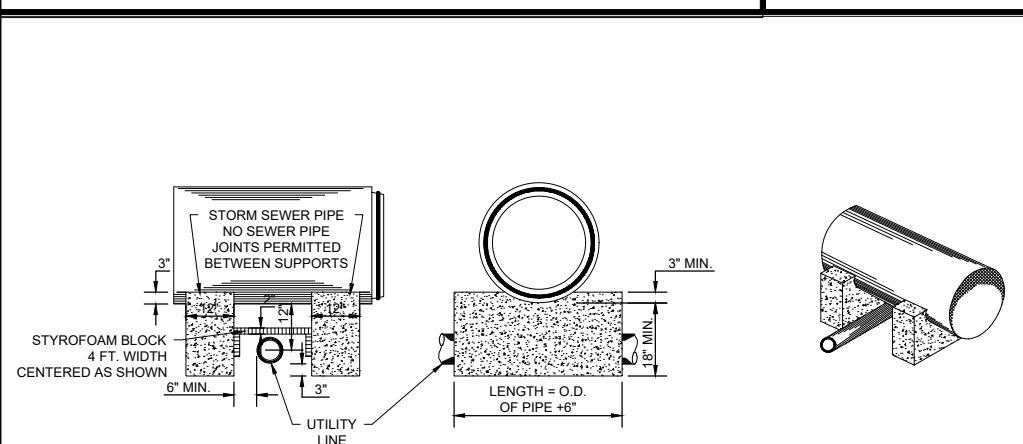
4 STORM SEWER MANHOLE DETAIL
N.T.S.



NOTES:

1. GEOTEXTILE FILTER FABRIC SHALL BE TYPE "HR" UNLESS OTHERWISE SPECIFIED. REFER TO SECTION 401.4.1.
- FOR PIPES GREATER THAN OR EQUAL TO 30" USE 1.5'.

6 ENDWALL RIP-RAP DETAIL
N.T.S.

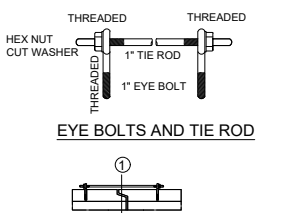


NOTE:

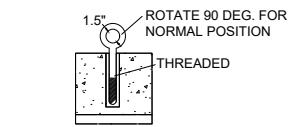
1. EACH PAIR OF SUPPORTS IN ANY SIZE IS ONE PAY ITEM.

2 CONCRETE PIPE SUPPORT
N.T.S.

ALTERNATE 1
EYE BOLT AND TIE ROD ASSEMBLY
(JOINT TIES FOR 72" DIA. AND OVER CONCRETE PIPE)



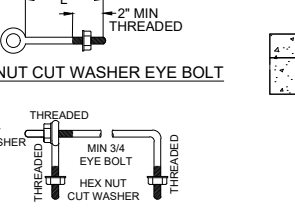
② INSERT. CAST-IN-PLACE WELDED EYE BOLT OR APPROVED EQUAL DURING FABRICATION FOR 1" DIA. EYE BOLT



CAST-IN-PLACE THREADED INSERT LONGITUDINAL SECTIONS

5 CONCRETE PIPE JOINT TIES
N.T.S.

ALTERNATE 2
EYE BOLT AND TIE ROD ASSEMBLY
(JOINT TIES FOR 18" TO 66" DIA. CONCRETE PIPE)

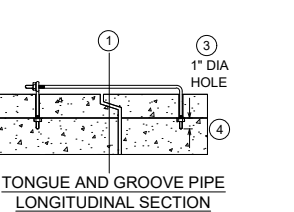
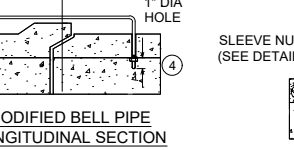


NOTE:
1. TWO EYE BOLTS MAY BE USED WITH A 30° LONG THREADED ROD IN LIEU OF THE 90° DEG BENT TIE ROD EYE BOLT AND TIE ROD

PIPE SIZE	TONGUE AND GROOVE PIPE	MODIFIED BELL PIPE
18" TO 24"	4 1/2"	6 1/4"
30"	5"	7"
36"	5 1/2"	7"
42"	6"	
48"	6 1/2"	
60"	7 1/2"	
66"	8"	

EYE BOLT DIMENSION TABLE

ALTERNATE 3
ADJUSTABLE TIE ROD
(JOINT TIES FOR 12" TO 108" DIA. CONCRETE PIPE)

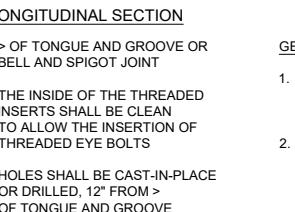
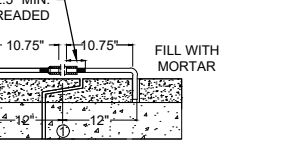


TONGUE AND GROOVE PIPE LONGITUDINAL SECTION

PIPE SIZE	TONGUE AND GROOVE PIPE	MODIFIED BELL PIPE
18" TO 24"	4 1/2"	6 1/4"
30"	5"	7"
36"	5 1/2"	7"
42"	6"	
48"	6 1/2"	
60"	7 1/2"	
66"	8"	

EYE BOLT DIMENSION TABLE

ALTERNATE 3
ADJUSTABLE TIE ROD
(JOINT TIES FOR 12" TO 108" DIA. CONCRETE PIPE)



LONGITUDINAL SECTION

- ① > OF TONGUE AND GROOVE OR BELL AND SPIGOT JOINT
- ② THE INSIDE OF THE THREADED INSERTS SHALL BE CLEAN TO ALLOW THE INSERTION OF THREADED EYE BOLTS
- ③ HOLES SHALL BE CAST-IN-PLACE OR DRILLED, 12" FROM > OF TONGUE AND GROOVE
- ④ BOLT PROJECTION INSIDE OF PIPE SHALL NOT EXCEED 2"
- ⑤ ROD DIAMETER = 1 INCH

PLACEMENT OF (2) CAST-IN-PLACE INSERTS OR HOLES DURING FABRICATION FOR PIPE SECTIONS REQUIRING TIE RODS

TRANSVERSE SECTION

PIPE DIAMETER	TIE ROD DIAMETER	D	L1	H	R
12" TO 30"	1/2"	1/2"	5"	1/2"	1 3/4"
36" TO 48"	3/4"	3/4"	5"	1/2"	5"
60" TO 104"	1"	1"	7"	1/2"	7 1/2"

ADJUSTABLE TIE ROD TABLE



GENERAL NOTES:

1. CONCRETE CULVERT PIPE SHALL BE TIED TOGETHER IN THE MANNER ILLUSTRATED BY THIS DETAIL AND PER STANDARD SPEC. 502.7 (D)
2. THE CONTRACTOR MAY USE EITHER ALTERNATE 1, 2, OR 3 FOR DRAINAGE STRUCTURES. UNLESS OTHERWISE STATED IN THE CONTRACT, THE MATERIALS, FABRICATION AND WORK NECESSARY TO THE CULVERT PIPE AS SHOWN ON THIS DETAIL WILL BE CONSIDERED INCIDENTAL TO THE CULVERT PIPE.

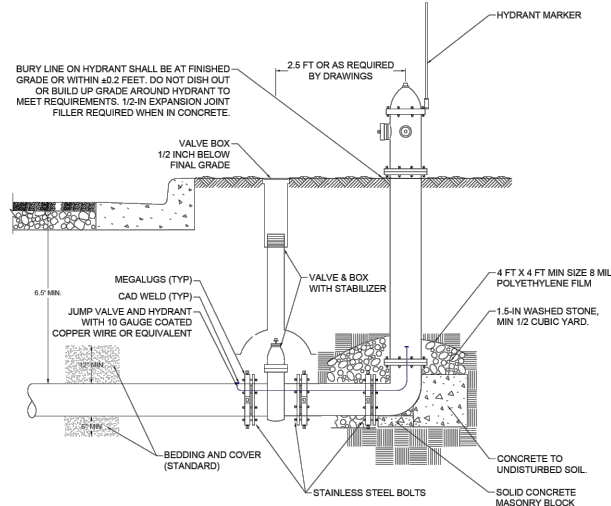
DETAILED DRAWINGS FOR PROPOSED ALTERNATE DESIGNS FOR JOINT TIES SHALL BE SUBMITTED TO THE ENGINEER FOR APPROVAL.

PIP SUBMITTAL	04-14-25	BCA	MARK	REVISION	DATE	BY
GIP RESUBMITTAL	03-07-25	BCA	Engineer: BCA	Checked By: MLC	Scale: 1" =	
GIP RESUBMITTAL	02-24-25	BCA	Technician: DMS	Checked By: MLC	Date: 11-04-2024	T-R-S:
GIP RESUBMITTAL	02-07-25	BCA				

OLIVE TREE RESIDENCES
STORM DETAILS
CITY OF FITCHBURG, DANE COUNTY, WISCONSIN
5010 VOGES ROAD
MADISON, WISCONSIN 53718
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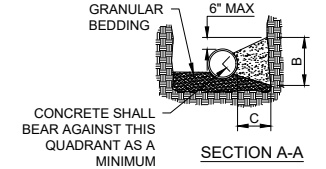
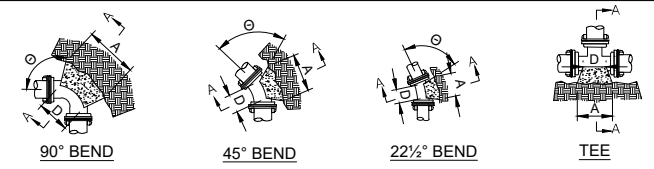




- NOTE:
- 1) RESTRAIN ENTIRE LENGTH OF HYDRANT LEAD FROM THE TEE THROUGH THE VALVE TO THE HYDRANT
 - 2) INSTALL 8 MIL POLYETHYLENE FILM ON HYDRANT LEAD PER MANUFACTURERS REQUIREMENTS.



FIRE HYDRANT
STANDARD DETAIL DRAWING
DATE: 1/24/2019
SHEET NO.: 7.02



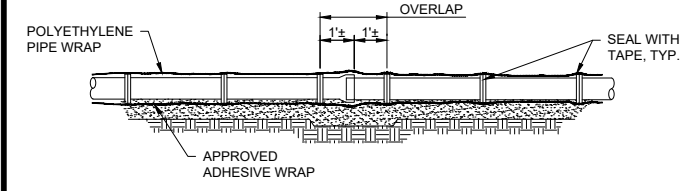
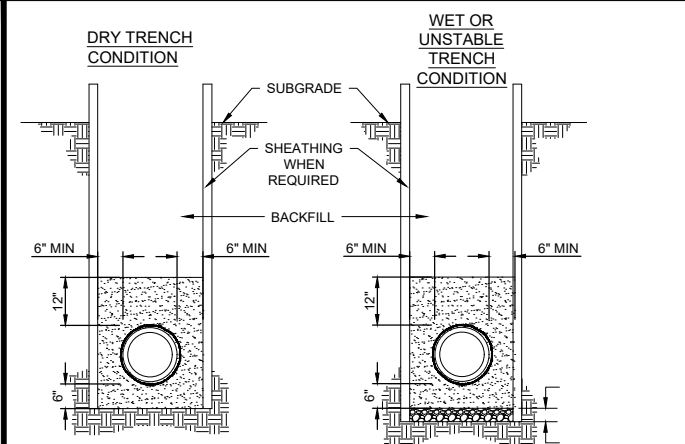
- NOTES:
1. WOOD BLOCKING MAY NOT BE USED. ONLY SOLID CONCRETE BLOCKS ARE ALLOWED.
 2. DIMENSION "D" SHALL BE AS LARGE AS POSSIBLE, BUT THE CONCRETE SHALL NOT INTERFERE WITH THE MECHANICAL JOINTS.
 3. DIMENSION "C" SHALL BE AT LEAST 6 INCHES, AND LARGE ENOUGH TO MAKE THE "9" ANGLE EQUAL TO OR GREATER THAN 45 DEGREES WITH THE DIMENSION "A" AS SHOWN ON THE TABLE, OR GREATER, AND WITH DIMENSION "D" AS LARGE AS POSSIBLE.
 4. CONCRETE SHALL BE CLASS "CC".
 5. ALL BUTTRESSED JOINTS SHALL INCLUDE MEGALUGS AND CONCRETE BUTTRESSING.

PIPE SIZE	BUTTRESS DIMENSIONS							
	TEES		22.5° BEND		45° BEND		90° BEND	
	A	B	A	B	A	B	A	B
6	1'-3"	1'-0"	1'-0"	1'-0"	1'-0"	1'-0"	1'-4"	1'-2"
8	1'-6"	1'-4"	1'-0"	1'-0"	1'-4"	1'-2"	1'-10"	1'-6"
10/12	2'-3"	2'-0"	1'-4"	1'-4"	1'-10"	1'-10"	2'-3"	2'-3"
14/18	3'-2"	2'-8"	1'-10"	1'-3"	2'-8"	2'-4"	3'-10"	2'-10"
18/20	4'-0"	3'-0"	2'-4"	2'-0"	3'-3"	2'-10"	5'-0"	3'-4"
22/24	5'-3"	3'-4"	2'-10"	2'-4"	4'-0"	3'-3"	6'-4"	3'-10"
30	6'-3"	4'-3"	3'-6"	3'-0"	5'-4"	3'-10"	8'-0"	4'-8"

* = FOR TEE THIS WILL BE THE BRANCH PIPE

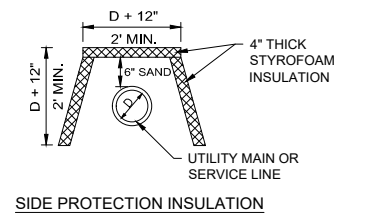
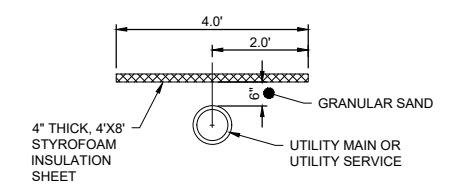
DIMENSIONS IN THE TABLE ARE BASED ON A WATER PRESSURE OF 150 PSI AND SOIL RESISTANCE OF 2000 LBS./SQ.FT.

2 BUTTRESS DETAIL
N.T.S.



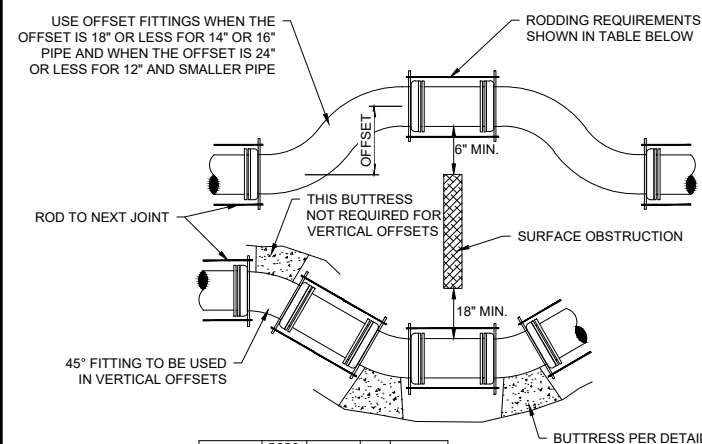
- INSTALLATION:
1. PLACE 6" OF BEDDING MATERIAL BENEATH PIPE. PLACE BEDDING MATERIAL AROUND THE PIPE TO THE SPRING LINE. WORK THE MATERIAL IN AND AROUND THE PIPE BY HAND TO PROVIDE UNIFORM SUPPORT. PLACE COVER MATERIAL CAREFULLY TO A LEVEL 12" ABOVE THE PIPE.

3 WATER PIPE BEDDING DETAIL
N.T.S.



- GENERAL NOTES:
1. THE SIDE PROTECTION INSTALLATION SHALL BE USED WHERE FROST WILL PENETRATE BELOW THE PIPE INVERT.

4 WATER PIPE INSULATION DETAIL
N.T.S.



NOMINAL PIPE SIZE	RODS NO. DIA.	STRAP SIZE	BOLT DIA.	WASHER SIZE
6	3	1/2 x 2	1/2	1/2 x 3 x 5
8	4	1/2 x 2	1/2	1/2 x 3 x 5
10	4	1/2 x 2 1/2	1	1/2 x 3 x 5
12	4	1/2 x 2 1/2	1	1/2 x 3 x 5
14	4	1/2 x 2 1/2	1	1/2 x 3 x 5

- NOTES:
1. ALL OFFSETS SHALL BE RESTRAINED WITH MEGALUGS. WHERE CONCRETE BUTTRESSING CANNOT BE USED, RODDING MUST BE USED IN ADDITION TO THE MEGALUGS.
 2. RODS AND WASHERS TO BE ASTM A-575 MERCHANT QUALITY 0.17-0.24 CARBON. NUTS TO BE AMERICAN STANDARD HEAVY, NOT PRESSED.
 3. TIE RODS, BOLTS, NUTS, BANDS AND WASHERS TO BE FURNISHED AND ASSEMBLED BY THE CONTRACTOR.
 4. ALL STEEL MATERIAL TO BE GALVANIZED OR BE THOROUGHLY COATED WITH ENGINEER APPROVED COATING.
 5. OFFSET FITTINGS REQUIRE CONTINUOUS RODDING IN ALL POSITIONS.
 6. VERTICAL OFFSETS SHALL NOT CREATE A HIGH POINT IN THE WATER MAIN. VERTICAL OFFSETS REQUIRE THE SAME RODDING AND BUTTRESSING AS SHOWN ABOVE.

5 OFFSET & RODDING DETAIL
N.T.S.

PIP SUBMITTAL	04-14-25	BCA	DATE	Scale: 1" =	BY
GIP RESUBMITTAL	03-07-25	BCA	REVISION	Checked By: MLC	T-R-S: TTN+RRW-SS
GIP RESUBMITTAL	02-24-25	BCA	DATE	Date: 11-04-2024	Project No: 124.1205.30
GIP RESUBMITTAL	02-07-25	BCA	MARK	Engineer: BCA	Sheet C704

OLIVE TREE RESIDENCES

WATER MAIN DETAILS

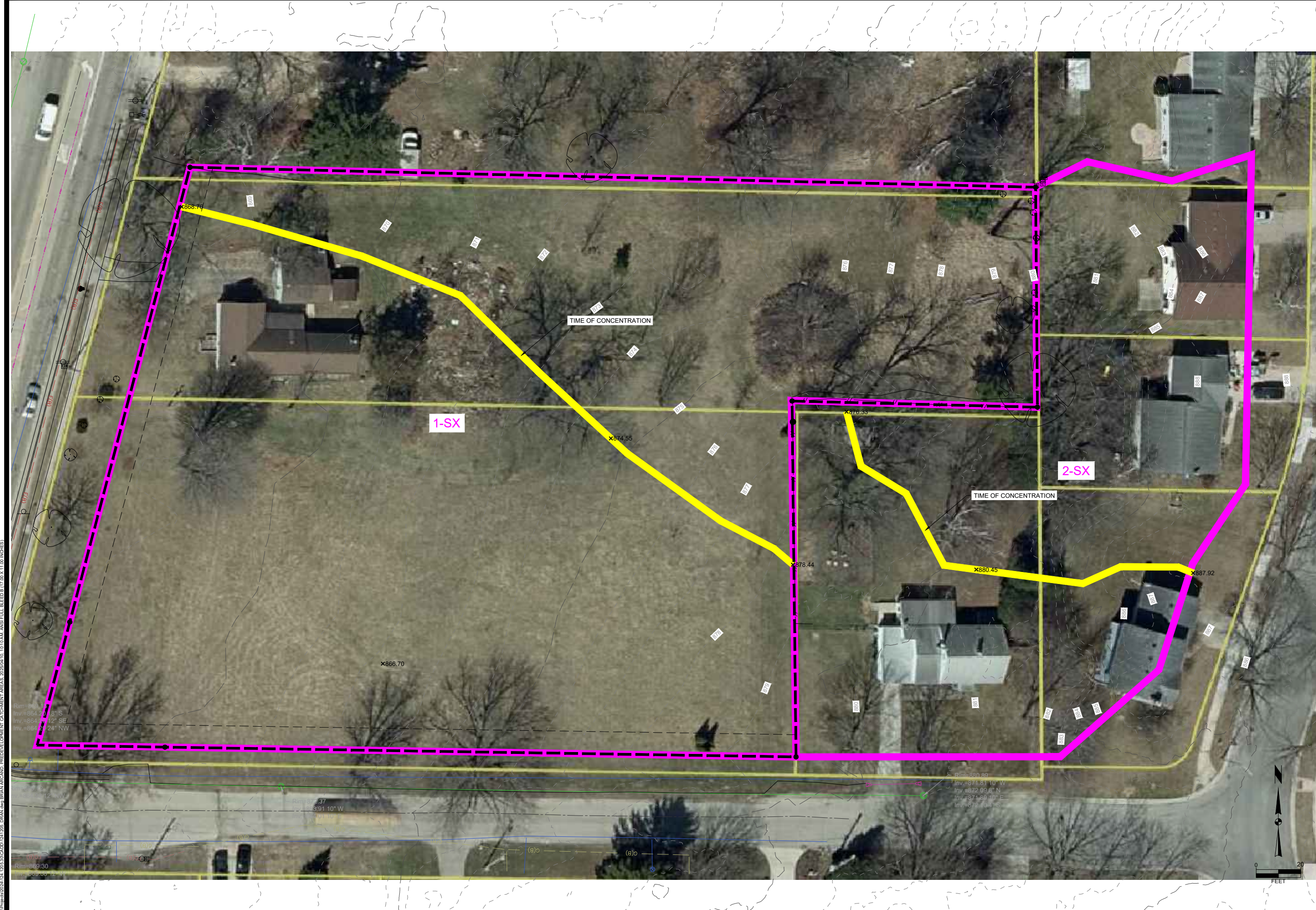
CITY OF FITCHBURG, DANE COUNTY, WISCONSIN

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APPENDIX C
PRE-DEVELOPMENT DRIANAGE AREA MAP



PIP SUBMITTAL	04-14-25	BCA	MARK	REVISION	DATE	BY
GIP RESUBMITTAL	03-07-25	BCA	Engineer: BCA	Checked By: MLC	Scale: 1" = 20'	
GIP RESUBMITTAL	02-24-25	BCA	Technician: DMS	Date: 11-04-2024	T-R-S: TTN-RRW-SS	
GIP RESUBMITTAL	02-07-25	BCA				

OLIVE TREE RESIDENCES
PREDEVELOPMENT CATCHMENT AREAS OF FITCHBURG, DANE COUNTY, WISCONSIN
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Project No: 124.1205.30
Sheet APP C

APPENDIX D
POST-DEVELOPMENT DRIANAGE AREA MAP

APPENDIX E
PRE-DEVELOPMENT HYDROLOGY

Model_2025-04-14_OliveTreePredev

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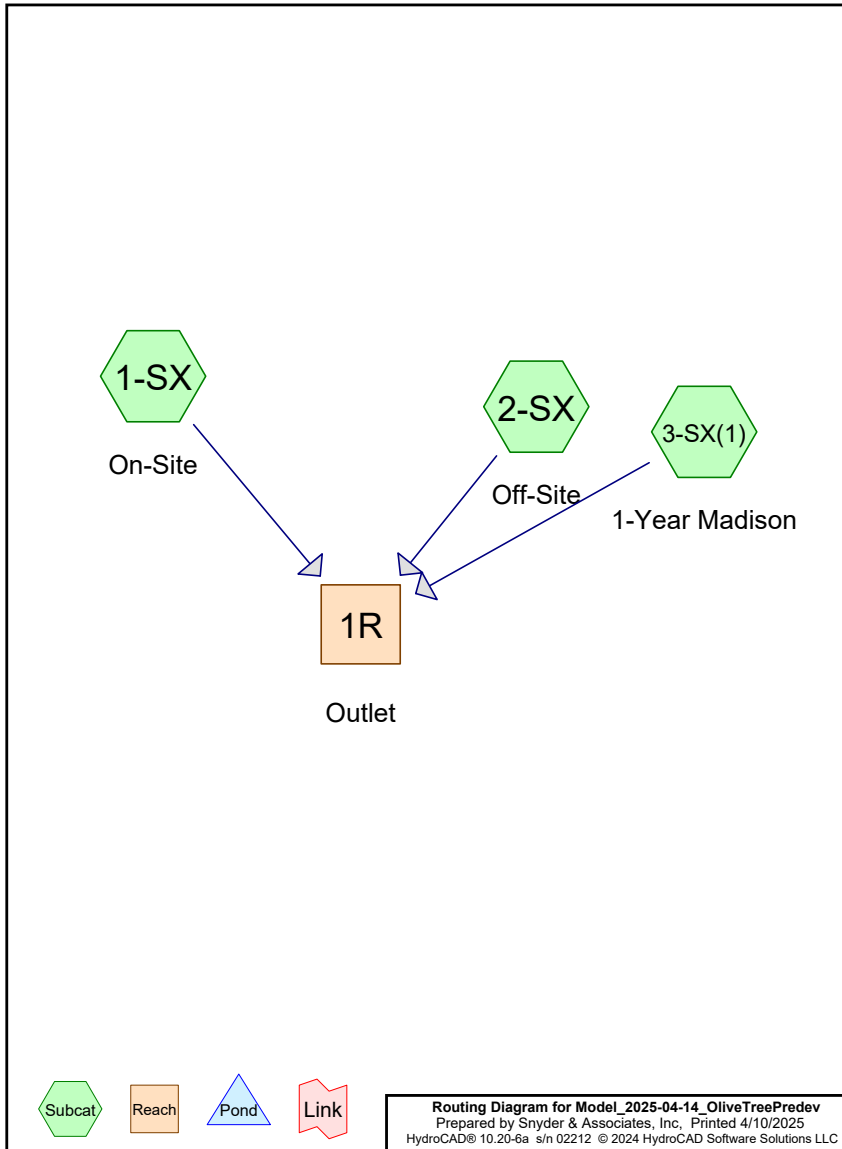
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Page 2

Rainfall Events Listing (selected events)

Event#	Event Name	Storm Type	Curve	Mode	Duration (hours)	B/B	Depth (inches)	AMC
1	1-yr. Dane	MSE 24-hr	4	Default	24.00	1	2.49	2



Model_2025-04-14_OliveTreePredev

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Page 3

Area Listing (selected nodes)

Area (acres)	CN	Description (subcatchment-numbers)
1.002	98	City of Madison Flows (3-SX(1))
0.036	98	Driveway (1-SX, 2-SX)
2.715	61	HSG B, City Ordinance (1-SX, 2-SX)
0.195	98	Roof (1-SX, 2-SX)
3.948	73	TOTAL AREA

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Soil Listing (selected nodes)

Area (acres)	Soil Group	Subcatchment Numbers
0.000	HSG A	
2.715	HSG B	1-SX, 2-SX
0.000	HSG C	
0.000	HSG D	
1.233	Other	1-SX, 2-SX, 3-SX(1)
3.948		TOTAL AREA

Model_2025-04-14_OliveTreePredev

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Ground Covers (selected nodes)

HSG-A (acres)	HSG-B (acres)	HSG-C (acres)	HSG-D (acres)	Other (acres)	Total (acres)	Ground Cover	Subcatchment Numbers
0.000	2.715	0.000	0.000	0.000	2.715		1-SX, 2-SX
0.000	0.000	0.000	0.000	1.002	1.002	City of Madison Flows	3-SX(1)
0.000	0.000	0.000	0.000	0.036	0.036	Driveway	1-SX, 2-SX
0.000	0.000	0.000	0.000	0.195	0.195	Roof	1-SX, 2-SX
0.000	2.715	0.000	0.000	1.233	3.948	TOTAL AREA	

Model_2025-04-14_OliveTreePredev

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MSE 24-hr 4 1-yr. Dane Rainfall=2.49"

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Time span=0.00-96.00 hrs, dt=0.05 hrs, 1921 points

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN

Reach routing by Dyn-Stor-Ind method - Pond routing by Dyn-Stor-Ind method

Subcatchment1-SX: On-Site

Runoff Area=2.073 ac 3.67% Impervious Runoff Depth=0.22"
Flow Length=325' Tc=9.5 min CN=62 Runoff=0.26 cfs 0.037 af

Subcatchment2-SX: Off-Site

Runoff Area=0.873 ac 17.75% Impervious Runoff Depth=0.38"
Flow Length=200' Tc=6.6 min CN=68 Runoff=0.41 cfs 0.028 af

Subcatchment3-SX(1): 1-Year Madison

Runoff Area=1.002 ac 100.00% Impervious Runoff Depth=2.26"
Tc=6.0 min CN=98 Runoff=3.10 cfs 0.189 af

Reach 1R: Outlet

Inflow=3.58 cfs 0.254 af
Outflow=3.58 cfs 0.254 af

Total Runoff Area = 3.948 ac Runoff Volume = 0.254 af Average Runoff Depth = 0.77"
68.77% Pervious = 2.715 ac 31.23% Impervious = 1.233 ac

Model_2025-04-14_OliveTreePredev

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MSE 24-hr 4 1-yr. Dane Rainfall=2.49"

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Summary for Subcatchment 1-SX: On-Site

Runoff = 0.26 cfs @ 12.25 hrs, Volume= 0.037 af, Depth= 0.22"
Routed to Reach 1R : Outlet

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-96.00 hrs, dt= 0.05 hrs
MSE 24-hr 4 1-yr. Dane Rainfall=2.49"

Area (ac)	CN	Description
* 0.054	98	Roof
* 0.022	98	Driveway
* 1.997	61	HSG B, City Ordinance
2.073	62	Weighted Average
1.997		96.33% Pervious Area
0.076		3.67% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
8.0	100	0.0389	0.21		Sheet Flow, Grass: Short n= 0.150 P2= 2.84"
1.5	225	0.0257	2.58		Shallow Concentrated Flow, Unpaved Kv= 16.1 fps
9.5	325	Total			

Model_2025-04-14_OliveTreePredev

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MSE 24-hr 4 1-yr. Dane Rainfall=2.49"

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Page 8

Summary for Subcatchment 2-SX: Off-Site

Runoff = 0.41 cfs @ 12.16 hrs, Volume= 0.028 af, Depth= 0.38"
Routed to Reach 1R : Outlet

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-96.00 hrs, dt= 0.05 hrs
MSE 24-hr 4 1-yr. Dane Rainfall=2.49"

Area (ac)	CN	Description
* 0.141	98	Roof
* 0.014	98	Driveway
* 0.718	61	HSG B, City Ordinance
0.873	68	Weighted Average
0.718		82.25% Pervious Area
0.155		17.75% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.1	100	0.0747	0.27		Sheet Flow, Grass: Short n= 0.150 P2= 2.84"
0.5	100	0.0412	3.27		Shallow Concentrated Flow, Unpaved Kv= 16.1 fps
6.6	200	Total			

Model_2025-04-14_OliveTreePredev

MSE 24-hr 4 1-yr. Dane Rainfall=2.49"

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Summary for Subcatchment 3-SX(1): 1-Year Madison

Runoff = 3.10 cfs @ 12.13 hrs, Volume= 0.189 af, Depth= 2.26"
Routed to Reach 1R : Outlet

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-96.00 hrs, dt= 0.05 hrs
MSE 24-hr 4 1-yr. Dane Rainfall=2.49"

Area (ac)	CN	Description
* 1.002	98	City of Madison Flows
1.002		100.00% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					Direct Entry,

Model_2025-04-14_OliveTreePredev

MSE 24-hr 4 1-yr. Dane Rainfall=2.49"

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Summary for Reach 1R: Outlet

Inflow Area = 3.948 ac, 31.23% Impervious, Inflow Depth = 0.77" for 1-yr. Dane event
Inflow = 3.58 cfs @ 12.14 hrs, Volume= 0.254 af
Outflow = 3.58 cfs @ 12.14 hrs, Volume= 0.254 af, Atten= 0%, Lag= 0.0 min

Routing by Dyn-Stor-Ind method, Time Span= 0.00-96.00 hrs, dt= 0.05 hrs

Model_2025-04-14_OliveTreePredev

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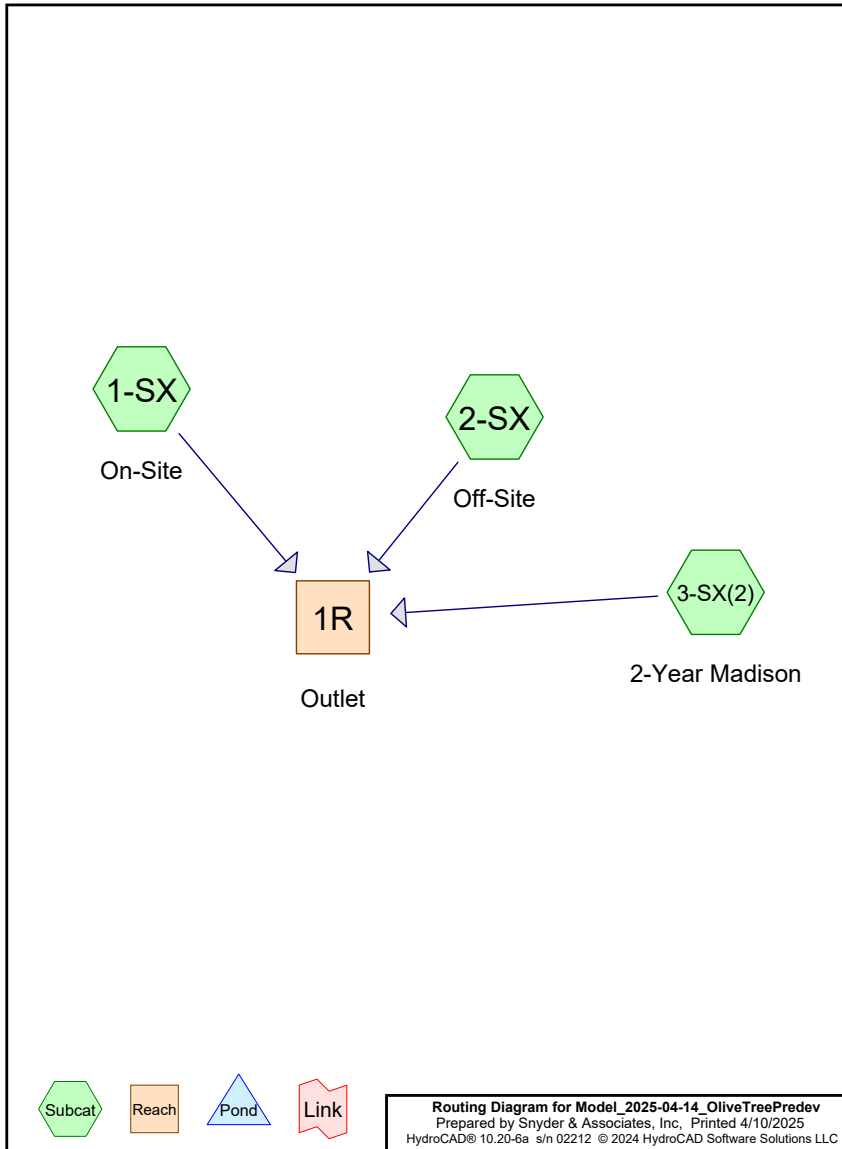
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Rainfall Events Listing (selected events)

Event#	Event Name	Storm Type	Curve	Mode	Duration (hours)	B/B	Depth (inches)	AMC
1	2-yr. Dane	MSE 24-hr	4	Default	24.00	1	2.84	2



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Area Listing (selected nodes)

Area (acres)	CN	Description (subcatchment-numbers)
1.101	98	City of Madison Flows (3-SX(2))
0.036	98	Driveway (1-SX, 2-SX)
2.715	61	HSG B, City Ordinance (1-SX, 2-SX)
0.195	98	Roof (1-SX, 2-SX)
4.047	73	TOTAL AREA

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Soil Listing (selected nodes)

Area (acres)	Soil Group	Subcatchment Numbers
0.000	HSG A	
2.715	HSG B	1-SX, 2-SX
0.000	HSG C	
0.000	HSG D	
1.332	Other	1-SX, 2-SX, 3-SX(2)
4.047		TOTAL AREA

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Ground Covers (selected nodes)

HSG-A (acres)	HSG-B (acres)	HSG-C (acres)	HSG-D (acres)	Other (acres)	Total (acres)	Ground Cover	Subcatchment Numbers
0.000	2.715	0.000	0.000	0.000	2.715		1-SX, 2-SX
0.000	0.000	0.000	0.000	1.101	1.101	City of Madison Flows	3-SX(2)
0.000	0.000	0.000	0.000	0.036	0.036	Driveway	1-SX, 2-SX
0.000	0.000	0.000	0.000	0.195	0.195	Roof	1-SX, 2-SX
0.000	2.715	0.000	0.000	1.332	4.047	TOTAL AREA	

Model_2025-04-14_OliveTreePredev

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MSE 24-hr 4 2-yr. Dane Rainfall=2.84"

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Time span=0.00-96.00 hrs, dt=0.05 hrs, 1921 points

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN

Reach routing by Dyn-Stor-Ind method - Pond routing by Dyn-Stor-Ind method

Subcatchment1-SX: On-Site

Runoff Area=2.073 ac 3.67% Impervious Runoff Depth=0.34"
Flow Length=325' Tc=9.5 min CN=62 Runoff=0.59 cfs 0.058 af

Subcatchment2-SX: Off-Site

Runoff Area=0.873 ac 17.75% Impervious Runoff Depth=0.55"
Flow Length=200' Tc=6.6 min CN=68 Runoff=0.64 cfs 0.040 af

Subcatchment3-SX(2): 2-Year Madison

Runoff Area=1.101 ac 100.00% Impervious Runoff Depth=2.61"
Tc=6.0 min CN=98 Runoff=3.90 cfs 0.239 af

Reach 1R: Outlet

Inflow=4.88 cfs 0.337 af
Outflow=4.88 cfs 0.337 af

Total Runoff Area = 4.047 ac Runoff Volume = 0.337 af Average Runoff Depth = 1.00"
67.09% Pervious = 2.715 ac 32.91% Impervious = 1.332 ac

Model_2025-04-14_OliveTreePredev

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MSE 24-hr 4 2-yr. Dane Rainfall=2.84"

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Summary for Subcatchment 1-SX: On-Site

Runoff = 0.59 cfs @ 12.21 hrs, Volume= 0.058 af, Depth= 0.34"
Routed to Reach 1R : Outlet

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-96.00 hrs, dt= 0.05 hrs
MSE 24-hr 4 2-yr. Dane Rainfall=2.84"

Area (ac)	CN	Description
* 0.054	98	Roof
* 0.022	98	Driveway
* 1.997	61	HSG B, City Ordinance
2.073	62	Weighted Average
1.997		96.33% Pervious Area
0.076		3.67% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
8.0	100	0.0389	0.21		Sheet Flow, Grass: Short n= 0.150 P2= 2.84"
1.5	225	0.0257	2.58		Shallow Concentrated Flow, Unpaved Kv= 16.1 fps
9.5	325	Total			

Model_2025-04-14_OliveTreePredev

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MSE 24-hr 4 2-yr. Dane Rainfall=2.84"

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Summary for Subcatchment 2-SX: Off-Site

Runoff = 0.64 cfs @ 12.15 hrs, Volume= 0.040 af, Depth= 0.55"
Routed to Reach 1R : Outlet

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-96.00 hrs, dt= 0.05 hrs
MSE 24-hr 4 2-yr. Dane Rainfall=2.84"

Area (ac)	CN	Description
* 0.141	98	Roof
* 0.014	98	Driveway
* 0.718	61	HSG B, City Ordinance
0.873	68	Weighted Average
0.718		82.25% Pervious Area
0.155		17.75% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.1	100	0.0747	0.27		Sheet Flow, Grass: Short n= 0.150 P2= 2.84"
0.5	100	0.0412	3.27		Shallow Concentrated Flow, Unpaved Kv= 16.1 fps
6.6	200	Total			

Model_2025-04-14_OliveTreePredev

MSE 24-hr 4 2-yr. Dane Rainfall=2.84"

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Summary for Subcatchment 3-SX(2): 2-Year Madison

Runoff = 3.90 cfs @ 12.13 hrs, Volume= 0.239 af, Depth= 2.61"
Routed to Reach 1R : Outlet

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-96.00 hrs, dt= 0.05 hrs
MSE 24-hr 4 2-yr. Dane Rainfall=2.84"

Area (ac)	CN	Description
* 1.101	98	City of Madison Flows
1.101		100.00% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					Direct Entry,

Model_2025-04-14_OliveTreePredev

MSE 24-hr 4 2-yr. Dane Rainfall=2.84"

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Summary for Reach 1R: Outlet

Inflow Area = 4.047 ac, 32.91% Impervious, Inflow Depth = 1.00" for 2-yr. Dane event
Inflow = 4.88 cfs @ 12.14 hrs, Volume= 0.337 af
Outflow = 4.88 cfs @ 12.14 hrs, Volume= 0.337 af, Atten= 0%, Lag= 0.0 min

Routing by Dyn-Stor-Ind method, Time Span= 0.00-96.00 hrs, dt= 0.05 hrs

Model_2025-04-14_OliveTreePredev

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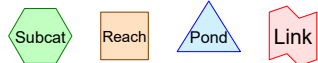
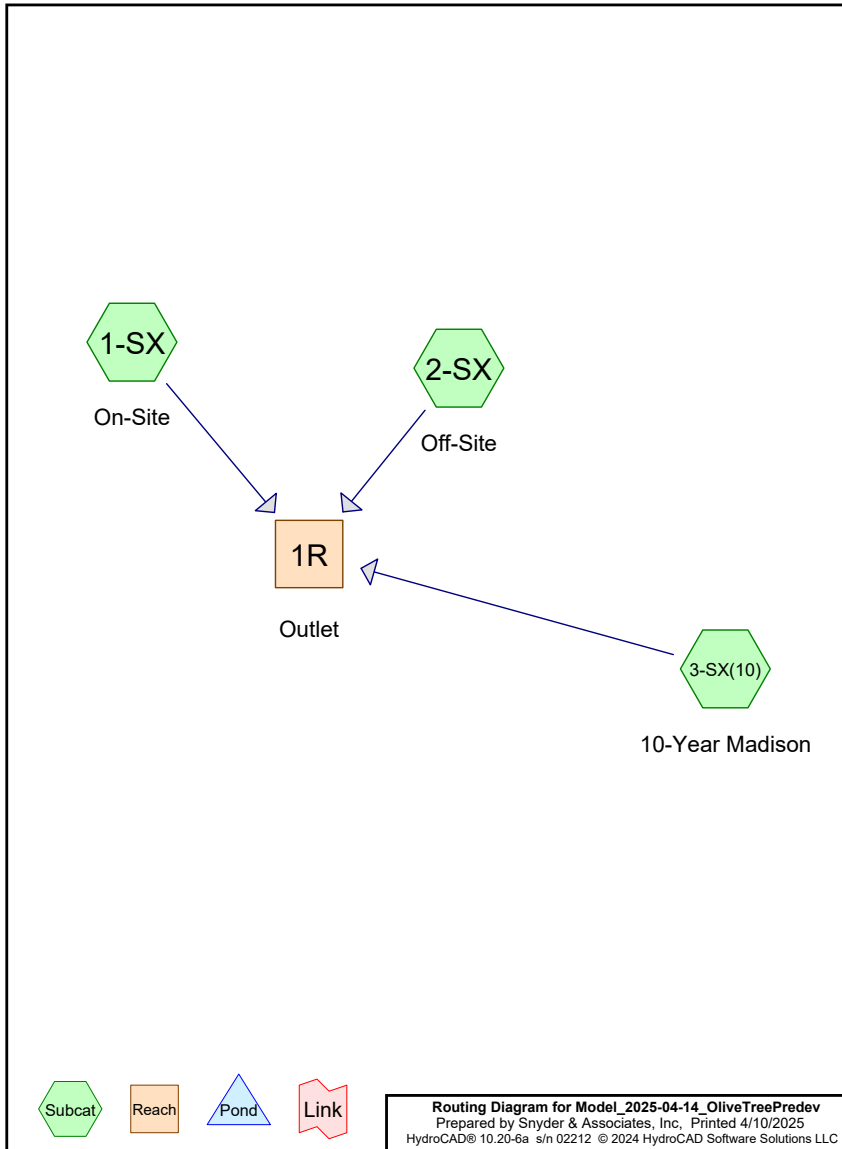
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Rainfall Events Listing (selected events)

Event#	Event Name	Storm Type	Curve	Mode	Duration (hours)	B/B	Depth (inches)	AMC
1	10-yr. Dane	MSE 24-hr	4	Default	24.00	1	4.09	2



Routing Diagram for Model_2025-04-14_OliveTreePredev
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Area Listing (selected nodes)

Area (acres)	CN	Description (subcatchment-numbers)
1.421	98	City of Madison Flows (3-SX(10))
0.036	98	Driveway (1-SX, 2-SX)
2.715	61	HSG B, City Ordinance (1-SX, 2-SX)
0.195	98	Roof (1-SX, 2-SX)
4.367	75	TOTAL AREA

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Soil Listing (selected nodes)

Area (acres)	Soil Group	Subcatchment Numbers
0.000	HSG A	
2.715	HSG B	1-SX, 2-SX
0.000	HSG C	
0.000	HSG D	
1.652	Other	1-SX, 2-SX, 3-SX(10)
4.367		TOTAL AREA

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Ground Covers (selected nodes)

HSG-A (acres)	HSG-B (acres)	HSG-C (acres)	HSG-D (acres)	Other (acres)	Total (acres)	Ground Cover	Subcatchment Numbers
0.000	2.715	0.000	0.000	0.000	2.715		1-SX, 2-SX
0.000	0.000	0.000	0.000	1.421	1.421	City of Madison Flows	3-SX(10)
0.000	0.000	0.000	0.000	0.036	0.036	Driveway	1-SX, 2-SX
0.000	0.000	0.000	0.000	0.195	0.195	Roof	1-SX, 2-SX
0.000	2.715	0.000	0.000	1.652	4.367	TOTAL AREA	

Model_2025-04-14_OliveTreePredev

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MSE 24-hr 4 10-yr. Dane Rainfall=4.09"

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Time span=0.00-96.00 hrs, dt=0.05 hrs, 1921 points

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN

Reach routing by Dyn-Stor-Ind method - Pond routing by Dyn-Stor-Ind method

Subcatchment1-SX: On-Site

Runoff Area=2.073 ac 3.67% Impervious Runoff Depth=0.91"
Flow Length=325' Tc=9.5 min CN=62 Runoff=2.29 cfs 0.158 af

Subcatchment2-SX: Off-Site

Runoff Area=0.873 ac 17.75% Impervious Runoff Depth=1.26"
Flow Length=200' Tc=6.6 min CN=68 Runoff=1.66 cfs 0.092 af

Subcatchment3-SX(10): 10-Year Madison

Runoff Area=1.421 ac 100.00% Impervious Runoff Depth=3.85"
Tc=6.0 min CN=98 Runoff=7.30 cfs 0.456 af

Reach 1R: Outlet

Inflow=10.90 cfs 0.706 af
Outflow=10.90 cfs 0.706 af

Total Runoff Area = 4.367 ac Runoff Volume = 0.706 af Average Runoff Depth = 1.94"
62.17% Pervious = 2.715 ac 37.83% Impervious = 1.652 ac

Model_2025-04-14_OliveTreePredev

MSE 24-hr 4 10-yr. Dane Rainfall=4.09"

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Summary for Subcatchment 1-SX: On-Site

Runoff = 2.29 cfs @ 12.19 hrs, Volume= 0.158 af, Depth= 0.91"
Routed to Reach 1R : Outlet

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-96.00 hrs, dt= 0.05 hrs
MSE 24-hr 4 10-yr. Dane Rainfall=4.09"

Area (ac)	CN	Description
* 0.054	98	Roof
* 0.022	98	Driveway
* 1.997	61	HSG B, City Ordinance
2.073	62	Weighted Average
1.997		96.33% Pervious Area
0.076		3.67% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
8.0	100	0.0389	0.21		Sheet Flow, Grass: Short n= 0.150 P2= 2.84"
1.5	225	0.0257	2.58		Shallow Concentrated Flow, Unpaved Kv= 16.1 fps
9.5	325	Total			

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MSE 24-hr 4 10-yr. Dane Rainfall=4.09"

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Summary for Subcatchment 2-SX: Off-Site

Runoff = 1.66 cfs @ 12.15 hrs, Volume= 0.092 af, Depth= 1.26"
Routed to Reach 1R : Outlet

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-96.00 hrs, dt= 0.05 hrs
MSE 24-hr 4 10-yr. Dane Rainfall=4.09"

Area (ac)	CN	Description
* 0.141	98	Roof
* 0.014	98	Driveway
* 0.718	61	HSG B, City Ordinance
0.873	68	Weighted Average
0.718		82.25% Pervious Area
0.155		17.75% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.1	100	0.0747	0.27		Sheet Flow, Grass: Short n= 0.150 P2= 2.84"
0.5	100	0.0412	3.27		Shallow Concentrated Flow, Unpaved Kv= 16.1 fps
6.6	200	Total			

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MSE 24-hr 4 10-yr. Dane Rainfall=4.09"

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Summary for Subcatchment 3-SX(10): 10-Year Madison

Runoff = 7.30 cfs @ 12.13 hrs, Volume= 0.456 af, Depth= 3.85"
Routed to Reach 1R : Outlet

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-96.00 hrs, dt= 0.05 hrs
MSE 24-hr 4 10-yr. Dane Rainfall=4.09"

Area (ac)	CN	Description
* 1.421	98	City of Madison Flows
1.421		100.00% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					Direct Entry,

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MSE 24-hr 4 10-yr. Dane Rainfall=4.09"

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Summary for Reach 1R: Outlet

Inflow Area = 4.367 ac, 37.83% Impervious, Inflow Depth = 1.94" for 10-yr. Dane event
Inflow = 10.90 cfs @ 12.14 hrs, Volume= 0.706 af
Outflow = 10.90 cfs @ 12.14 hrs, Volume= 0.706 af, Atten= 0%, Lag= 0.0 min

Routing by Dyn-Stor-Ind method, Time Span= 0.00-96.00 hrs, dt= 0.05 hrs

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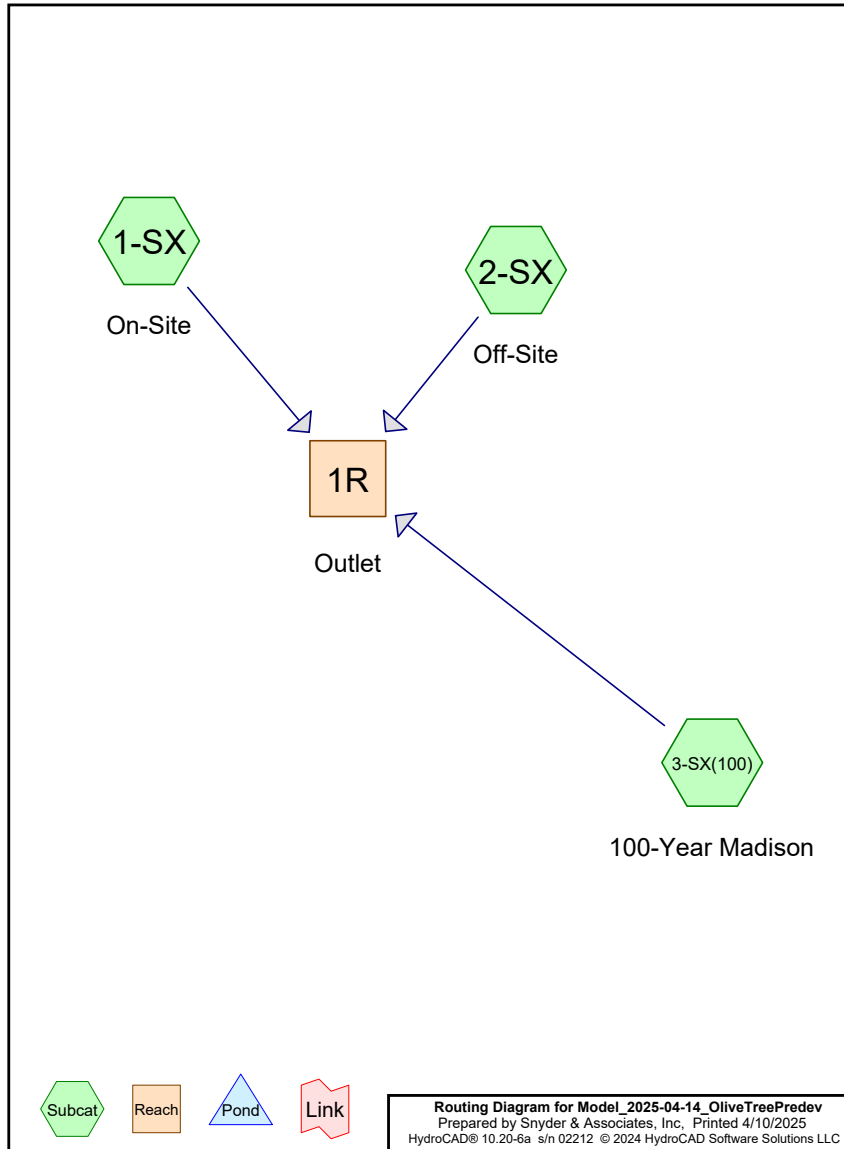
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Rainfall Events Listing (selected events)

Event#	Event Name	Storm Type	Curve	Mode	Duration (hours)	B/B	Depth (inches)	AMC
1	100-yr. Dane	MSE 24-hr	4	Default	24.00	1	6.66	2



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Area Listing (selected nodes)

Area (acres)	CN	Description (subcatchment-numbers)
1.868	98	City of Madison Flows (3-SX(100))
0.036	98	Driveway (1-SX, 2-SX)
2.715	61	HSG B, City Ordinance (1-SX, 2-SX)
0.195	98	Roof (1-SX, 2-SX)
4.814	77	TOTAL AREA

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Soil Listing (selected nodes)

Area (acres)	Soil Group	Subcatchment Numbers
0.000	HSG A	
2.715	HSG B	1-SX, 2-SX
0.000	HSG C	
0.000	HSG D	
2.099	Other	1-SX, 2-SX, 3-SX(100)
4.814		TOTAL AREA

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Ground Covers (selected nodes)

HSG-A (acres)	HSG-B (acres)	HSG-C (acres)	HSG-D (acres)	Other (acres)	Total (acres)	Ground Cover	Subcatchment Numbers
0.000	2.715	0.000	0.000	0.000	2.715		1-SX, 2-SX
0.000	0.000	0.000	0.000	1.868	1.868	City of Madison Flows	3-SX(100)
0.000	0.000	0.000	0.000	0.036	0.036	Driveway	1-SX, 2-SX
0.000	0.000	0.000	0.000	0.195	0.195	Roof	1-SX, 2-SX
0.000	2.715	0.000	0.000	2.099	4.814	TOTAL AREA	

Model_2025-04-14_OliveTreePredev

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MSE 24-hr 4 100-yr. Dane Rainfall=6.66"

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Time span=0.00-96.00 hrs, dt=0.05 hrs, 1921 points

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN

Reach routing by Dyn-Stor-Ind method - Pond routing by Dyn-Stor-Ind method

Subcatchment1-SX: On-Site

Runoff Area=2.073 ac 3.67% Impervious Runoff Depth=2.55"
Flow Length=325' Tc=9.5 min CN=62 Runoff=7.10 cfs 0.441 af

Subcatchment2-SX: Off-Site

Runoff Area=0.873 ac 17.75% Impervious Runoff Depth=3.14"
Flow Length=200' Tc=6.6 min CN=68 Runoff=4.24 cfs 0.228 af

Subcatchment3-SX(100): 100-Year

Runoff Area=1.868 ac 100.00% Impervious Runoff Depth=6.42"
Tc=6.0 min CN=98 Runoff=15.70 cfs 1.000 af

Reach 1R: Outlet

Inflow=26.43 cfs 1.669 af
Outflow=26.43 cfs 1.669 af

Total Runoff Area = 4.814 ac Runoff Volume = 1.669 af Average Runoff Depth = 4.16"
56.40% Pervious = 2.715 ac 43.60% Impervious = 2.099 ac

Model_2025-04-14_OliveTreePredev

MSE 24-hr 4 100-yr. Dane Rainfall=6.66"

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Summary for Subcatchment 1-SX: On-Site

Runoff = 7.10 cfs @ 12.18 hrs, Volume= 0.441 af, Depth= 2.55"
Routed to Reach 1R : Outlet

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-96.00 hrs, dt= 0.05 hrs
MSE 24-hr 4 100-yr. Dane Rainfall=6.66"

Area (ac)	CN	Description
* 0.054	98	Roof
* 0.022	98	Driveway
* 1.997	61	HSG B, City Ordinance
2.073	62	Weighted Average
1.997		96.33% Pervious Area
0.076		3.67% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
8.0	100	0.0389	0.21		Sheet Flow, Grass: Short n= 0.150 P2= 2.84"
1.5	225	0.0257	2.58		Shallow Concentrated Flow, Unpaved Kv= 16.1 fps
9.5	325	Total			

Model_2025-04-14_OliveTreePredev

MSE 24-hr 4 100-yr. Dane Rainfall=6.66"

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Summary for Subcatchment 2-SX: Off-Site

Runoff = 4.24 cfs @ 12.14 hrs, Volume= 0.228 af, Depth= 3.14"
Routed to Reach 1R : Outlet

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-96.00 hrs, dt= 0.05 hrs
MSE 24-hr 4 100-yr. Dane Rainfall=6.66"

Area (ac)	CN	Description
* 0.141	98	Roof
* 0.014	98	Driveway
* 0.718	61	HSG B, City Ordinance
0.873	68	Weighted Average
0.718		82.25% Pervious Area
0.155		17.75% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.1	100	0.0747	0.27		Sheet Flow, Grass: Short n= 0.150 P2= 2.84"
0.5	100	0.0412	3.27		Shallow Concentrated Flow, Unpaved Kv= 16.1 fps
6.6	200	Total			

Model_2025-04-14_OliveTreePredev

MSE 24-hr 4 100-yr. Dane Rainfall=6.66"

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Summary for Subcatchment 3-SX(100): 100-Year Madison

Runoff = 15.70 cfs @ 12.13 hrs, Volume= 1.000 af, Depth= 6.42"
Routed to Reach 1R : Outlet

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-96.00 hrs, dt= 0.05 hrs
MSE 24-hr 4 100-yr. Dane Rainfall=6.66"

Area (ac)	CN	Description
* 1.868	98	City of Madison Flows
1.868		100.00% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					Direct Entry,

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MSE 24-hr 4 100-yr. Dane Rainfall=6.66"

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Summary for Reach 1R: Outlet

Inflow Area = 4.814 ac, 43.60% Impervious, Inflow Depth = 4.16" for 100-yr. Dane event
Inflow = 26.43 cfs @ 12.14 hrs, Volume= 1.669 af
Outflow = 26.43 cfs @ 12.14 hrs, Volume= 1.669 af, Atten= 0%, Lag= 0.0 min

Routing by Dyn-Stor-Ind method, Time Span= 0.00-96.00 hrs, dt= 0.05 hrs

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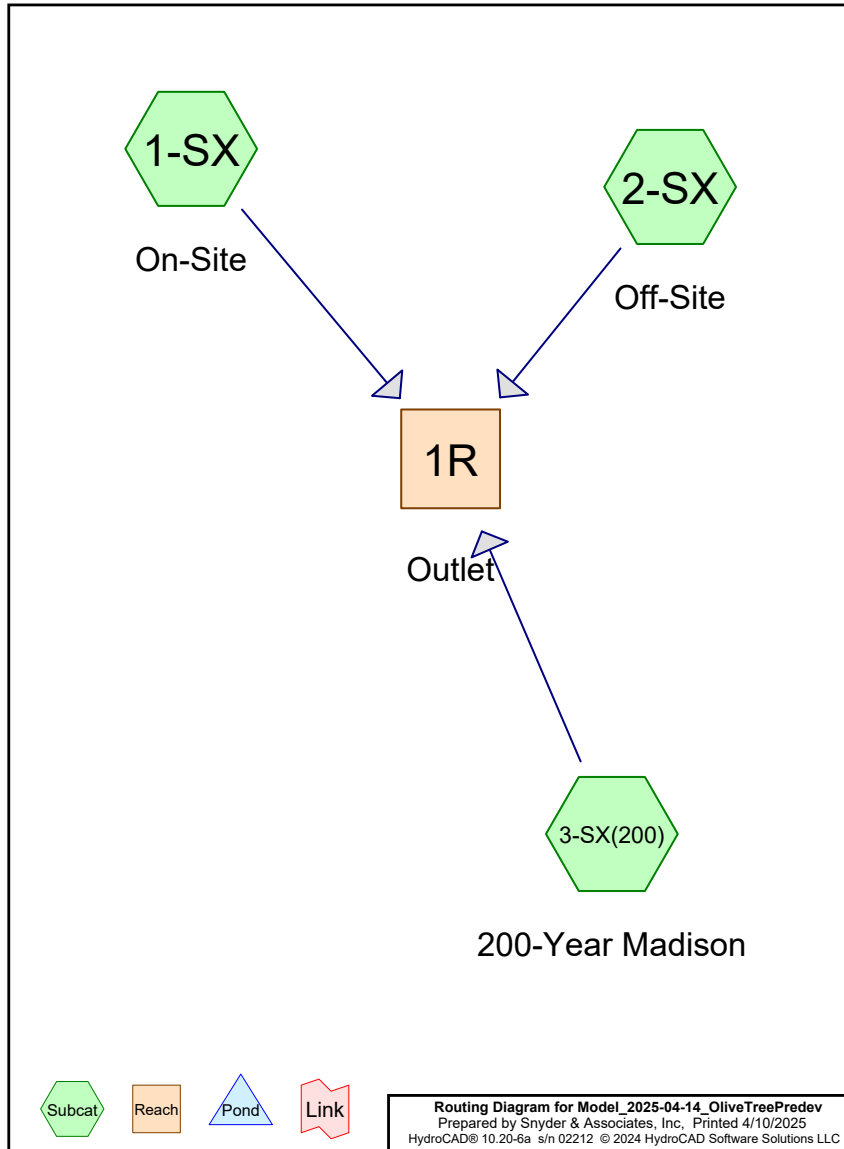
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Rainfall Events Listing (selected events)

Event#	Event Name	Storm Type	Curve	Mode	Duration (hours)	B/B	Depth (inches)	AMC
1	200-yr. Dane	MSE 24-hr	4	Default	24.00	1	7.53	2



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Area Listing (selected nodes)

Area (acres)	CN	Description (subcatchment-numbers)
1.967	98	City of Madison Flows (3-SX(200))
0.036	98	Driveway (1-SX, 2-SX)
2.715	61	HSG B, City Ordinance (1-SX, 2-SX)
0.195	98	Roof (1-SX, 2-SX)
4.913	78	TOTAL AREA

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Soil Listing (selected nodes)

Area (acres)	Soil Group	Subcatchment Numbers
0.000	HSG A	
2.715	HSG B	1-SX, 2-SX
0.000	HSG C	
0.000	HSG D	
2.198	Other	1-SX, 2-SX, 3-SX(200)
4.913		TOTAL AREA

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Ground Covers (selected nodes)

HSG-A (acres)	HSG-B (acres)	HSG-C (acres)	HSG-D (acres)	Other (acres)	Total (acres)	Ground Cover	Subcatchment Numbers
0.000	2.715	0.000	0.000	0.000	2.715		1-SX, 2-SX
0.000	0.000	0.000	0.000	1.967	1.967	City of Madison Flows	3-SX(200)
0.000	0.000	0.000	0.000	0.036	0.036	Driveway	1-SX, 2-SX
0.000	0.000	0.000	0.000	0.195	0.195	Roof	1-SX, 2-SX
0.000	2.715	0.000	0.000	2.198	4.913	TOTAL AREA	

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MSE 24-hr 4 200-yr. Dane Rainfall=7.53"

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Time span=0.00-96.00 hrs, dt=0.05 hrs, 1921 points

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN

Reach routing by Dyn-Stor-Ind method - Pond routing by Dyn-Stor-Ind method

Subcatchment1-SX: On-Site

Runoff Area=2.073 ac 3.67% Impervious Runoff Depth=3.20"
Flow Length=325' Tc=9.5 min CN=62 Runoff=9.01 cfs 0.552 af

Subcatchment2-SX: Off-Site

Runoff Area=0.873 ac 17.75% Impervious Runoff Depth=3.84"
Flow Length=200' Tc=6.6 min CN=68 Runoff=5.19 cfs 0.280 af

Subcatchment3-SX(200): 200-Year

Runoff Area=1.967 ac 100.00% Impervious Runoff Depth=7.29"
Tc=6.0 min CN=98 Runoff=18.70 cfs 1.195 af

Reach 1R: Outlet

Inflow=32.15 cfs 2.027 af
Outflow=32.15 cfs 2.027 af

Total Runoff Area = 4.913 ac Runoff Volume = 2.027 af Average Runoff Depth = 4.95"
55.26% Pervious = 2.715 ac 44.74% Impervious = 2.198 ac

Model_2025-04-14_OliveTreePredev

MSE 24-hr 4 200-yr. Dane Rainfall=7.53"

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Summary for Subcatchment 1-SX: On-Site

Runoff = 9.01 cfs @ 12.17 hrs, Volume= 0.552 af, Depth= 3.20"
Routed to Reach 1R : Outlet

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-96.00 hrs, dt= 0.05 hrs
MSE 24-hr 4 200-yr. Dane Rainfall=7.53"

Area (ac)	CN	Description
* 0.054	98	Roof
* 0.022	98	Driveway
* 1.997	61	HSG B, City Ordinance
2.073	62	Weighted Average
1.997		96.33% Pervious Area
0.076		3.67% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
8.0	100	0.0389	0.21		Sheet Flow, Grass: Short n= 0.150 P2= 2.84"
1.5	225	0.0257	2.58		Shallow Concentrated Flow, Unpaved Kv= 16.1 fps
9.5	325	Total			

Model_2025-04-14_OliveTreePredev

MSE 24-hr 4 200-yr. Dane Rainfall=7.53"

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Summary for Subcatchment 2-SX: Off-Site

Runoff = 5.19 cfs @ 12.14 hrs, Volume= 0.280 af, Depth= 3.84"
Routed to Reach 1R : Outlet

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-96.00 hrs, dt= 0.05 hrs
MSE 24-hr 4 200-yr. Dane Rainfall=7.53"

Area (ac)	CN	Description
* 0.141	98	Roof
* 0.014	98	Driveway
* 0.718	61	HSG B, City Ordinance
0.873	68	Weighted Average
0.718		82.25% Pervious Area
0.155		17.75% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.1	100	0.0747	0.27		Sheet Flow, Grass: Short n= 0.150 P2= 2.84"
0.5	100	0.0412	3.27		Shallow Concentrated Flow, Unpaved Kv= 16.1 fps
6.6	200	Total			

Model_2025-04-14_OliveTreePredev

MSE 24-hr 4 200-yr. Dane Rainfall=7.53"

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Summary for Subcatchment 3-SX(200): 200-Year Madison

Runoff = 18.70 cfs @ 12.13 hrs, Volume= 1.195 af, Depth= 7.29"
Routed to Reach 1R : Outlet

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-96.00 hrs, dt= 0.05 hrs
MSE 24-hr 4 200-yr. Dane Rainfall=7.53"

Area (ac)	CN	Description
* 1.967	98	City of Madison Flows
1.967		100.00% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					Direct Entry,

Model_2025-04-14_OliveTreePredev

MSE 24-hr 4 200-yr. Dane Rainfall=7.53"

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Summary for Reach 1R: Outlet

Inflow Area = 4.913 ac, 44.74% Impervious, Inflow Depth = 4.95" for 200-yr. Dane event
Inflow = 32.15 cfs @ 12.14 hrs, Volume= 2.027 af
Outflow = 32.15 cfs @ 12.14 hrs, Volume= 2.027 af, Atten= 0%, Lag= 0.0 min

Routing by Dyn-Stor-Ind method, Time Span= 0.00-96.00 hrs, dt= 0.05 hrs

Model_2025-04-14_OliveTreePredev

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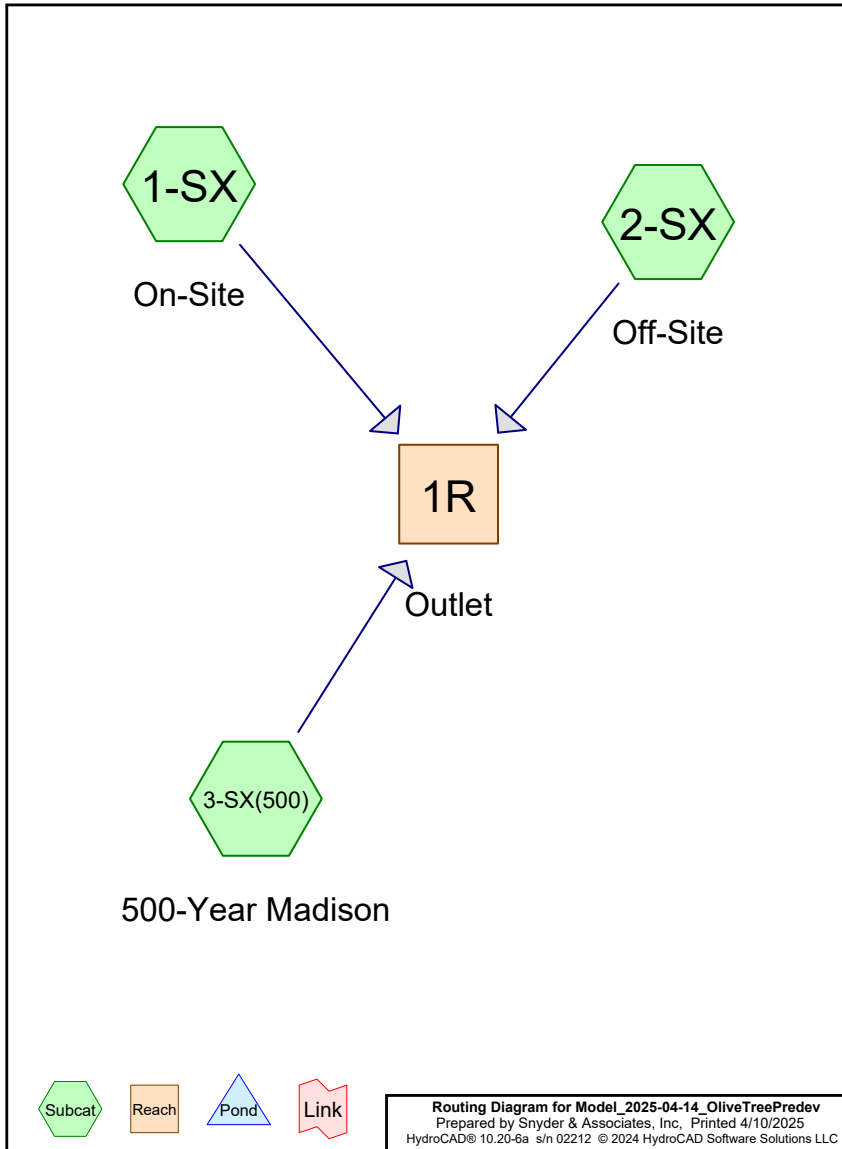
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Rainfall Events Listing (selected events)

Event#	Event Name	Storm Type	Curve	Mode	Duration (hours)	B/B	Depth (inches)	AMC
1	500-yr. Dane	MSE 24-hr	4	Default	24.00	1	8.94	2



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Area Listing (selected nodes)

Area (acres)	CN	Description (subcatchment-numbers)
2.107	98	City of Madison Flows (3-SX(500))
0.036	98	Driveway (1-SX, 2-SX)
2.715	61	HSG B, City Ordinance (1-SX, 2-SX)
0.195	98	Roof (1-SX, 2-SX)
5.053	78	TOTAL AREA

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Soil Listing (selected nodes)

Area (acres)	Soil Group	Subcatchment Numbers
0.000	HSG A	
2.715	HSG B	1-SX, 2-SX
0.000	HSG C	
0.000	HSG D	
2.338	Other	1-SX, 2-SX, 3-SX(500)
5.053		TOTAL AREA

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Ground Covers (selected nodes)

HSG-A (acres)	HSG-B (acres)	HSG-C (acres)	HSG-D (acres)	Other (acres)	Total (acres)	Ground Cover	Subcatchment Numbers
0.000	2.715	0.000	0.000	0.000	2.715		1-SX, 2-SX
0.000	0.000	0.000	0.000	2.107	2.107	City of Madison Flows	3-SX(500)
0.000	0.000	0.000	0.000	0.036	0.036	Driveway	1-SX, 2-SX
0.000	0.000	0.000	0.000	0.195	0.195	Roof	1-SX, 2-SX
0.000	2.715	0.000	0.000	2.338	5.053	TOTAL AREA	

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MSE 24-hr 4 500-yr. Dane Rainfall=8.94"

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Time span=0.00-96.00 hrs, dt=0.05 hrs, 1921 points

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN

Reach routing by Dyn-Stor-Ind method - Pond routing by Dyn-Stor-Ind method

Subcatchment1-SX: On-Site

Runoff Area=2.073 ac 3.67% Impervious Runoff Depth=4.30"
Flow Length=325' Tc=9.5 min CN=62 Runoff=12.17 cfs 0.743 af

Subcatchment2-SX: Off-Site

Runoff Area=0.873 ac 17.75% Impervious Runoff Depth=5.04"
Flow Length=200' Tc=6.6 min CN=68 Runoff=6.76 cfs 0.366 af

Subcatchment3-SX(500): 500-Year

Runoff Area=2.107 ac 100.00% Impervious Runoff Depth=8.70"
Tc=6.0 min CN=98 Runoff=23.80 cfs 1.528 af

Reach 1R: Outlet

Inflow=41.82 cfs 2.637 af
Outflow=41.82 cfs 2.637 af

Total Runoff Area = 5.053 ac Runoff Volume = 2.637 af Average Runoff Depth = 6.26"
53.73% Pervious = 2.715 ac 46.27% Impervious = 2.338 ac

Model_2025-04-14_OliveTreePredev

MSE 24-hr 4 500-yr. Dane Rainfall=8.94"

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Summary for Subcatchment 1-SX: On-Site

Runoff = 12.17 cfs @ 12.17 hrs, Volume= 0.743 af, Depth= 4.30"
Routed to Reach 1R : Outlet

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-96.00 hrs, dt= 0.05 hrs
MSE 24-hr 4 500-yr. Dane Rainfall=8.94"

Area (ac)	CN	Description
* 0.054	98	Roof
* 0.022	98	Driveway
* 1.997	61	HSG B, City Ordinance
2.073	62	Weighted Average
1.997		96.33% Pervious Area
0.076		3.67% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
8.0	100	0.0389	0.21		Sheet Flow, Grass: Short n= 0.150 P2= 2.84"
1.5	225	0.0257	2.58		Shallow Concentrated Flow, Unpaved Kv= 16.1 fps
9.5	325	Total			

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MSE 24-hr 4 500-yr. Dane Rainfall=8.94"

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Summary for Subcatchment 2-SX: Off-Site

Runoff = 6.76 cfs @ 12.14 hrs, Volume= 0.366 af, Depth= 5.04"
Routed to Reach 1R : Outlet

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-96.00 hrs, dt= 0.05 hrs
MSE 24-hr 4 500-yr. Dane Rainfall=8.94"

Area (ac)	CN	Description
* 0.141	98	Roof
* 0.014	98	Driveway
* 0.718	61	HSG B, City Ordinance
0.873	68	Weighted Average
0.718		82.25% Pervious Area
0.155		17.75% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.1	100	0.0747	0.27		Sheet Flow, Grass: Short n= 0.150 P2= 2.84"
0.5	100	0.0412	3.27		Shallow Concentrated Flow, Unpaved Kv= 16.1 fps
6.6	200	Total			

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MSE 24-hr 4 500-yr. Dane Rainfall=8.94"

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Summary for Subcatchment 3-SX(500): 500-Year Madison

Runoff = 23.80 cfs @ 12.13 hrs, Volume= 1.528 af, Depth= 8.70"
Routed to Reach 1R : Outlet

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-96.00 hrs, dt= 0.05 hrs
MSE 24-hr 4 500-yr. Dane Rainfall=8.94"

Area (ac)	CN	Description
* 2.107	98	City of Madison Flows
2.107		100.00% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					Direct Entry,

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MSE 24-hr 4 500-yr. Dane Rainfall=8.94"

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Summary for Reach 1R: Outlet

Inflow Area = 5.053 ac, 46.27% Impervious, Inflow Depth = 6.26" for 500-yr. Dane event
Inflow = 41.82 cfs @ 12.14 hrs, Volume= 2.637 af
Outflow = 41.82 cfs @ 12.14 hrs, Volume= 2.637 af, Atten= 0%, Lag= 0.0 min

Routing by Dyn-Stor-Ind method, Time Span= 0.00-96.00 hrs, dt= 0.05 hrs

APPENDIX F
POST-DEVELOPMENT HYDROLOGY

Model_2025-04-14_OliveTreePostdev

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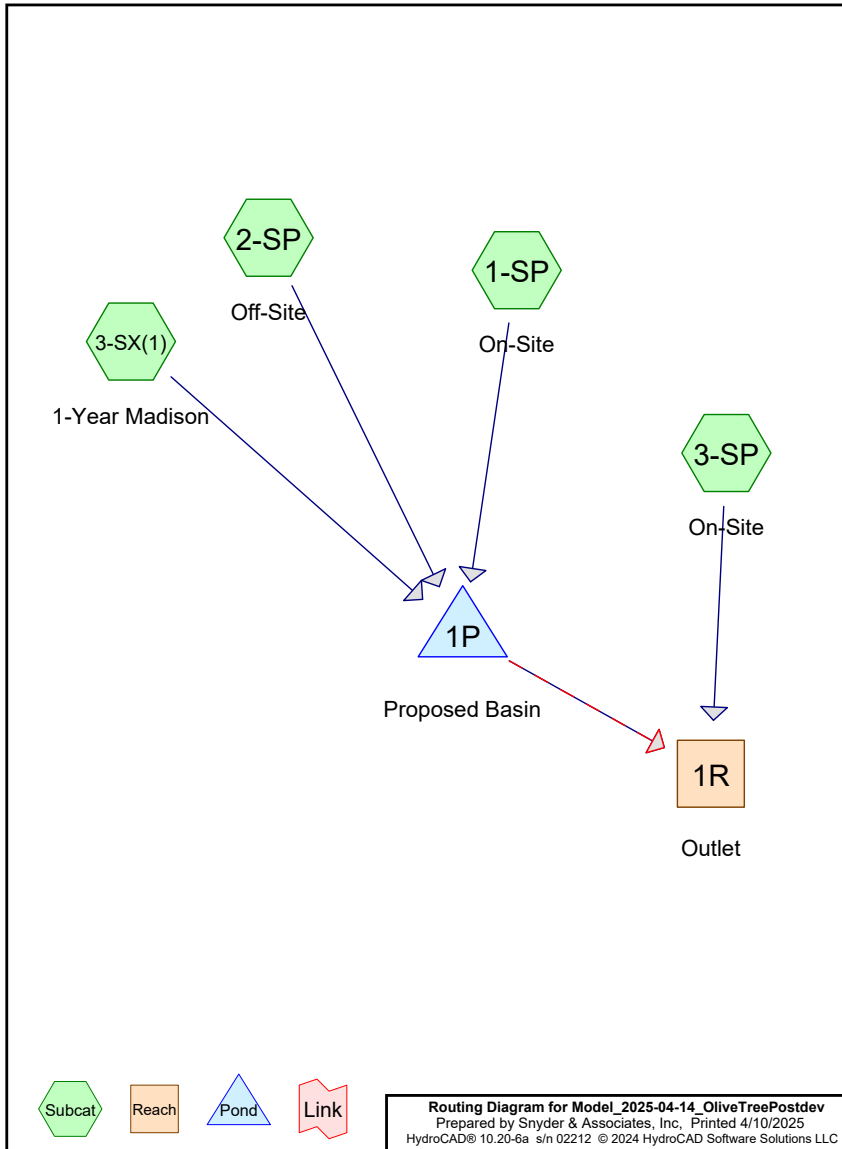
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Rainfall Events Listing (selected events)

Event#	Event Name	Storm Type	Curve	Mode	Duration (hours)	B/B	Depth (inches)	AMC
1	1-yr. Dane	MSE 24-hr	4	Default	24.00	1	2.49	2



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Area Listing (selected nodes)

Area (acres)	CN	Description (subcatchment-numbers)
0.171	100	Bottom of Bioretention Basin (1-SP)
1.002	98	City of Madison Flows (3-SX(1))
0.506	98	Driveway (1-SP, 2-SP, 3-SP)
0.718	61	HSG B, City Ordinance (2-SP)
0.773	71	HSG C, City Ordinance (1-SP, 3-SP)
0.642	98	Roof (1-SP, 2-SP)
0.059	98	Roofs, HSG C (3-SP)
0.065	98	Unconnected pavement, HSG B (1-SP)
0.012	98	Unconnected pavement, HSG C (3-SP)
3.948	86	TOTAL AREA

Model_2025-04-14_OliveTreePostdev

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Soil Listing (selected nodes)

Area (acres)	Soil Group	Subcatchment Numbers
0.000	HSG A	
0.783	HSG B	1-SP, 2-SP
0.844	HSG C	1-SP, 3-SP
0.000	HSG D	
2.321	Other	1-SP, 2-SP, 3-SP, 3-SX(1)
3.948		TOTAL AREA

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Ground Covers (selected nodes)

HSG-A (acres)	HSG-B (acres)	HSG-C (acres)	HSG-D (acres)	Other (acres)	Total (acres)	Ground Cover	Subcatchment Numbers
0.000	0.718	0.773	0.000	0.000	1.491		1-SP, 2-SP, 3-SP
0.000	0.000	0.000	0.000	0.171	0.171	Bottom of Bioretention Basin	1-SP
0.000	0.000	0.000	0.000	1.002	1.002	City of Madison Flows	3-SX(1)
0.000	0.000	0.000	0.000	0.506	0.506	Driveway	1-SP, 2-SP, 3-SP
0.000	0.000	0.000	0.000	0.642	0.642	Roof	1-SP, 2-SP
0.000	0.000	0.059	0.000	0.000	0.059	Roofs	3-SP
0.000	0.065	0.012	0.000	0.000	0.077	Unconnected pavement	1-SP, 3-SP
0.000	0.783	0.844	0.000	2.321	3.948	TOTAL AREA	

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Pipe Listing (selected nodes)

Line#	Node Number	In-Invert (feet)	Out-Invert (feet)	Length (feet)	Slope (ft/ft)	n	Width (inches)	Diam/Height (inches)	Inside-Fill (inches)	Node Name
1	1P	864.70	864.70	100.0	0.0000	0.013	0.0	6.0	0.0	
2	1P	864.70	864.20	80.2	0.0062	0.013	0.0	18.0	0.0	

Model_2025-04-14_OliveTreePostdev

MSE 24-hr 4 1-yr. Dane Rainfall=2.49"

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Time span=0.00-96.00 hrs, dt=0.05 hrs, 1921 points

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN

Reach routing by Dyn-Stor-Ind method - Pond routing by Dyn-Stor-Ind method

Subcatchment1-SP: On-Site

Runoff Area=1.901 ac 64.44% Impervious Runoff Depth=1.45"
Tc=6.0 min CN=89 Runoff=4.27 cfs 0.229 af

Subcatchment2-SP: Off-Site

Runoff Area=0.873 ac 17.75% Impervious Runoff Depth=0.38"
Flow Length=200' Tc=6.6 min CN=68 Runoff=0.41 cfs 0.028 af

Subcatchment3-SP: On-Site

Runoff Area=0.172 ac 43.60% Impervious Runoff Depth=1.05"
Tc=6.0 min CN=83 Runoff=0.28 cfs 0.015 af

Subcatchment3-SX(1): 1-Year Madison

Runoff Area=1.002 ac 100.00% Impervious Runoff Depth=2.26"
Tc=6.0 min CN=98 Runoff=3.10 cfs 0.189 af

Reach 1R: Outlet

Inflow=2.10 cfs 0.462 af
Outflow=2.10 cfs 0.462 af

Pond 1P: Proposed Basin

Peak Elev=867.48' Storage=5,980 cf Inflow=7.74 cfs 0.446 af
Primary=2.01 cfs 0.447 af Secondary=0.00 cfs 0.000 af Outflow=2.01 cfs 0.447 af

Total Runoff Area = 3.948 ac Runoff Volume = 0.461 af Average Runoff Depth = 1.40"
37.77% Pervious = 1.491 ac 62.23% Impervious = 2.457 ac

Model_2025-04-14_OliveTreePostdev

MSE 24-hr 4 1-yr. Dane Rainfall=2.49"

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Summary for Subcatchment 1-SP: On-Site

Runoff = 4.27 cfs @ 12.13 hrs, Volume= 0.229 af, Depth= 1.45"
Routed to Pond 1P : Proposed Basin

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-96.00 hrs, dt= 0.05 hrs
MSE 24-hr 4 1-yr. Dane Rainfall=2.49"

Area (ac)	CN	Description			
* 0.501	98	Roof			
* 0.488	98	Driveway			
* 0.171	100	Bottom of Bioretention Basin			
* 0.676	71	HSG C, City Ordinance			
0.065	98	Unconnected pavement, HSG B			
1.901	89	Weighted Average			
0.676		35.56% Pervious Area			
1.225		64.44% Impervious Area			
0.065		5.31% Unconnected			
Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					Direct Entry,

Model_2025-04-14_OliveTreePostdev

MSE 24-hr 4 1-yr. Dane Rainfall=2.49"

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Summary for Subcatchment 2-SP: Off-Site

Runoff = 0.41 cfs @ 12.16 hrs, Volume= 0.028 af, Depth= 0.38"
Routed to Pond 1P : Proposed Basin

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-96.00 hrs, dt= 0.05 hrs
MSE 24-hr 4 1-yr. Dane Rainfall=2.49"

Area (ac)	CN	Description
* 0.141	98	Roof
* 0.014	98	Driveway
* 0.718	61	HSG B, City Ordinance
0.873	68	Weighted Average
0.718		82.25% Pervious Area
0.155		17.75% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.1	100	0.0747	0.27		Sheet Flow, Grass: Short n= 0.150 P2= 2.84"
0.5	100	0.0412	3.27		Shallow Concentrated Flow, Unpaved Kv= 16.1 fps
6.6	200	Total			

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MSE 24-hr 4 1-yr. Dane Rainfall=2.49"

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Summary for Subcatchment 3-SP: On-Site

Runoff = 0.28 cfs @ 12.14 hrs, Volume= 0.015 af, Depth= 1.05"
Routed to Reach 1R : Outlet

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-96.00 hrs, dt= 0.05 hrs
MSE 24-hr 4 1-yr. Dane Rainfall=2.49"

Area (ac)	CN	Description
* 0.004	98	Driveway
* 0.097	71	HSG C, City Ordinance
0.012	98	Unconnected pavement, HSG C
0.059	98	Roofs, HSG C
0.172	83	Weighted Average
0.097		56.40% Pervious Area
0.075		43.60% Impervious Area
0.012		16.00% Unconnected

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					Direct Entry,

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MSE 24-hr 4 1-yr. Dane Rainfall=2.49"

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Summary for Subcatchment 3-SX(1): 1-Year Madison

Runoff = 3.10 cfs @ 12.13 hrs, Volume= 0.189 af, Depth= 2.26"
Routed to Pond 1P : Proposed Basin

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-96.00 hrs, dt= 0.05 hrs
MSE 24-hr 4 1-yr. Dane Rainfall=2.49"

Area (ac)	CN	Description
* 1.002	98	City of Madison Flows
1.002		100.00% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					Direct Entry,

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MSE 24-hr 4 1-yr. Dane Rainfall=2.49"

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Summary for Reach 1R: Outlet

Inflow Area = 3.948 ac, 62.23% Impervious, Inflow Depth = 1.40" for 1-yr. Dane event
Inflow = 2.10 cfs @ 12.37 hrs, Volume= 0.462 af
Outflow = 2.10 cfs @ 12.37 hrs, Volume= 0.462 af, Atten= 0%, Lag= 0.0 min

Routing by Dyn-Stor-Ind method, Time Span= 0.00-96.00 hrs, dt= 0.05 hrs

Model_2025-04-14_OliveTreePostdev

MSE 24-hr 4 1-yr. Dane Rainfall=2.49"

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Summary for Pond 1P: Proposed Basin

Inflow Area = 3,776 ac, 63.08% Impervious, Inflow Depth = 1.42" for 1-yr. Dane event
 Inflow = 7.74 cfs @ 12.13 hrs, Volume= 0.446 af
 Outflow = 2.01 cfs @ 12.38 hrs, Volume= 0.447 af, Atten= 74%, Lag= 14.6 min
 Primary = 2.01 cfs @ 12.38 hrs, Volume= 0.447 af
 Routed to Reach 1R : Outlet
 Secondary = 0.00 cfs @ 0.00 hrs, Volume= 0.000 af
 Routed to Reach 1R : Outlet

Routing by Dyn-Stor-Ind method, Time Span= 0.00-96.00 hrs, dt= 0.05 hrs
 Peak Elev= 867.48' @ 12.38 hrs Surf.Area= 8,017 sf Storage= 5,980 cf

Plug-Flow detention time= (not calculated: outflow precedes inflow)
 Center-of-Mass det. time= 44.9 min (837.5 - 792.5)

Volume	Invert	Avail.Storage	Storage Description		
#1	866.70'	25,840 cf	Custom Stage Data (Irregular) Listed below (Recalc)		
Elevation (feet)	Surf.Area (sq-ft)	Perim. (feet)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)	Wet.Area (sq-ft)
866.70	7,400	390.0	0	0	7,400
867.70	8,200	400.0	7,797	7,797	8,142
868.70	9,000	410.0	8,597	16,393	8,904
869.70	9,900	420.0	9,446	25,840	9,684

Device	Routing	Invert	Outlet Devices
#1	Device 2	866.70'	3,600 in/hr Exfiltration over Surface area from 866.69' - 866.71' Excluded Surface area = 0 sf
#2	Device 3	864.70'	6.0" Round 6" Underdrain L= 100.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 864.70' / 864.70' S= 0.0000 1" Cc= 0.900 n= 0.013 Corrugated PE, smooth interior, Flow Area= 0.20 sf
#3	Primary	864.70'	18.0" Round 18" RCP L= 80.2' RCP, sq.cut end projecting, Ke= 0.500 Inlet / Outlet Invert= 864.70' / 864.20' S= 0.0062 1" Cc= 0.900 n= 0.013 Corrugated PE, smooth interior, Flow Area= 1.77 sf
#4	Device 3	867.20'	36.0" W x 12.0" H Vert. Orifice/Grate C= 0.600 Limited to weir flow at low heads
#5	Device 3	868.20'	48.0" Horiz. 48" Standpipe C= 0.600 Limited to weir flow at low heads
#6	Secondary	869.20'	30.0' long x 10.0' breadth Broad-Crested Rectangular Weir Head (feet) 0.20 0.40 0.60 0.80 1.00 1.20 1.40 1.60 Coef. (English) 2.49 2.56 2.70 2.69 2.68 2.69 2.67 2.64

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MSE 24-hr 4 1-yr. Dane Rainfall=2.49"

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Primary OutFlow Max=2.01 cfs @ 12.38 hrs HW=867.48' TW=0.00' (Dynamic Tailwater)
 3=18" RCP (Passes 2.01 cfs of 10.97 cfs potential flow)
 2=6" Underdrain (Passes 0.62 cfs of 0.76 cfs potential flow)
 1=Exfiltration (Exfiltration Controls 0.62 cfs)
 4=Orifice/Grate (Orifice Controls 1.39 cfs @ 1.68 fps)
 5=48" Standpipe (Controls 0.00 cfs)

Secondary OutFlow Max=0.00 cfs @ 0.00 hrs HW=866.70' TW=0.00' (Dynamic Tailwater)
 6=Broad-Crested Rectangular Weir (Controls 0.00 cfs)

Model_2025-04-14_OliveTreePostdev

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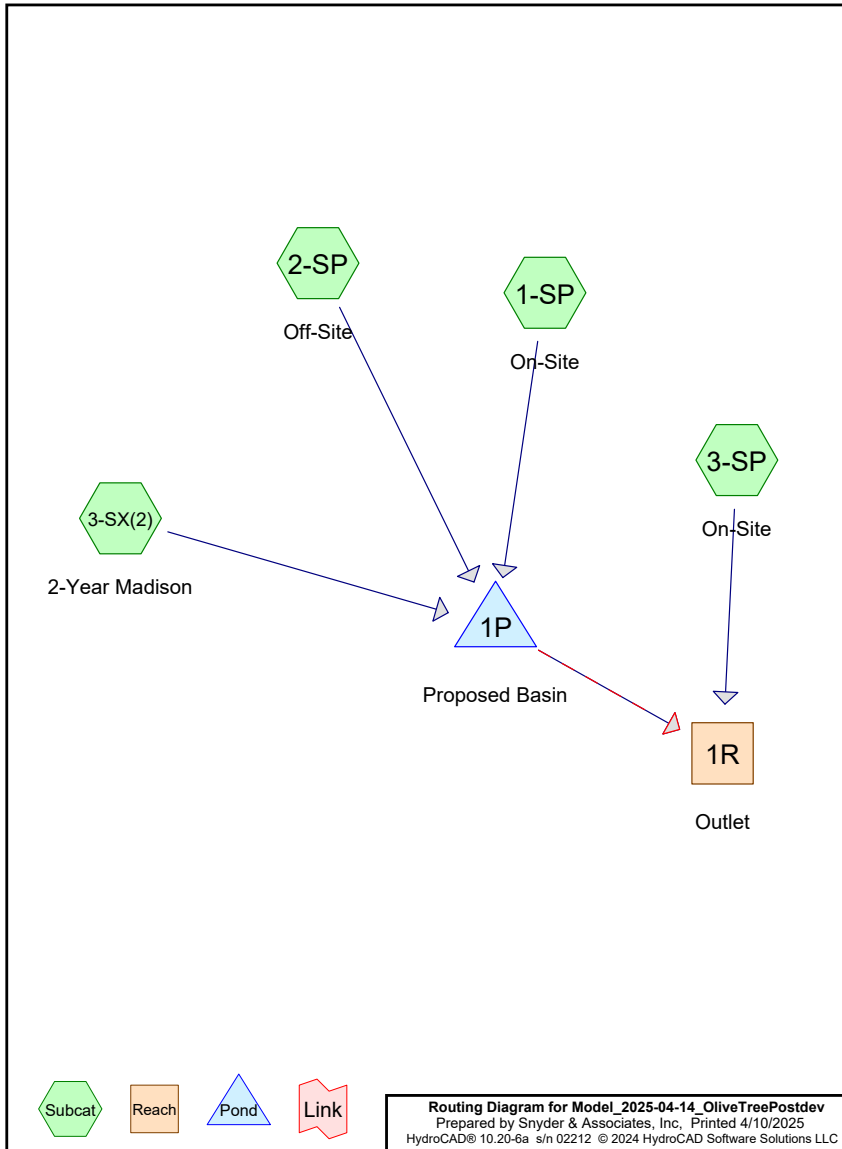
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Rainfall Events Listing (selected events)

Event#	Event Name	Storm Type	Curve	Mode	Duration (hours)	B/B	Depth (inches)	AMC
1	2-yr. Dane	MSE 24-hr	4	Default	24.00	1	2.84	2



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Area Listing (selected nodes)

Area (acres)	CN	Description (subcatchment-numbers)
0.171	100	Bottom of Bioretention Basin (1-SP)
1.101	98	City of Madison Flows (3-SX(2))
0.506	98	Driveway (1-SP, 2-SP, 3-SP)
0.718	61	HSG B, City Ordinance (2-SP)
0.773	71	HSG C, City Ordinance (1-SP, 3-SP)
0.642	98	Roof (1-SP, 2-SP)
0.059	98	Roofs, HSG C (3-SP)
0.065	98	Unconnected pavement, HSG B (1-SP)
0.012	98	Unconnected pavement, HSG C (3-SP)
4.047	86	TOTAL AREA

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Soil Listing (selected nodes)

Area (acres)	Soil Group	Subcatchment Numbers
0.000	HSG A	
0.783	HSG B	1-SP, 2-SP
0.844	HSG C	1-SP, 3-SP
0.000	HSG D	
2.420	Other	1-SP, 2-SP, 3-SP, 3-SX(2)
4.047		TOTAL AREA

Model_2025-04-14_OliveTreePostdev

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Ground Covers (selected nodes)

HSG-A (acres)	HSG-B (acres)	HSG-C (acres)	HSG-D (acres)	Other (acres)	Total (acres)	Ground Cover	Subcatchment Numbers
0.000	0.718	0.773	0.000	0.000	1.491		1-SP, 2-SP, 3-SP
0.000	0.000	0.000	0.000	0.171	0.171	Bottom of Bioretention Basin	1-SP
0.000	0.000	0.000	0.000	1.101	1.101	City of Madison Flows	3-SX(2)
0.000	0.000	0.000	0.000	0.506	0.506	Driveway	1-SP, 2-SP, 3-SP
0.000	0.000	0.000	0.000	0.642	0.642	Roof	1-SP, 2-SP
0.000	0.000	0.059	0.000	0.000	0.059	Roofs	3-SP
0.000	0.065	0.012	0.000	0.000	0.077	Unconnected pavement	1-SP, 3-SP
0.000	0.783	0.844	0.000	2.420	4.047	TOTAL AREA	

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Pipe Listing (selected nodes)

Line#	Node Number	In-Invert (feet)	Out-Invert (feet)	Length (feet)	Slope (ft/ft)	n	Width (inches)	Diam/Height (inches)	Inside-Fill (inches)	Node Name
1	1P	864.70	864.70	100.0	0.0000	0.013	0.0	6.0	0.0	
2	1P	864.70	864.20	80.2	0.0062	0.013	0.0	18.0	0.0	

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MSE 24-hr 4 2-yr. Dane Rainfall=2.84"

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Time span=0.00-96.00 hrs, dt=0.05 hrs, 1921 points
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN

Reach routing by Dyn-Stor-Ind method - Pond routing by Dyn-Stor-Ind method

Subcatchment1-SP: On-Site Runoff Area=1.901 ac 64.44% Impervious Runoff Depth=1.76"
Tc=6.0 min CN=89 Runoff=5.15 cfs 0.278 af

Subcatchment2-SP: Off-Site Runoff Area=0.873 ac 17.75% Impervious Runoff Depth=0.55"
Flow Length=200' Tc=6.6 min CN=68 Runoff=0.64 cfs 0.040 af

Subcatchment3-SP: On-Site Runoff Area=0.172 ac 43.60% Impervious Runoff Depth=1.32"
Tc=6.0 min CN=83 Runoff=0.36 cfs 0.019 af

Subcatchment3-SX(2): 2-Year Madison Runoff Area=1.101 ac 100.00% Impervious Runoff Depth=2.61"
Tc=6.0 min CN=98 Runoff=3.90 cfs 0.239 af

Reach 1R: Outlet Inflow=3.39 cfs 0.576 af
Outflow=3.39 cfs 0.576 af

Pond 1P: Proposed Basin Peak Elev=867.62' Storage=7,169 cf Inflow=9.65 cfs 0.557 af
Primary=3.27 cfs 0.558 af Secondary=0.00 cfs 0.000 af Outflow=3.27 cfs 0.558 af

Total Runoff Area = 4.047 ac Runoff Volume = 0.576 af Average Runoff Depth = 1.71"
36.84% Pervious = 1.491 ac 63.16% Impervious = 2.556 ac

Model_2025-04-14_OliveTreePostdev

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MSE 24-hr 4 2-yr. Dane Rainfall=2.84"

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Summary for Subcatchment 1-SP: On-Site

Runoff = 5.15 cfs @ 12.13 hrs, Volume= 0.278 af, Depth= 1.76"
Routed to Pond 1P : Proposed Basin

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-96.00 hrs, dt= 0.05 hrs
MSE 24-hr 4 2-yr. Dane Rainfall=2.84"

Area (ac)	CN	Description
* 0.501	98	Roof
* 0.488	98	Driveway
* 0.171	100	Bottom of Bioretention Basin
* 0.676	71	HSG C, City Ordinance
0.065	98	Unconnected pavement, HSG B
1.901	89	Weighted Average
0.676		35.56% Pervious Area
1.225		64.44% Impervious Area
0.065		5.31% Unconnected

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					Direct Entry,

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MSE 24-hr 4 2-yr. Dane Rainfall=2.84"

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Summary for Subcatchment 2-SP: Off-Site

Runoff = 0.64 cfs @ 12.15 hrs, Volume= 0.040 af, Depth= 0.55"
Routed to Pond 1P : Proposed Basin

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-96.00 hrs, dt= 0.05 hrs
MSE 24-hr 4 2-yr. Dane Rainfall=2.84"

Area (ac)	CN	Description
* 0.141	98	Roof
* 0.014	98	Driveway
* 0.718	61	HSG B, City Ordinance
0.873	68	Weighted Average
0.718		82.25% Pervious Area
0.155		17.75% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.1	100	0.0747	0.27		Sheet Flow, Grass: Short n= 0.150 P2= 2.84"
0.5	100	0.0412	3.27		Shallow Concentrated Flow, Unpaved Kv= 16.1 fps
6.6	200	Total			

Model_2025-04-14_OliveTreePostdev

MSE 24-hr 4 2-yr. Dane Rainfall=2.84"

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Summary for Subcatchment 3-SP: On-Site

Runoff = 0.36 cfs @ 12.13 hrs, Volume= 0.019 af, Depth= 1.32"
Routed to Reach 1R : Outlet

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-96.00 hrs, dt= 0.05 hrs
MSE 24-hr 4 2-yr. Dane Rainfall=2.84"

Area (ac)	CN	Description
* 0.004	98	Driveway
* 0.097	71	HSG C, City Ordinance
0.012	98	Unconnected pavement, HSG C
0.059	98	Roofs, HSG C
0.172	83	Weighted Average
0.097		56.40% Pervious Area
0.075		43.60% Impervious Area
0.012		16.00% Unconnected

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					Direct Entry,

Model_2025-04-14_OliveTreePostdev

MSE 24-hr 4 2-yr. Dane Rainfall=2.84"

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Summary for Subcatchment 3-SX(2): 2-Year Madison

Runoff = 3.90 cfs @ 12.13 hrs, Volume= 0.239 af, Depth= 2.61"
Routed to Pond 1P : Proposed Basin

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-96.00 hrs, dt= 0.05 hrs
MSE 24-hr 4 2-yr. Dane Rainfall=2.84"

Area (ac)	CN	Description
* 1.101	98	City of Madison Flows
1.101		100.00% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					Direct Entry,

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MSE 24-hr 4 2-yr. Dane Rainfall=2.84"

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Summary for Reach 1R: Outlet

Inflow Area = 4.047 ac, 63.16% Impervious, Inflow Depth = 1.71" for 2-yr. Dane event
Inflow = 3.39 cfs @ 12.30 hrs, Volume= 0.576 af
Outflow = 3.39 cfs @ 12.30 hrs, Volume= 0.576 af, Atten= 0%, Lag= 0.0 min

Routing by Dyn-Stor-Ind method, Time Span= 0.00-96.00 hrs, dt= 0.05 hrs

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MSE 24-hr 4 2-yr. Dane Rainfall=2.84"

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Summary for Pond 1P: Proposed Basin

Inflow Area = 3.875 ac, 64.03% Impervious, Inflow Depth = 1.73" for 2-yr. Dane event
 Inflow = 9.65 cfs @ 12.13 hrs, Volume= 0.557 af
 Outflow = 3.27 cfs @ 12.31 hrs, Volume= 0.558 af, Atten= 66%, Lag= 10.6 min
 Primary = 3.27 cfs @ 12.31 hrs, Volume= 0.558 af
 Routed to Reach 1R : Outlet
 Secondary = 0.00 cfs @ 0.00 hrs, Volume= 0.000 af
 Routed to Reach 1R : Outlet

Routing by Dyn-Stor-Ind method, Time Span= 0.00-96.00 hrs, dt= 0.05 hrs
 Peak Elev= 867.62' @ 12.31 hrs Surf.Area= 8,137 sf Storage= 7,169 cf

Plug-Flow detention time= (not calculated: outflow precedes inflow)
 Center-of-Mass det. time= 42.2 min (830.7 - 788.5)

Volume	Invert	Avail.Storage	Storage Description		
#1	866.70'	25,840 cf	Custom Stage Data (Irregular) Listed below (Recalc)		
Elevation (feet)	Surf.Area (sq-ft)	Perim. (feet)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)	Wet.Area (sq-ft)
866.70	7,400	390.0	0	0	7,400
867.70	8,200	400.0	7,797	7,797	8,142
868.70	9,000	410.0	8,597	16,393	8,904
869.70	9,900	420.0	9,446	25,840	9,684

Device	Routing	Invert	Outlet Devices
#1	Device 2	866.70'	3.600 in/hr Exfiltration over Surface area from 866.69' - 866.71' Excluded Surface area = 0 sf
#2	Device 3	864.70'	6.0" Round 6" Underdrain L= 100.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 864.70' / 864.70' S= 0.0000 ' S= 0.0000 ' Cc= 0.900 n= 0.013 Corrugated PE, smooth interior, Flow Area= 0.20 sf
#3	Primary	864.70'	18.0" Round 18" RCP L= 80.2' RCP, sq.cut end projecting, Ke= 0.500 Inlet / Outlet Invert= 864.70' / 864.20' S= 0.0062 ' S= 0.0062 ' Cc= 0.900 n= 0.013 Corrugated PE, smooth interior, Flow Area= 1.77 sf
#4	Device 3	867.20'	36.0" W x 12.0" H Vert. Orifice/Grate C= 0.600 Limited to weir flow at low heads
#5	Device 3	868.20'	48.0" Horiz. 48" Standpipe C= 0.600 Limited to weir flow at low heads
#6	Secondary	869.20'	30.0' long x 10.0' breadth Broad-Crested Rectangular Weir Head (feet) 0.20 0.40 0.60 0.80 1.00 1.20 1.40 1.60 Coef. (English) 2.49 2.56 2.70 2.69 2.68 2.69 2.67 2.64

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MSE 24-hr 4 2-yr. Dane Rainfall=2.84"

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Primary OutFlow Max=3.26 cfs @ 12.31 hrs HW=867.62' TW=0.00' (Dynamic Tailwater)
 ↳ **3=18" RCP** (Passes 3.26 cfs of 11.41 cfs potential flow)
 ↳ **2=6" Underdrain** (Passes 0.62 cfs of 0.78 cfs potential flow)
 ↳ **1=Exfiltration** (Exfiltration Controls 0.62 cfs)
 ↳ **4=Orifice/Grate** (Orifice Controls 2.64 cfs @ 2.08 fps)
 ↳ **5=48" Standpipe** (Controls 0.00 cfs)

Secondary OutFlow Max=0.00 cfs @ 0.00 hrs HW=866.70' TW=0.00' (Dynamic Tailwater)
 ↳ **6=Broad-Crested Rectangular Weir** (Controls 0.00 cfs)

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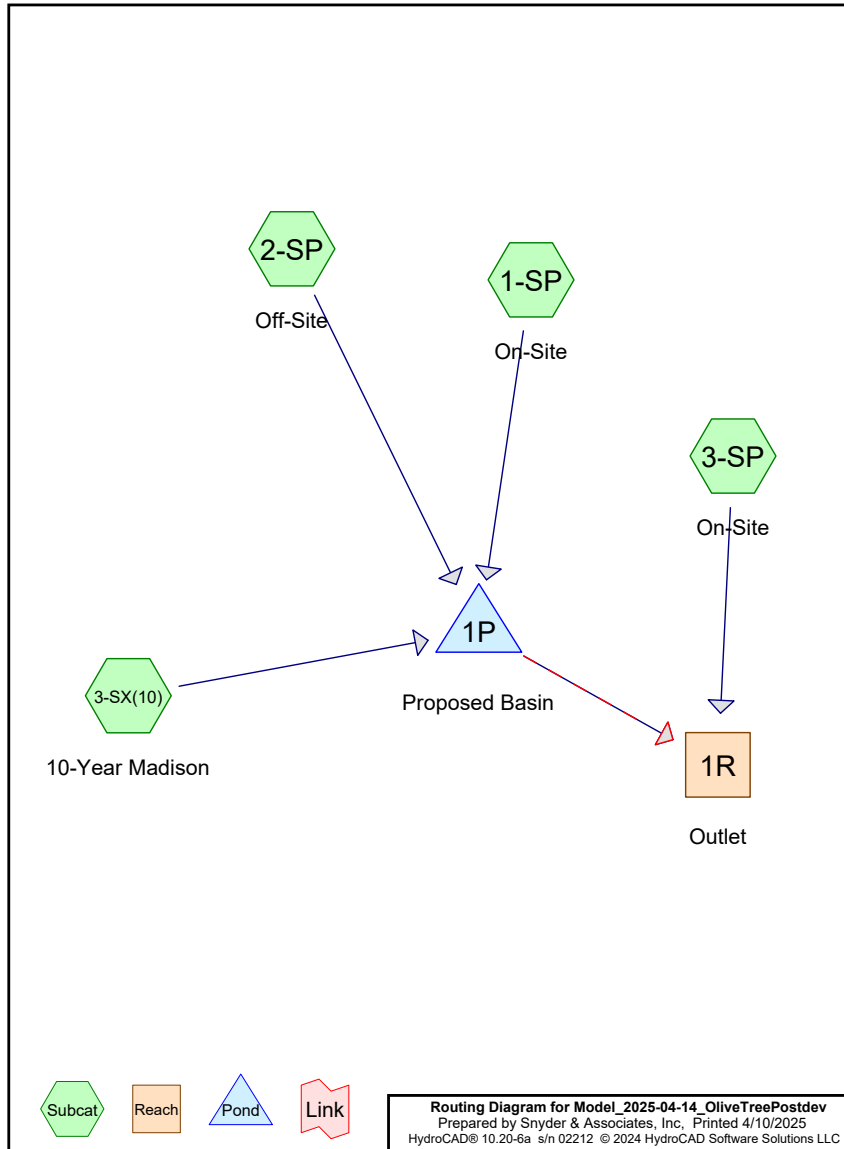
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Rainfall Events Listing (selected events)

Event#	Event Name	Storm Type	Curve	Mode	Duration (hours)	B/B	Depth (inches)	AMC
1	10-yr. Dane	MSE 24-hr	4	Default	24.00	1	4.09	2



Routing Diagram for Model_2025-04-14_OliveTreePostdev
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Area Listing (selected nodes)

Area (acres)	CN	Description (subcatchment-numbers)
0.171	100	Bottom of Bioretention Basin (1-SP)
1.421	98	City of Madison Flows (3-SX(10))
0.506	98	Driveway (1-SP, 2-SP, 3-SP)
0.718	61	HSG B, City Ordinance (2-SP)
0.773	71	HSG C, City Ordinance (1-SP, 3-SP)
0.642	98	Roof (1-SP, 2-SP)
0.059	98	Roofs, HSG C (3-SP)
0.065	98	Unconnected pavement, HSG B (1-SP)
0.012	98	Unconnected pavement, HSG C (3-SP)
4.367	87	TOTAL AREA

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Soil Listing (selected nodes)

Area (acres)	Soil Group	Subcatchment Numbers
0.000	HSG A	
0.783	HSG B	1-SP, 2-SP
0.844	HSG C	1-SP, 3-SP
0.000	HSG D	
2.740	Other	1-SP, 2-SP, 3-SP, 3-SX(10)
4.367		TOTAL AREA

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Ground Covers (selected nodes)

HSG-A (acres)	HSG-B (acres)	HSG-C (acres)	HSG-D (acres)	Other (acres)	Total (acres)	Ground Cover	Subcatchment Numbers
0.000	0.718	0.773	0.000	0.000	1.491		1-SP, 2-SP, 3-SP
0.000	0.000	0.000	0.000	0.171	0.171	Bottom of Bioretention Basin	1-SP
0.000	0.000	0.000	0.000	1.421	1.421	City of Madison Flows	3-SX(10)
0.000	0.000	0.000	0.000	0.506	0.506	Driveway	1-SP, 2-SP, 3-SP
0.000	0.000	0.000	0.000	0.642	0.642	Roof	1-SP, 2-SP
0.000	0.000	0.059	0.000	0.000	0.059	Roofs	3-SP
0.000	0.065	0.012	0.000	0.000	0.077	Unconnected pavement	1-SP, 3-SP
0.000	0.783	0.844	0.000	2.740	4.367	TOTAL AREA	

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Pipe Listing (selected nodes)

Line#	Node Number	In-Invert (feet)	Out-Invert (feet)	Length (feet)	Slope (ft/ft)	n	Width (inches)	Diam/Height (inches)	Inside-Fill (inches)	Node Name
1	1P	864.70	864.70	100.0	0.0000	0.013	0.0	6.0	0.0	
2	1P	864.70	864.20	80.2	0.0062	0.013	0.0	18.0	0.0	

Model_2025-04-14_OliveTreePostdev

MSE 24-hr 4 10-yr. Dane Rainfall=4.09"

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Time span=0.00-96.00 hrs, dt=0.05 hrs, 1921 points
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN

Reach routing by Dyn-Stor-Ind method - Pond routing by Dyn-Stor-Ind method

Subcatchment1-SP: On-Site

Runoff Area=1.901 ac 64.44% Impervious Runoff Depth=2.91"
Tc=6.0 min CN=89 Runoff=8.32 cfs 0.461 af

Subcatchment2-SP: Off-Site

Runoff Area=0.873 ac 17.75% Impervious Runoff Depth=1.26"
Flow Length=200' Tc=6.6 min CN=68 Runoff=1.66 cfs 0.092 af

Subcatchment3-SP: On-Site

Runoff Area=0.172 ac 43.60% Impervious Runoff Depth=2.36"
Tc=6.0 min CN=83 Runoff=0.63 cfs 0.034 af

Subcatchment3-SX(10): 10-Year Madison

Runoff Area=1.421 ac 100.00% Impervious Runoff Depth=3.85"
Tc=6.0 min CN=98 Runoff=7.30 cfs 0.456 af

Reach 1R: Outlet

Inflow=9.93 cfs 1.043 af
Outflow=9.93 cfs 1.043 af

Pond 1P: Proposed Basin

Peak Elev=868.15' Storage=11,603 cf Inflow=17.24 cfs 1.009 af
Primary=9.59 cfs 1.010 af Secondary=0.00 cfs 0.000 af Outflow=9.59 cfs 1.010 af

Total Runoff Area = 4.367 ac Runoff Volume = 1.043 af Average Runoff Depth = 2.87"
34.14% Pervious = 1.491 ac 65.86% Impervious = 2.876 ac

Model_2025-04-14_OliveTreePostdev

MSE 24-hr 4 10-yr. Dane Rainfall=4.09"

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Summary for Subcatchment 1-SP: On-Site

Runoff = 8.32 cfs @ 12.13 hrs, Volume= 0.461 af, Depth= 2.91"
Routed to Pond 1P : Proposed Basin

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-96.00 hrs, dt= 0.05 hrs
MSE 24-hr 4 10-yr. Dane Rainfall=4.09"

Area (ac)	CN	Description			
* 0.501	98	Roof			
* 0.488	98	Driveway			
* 0.171	100	Bottom of Bioretention Basin			
* 0.676	71	HSG C, City Ordinance			
0.065	98	Unconnected pavement, HSG B			
1.901	89	Weighted Average			
0.676		35.56% Pervious Area			
1.225		64.44% Impervious Area			
0.065		5.31% Unconnected			
Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					Direct Entry,

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MSE 24-hr 4 10-yr. Dane Rainfall=4.09"

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Summary for Subcatchment 2-SP: Off-Site

Runoff = 1.66 cfs @ 12.15 hrs, Volume= 0.092 af, Depth= 1.26"
Routed to Pond 1P : Proposed Basin

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-96.00 hrs, dt= 0.05 hrs
MSE 24-hr 4 10-yr. Dane Rainfall=4.09"

Area (ac)	CN	Description
* 0.141	98	Roof
* 0.014	98	Driveway
* 0.718	61	HSG B, City Ordinance
0.873	68	Weighted Average
0.718		82.25% Pervious Area
0.155		17.75% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.1	100	0.0747	0.27		Sheet Flow, Grass: Short n= 0.150 P2= 2.84"
0.5	100	0.0412	3.27		Shallow Concentrated Flow, Unpaved Kv= 16.1 fps
6.6	200	Total			

Model_2025-04-14_OliveTreePostdev

MSE 24-hr 4 10-yr. Dane Rainfall=4.09"

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Summary for Subcatchment 3-SP: On-Site

Runoff = 0.63 cfs @ 12.13 hrs, Volume= 0.034 af, Depth= 2.36"
Routed to Reach 1R : Outlet

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-96.00 hrs, dt= 0.05 hrs
MSE 24-hr 4 10-yr. Dane Rainfall=4.09"

Area (ac)	CN	Description
* 0.004	98	Driveway
* 0.097	71	HSG C, City Ordinance
0.012	98	Unconnected pavement, HSG C
0.059	98	Roofs, HSG C
0.172	83	Weighted Average
0.097		56.40% Pervious Area
0.075		43.60% Impervious Area
0.012		16.00% Unconnected

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					Direct Entry,

Model_2025-04-14_OliveTreePostdev

MSE 24-hr 4 10-yr. Dane Rainfall=4.09"

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Summary for Subcatchment 3-SX(10): 10-Year Madison

Runoff = 7.30 cfs @ 12.13 hrs, Volume= 0.456 af, Depth= 3.85"
Routed to Pond 1P : Proposed Basin

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-96.00 hrs, dt= 0.05 hrs
MSE 24-hr 4 10-yr. Dane Rainfall=4.09"

Area (ac)	CN	Description
* 1.421	98	City of Madison Flows
1.421		100.00% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					Direct Entry,

Model_2025-04-14_OliveTreePostdev

MSE 24-hr 4 10-yr. Dane Rainfall=4.09"

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Summary for Reach 1R: Outlet

Inflow Area = 4.367 ac, 65.86% Impervious, Inflow Depth = 2.87" for 10-yr. Dane event
Inflow = 9.93 cfs @ 12.22 hrs, Volume= 1.043 af
Outflow = 9.93 cfs @ 12.22 hrs, Volume= 1.043 af, Atten= 0%, Lag= 0.0 min

Routing by Dyn-Stor-Ind method, Time Span= 0.00-96.00 hrs, dt= 0.05 hrs

Model_2025-04-14_OliveTreePostdev

MSE 24-hr 4 10-yr. Dane Rainfall=4.09"

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Summary for Pond 1P: Proposed Basin

Inflow Area = 4.195 ac, 66.77% Impervious, Inflow Depth = 2.89" for 10-yr. Dane event
 Inflow = 17.24 cfs @ 12.13 hrs, Volume= 1.009 af
 Outflow = 9.59 cfs @ 12.22 hrs, Volume= 1.010 af, Atten= 44%, Lag= 5.7 min
 Primary = 9.59 cfs @ 12.22 hrs, Volume= 1.010 af
 Routed to Reach 1R : Outlet
 Secondary = 0.00 cfs @ 0.00 hrs, Volume= 0.000 af
 Routed to Reach 1R : Outlet

Routing by Dyn-Stor-Ind method, Time Span= 0.00-96.00 hrs, dt= 0.05 hrs
 Peak Elev= 868.15' @ 12.22 hrs Surf.Area= 8,559 sf Storage= 11,603 cf

Plug-Flow detention time= (not calculated: outflow precedes inflow)
 Center-of-Mass det. time= 36.9 min (815.0 - 778.1)

Volume	Invert	Avail.Storage	Storage Description		
#1	866.70'	25,840 cf	Custom Stage Data (Irregular) Listed below (Recalc)		
Elevation (feet)	Surf.Area (sq-ft)	Perim. (feet)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)	Wet.Area (sq-ft)
866.70	7,400	390.0	0	0	7,400
867.70	8,200	400.0	7,797	7,797	8,142
868.70	9,000	410.0	8,597	16,393	8,904
869.70	9,900	420.0	9,446	25,840	9,684

Device	Routing	Invert	Outlet Devices
#1	Device 2	866.70'	3.600 in/hr Exfiltration over Surface area from 866.69' - 866.71' Excluded Surface area = 0 sf
#2	Device 3	864.70'	6.0" Round 6" Underdrain L= 100.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 864.70' / 864.70' S= 0.0000 ' Cc= 0.900 n= 0.013 Corrugated PE, smooth interior, Flow Area= 0.20 sf
#3	Primary	864.70'	18.0" Round 18" RCP L= 80.2' RCP, sq.cut end projecting, Ke= 0.500 Inlet / Outlet Invert= 864.70' / 864.20' S= 0.0062 ' Cc= 0.900 n= 0.013 Corrugated PE, smooth interior, Flow Area= 1.77 sf
#4	Device 3	867.20'	36.0" W x 12.0" H Vert. Orifice/Grate C= 0.600 Limited to weir flow at low heads
#5	Device 3	868.20'	48.0" Horiz. 48" Standpipe C= 0.600 Limited to weir flow at low heads
#6	Secondary	869.20'	30.0' long x 10.0' breadth Broad-Crested Rectangular Weir Head (feet) 0.20 0.40 0.60 0.80 1.00 1.20 1.40 1.60 Coef. (English) 2.49 2.56 2.70 2.69 2.68 2.69 2.67 2.64

Model_2025-04-14_OliveTreePostdev

MSE 24-hr 4 10-yr. Dane Rainfall=4.09"

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Primary OutFlow Max=9.39 cfs @ 12.22 hrs HW=868.14' TW=0.00' (Dynamic Tailwater)
 ↳ **3=18" RCP** (Passes 9.39 cfs of 12.86 cfs potential flow)
 ↳ **2=6" Underdrain** (Passes 0.62 cfs of 0.86 cfs potential flow)
 ↳ **1=Exfiltration** (Exfiltration Controls 0.62 cfs)
 ↳ **4=Orifice/Grate** (Orifice Controls 8.78 cfs @ 3.11 fps)
 ↳ **5=48" Standpipe** (Controls 0.00 cfs)

Secondary OutFlow Max=0.00 cfs @ 0.00 hrs HW=866.70' TW=0.00' (Dynamic Tailwater)
 ↳ **6=Broad-Crested Rectangular Weir** (Controls 0.00 cfs)

Model_2025-04-14_OliveTreePostdev

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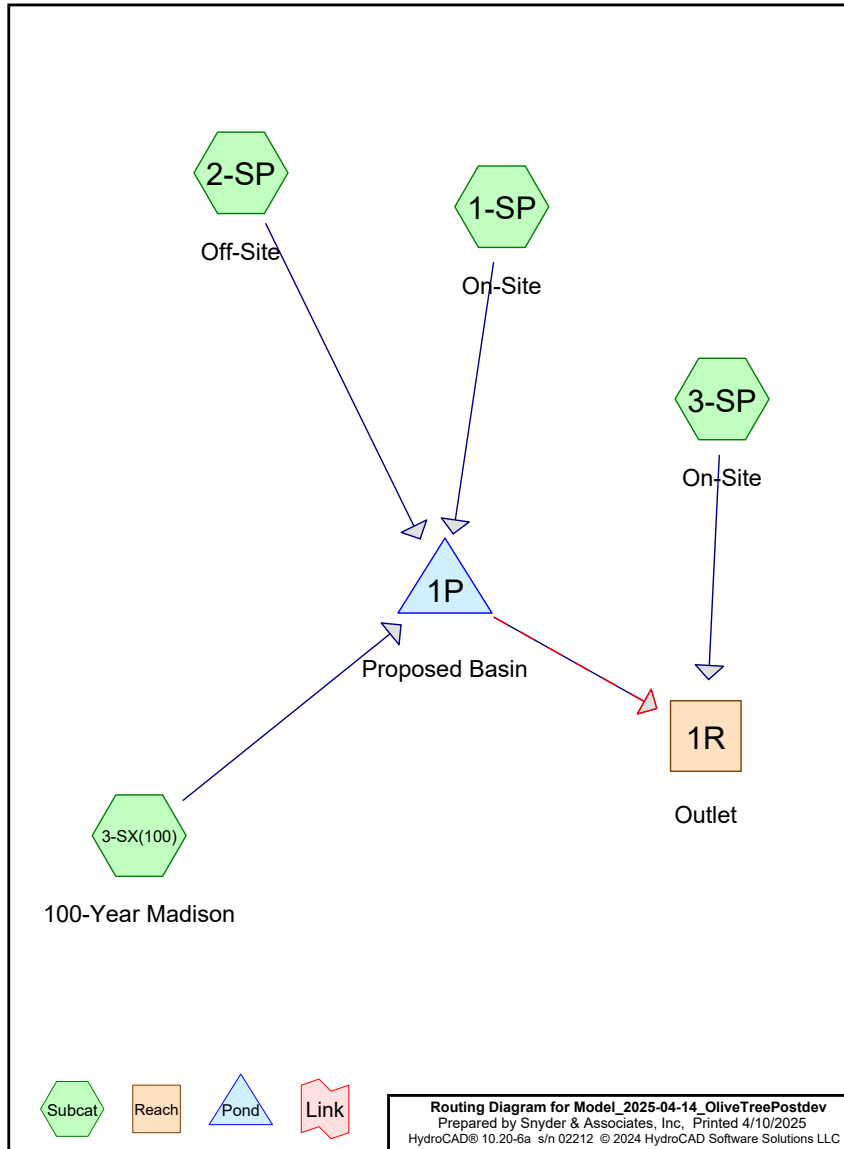
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Rainfall Events Listing (selected events)

Event#	Event Name	Storm Type	Curve	Mode	Duration (hours)	B/B	Depth (inches)	AMC
1	100-yr. Dane	MSE 24-hr	4	Default	24.00	1	6.66	2



Routing Diagram for Model_2025-04-14_OliveTreePostdev
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Area Listing (selected nodes)

Area (acres)	CN	Description (subcatchment-numbers)
0.171	100	Bottom of Bioretention Basin (1-SP)
1.868	98	City of Madison Flows (3-SX(100))
0.506	98	Driveway (1-SP, 2-SP, 3-SP)
0.718	61	HSG B, City Ordinance (2-SP)
0.773	71	HSG C, City Ordinance (1-SP, 3-SP)
0.642	98	Roof (1-SP, 2-SP)
0.059	98	Roofs, HSG C (3-SP)
0.065	98	Unconnected pavement, HSG B (1-SP)
0.012	98	Unconnected pavement, HSG C (3-SP)
4.814	88	TOTAL AREA

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Soil Listing (selected nodes)

Area (acres)	Soil Group	Subcatchment Numbers
0.000	HSG A	
0.783	HSG B	1-SP, 2-SP
0.844	HSG C	1-SP, 3-SP
0.000	HSG D	
3.187	Other	1-SP, 2-SP, 3-SP, 3-SX(100)
4.814		TOTAL AREA

Model_2025-04-14_OliveTreePostdev

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Ground Covers (selected nodes)

HSG-A (acres)	HSG-B (acres)	HSG-C (acres)	HSG-D (acres)	Other (acres)	Total (acres)	Ground Cover	Subcatchment Numbers
0.000	0.718	0.773	0.000	0.000	1.491		1-SP, 2-SP, 3-SP
0.000	0.000	0.000	0.000	0.171	0.171	Bottom of Bioretention Basin	1-SP
0.000	0.000	0.000	0.000	1.868	1.868	City of Madison Flows	3-SX(100)
0.000	0.000	0.000	0.000	0.506	0.506	Driveway	1-SP, 2-SP, 3-SP
0.000	0.000	0.000	0.000	0.642	0.642	Roof	1-SP, 2-SP
0.000	0.000	0.059	0.000	0.000	0.059	Roofs	3-SP
0.000	0.065	0.012	0.000	0.000	0.077	Unconnected pavement	1-SP, 3-SP
0.000	0.783	0.844	0.000	3.187	4.814	TOTAL AREA	

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Pipe Listing (selected nodes)

Line#	Node Number	In-Invert (feet)	Out-Invert (feet)	Length (feet)	Slope (ft/ft)	n	Width (inches)	Diam/Height (inches)	Inside-Fill (inches)	Node Name
1	1P	864.70	864.70	100.0	0.0000	0.013	0.0	6.0	0.0	
2	1P	864.70	864.20	80.2	0.0062	0.013	0.0	18.0	0.0	

Model_2025-04-14_OliveTreePostdev

MSE 24-hr 4 100-yr. Dane Rainfall=6.66"

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Time span=0.00-96.00 hrs, dt=0.05 hrs, 1921 points
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN

Reach routing by Dyn-Stor-Ind method - Pond routing by Dyn-Stor-Ind method

Subcatchment1-SP: On-Site

Runoff Area=1.901 ac 64.44% Impervious Runoff Depth=5.38"
Tc=6.0 min CN=89 Runoff=14.81 cfs 0.852 af

Subcatchment2-SP: Off-Site

Runoff Area=0.873 ac 17.75% Impervious Runoff Depth=3.14"
Flow Length=200' Tc=6.6 min CN=68 Runoff=4.24 cfs 0.228 af

Subcatchment3-SP: On-Site

Runoff Area=0.172 ac 43.60% Impervious Runoff Depth=4.71"
Tc=6.0 min CN=83 Runoff=1.22 cfs 0.067 af

Subcatchment3-SX(100): 100-Year

Runoff Area=1.868 ac 100.00% Impervious Runoff Depth=6.42"
Tc=6.0 min CN=98 Runoff=15.70 cfs 1.000 af

Reach 1R: Outlet

Inflow=17.32 cfs 2.147 af
Outflow=17.32 cfs 2.147 af

Pond 1P: Proposed Basin

Peak Elev=869.26' Storage=21,619 cf Inflow=34.69 cfs 2.080 af
Primary=15.55 cfs 2.074 af Secondary=1.23 cfs 0.006 af Outflow=16.78 cfs 2.080 af

Total Runoff Area = 4.814 ac Runoff Volume = 2.147 af Average Runoff Depth = 5.35"
30.97% Pervious = 1.491 ac 69.03% Impervious = 3.323 ac

Model_2025-04-14_OliveTreePostdev

MSE 24-hr 4 100-yr. Dane Rainfall=6.66"

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Summary for Subcatchment 1-SP: On-Site

Runoff = 14.81 cfs @ 12.13 hrs, Volume= 0.852 af, Depth= 5.38"
Routed to Pond 1P : Proposed Basin

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-96.00 hrs, dt= 0.05 hrs
MSE 24-hr 4 100-yr. Dane Rainfall=6.66"

Area (ac)	CN	Description			
* 0.501	98	Roof			
* 0.488	98	Driveway			
* 0.171	100	Bottom of Bioretention Basin			
* 0.676	71	HSG C, City Ordinance			
0.065	98	Unconnected pavement, HSG B			
1.901	89	Weighted Average			
0.676		35.56% Pervious Area			
1.225		64.44% Impervious Area			
0.065		5.31% Unconnected			
Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					Direct Entry,

Model_2025-04-14_OliveTreePostdev

MSE 24-hr 4 100-yr. Dane Rainfall=6.66"

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Summary for Subcatchment 2-SP: Off-Site

Runoff = 4.24 cfs @ 12.14 hrs, Volume= 0.228 af, Depth= 3.14"
Routed to Pond 1P : Proposed Basin

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-96.00 hrs, dt= 0.05 hrs
MSE 24-hr 4 100-yr. Dane Rainfall=6.66"

Area (ac)	CN	Description
* 0.141	98	Roof
* 0.014	98	Driveway
* 0.718	61	HSG B, City Ordinance
0.873	68	Weighted Average
0.718		82.25% Pervious Area
0.155		17.75% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.1	100	0.0747	0.27		Sheet Flow, Grass: Short n= 0.150 P2= 2.84"
0.5	100	0.0412	3.27		Shallow Concentrated Flow, Unpaved Kv= 16.1 fps
6.6	200	Total			

Model_2025-04-14_OliveTreePostdev

MSE 24-hr 4 100-yr. Dane Rainfall=6.66"

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Summary for Subcatchment 3-SP: On-Site

Runoff = 1.22 cfs @ 12.13 hrs, Volume= 0.067 af, Depth= 4.71"
Routed to Reach 1R : Outlet

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-96.00 hrs, dt= 0.05 hrs
MSE 24-hr 4 100-yr. Dane Rainfall=6.66"

Area (ac)	CN	Description
* 0.004	98	Driveway
* 0.097	71	HSG C, City Ordinance
0.012	98	Unconnected pavement, HSG C
0.059	98	Roofs, HSG C
0.172	83	Weighted Average
0.097		56.40% Pervious Area
0.075		43.60% Impervious Area
0.012		16.00% Unconnected

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					Direct Entry,

Model_2025-04-14_OliveTreePostdev

MSE 24-hr 4 100-yr. Dane Rainfall=6.66"

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Summary for Subcatchment 3-SX(100): 100-Year Madison

Runoff = 15.70 cfs @ 12.13 hrs, Volume= 1.000 af, Depth= 6.42"
 Routed to Pond 1P : Proposed Basin

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-96.00 hrs, dt= 0.05 hrs
 MSE 24-hr 4 100-yr. Dane Rainfall=6.66"

Area (ac)	CN	Description
* 1.868	98	City of Madison Flows
1.868		100.00% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					Direct Entry,

Model_2025-04-14_OliveTreePostdev

MSE 24-hr 4 100-yr. Dane Rainfall=6.66"

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Summary for Reach 1R: Outlet

Inflow Area = 4.814 ac, 69.03% Impervious, Inflow Depth = 5.35" for 100-yr. Dane event
 Inflow = 17.32 cfs @ 12.24 hrs, Volume= 2.147 af
 Outflow = 17.32 cfs @ 12.24 hrs, Volume= 2.147 af, Atten= 0%, Lag= 0.0 min

Routing by Dyn-Stor-Ind method, Time Span= 0.00-96.00 hrs, dt= 0.05 hrs

Model_2025-04-14_OliveTreePostdev

MSE 24-hr 4 100-yr. Dane Rainfall=6.66"

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Summary for Pond 1P: Proposed Basin

Inflow Area = 4.642 ac, 69.97% Impervious, Inflow Depth = 5.38" for 100-yr. Dane event
 Inflow = 34.69 cfs @ 12.13 hrs, Volume= 2.080 af
 Outflow = 16.78 cfs @ 12.25 hrs, Volume= 2.080 af, Atten= 52%, Lag= 7.2 min
 Primary = 15.55 cfs @ 12.25 hrs, Volume= 2.074 af
 Routed to Reach 1R : Outlet
 Secondary = 1.23 cfs @ 12.25 hrs, Volume= 0.006 af
 Routed to Reach 1R : Outlet

Routing by Dyn-Stor-Ind method, Time Span= 0.00-96.00 hrs, dt= 0.05 hrs
 Peak Elev= 869.26' @ 12.25 hrs Surf.Area= 9,503 sf Storage= 21,619 cf

Plug-Flow detention time= (not calculated: outflow precedes inflow)
 Center-of-Mass det. time= 35.3 min (801.4 - 766.1)

Volume	Invert	Avail.Storage	Storage Description		
#1	866.70'	25,840 cf	Custom Stage Data (Irregular) Listed below (Recalc)		
Elevation (feet)	Surf.Area (sq-ft)	Perim. (feet)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)	Wet.Area (sq-ft)
866.70	7,400	390.0	0	0	7,400
867.70	8,200	400.0	7,797	7,797	8,142
868.70	9,000	410.0	8,597	16,393	8,904
869.70	9,900	420.0	9,446	25,840	9,684

Device	Routing	Invert	Outlet Devices
#1	Device 2	866.70'	3.600 in/hr Exfiltration over Surface area from 866.69' - 866.71' Excluded Surface area = 0 sf
#2	Device 3	864.70'	6.0" Round 6" Underdrain L= 100.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 864.70' / 864.70' S= 0.0000 ' S= 0.0000 ' Cc= 0.900 n= 0.013 Corrugated PE, smooth interior, Flow Area= 0.20 sf
#3	Primary	864.70'	18.0" Round 18" RCP L= 80.2' RCP, sq.cut end projecting, Ke= 0.500 Inlet / Outlet Invert= 864.70' / 864.20' S= 0.0062 ' S= 0.0062 ' Cc= 0.900 n= 0.013 Corrugated PE, smooth interior, Flow Area= 1.77 sf
#4	Device 3	867.20'	36.0" W x 12.0" H Vert. Orifice/Grate C= 0.600 Limited to weir flow at low heads
#5	Device 3	868.20'	48.0" Horiz. 48" Standpipe C= 0.600 Limited to weir flow at low heads
#6	Secondary	869.20'	30.0' long x 10.0' breadth Broad-Crested Rectangular Weir Head (feet) 0.20 0.40 0.60 0.80 1.00 1.20 1.40 1.60 Coef. (English) 2.49 2.56 2.70 2.69 2.68 2.69 2.67 2.64

Model_2025-04-14_OliveTreePostdev

MSE 24-hr 4 100-yr. Dane Rainfall=6.66"

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Primary OutFlow Max=15.54 cfs @ 12.25 hrs HW=869.26' TW=0.00' (Dynamic Tailwater)
 3=18" RCP (Barrel Controls 15.54 cfs @ 8.79 fps)
 2=6" Underdrain (Passes < 1.01 cfs potential flow)
 1=Exfiltration (Passes < 0.62 cfs potential flow)
 4=Orifice/Grate (Passes < 17.98 cfs potential flow)
 5=48" Standpipe (Passes < 44.99 cfs potential flow)

Secondary OutFlow Max=1.19 cfs @ 12.25 hrs HW=869.26' TW=0.00' (Dynamic Tailwater)
 6=Broad-Crested Rectangular Weir(Weir Controls 1.19 cfs @ 0.63 fps)

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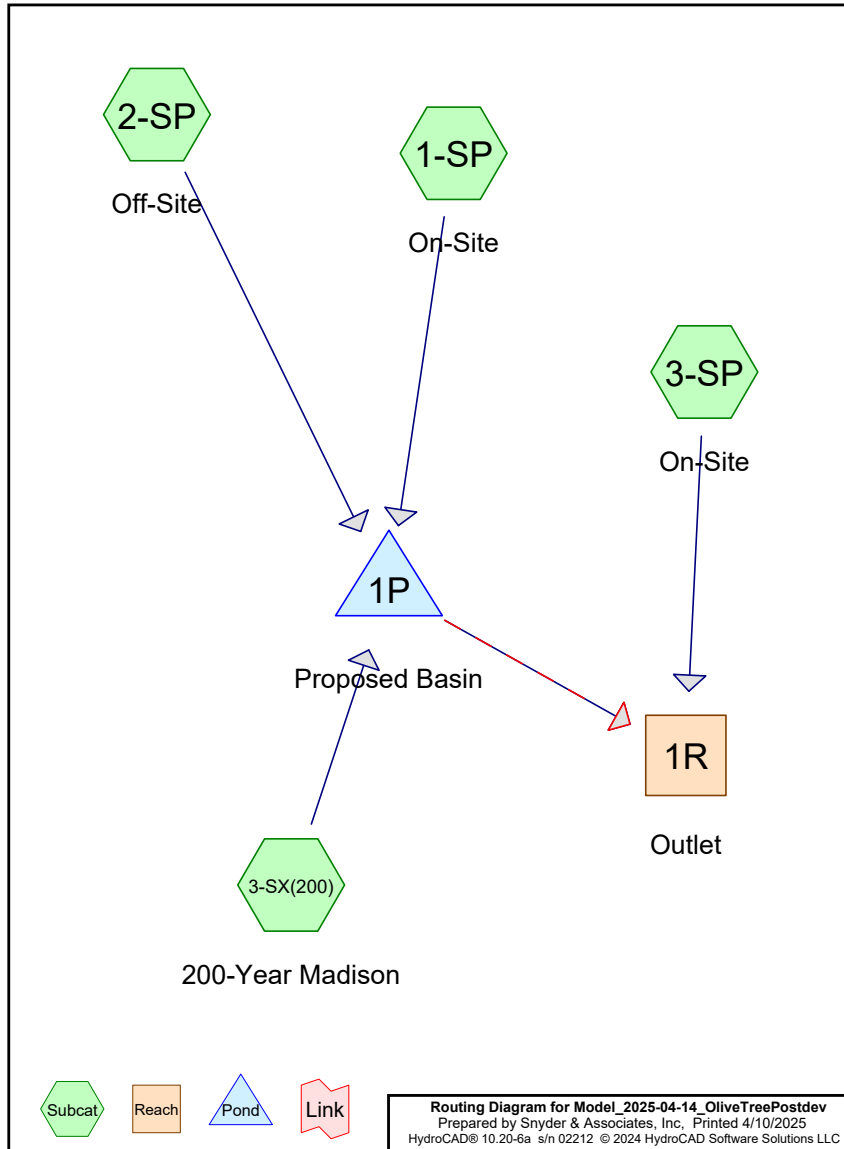
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Rainfall Events Listing (selected events)

Event#	Event Name	Storm Type	Curve	Mode	Duration (hours)	B/B	Depth (inches)	AMC
1	200-yr. Dane	MSE 24-hr	4	Default	24.00	1	7.53	2



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Area Listing (selected nodes)

Area (acres)	CN	Description (subcatchment-numbers)
0.171	100	Bottom of Bioretention Basin (1-SP)
1.967	98	City of Madison Flows (3-SX(200))
0.506	98	Driveway (1-SP, 2-SP, 3-SP)
0.718	61	HSG B, City Ordinance (2-SP)
0.773	71	HSG C, City Ordinance (1-SP, 3-SP)
0.642	98	Roof (1-SP, 2-SP)
0.059	98	Roofs, HSG C (3-SP)
0.065	98	Unconnected pavement, HSG B (1-SP)
0.012	98	Unconnected pavement, HSG C (3-SP)
4.913	88	TOTAL AREA

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Soil Listing (selected nodes)

Area (acres)	Soil Group	Subcatchment Numbers
0.000	HSG A	
0.783	HSG B	1-SP, 2-SP
0.844	HSG C	1-SP, 3-SP
0.000	HSG D	
3.286	Other	1-SP, 2-SP, 3-SP, 3-SX(200)
4.913		TOTAL AREA

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Ground Covers (selected nodes)

HSG-A (acres)	HSG-B (acres)	HSG-C (acres)	HSG-D (acres)	Other (acres)	Total (acres)	Ground Cover	Subcatchment Numbers
0.000	0.718	0.773	0.000	0.000	1.491		1-SP, 2-SP, 3-SP
0.000	0.000	0.000	0.000	0.171	0.171	Bottom of Bioretention Basin	1-SP
0.000	0.000	0.000	0.000	1.967	1.967	City of Madison Flows	3-SX(200)
0.000	0.000	0.000	0.000	0.506	0.506	Driveway	1-SP, 2-SP, 3-SP
0.000	0.000	0.000	0.000	0.642	0.642	Roof	1-SP, 2-SP
0.000	0.000	0.059	0.000	0.000	0.059	Roofs	3-SP
0.000	0.065	0.012	0.000	0.000	0.077	Unconnected pavement	1-SP, 3-SP
0.000	0.783	0.844	0.000	3.286	4.913	TOTAL AREA	

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Pipe Listing (selected nodes)

Line#	Node Number	In-Invert (feet)	Out-Invert (feet)	Length (feet)	Slope (ft/ft)	n	Width (inches)	Diam/Height (inches)	Inside-Fill (inches)	Node Name
1	1P	864.70	864.70	100.0	0.0000	0.013	0.0	6.0	0.0	
2	1P	864.70	864.20	80.2	0.0062	0.013	0.0	18.0	0.0	

Model_2025-04-14_OliveTreePostdev

MSE 24-hr 4 200-yr. Dane Rainfall=7.53"

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Time span=0.00-96.00 hrs, dt=0.05 hrs, 1921 points
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN

Reach routing by Dyn-Stor-Ind method - Pond routing by Dyn-Stor-Ind method

Subcatchment1-SP: On-Site

Runoff Area=1.901 ac 64.44% Impervious Runoff Depth=6.23"
Tc=6.0 min CN=89 Runoff=16.98 cfs 0.986 af

Subcatchment2-SP: Off-Site

Runoff Area=0.873 ac 17.75% Impervious Runoff Depth=3.84"
Flow Length=200' Tc=6.6 min CN=68 Runoff=5.19 cfs 0.280 af

Subcatchment3-SP: On-Site

Runoff Area=0.172 ac 43.60% Impervious Runoff Depth=5.53"
Tc=6.0 min CN=83 Runoff=1.42 cfs 0.079 af

Subcatchment3-SX(200): 200-Year

Runoff Area=1.967 ac 100.00% Impervious Runoff Depth=7.29"
Tc=6.0 min CN=98 Runoff=18.70 cfs 1.195 af

Reach 1R: Outlet

Inflow=28.91 cfs 2.541 af
Outflow=28.91 cfs 2.541 af

Pond 1P: Proposed Basin

Peak Elev=869.50' Storage=23.838 cf Inflow=40.81 cfs 2.461 af
Primary=16.04 cfs 2.358 af Secondary=12.02 cfs 0.103 af Outflow=28.07 cfs 2.461 af

Total Runoff Area = 4.913 ac Runoff Volume = 2.540 af Average Runoff Depth = 6.20"
30.35% Pervious = 1.491 ac 69.65% Impervious = 3.422 ac

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MSE 24-hr 4 200-yr. Dane Rainfall=7.53"

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Summary for Subcatchment 1-SP: On-Site

Runoff = 16.98 cfs @ 12.13 hrs, Volume= 0.986 af, Depth= 6.23"
Routed to Pond 1P : Proposed Basin

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-96.00 hrs, dt= 0.05 hrs
MSE 24-hr 4 200-yr. Dane Rainfall=7.53"

Area (ac)	CN	Description			
* 0.501	98	Roof			
* 0.488	98	Driveway			
* 0.171	100	Bottom of Bioretention Basin			
* 0.676	71	HSG C, City Ordinance			
0.065	98	Unconnected pavement, HSG B			
1.901	89	Weighted Average			
0.676		35.56% Pervious Area			
1.225		64.44% Impervious Area			
0.065		5.31% Unconnected			
Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					Direct Entry,

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MSE 24-hr 4 200-yr. Dane Rainfall=7.53"

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Summary for Subcatchment 2-SP: Off-Site

Runoff = 5.19 cfs @ 12.14 hrs, Volume= 0.280 af, Depth= 3.84"
Routed to Pond 1P : Proposed Basin

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-96.00 hrs, dt= 0.05 hrs
MSE 24-hr 4 200-yr. Dane Rainfall=7.53"

Area (ac)	CN	Description
* 0.141	98	Roof
* 0.014	98	Driveway
* 0.718	61	HSG B, City Ordinance
0.873	68	Weighted Average
0.718		82.25% Pervious Area
0.155		17.75% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.1	100	0.0747	0.27		Sheet Flow, Grass: Short n= 0.150 P2= 2.84"
0.5	100	0.0412	3.27		Shallow Concentrated Flow, Unpaved Kv= 16.1 fps
6.6	200	Total			

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MSE 24-hr 4 200-yr. Dane Rainfall=7.53"

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Summary for Subcatchment 3-SP: On-Site

Runoff = 1.42 cfs @ 12.13 hrs, Volume= 0.079 af, Depth= 5.53"
Routed to Reach 1R : Outlet

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-96.00 hrs, dt= 0.05 hrs
MSE 24-hr 4 200-yr. Dane Rainfall=7.53"

Area (ac)	CN	Description
* 0.004	98	Driveway
* 0.097	71	HSG C, City Ordinance
0.012	98	Unconnected pavement, HSG C
0.059	98	Roofs, HSG C
0.172	83	Weighted Average
0.097		56.40% Pervious Area
0.075		43.60% Impervious Area
0.012		16.00% Unconnected

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					Direct Entry,

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MSE 24-hr 4 200-yr. Dane Rainfall=7.53"

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Summary for Subcatchment 3-SX(200): 200-Year Madison

Runoff = 18.70 cfs @ 12.13 hrs, Volume= 1.195 af, Depth= 7.29"
 Routed to Pond 1P : Proposed Basin

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-96.00 hrs, dt= 0.05 hrs
 MSE 24-hr 4 200-yr. Dane Rainfall=7.53"

Area (ac)	CN	Description
* 1.967	98	City of Madison Flows
1.967		100.00% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					Direct Entry,

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MSE 24-hr 4 200-yr. Dane Rainfall=7.53"

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Summary for Reach 1R: Outlet

Inflow Area = 4.913 ac, 69.65% Impervious, Inflow Depth = 6.21" for 200-yr. Dane event
 Inflow = 28.91 cfs @ 12.21 hrs, Volume= 2.541 af
 Outflow = 28.91 cfs @ 12.21 hrs, Volume= 2.541 af, Atten= 0%, Lag= 0.0 min

Routing by Dyn-Stor-Ind method, Time Span= 0.00-96.00 hrs, dt= 0.05 hrs

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MSE 24-hr 4 200-yr. Dane Rainfall=7.53"

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Summary for Pond 1P: Proposed Basin

Inflow Area = 4.741 ac, 70.60% Impervious, Inflow Depth = 6.23" for 200-yr. Dane event
 Inflow = 40.81 cfs @ 12.13 hrs, Volume= 2.461 af
 Outflow = 28.07 cfs @ 12.21 hrs, Volume= 2.461 af, Atten= 31%, Lag= 4.9 min
 Primary = 16.04 cfs @ 12.21 hrs, Volume= 2.358 af
 Routed to Reach 1R : Outlet
 Secondary = 12.02 cfs @ 12.21 hrs, Volume= 0.103 af
 Routed to Reach 1R : Outlet

Routing by Dyn-Stor-Ind method, Time Span= 0.00-96.00 hrs, dt= 0.05 hrs
 Peak Elev= 869.50' @ 12.21 hrs Surf.Area= 9,713 sf Storage= 23,838 cf

Plug-Flow detention time= (not calculated: outflow precedes inflow)
 Center-of-Mass det. time= 35.0 min (798.5 - 763.5)

Volume	Invert	Avail.Storage	Storage Description		
#1	866.70'	25,840 cf	Custom Stage Data (Irregular) Listed below (Recalc)		
Elevation (feet)	Surf.Area (sq-ft)	Perim. (feet)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)	Wet.Area (sq-ft)
866.70	7,400	390.0	0	0	7,400
867.70	8,200	400.0	7,797	7,797	8,142
868.70	9,000	410.0	8,597	16,393	8,904
869.70	9,900	420.0	9,446	25,840	9,684

Device	Routing	Invert	Outlet Devices
#1	Device 2	866.70'	3.600 in/hr Exfiltration over Surface area from 866.69' - 866.71' Excluded Surface area = 0 sf
#2	Device 3	864.70'	6.0" Round 6" Underdrain L= 100.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 864.70' / 864.70' S= 0.0000 ' S= 0.0000 ' Cc= 0.900 n= 0.013 Corrugated PE, smooth interior, Flow Area= 0.20 sf
#3	Primary	864.70'	18.0" Round 18" RCP L= 80.2' RCP, sq.cut end projecting, Ke= 0.500 Inlet / Outlet Invert= 864.70' / 864.20' S= 0.0062 ' S= 0.0062 ' Cc= 0.900 n= 0.013 Corrugated PE, smooth interior, Flow Area= 1.77 sf
#4	Device 3	867.20'	36.0" W x 12.0" H Vert. Orifice/Grate C= 0.600 Limited to weir flow at low heads
#5	Device 3	868.20'	48.0" Horiz. 48" Standpipe C= 0.600 Limited to weir flow at low heads
#6	Secondary	869.20'	30.0' long x 10.0' breadth Broad-Crested Rectangular Weir Head (feet) 0.20 0.40 0.60 0.80 1.00 1.20 1.40 1.60 Coef. (English) 2.49 2.56 2.70 2.69 2.68 2.69 2.67 2.64

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MSE 24-hr 4 200-yr. Dane Rainfall=7.53"

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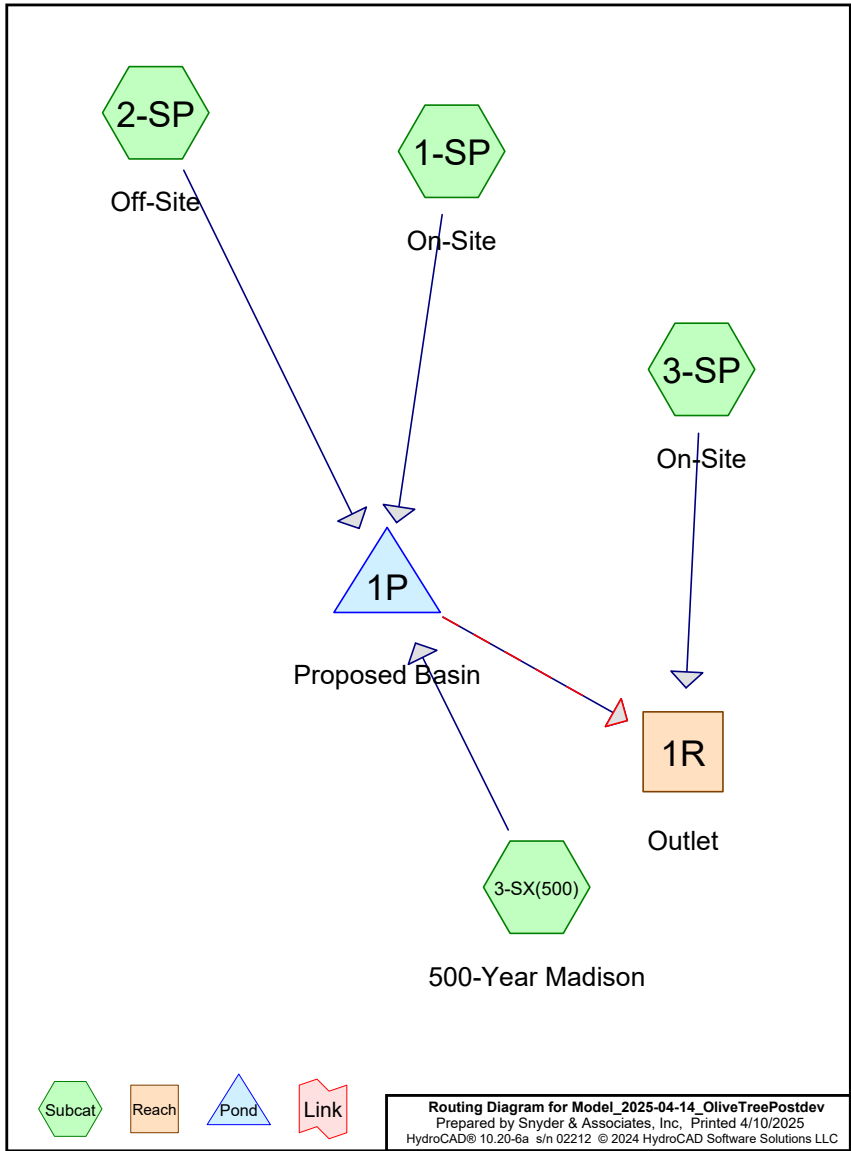
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Primary OutFlow Max=15.99 cfs @ 12.21 hrs HW=869.47' TW=0.00' (Dynamic Tailwater)

- 3=18" RCP (Barrel Controls 15.99 cfs @ 9.05 fps)
- 2=6" Underdrain (Passes < 1.04 cfs potential flow)
- 1=Exfiltration (Passes < 0.62 cfs potential flow)
- 4=Orifice/Grate (Passes < 19.17 cfs potential flow)
- 5=48" Standpipe (Passes < 59.05 cfs potential flow)

Secondary OutFlow Max=10.93 cfs @ 12.21 hrs HW=869.48' TW=0.00' (Dynamic Tailwater)

- 6=Broad-Crested Rectangular Weir (Weir Controls 10.93 cfs @ 1.32 fps)



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Rainfall Events Listing (selected events)

Event#	Event Name	Storm Type	Curve	Mode	Duration (hours)	B/B	Depth (inches)	AMC
1	500-yr. Dane	MSE 24-hr	4	Default	24.00	1	8.94	2

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Area Listing (selected nodes)

Area (acres)	CN	Description (subcatchment-numbers)
0.171	100	Bottom of Bioretention Basin (1-SP)
2.107	98	City of Madison Flows (3-SX(500))
0.506	98	Driveway (1-SP, 2-SP, 3-SP)
0.718	61	HSG B, City Ordinance (2-SP)
0.773	71	HSG C, City Ordinance (1-SP, 3-SP)
0.642	98	Roof (1-SP, 2-SP)
0.059	98	Roofs, HSG C (3-SP)
0.065	98	Unconnected pavement, HSG B (1-SP)
0.012	98	Unconnected pavement, HSG C (3-SP)
5.053	89	TOTAL AREA

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Soil Listing (selected nodes)

Area (acres)	Soil Group	Subcatchment Numbers
0.000	HSG A	
0.783	HSG B	1-SP, 2-SP
0.844	HSG C	1-SP, 3-SP
0.000	HSG D	
3.426	Other	1-SP, 2-SP, 3-SP, 3-SX(500)
5.053		TOTAL AREA

Model_2025-04-14_OliveTreePostdev

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Ground Covers (selected nodes)

HSG-A (acres)	HSG-B (acres)	HSG-C (acres)	HSG-D (acres)	Other (acres)	Total (acres)	Ground Cover	Subcatchment Numbers
0.000	0.718	0.773	0.000	0.000	1.491		1-SP, 2-SP, 3-SP
0.000	0.000	0.000	0.000	0.171	0.171	Bottom of Bioretention Basin	1-SP
0.000	0.000	0.000	0.000	2.107	2.107	City of Madison Flows	3-SX(500)
0.000	0.000	0.000	0.000	0.506	0.506	Driveway	1-SP, 2-SP, 3-SP
0.000	0.000	0.000	0.000	0.642	0.642	Roof	1-SP, 2-SP
0.000	0.000	0.059	0.000	0.000	0.059	Roofs	3-SP
0.000	0.065	0.012	0.000	0.000	0.077	Unconnected pavement	1-SP, 3-SP
0.000	0.783	0.844	0.000	3.426	5.053	TOTAL AREA	

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Pipe Listing (selected nodes)

Line#	Node Number	In-Invert (feet)	Out-Invert (feet)	Length (feet)	Slope (ft/ft)	n	Width (inches)	Diam/Height (inches)	Inside-Fill (inches)	Node Name
1	1P	864.70	864.70	100.0	0.0000	0.013	0.0	6.0	0.0	
2	1P	864.70	864.20	80.2	0.0062	0.013	0.0	18.0	0.0	

Model_2025-04-14_OliveTreePostdev

MSE 24-hr 4 500-yr. Dane Rainfall=8.94"

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Time span=0.00-96.00 hrs, dt=0.05 hrs, 1921 points

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN

Reach routing by Dyn-Stor-Ind method - Pond routing by Dyn-Stor-Ind method

Subcatchment1-SP: On-Site

Runoff Area=1.901 ac 64.44% Impervious Runoff Depth=7.61"
Tc=6.0 min CN=89 Runoff=20.49 cfs 1.206 af

Subcatchment2-SP: Off-Site

Runoff Area=0.873 ac 17.75% Impervious Runoff Depth=5.04"
Flow Length=200' Tc=6.6 min CN=68 Runoff=6.76 cfs 0.366 af

Subcatchment3-SP: On-Site

Runoff Area=0.172 ac 43.60% Impervious Runoff Depth=6.88"
Tc=6.0 min CN=83 Runoff=1.74 cfs 0.099 af

Subcatchment3-SX(500): 500-Year

Runoff Area=2.107 ac 100.00% Impervious Runoff Depth=8.70"
Tc=6.0 min CN=98 Runoff=23.80 cfs 1.528 af

Reach 1R: Outlet

Inflow=43.54 cfs 3.198 af

Outflow=43.54 cfs 3.198 af

Pond 1P: Proposed Basin

Peak Elev=869.68' Storage=25,628 cf Inflow=50.98 cfs 3.100 af

Primary=16.42 cfs 2.799 af Secondary=25.76 cfs 0.301 af Outflow=42.18 cfs 3.100 af

Total Runoff Area = 5.053 ac Runoff Volume = 3.198 af Average Runoff Depth = 7.60"
29.51% Pervious = 1.491 ac 70.49% Impervious = 3.562 ac

Model_2025-04-14_OliveTreePostdev

MSE 24-hr 4 500-yr. Dane Rainfall=8.94"

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Summary for Subcatchment 1-SP: On-Site

Runoff = 20.49 cfs @ 12.13 hrs, Volume= 1.206 af, Depth= 7.61"
Routed to Pond 1P : Proposed Basin

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-96.00 hrs, dt= 0.05 hrs
MSE 24-hr 4 500-yr. Dane Rainfall=8.94"

Area (ac)	CN	Description
* 0.501	98	Roof
* 0.488	98	Driveway
* 0.171	100	Bottom of Bioretention Basin
* 0.676	71	HSG C, City Ordinance
0.065	98	Unconnected pavement, HSG B
1.901	89	Weighted Average
0.676		35.56% Pervious Area
1.225		64.44% Impervious Area
0.065		5.31% Unconnected

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					Direct Entry,

Model_2025-04-14_OliveTreePostdev

MSE 24-hr 4 500-yr. Dane Rainfall=8.94"

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Summary for Subcatchment 2-SP: Off-Site

Runoff = 6.76 cfs @ 12.14 hrs, Volume= 0.366 af, Depth= 5.04"
Routed to Pond 1P : Proposed Basin

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-96.00 hrs, dt= 0.05 hrs
MSE 24-hr 4 500-yr. Dane Rainfall=8.94"

Area (ac)	CN	Description
* 0.141	98	Roof
* 0.014	98	Driveway
* 0.718	61	HSG B, City Ordinance
0.873	68	Weighted Average
0.718		82.25% Pervious Area
0.155		17.75% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.1	100	0.0747	0.27		Sheet Flow, Grass: Short n= 0.150 P2= 2.84"
0.5	100	0.0412	3.27		Shallow Concentrated Flow, Unpaved Kv= 16.1 fps
6.6	200	Total			

Model_2025-04-14_OliveTreePostdev

MSE 24-hr 4 500-yr. Dane Rainfall=8.94"

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Summary for Subcatchment 3-SP: On-Site

Runoff = 1.74 cfs @ 12.13 hrs, Volume= 0.099 af, Depth= 6.88"
Routed to Reach 1R : Outlet

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-96.00 hrs, dt= 0.05 hrs
MSE 24-hr 4 500-yr. Dane Rainfall=8.94"

Area (ac)	CN	Description
* 0.004	98	Driveway
* 0.097	71	HSG C, City Ordinance
0.012	98	Unconnected pavement, HSG C
0.059	98	Roofs, HSG C
0.172	83	Weighted Average
0.097		56.40% Pervious Area
0.075		43.60% Impervious Area
0.012		16.00% Unconnected

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					Direct Entry,

Model_2025-04-14_OliveTreePostdev

MSE 24-hr 4 500-yr. Dane Rainfall=8.94"

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Summary for Subcatchment 3-SX(500): 500-Year Madison

Runoff = 23.80 cfs @ 12.13 hrs, Volume= 1.528 af, Depth= 8.70"
Routed to Pond 1P : Proposed Basin

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-96.00 hrs, dt= 0.05 hrs
MSE 24-hr 4 500-yr. Dane Rainfall=8.94"

Area (ac)	CN	Description
* 2.107	98	City of Madison Flows
2.107		100.00% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					Direct Entry,

Model_2025-04-14_OliveTreePostdev

MSE 24-hr 4 500-yr. Dane Rainfall=8.94"

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Summary for Reach 1R: Outlet

Inflow Area = 5.053 ac, 70.49% Impervious, Inflow Depth = 7.60" for 500-yr. Dane event
Inflow = 43.54 cfs @ 12.18 hrs, Volume= 3.198 af
Outflow = 43.54 cfs @ 12.18 hrs, Volume= 3.198 af, Atten= 0%, Lag= 0.0 min

Routing by Dyn-Stor-Ind method, Time Span= 0.00-96.00 hrs, dt= 0.05 hrs

Model_2025-04-14_OliveTreePostdev

MSE 24-hr 4 500-yr. Dane Rainfall=8.94"

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Summary for Pond 1P: Proposed Basin

Inflow Area = 4.881 ac, 71.44% Impervious, Inflow Depth = 7.62" for 500-yr. Dane event
 Inflow = 50.98 cfs @ 12.13 hrs, Volume= 3.100 af
 Outflow = 42.18 cfs @ 12.18 hrs, Volume= 3.100 af, Atten= 17%, Lag= 2.9 min
 Primary = 16.42 cfs @ 12.18 hrs, Volume= 2.799 af
 Routed to Reach 1R : Outlet
 Secondary = 25.76 cfs @ 12.18 hrs, Volume= 0.301 af
 Routed to Reach 1R : Outlet

Routing by Dyn-Stor-Ind method, Time Span= 0.00-96.00 hrs, dt= 0.05 hrs
 Peak Elev= 869.68' @ 12.18 hrs Surf.Area= 9,880 sf Storage= 25,628 cf

Plug-Flow detention time= (not calculated: outflow precedes inflow)
 Center-of-Mass det. time= 33.2 min (793.2 - 760.0)

Volume	Invert	Avail.Storage	Storage Description		
#1	866.70'	25,840 cf	Custom Stage Data (Irregular) Listed below (Recalc)		
Elevation (feet)	Surf.Area (sq-ft)	Perim. (feet)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)	Wet.Area (sq-ft)
866.70	7,400	390.0	0	0	7,400
867.70	8,200	400.0	7,797	7,797	8,142
868.70	9,000	410.0	8,597	16,393	8,904
869.70	9,900	420.0	9,446	25,840	9,684

Device	Routing	Invert	Outlet Devices
#1	Device 2	866.70'	3.600 in/hr Exfiltration over Surface area from 866.69' - 866.71' Excluded Surface area = 0 sf
#2	Device 3	864.70'	6.0" Round 6" Underdrain L= 100.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 864.70' / 864.70' S= 0.0000 ' S= 0.0000 ' Cc= 0.900 n= 0.013 Corrugated PE, smooth interior, Flow Area= 0.20 sf
#3	Primary	864.70'	18.0" Round 18" RCP L= 80.2' RCP, sq.cut end projecting, Ke= 0.500 Inlet / Outlet Invert= 864.70' / 864.20' S= 0.0062 ' S= 0.0062 ' Cc= 0.900 n= 0.013 Corrugated PE, smooth interior, Flow Area= 1.77 sf
#4	Device 3	867.20'	36.0" W x 12.0" H Vert. Orifice/Grate C= 0.600 Limited to weir flow at low heads
#5	Device 3	868.20'	48.0" Horiz. 48" Standpipe C= 0.600 Limited to weir flow at low heads
#6	Secondary	869.20'	30.0' long x 10.0' breadth Broad-Crested Rectangular Weir Head (feet) 0.20 0.40 0.60 0.80 1.00 1.20 1.40 1.60 Coef. (English) 2.49 2.56 2.70 2.69 2.68 2.69 2.67 2.64

Model_2025-04-14_OliveTreePostdev

MSE 24-hr 4 500-yr. Dane Rainfall=8.94"

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Primary OutFlow Max=16.38 cfs @ 12.18 hrs HW=869.66' TW=0.00' (Dynamic Tailwater)

- 3=18" RCP (Barrel Controls 16.38 cfs @ 9.27 fps)
- 2=6" Underdrain (Passes < 1.06 cfs potential flow)
- 1=Exfiltration (Passes < 0.62 cfs potential flow)
- 4=Orifice/Grate (Passes < 20.16 cfs potential flow)
- 5=48" Standpipe (Passes < 72.46 cfs potential flow)

Secondary OutFlow Max=24.32 cfs @ 12.18 hrs HW=869.66' TW=0.00' (Dynamic Tailwater)

- 6=Broad-Crested Rectangular Weir (Weir Controls 24.32 cfs @ 1.76 fps)

APPENDIX G
WATER QUALITY AND INFILTRATION

Model Assumptions

Notes:

1. WinSLAMM model is based on the post-development HydroCAD model for the proposed project site along with the assumptions stated below.

Assumptions:

1. Post-development WinSLAMM model assumes normal clayey soil for any disturbed areas to account for compaction during construction.
2. Post-development HydroCAD model lowers permeable areas by one permeability class to account for compaction during construction.
3. Nodes were created in HydroCAD to simulate the flow across the site from the flooding on Maloney Drive as provided by the City of Madison by using a CN of 98 and an area that would give equivalent runoff for each storm event.
4. A node was created in WinSLAMM to simulate the flow across the site from the flooding on Maloney Drive as provided by the City of Madison using the 1-year storm event node from the HydroCAD model.



Data file name:

V:\Projects\2024\124.1205.30\Design\StormwaterModels\WinSLAMM\Model_2025-04-14_OliveTreePredev.mdb

WinSLAMM Version 10.5.0

Rain file name: C:\WinSLAMM Files\Rain Files\WisReg - Madison WI 1981.RAN

Particulate Solids Concentration file name: C:\WinSLAMM Files\v10.1 WI_AVG01.pscx

Runoff Coefficient file name: C:\WinSLAMM Files\WI_SL06 Dec06.rsvx

Residential Street Delivery file name: C:\WinSLAMM Files\WI_Res and Other Urban Dec06.std

Institutional Street Delivery file name: C:\WinSLAMM Files\WI_Com Inst Indust Dec06.std

Commercial Street Delivery file name: C:\WinSLAMM Files\WI_Com Inst Indust Dec06.std

Industrial Street Delivery file name: C:\WinSLAMM Files\WI_Com Inst Indust Dec06.std

Other Urban Street Delivery file name: C:\WinSLAMM Files\WI_Res and Other Urban Dec06.std

Freeway Street Delivery file name: C:\WinSLAMM Files\Freeway Dec06.std

Apply Street Delivery Files to Adjust the After Event Load Street Dirt Mass Balance: False

Pollutant Relative Concentration file name: C:\WinSLAMM Files\WI_GEO03.ppdx

Source Area PSD and Peak to Average Flow Ratio File: C:\WinSLAMM Files\NURP Source Area PSD Files.csv

Cost Data file name:

If Other Device Pollutant Load Reduction Values = 1, Off-site Pollutant Loads are Removed from Pollutant Load % Reduction calculations

Seed for random number generator: -42

Study period starting date: 01/01/81

Study period ending date: 12/31/81

Start of Winter Season: 12/02

End of Winter Season: 03/12

Date: 04-10-2025

Time: 10:47:44

Site information:

LU# 1 - Residential: 1-SX Total area (ac): 2.073

1 - Roofs 1: 0.054 ac. Pitched Connected Source Area PSD File: C:\WinSLAMM Files\NURP.cpz

25 - Driveways 1: 0.022 ac. Connected Source Area PSD File: C:\WinSLAMM Files\NURP.cpz

45 - Large Landscaped Areas 1: 1.997 ac. Normal Silty Source Area PSD File: C:\WinSLAMM

Files\NURP.cpz

LU# 2 - Residential: 2-SX Total area (ac): 0.873

1 - Roofs 1: 0.141 ac. Pitched Connected Source Area PSD File: C:\WinSLAMM Files\NURP.cpz

25 - Driveways 1: 0.014 ac. Connected Source Area PSD File: C:\WinSLAMM Files\NURP.cpz

45 - Large Landscaped Areas 1: 0.718 ac. Normal Silty Source Area PSD File: C:\WinSLAMM

Files\NURP.cpz

LU# 3 - Residential: 3-SX Total area (ac): 1.002

13 - Paved Parking 1: 1.002 ac. Connected Source Area PSD File: C:\WinSLAMM Files\NURP.cpz

Control Practice 1: Other Device CP# 1 (DS) - DS Other Device # 1

Fraction of drainage area served by device (ac) = 1.00

Particulate Concentration reduction fraction = 1.00

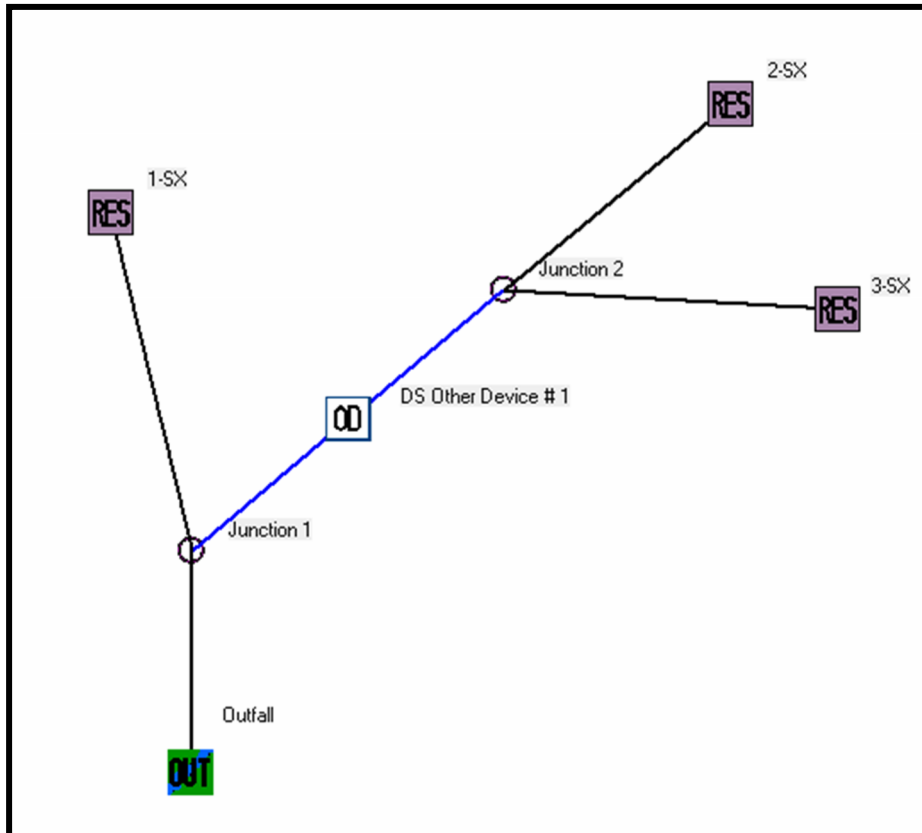
Filterable Concentration reduction fraction = 1.00

Runoff volume reduction fraction = 1

WinSLAMM Model Input Data - Screen Captures

WinSLAMM Model (Pre-Development):

Routing Diagram:



File Data:

Current File Data

SLAMM Data File Name:
V:\Projects\2024\124.1205.30\Design\StormwaterModels\WinSLAMM\Model_2025-04-14_OliveTreeP

Site Descript.:

Edit Seed:

Edit Rain File: C:\WinSLAMM Files\Rain Files\WisReg - Madison WI 1981.RAN

Edit Start Date: Winter Season Range
Edit End Date: Start of Winter (mm/dd) End of Winter (mm/dd)

Edit Pollutant Probability Distribution File: C:\WinSLAMM Files\WI_GEO03.ppdX

Edit Runoff Coefficient File: C:\WinSLAMM Files\WI_SL06 Dec06.rsvX

Edit Particulate Solids Concentration File: C:\WinSLAMM Files\w10.1 WI_AVG01.pscX

Edit Street Delivery File (Select LU)
 Residential LU Other Urban LU
 Institutional LU Freeways
 Commercial LU
 Industrial LU

Edit Source Area PSD and Peak to Average Flow Ratio File: C:\WinSLAMM Files\NURP Source Area PSD Files.csv

Use Cost Estimation Option

Overall Land Uses:

Land Use #	Land Use Type	Land Use Label	Land Use Area (acres)
1	Residential	1-SX	2.073
2	Residential	2-SX	0.873
3	Residential	3-SX	1.002

Individual Land Uses:

Land Use #1 1-SX (On-Site):

Land Use:					
1-SX					
Source Area #	Source Area	Area (acres)	Source Area Parameters	First Control Practice	Second Control Practice
	Roofs	0.054			
1	Roofs 1	0.054	Entered	-- ▾	-- ▾
	Parking	0.000			
	Driveways/Sidewalks	0.022			
25	Driveways 1	0.022	Entered	-- ▾	-- ▾
	Streets	0.000			
	Landscaped Areas	1.997			
45	Large Landscaped Areas 1	1.997	Entered	-- ▾	-- ▾
	Other Areas	0.000			

Land Use #2 2-SX (Off-Site):

Land Use:					
2-SX					
Source Area #	Source Area	Area (acres)	Source Area Parameters	First Control Practice	Second Control Practice
	Roofs	0.141			
1	Roofs 1	0.141	Entered	-- ▾	-- ▾
	Parking	0.000			
	Driveways/Sidewalks	0.014			
25	Driveways 1	0.014	Entered	-- ▾	-- ▾
	Streets	0.000			
	Landscaped Areas	0.718			
45	Large Landscaped Areas 1	0.718	Entered	-- ▾	-- ▾
	Other Areas	0.000			

Land Use #3 3-SX (Off-Site):

Land Use:					
3-SX					
Source Area #	Source Area	Area (acres)	Source Area Parameters	First Control Practice	Second Control Practice
	Roofs	0.000			
	Parking	1.002			
13	Paved Parking 1	1.002	Entered	-- ▾	-- ▾
	Driveways/Sidewalks	0.000			
	Streets	0.000			
	Landscaped Areas	0.000			
	Other Areas	0.000			

Individual Control Practices:

Control Practice #1 – DS Other Device # 1:

Other Control Device

Drainage System Control Practice

1. Particulate Pollutant Load Reduction (fraction):

2. Filterable Pollutant Load Reduction (fraction):

To credit this pollutant load reduction towards the overall drainage system reduction in the Outfall Summary calculation, uncheck the 'If Other Device pollutant load reduction values are set to 1, remove off-site pollutant loads from pollutant load percent reduction calculations' checkbox in the Default Model Options tab of the Tool/Program Options menu.

3. Water Volume (flow) Reduction (fraction):

4. Drainage Area Fraction served by Other Control (0-1):

Press 'F1' for Additional Help

To Delete This Practice, Right Mouse Click on Icon and Select Delete

Control Practice #: 1 CP Index #: 1

Runoff Volume:

Data File: V:\Projects\2024\124.1205.30\Design\StormwaterModels\WinSLAMM\Model_2025-04-14_OliveTreePredev.mdb							
Rain File: WisReg - Madison WI 1981.RAN							
Date: 04-10-25 Time: 11:36:25 AM							
Site Description:							
Runoff Volume Total (cf) at the Outfall							
Rain Number	Start Date	Rain Total (in)	Outfall Total (cf)	Rv	Total Losses (in.)	Calculated CN*	Event Peak Flow (cfs)
73	08/28/81	0.04	3.131	0.005	0.04	98.3	0.001
74	08/31/81	0.03	1.759	0.004	0.03	98.7	0.002
75	08/31/81	1.52	987.5	0.045	1.45	68.5	0.067
76	09/07/81	0.89	499.5	0.039	0.86	78.1	0.088
77	09/11/81	0.08	12.76	0.011	0.08	97.0	0.011
78	09/16/81	0.03	1.759	0.004	0.03	98.7	0.000
79	09/21/81	0.45	183.0	0.028	0.44	86.8	0.020
80	09/24/81	0.90	506.0	0.039	0.86	77.9	0.019
81	09/26/81	0.12	22.41	0.013	0.12	95.6	0.004
82	09/28/81	0.10	17.35	0.012	0.10	96.3	0.005
83	09/29/81	0.16	31.93	0.014	0.16	94.3	0.014
84	09/30/81	0.36	128.1	0.025	0.35	88.9	0.113
85	10/01/81	0.01	0.1955	0.001	0.01	99.5	0.000
86	10/04/81	0.15	29.45	0.014	0.15	94.6	0.006
87	10/05/81	0.04	3.131	0.005	0.04	98.3	0.001
88	10/05/81	0.02	0.7819	0.003	0.02	99.1	0.000
89	10/09/81	0.14	27.04	0.013	0.14	94.9	0.005
90	10/13/81	1.20	761.6	0.044	1.15	73.2	0.052
91	10/15/81	0.02	0.7819	0.003	0.02	99.1	0.001
92	10/17/81	0.95	538.8	0.040	0.91	77.0	0.059
93	10/18/81	0.06	7.185	0.008	0.06	97.6	0.001
94	10/21/81	0.06	7.185	0.008	0.06	97.6	0.001
95	10/21/81	0.01	0.1955	0.001	0.01	99.5	0.000
96	10/24/81	0.01	0.1955	0.001	0.01	99.5	0.000
97	10/31/81	0.01	0.1955	0.001	0.01	99.5	0.000
98	11/05/81	0.04	3.131	0.005	0.04	98.3	0.001
99	11/15/81	0.07	9.835	0.010	0.07	97.3	0.001
100	11/18/81	0.05	4.950	0.007	0.05	98.0	0.002
101	11/19/81	0.26	69.49	0.019	0.26	91.3	0.002
102	11/23/81	0.18	37.07	0.014	0.18	93.6	0.004
103	11/25/81	0.89	499.5	0.039	0.86	78.1	0.021
104	11/30/81	0.37	134.9	0.025	0.36	88.7	0.005
105	12/03/81	-	-	-	-	-	-
106	12/14/81	-	-	-	-	-	-
107	12/20/81	-	-	-	-	-	-
108	12/26/81	-	-	-	-	-	-
109	12/31/81	-	-	-	-	-	-
Minimum:		0.00	0	0.001	0.01	64.3	0.000
Maximum:		2.59	4447	0.120	2.28	99.5	0.435
Average:		0.26	177.8	0.015	0.25	73.5	0.190
Total:		28.81	19381		27.51		
* Note: NRCS does not recommend using CN method for rains < 0.5 in. See 'PreDevelopment Areas and CN' Help for more info.							

Data file name:

V:\Projects\2024\124.1205.30\Design\StormwaterModels\WinSLAMM\Model_2025-04-14_OliveTreePostdev-TSS.mdb

WinSLAMM Version 10.5.0

Rain file name: C:\WinSLAMM Files\Rain Files\WisReg - Madison WI 1981.RAN

Particulate Solids Concentration file name: C:\WinSLAMM Files\v10.1 WI_AVG01.pscx

Runoff Coefficient file name: C:\WinSLAMM Files\WI_SL06 Dec06.rsvx

Residential Street Delivery file name: C:\WinSLAMM Files\WI_Res and Other Urban Dec06.std

Institutional Street Delivery file name: C:\WinSLAMM Files\WI_Com Inst Indust Dec06.std

Commercial Street Delivery file name: C:\WinSLAMM Files\WI_Com Inst Indust Dec06.std

Industrial Street Delivery file name: C:\WinSLAMM Files\WI_Com Inst Indust Dec06.std

Other Urban Street Delivery file name: C:\WinSLAMM Files\WI_Res and Other Urban Dec06.std

Freeway Street Delivery file name: C:\WinSLAMM Files\Freeway Dec06.std

Apply Street Delivery Files to Adjust the After Event Load Street Dirt Mass Balance: False

Pollutant Relative Concentration file name: C:\WinSLAMM Files\WI_GEO03.ppdx

Source Area PSD and Peak to Average Flow Ratio File: C:\WinSLAMM Files\NURP Source Area PSD Files.csv

Cost Data file name:

If Other Device Pollutant Load Reduction Values = 1, Off-site Pollutant Loads are Removed from Pollutant Load % Reduction calculations

Seed for random number generator: -42

Study period starting date: 01/01/81

Study period ending date: 12/31/81

Start of Winter Season: 12/02

End of Winter Season: 03/12

Date: 04-10-2025

Time: 12:49:30

Site information:

LU# 1 - Residential: 1-SP Total area (ac): 1.901

1 - Roofs 1: 0.501 ac. Pitched Connected Source Area PSD File: C:\WinSLAMM Files\NURP.cpz

25 - Driveways 1: 0.488 ac. Connected Source Area PSD File: C:\WinSLAMM Files\NURP.cpz

31 - Sidewalks 1: 0.065 ac. Connected Source Area PSD File: C:\WinSLAMM Files\NURP.cpz

45 - Large Landscaped Areas 1: 0.676 ac. Normal Silty Source Area PSD File: C:\WinSLAMM

Files\NURP.cpz

70 - Water Body Areas: 0.171 ac. Source Area PSD File:

LU# 2 - Residential: 2-SP Total area (ac): 0.873

1 - Roofs 1: 0.141 ac. Pitched Connected Source Area PSD File: C:\WinSLAMM Files\NURP.cpz

25 - Driveways 1: 0.014 ac. Connected Source Area PSD File: C:\WinSLAMM Files\NURP.cpz

45 - Large Landscaped Areas 1: 0.718 ac. Normal Silty Source Area PSD File: C:\WinSLAMM

Files\NURP.cpz

LU# 3 - Residential: 3-SP Total area (ac): 0.172
1 - Roofs 1: 0.059 ac. Pitched Connected Source Area PSD File: C:\WinSLAMM Files\NURP.cpz
25 - Driveways 1: 0.004 ac. Connected Source Area PSD File: C:\WinSLAMM Files\NURP.cpz
31 - Sidewalks 1: 0.012 ac. Connected Source Area PSD File: C:\WinSLAMM Files\NURP.cpz
45 - Large Landscaped Areas 1: 0.097 ac. Normal Silty Source Area PSD File: C:\WinSLAMM
Files\NURP.cpz

LU# 4 - Residential: 3-SX Total area (ac): 1.002
13 - Paved Parking 1: 1.002 ac. Connected Source Area PSD File: C:\WinSLAMM Files\NURP.cpz

Control Practice 1: Other Device CP# 1 (DS) - DS Other Device # 1
Fraction of drainage area served by device (ac) = 1.00
Particulate Concentration reduction fraction = 1.00
Filterable Concentration reduction fraction = 1.00
Runoff volume reduction fraction = 0

Control Practice 2: Biofilter CP# 1 (DS) - DS Biofilters # 1

1. Top area (square feet) = 9900
2. Bottom area (square feet) = 7400
3. Depth (ft): 6.5
4. Biofilter width (ft) - for Cost Purposes Only: 10
5. Infiltration rate (in/hr) = 0.5
6. Random infiltration rate generation? No
7. Infiltration rate fraction (side): 0.01
8. Infiltration rate fraction (bottom): 1
9. Depth of biofilter that is rock filled (ft) 2
10. Porosity of rock filled volume = 0.33
11. Engineered soil infiltration rate: 3.6
12. Engineered soil depth (ft) = 1.5
13. Engineered soil porosity = 0.27
14. Percent solids reduction due to flow through engineered soil = 80
15. Biofilter peak to average flow ratio = 3.8
16. Number of biofiltration control devices = 1
17. Particle size distribution file: Not needed - calculated by program
18. Initial water surface elevation (ft): 0

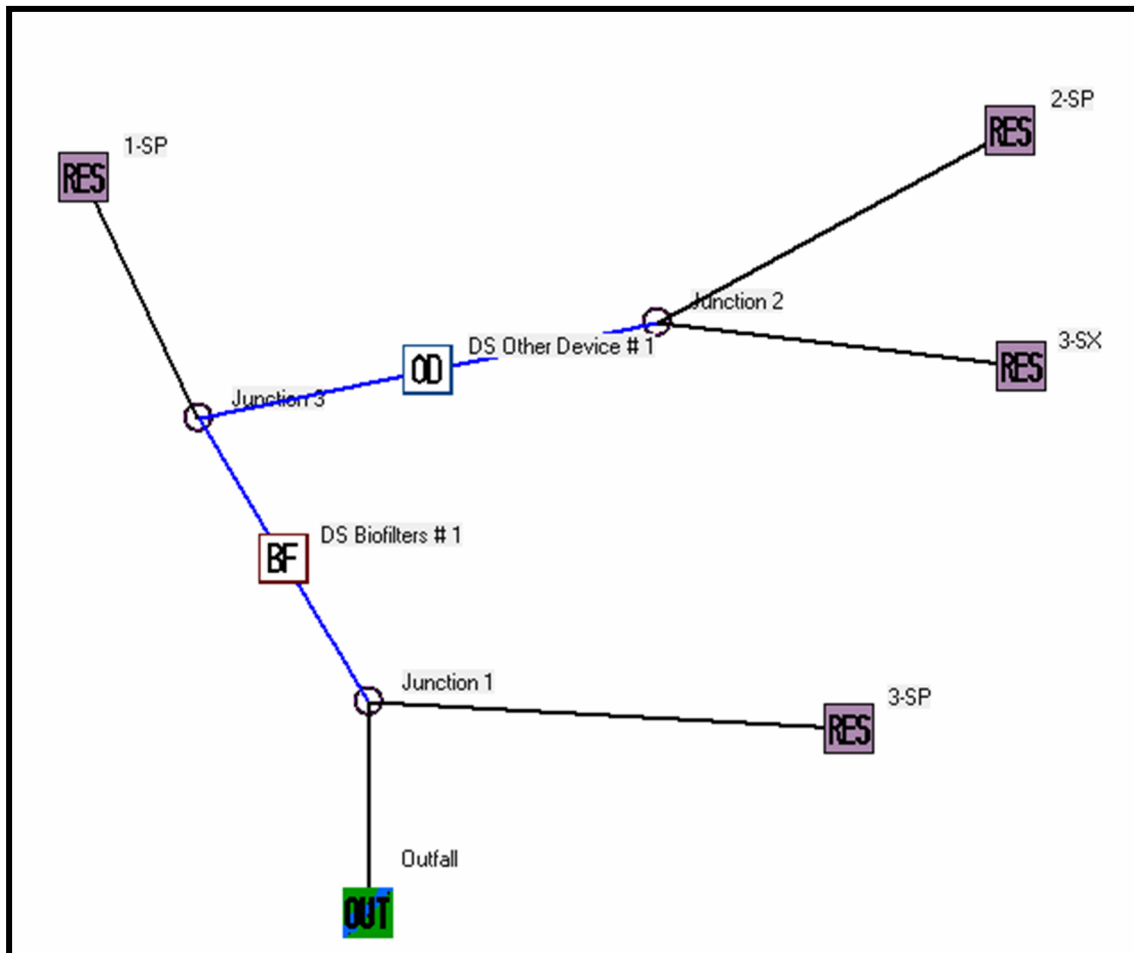
Soil Data	Soil Type Fraction in Eng. Soil
User-Defined Media Type	1.000

Field capacity (fraction) = 0
Permanent Wilting Point (fraction) = 0
Biofilter Outlet/Discharge Characteristics:
Outlet type: Sharp Crested Weir
 1. Weir length (ft): 3
 2. Invert elevation above datum (ft): 4
Outlet type: Broad Crested Weir
 1. Weir crest length (ft): 15
 2. Weir crest width (ft): 10
 3. Height of datum to bottom of weir opening: 6
Outlet type: Vertical Stand Pipe
 1. Stand pipe diameter (ft): 4
 2. Stand pipe height above datum (ft): 5
Outlet type: Drain Tile/Underdrain
 1. Underdrain outlet diameter (ft): 0.5
 2. Invert elevation above datum (ft): 1.5
 3. Number of underdrain outlets: 1

WinSLAMM Model Input Data - Screen Captures

WinSLAMM Model (Post-Development – TSS):

Routing Diagram:



File Data:

Current File Data

SLAMM Data File Name:
V:\Projects\2024\124.1205.30\Design\StormwaterModels\WinSLAMM\Model_2025-04-14_OliveTreeP

Site Descript.:

Edit Seed:

Edit Rain File:

Edit Start Date: Winter Season Range
Edit End Date: Start of Winter (mm/dd) End of Winter (mm/dd)

Edit Pollutant Probability Distribution File:

Edit Runoff Coefficient File:

Edit Particulate Solids Concentration File:

Edit Street Delivery File (Select LU)
 Residential LU Other Urban LU
 Institutional LU Freeways
 Commercial LU
 Industrial LU

Edit Source Area PSD and Peak to Average Flow Ratio File:

Use Cost Estimation Option

Overall Land Uses:

Land Use #	Land Use Type	Land Use Label	Land Use Area (acres)
1	Residential	1-SP	1.901
2	Residential	2-SP	0.873
3	Residential	3-SP	0.172
4	Residential	3-SX	1.002

Individual Land Uses:

Land Use #1 1-SP (On-Site):

Land Use:					
1-SP					
Source Area #	Source Area	Area (acres)	Source Area Parameters	First Control Practice	Second Control Practice
	Roofs	0.501			
1	Roofs 1	0.501	Entered	-- ▾	-- ▾
	Parking	0.000			
	Driveways/Sidewalks	0.553			
25	Driveways 1	0.488	Entered	-- ▾	-- ▾
31	Sidewalks 1	0.065	Entered	-- ▾	-- ▾
	Streets	0.000			
	Landscaped Areas	0.676			
45	Large Landscaped Areas 1	0.676	Entered	-- ▾	-- ▾
	Other Areas	0.171			
70	Water Body Areas	0.171	Entered	--	--

Land Use #2 2-SP (Off-Site):

Land Use:					
2-SP					
Source Area #	Source Area	Area (acres)	Source Area Parameters	First Control Practice	Second Control Practice
	Roofs	0.141			
1	Roofs 1	0.141	Entered	-- ▾	-- ▾
	Parking	0.000			
	Driveways/Sidewalks	0.014			
25	Driveways 1	0.014	Entered	-- ▾	-- ▾
	Streets	0.000			
	Landscaped Areas	0.718			
45	Large Landscaped Areas 1	0.718	Entered	-- ▾	-- ▾
	Other Areas	0.000			

Land Use #3 3-SP (On-Site):

Land Use:					
3-SP					
Source Area #	Source Area	Area (acres)	Source Area Parameters	First Control Practice	Second Control Practice
	Roofs	0.059			
1	Roofs 1	0.059	Entered	-- ▾	-- ▾
	Parking	0.000			
	Driveways/Sidewalks	0.016			
25	Driveways 1	0.004	Entered	-- ▾	-- ▾
31	Sidewalks 1	0.012	Entered	-- ▾	-- ▾
	Streets	0.000			
	Landscaped Areas	0.097			
45	Large Landscaped Areas 1	0.097	Entered	-- ▾	-- ▾
	Other Areas	0.000			

Land Use #4 3-SX (Off-Site):

Land Use:					
3-SX					
Source Area #	Source Area	Area (acres)	Source Area Parameters	First Control Practice	Second Control Practice
	Roofs	0.000			
	Parking	1.002			
13	Paved Parking 1	1.002	Entered	-- ▾	-- ▾
	Driveways/Sidewalks	0.000			
	Streets	0.000			
	Landscaped Areas	0.000			
	Other Areas	0.000			

Overall Control Practices:

CP #	Control Practice Type	Control Practice Name or Location
1	Other Device	DS Other Device # 1
2	Biofilter	DS Biofilters # 1

Individual Control Practices:

Control Practice #1 – DS Other Device # 1:

Other Control Device

Drainage System Control Practice

1. Particulate Pollutant Load Reduction (fraction):

2. Filterable Pollutant Load Reduction (fraction):

To credit this pollutant load reduction towards the overall drainage system reduction in the Outfall Summary calculation, uncheck the 'If Other Device pollutant load reduction values are set to 1, remove off-site pollutant loads from pollutant load percent reduction calculations' checkbox in the Default Model Options tab of the Tool/Program Options menu.

3. Water Volume (flow) Reduction (fraction):

4. Drainage Area Fraction served by Other Control (0-1):

Press 'F1' for Additional Help

To Delete This Practice, Right Mouse Click on Icon and Select Delete

Control Practice #: 1 CP Index #: 1

Control Practice #2 – 1P (DS Biofilters # 1):

Biofiltration Control Device
X

Drainage System Control Practice

Device Properties

Top Area (sf) 9900
 Bottom Area (sf) 7400
 Total Depth (ft) 6.50
 Typical Width (ft) (Cost est. only) 10.00
 Native Soil Infiltration Rate (in/hr) 0.500
 Native Soil Infiltration Rate COV N/A
 Infil. Rate Fraction-Bottom (0.001-1) 1.000
 Infil. Rate Fraction-Sides (0.001-1) 0.010
 Rock Filled Depth (ft) 2.00
 Rock Fill Porosity (0-1) 0.33
Engineered Media Type
 Engineered Media Infiltration Rate 3.60
 Engineered Media Infiltration Rate COV N/A
 Engineered Media Depth (ft) 1.50
 Engineered Media Porosity (0-1) 0.27
 Percent solids reduction due to Engineered Media (0-100) 80.00
 Inflow Hydrograph Peak to Average Flow Ratio 3.80
 Number of Devices in Source Area or Upstream Drainage System 1

Activate Pipe or Box Storage Pipe Box

Diameter (ft) _____
 Length (ft) _____
 Within Biofilter (check if Yes)
 Perforated (check if Yes)
 Bottom Elevation (ft above datum) _____
 Discharge Orifice Diameter (ft) _____

Select Native Soil Infiltration Rate

- Sand - 8 in/hr
- Silty sand - 2.5 in/hr
- Silty clay loam - 0.05 in/hr
- Sandy loam - 1.0 in/hr
- Silty clay - 0.05 in/hr
- Loam - 0.5 in/hr
- Silt loam - 0.3 in/hr
- Clay - 0.02 in/hr
- Sandy silt loam - 0.2 in/hr
- Clay loam - 0.1 in/hr
- Silty clay loam - 0.05 in/hr
- Sandy clay - 0.05 in/hr
- Silty clay - 0.04 in/hr
- Clay - 0.02 in/hr
- Rain Barrel/Cistern - 0.00 in/hr

Remove Sharp Crested Weir

Weir Length (ft) _____
 Height from datum to bottom of weir opening (ft) 3.00
 4.00

Remove Broad Crested Weir-Reqd

Weir crest length (ft) 15.00
 Weir crest width (ft) 10.00
 Height from datum to bottom of weir opening (ft) 6.00

Remove Vertical Stand Pipe

Pipe diameter (ft) 4.00
 Height above datum (ft) 5.00

Add Surface Discharge Pipe

Pipe Diameter (ft) _____
 Invert elevation above datum (ft) _____
 Number of pipes at invert elev. _____

Remove Drain Tile/Underdrain

Pipe Diameter (ft) 0.50
 Invert elevation above datum (ft) 1.50
 Number of pipes at invert elev. 1

Other Outlet

Stage Number 1
 Stage (ft) _____
 Other Outflow Rate (cfs) _____

Evapotranspiration

Soil porosity (saturation moisture content, 0-1) _____
 Soil field moisture capacity (0-1) _____
 Permanent wilting point (0-1) _____
 Supplemental irrigation used?
 Fraction of available capacity when irrigation starts (0-1) _____
 Fraction of available capacity when irrigation stops (0-1) _____
 Fraction of biofilter that is vegetated _____

Plant Type _____
 Root depth (ft) _____
 ET Crop Adjustment Factor _____

Evaporation

Month	Evapotranspiration (in/day)	Evaporation (in/day)
Jan		
Feb		
Mar		
Apr		
May		
Jun		
Jul		
Aug		
Sep		
Oct		
Nov		
Dec		

Plant Types 1 2 3 4

Biofilter Geometry Schematic

Estimated Surface Drain Time = 1.67 hrs.

Save or Delete Biofilter Data to Database File

Control Practice #: 2 CP Index #: 2

Press 'F1' for Help

Get Biofilter Data From Database File

To Delete This Practice, Right Mouse Click on Icon and Select Delete

Cancel Continue

Runoff Volume:

Data File: V:\Projects\2024\124.1205.30\Design\StormwaterModels\WinSLAMM\Model_2025-04-14_OliveTreePostdev-TSS.mdb							
Rain File: WisReg - Madison WI 1981.RAN							
Date: 04-10-25 Time: 1:35:48 PM							
Site Description:							
Runoff Volume Total (cf) at the Outfall							
Rain Number	Start Date	Rain Total (in)	Outfall Total (cf)	Rv	Total Losses (in.)	Calculated CN*	Event Peak Flow (cfs)
73	08/28/81	0.04	3.010	0.005	0.04	98.3	0.001
74	08/31/81	0.03	1.689	0.004	0.03	98.7	0.001
75	08/31/81	1.52	4349	0.200	1.22	80.3	0.471
76	09/07/81	0.89	1100	0.086	0.81	82.0	0.166
77	09/11/81	0.08	12.91	0.011	0.08	97.0	0.011
78	09/16/81	0.03	1.689	0.004	0.03	98.7	0.000
79	09/21/81	0.45	111.0	0.017	0.44	85.7	0.012
80	09/24/81	0.90	239.2	0.019	0.88	75.3	0.009
81	09/26/81	0.12	22.76	0.013	0.12	95.6	0.004
82	09/28/81	0.10	17.59	0.012	0.10	96.3	0.005
83	09/29/81	0.16	32.42	0.014	0.16	94.3	0.014
84	09/30/81	0.36	85.95	0.017	0.35	88.2	0.076
85	10/01/81	0.01	0.1876	0.001	0.01	99.5	0.000
86	10/04/81	0.15	29.91	0.014	0.15	94.6	0.007
87	10/05/81	0.04	3.010	0.005	0.04	98.3	0.001
88	10/05/81	0.02	0.7505	0.003	0.02	99.1	0.000
89	10/09/81	0.14	27.46	0.014	0.14	94.9	0.005
90	10/13/81	1.20	1552	0.090	1.09	77.5	0.163
91	10/15/81	0.02	0.7505	0.003	0.02	99.1	0.001
92	10/17/81	0.95	753.4	0.055	0.90	78.6	0.055
93	10/18/81	0.06	7.155	0.008	0.06	97.6	0.001
94	10/21/81	0.06	7.155	0.008	0.06	97.6	0.001
95	10/21/81	0.01	0.1876	0.001	0.01	99.5	0.000
96	10/24/81	0.01	0.1876	0.001	0.01	99.5	0.000
97	10/31/81	0.01	0.1876	0.001	0.01	99.5	0.000
98	11/05/81	0.04	3.010	0.005	0.04	98.3	0.001
99	11/15/81	0.07	9.888	0.010	0.07	97.3	0.001
100	11/18/81	0.05	4.863	0.007	0.05	98.0	0.002
101	11/19/81	0.26	58.22	0.016	0.26	91.1	0.002
102	11/23/81	0.18	37.64	0.015	0.18	93.6	0.004
103	11/25/81	0.89	236.3	0.019	0.87	75.5	0.010
104	11/30/81	0.37	88.89	0.017	0.36	87.9	0.003
105	12/03/81	-	-	-	-	-	-
106	12/14/81	-	-	-	-	-	-
107	12/20/81	-	-	-	-	-	-
108	12/26/81	-	-	-	-	-	-
109	12/31/81	-	-	-	-	-	-
Minimum:		0.00	0	0.001	0.01	71.5	0.000
Maximum:		2.59	17075	0.460	1.49	99.5	1.483
Average:		0.26	482.3	0.026	0.23	83.6	0.821
Total:		28.81	52568		25.16		

* Note: NRCS does not recommend using CN method for rains < 0.5 in.
See 'PreDevelopment Areas and CN' Help for more info.

Output Summary:

File Name:

Outfall Output Summary

	Runoff Volume (cu. ft.)	Percent Runoff Reduction	Runoff Coefficient (Rv)	Particulate Solids Conc. (mg/L)	Particulate Solids Yield (lbs)	Percent Particulate Solids Reduction
Total of All Land Uses without Controls	214747		0.47	43.20 (1)	579.2 (1)	
Outfall Total with Controls	52568	75.52 %	0.11	20.26	66.49	88.52 %
Current File Output: Annualized Total After Outfall Controls	52713			Years in Model Run: <input style="width: 50px;" type="text" value="1.00"/>	66.68	

(1) Values reduced to remove off-site loadings due to setting Other Control Device Concentration Reduction values to 1.

A biofilter will clog. Review biofilter control practice summary tab to determine which biofilter it is.

Total Area Modeled (ac)

Receiving Water Impacts Due To Stormwater Runoff

(CWP Impervious Cover Model)

	Calculated Rv	Approximate Urban Stream Classification
Without Controls	0.47	Poor
With Controls	0.11	Good

Total Control Practice Costs

Capital Cost	<input type="text" value="N/A"/>
Land Cost	<input type="text" value="N/A"/>
Annual Maintenance Cost	<input type="text" value="N/A"/>
Present Value of All Costs	<input type="text" value="N/A"/>
Annualized Value of All Costs	<input type="text" value="N/A"/>

Data file name:

V:\Projects\2024\124.1205.30\Design\StormwaterModels\WinSLAMM\Model_2025-04-14_OliveTreePostdev-Infil.mdb

WinSLAMM Version 10.5.0

Rain file name: C:\WinSLAMM Files\Rain Files\WisReg - Madison WI 1981.RAN

Particulate Solids Concentration file name: C:\WinSLAMM Files\v10.1 WI_AVG01.pscx

Runoff Coefficient file name: C:\WinSLAMM Files\WI_SL06 Dec06.rsvx

Residential Street Delivery file name: C:\WinSLAMM Files\WI_Res and Other Urban Dec06.std

Institutional Street Delivery file name: C:\WinSLAMM Files\WI_Com Inst Indust Dec06.std

Commercial Street Delivery file name: C:\WinSLAMM Files\WI_Com Inst Indust Dec06.std

Industrial Street Delivery file name: C:\WinSLAMM Files\WI_Com Inst Indust Dec06.std

Other Urban Street Delivery file name: C:\WinSLAMM Files\WI_Res and Other Urban Dec06.std

Freeway Street Delivery file name: C:\WinSLAMM Files\Freeway Dec06.std

Apply Street Delivery Files to Adjust the After Event Load Street Dirt Mass Balance: False

Pollutant Relative Concentration file name: C:\WinSLAMM Files\WI_GEO03.ppdx

Source Area PSD and Peak to Average Flow Ratio File: C:\WinSLAMM Files\NURP Source Area PSD Files.csv

Cost Data file name:

If Other Device Pollutant Load Reduction Values = 1, Off-site Pollutant Loads are Removed from Pollutant Load % Reduction calculations

Seed for random number generator: -42

Study period starting date: 01/01/81

Study period ending date: 12/31/81

Start of Winter Season: 12/02

End of Winter Season: 03/12

Date: 04-10-2025

Time: 13:42:23

Site information:

LU# 1 - Residential: 1-SP Total area (ac): 1.901

1 - Roofs 1: 0.501 ac. Pitched Connected Source Area PSD File: C:\WinSLAMM Files\NURP.cpz

25 - Driveways 1: 0.488 ac. Connected Source Area PSD File: C:\WinSLAMM Files\NURP.cpz

31 - Sidewalks 1: 0.065 ac. Connected Source Area PSD File: C:\WinSLAMM Files\NURP.cpz

45 - Large Landscaped Areas 1: 0.676 ac. Normal Silty Source Area PSD File: C:\WinSLAMM

Files\NURP.cpz

70 - Water Body Areas: 0.171 ac. Source Area PSD File:

LU# 2 - Residential: 2-SP Total area (ac): 0.873

1 - Roofs 1: 0.141 ac. Pitched Connected Source Area PSD File: C:\WinSLAMM Files\NURP.cpz

25 - Driveways 1: 0.014 ac. Connected Source Area PSD File: C:\WinSLAMM Files\NURP.cpz

45 - Large Landscaped Areas 1: 0.718 ac. Normal Silty Source Area PSD File: C:\WinSLAMM

Files\NURP.cpz

LU# 3 - Residential: 3-SP Total area (ac): 0.172
1 - Roofs 1: 0.059 ac. Pitched Connected Source Area PSD File: C:\WinSLAMM Files\NURP.cpz
25 - Driveways 1: 0.004 ac. Connected Source Area PSD File: C:\WinSLAMM Files\NURP.cpz
31 - Sidewalks 1: 0.012 ac. Connected Source Area PSD File: C:\WinSLAMM Files\NURP.cpz
45 - Large Landscaped Areas 1: 0.097 ac. Normal Silty Source Area PSD File: C:\WinSLAMM
Files\NURP.cpz

LU# 4 - Residential: 3-SX Total area (ac): 1.002
13 - Paved Parking 1: 1.002 ac. Connected Source Area PSD File: C:\WinSLAMM Files\NURP.cpz

Control Practice 1: Other Device CP# 1 (DS) - DS Other Device # 1
Fraction of drainage area served by device (ac) = 1.00
Particulate Concentration reduction fraction = 1.00
Filterable Concentration reduction fraction = 1.00
Runoff volume reduction fraction = 1

Control Practice 2: Biofilter CP# 1 (DS) - DS Biofilters # 1

1. Top area (square feet) = 9900
2. Bottom area (square feet) = 7400
3. Depth (ft): 6.5
4. Biofilter width (ft) - for Cost Purposes Only: 10
5. Infiltration rate (in/hr) = 0.5
6. Random infiltration rate generation? No
7. Infiltration rate fraction (side): 0.01
8. Infiltration rate fraction (bottom): 1
9. Depth of biofilter that is rock filled (ft) 2
10. Porosity of rock filled volume = 0.33
11. Engineered soil infiltration rate: 3.6
12. Engineered soil depth (ft) = 1.5
13. Engineered soil porosity = 0.27
14. Percent solids reduction due to flow through engineered soil = 80
15. Biofilter peak to average flow ratio = 3.8
16. Number of biofiltration control devices = 1
17. Particle size distribution file: Not needed - calculated by program
18. Initial water surface elevation (ft): 0

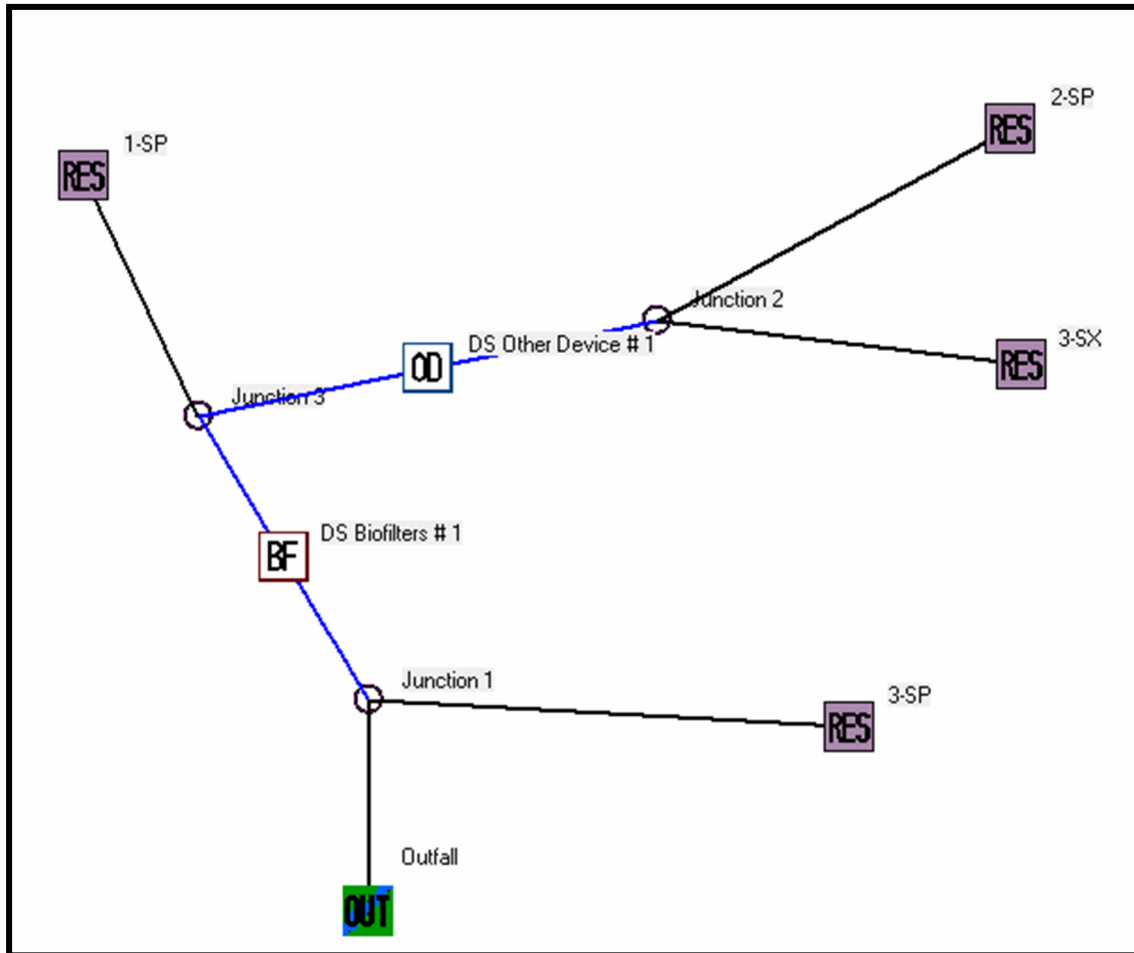
Soil Data	Soil Type Fraction in Eng. Soil
User-Defined Media Type	1.000

Field capacity (fraction) = 0
Permanent Wilting Point (fraction) = 0
Biofilter Outlet/Discharge Characteristics:
Outlet type: Sharp Crested Weir
 1. Weir length (ft): 3
 2. Invert elevation above datum (ft): 4
Outlet type: Broad Crested Weir
 1. Weir crest length (ft): 15
 2. Weir crest width (ft): 10
 3. Height of datum to bottom of weir opening: 6
Outlet type: Vertical Stand Pipe
 1. Stand pipe diameter (ft): 4
 2. Stand pipe height above datum (ft): 5
Outlet type: Drain Tile/Underdrain
 1. Underdrain outlet diameter (ft): 0.5
 2. Invert elevation above datum (ft): 1.5
 3. Number of underdrain outlets: 1

WinSLAMM Model Input Data - Screen Captures

WinSLAMM Model (Post-Development – Infiltration):

Routing Diagram:



File Data:

Current File Data

SLAMM Data File Name:
V:\Projects\2024\124.1205.30\Design\StormwaterModels\WinSLAMM\Model_2025-04-14_OliveTreeP

Site Descript.:

Edit Seed:

Edit Rain File:

Edit Start Date: Winter Season Range
Edit End Date: Start of Winter (mm/dd) End of Winter (mm/dd)

Edit Pollutant Probability Distribution File:

Edit Runoff Coefficient File:

Edit Particulate Solids Concentration File:

Edit Street Delivery File (Select LU)
 Residential LU Other Urban LU
 Institutional LU Freeways
 Commercial LU
 Industrial LU

Edit Source Area PSD and Peak to Average Flow Ratio File:

Use Cost Estimation Option

Overall Land Uses:

Land Use #	Land Use Type	Land Use Label	Land Use Area (acres)
1	Residential	1-SP	1.901
2	Residential	2-SP	0.873
3	Residential	3-SP	0.172
4	Residential	3-SX	1.002

Individual Land Uses:

Land Use #1 1-SP (On-Site):

Land Use:					
1-SP					
Source Area #	Source Area	Area (acres)	Source Area Parameters	First Control Practice	Second Control Practice
	Roofs	0.501			
1	Roofs 1	0.501	Entered	-- ▾	-- ▾
	Parking	0.000			
	Driveways/Sidewalks	0.553			
25	Driveways 1	0.488	Entered	-- ▾	-- ▾
31	Sidewalks 1	0.065	Entered	-- ▾	-- ▾
	Streets	0.000			
	Landscaped Areas	0.676			
45	Large Landscaped Areas 1	0.676	Entered	-- ▾	-- ▾
	Other Areas	0.171			
70	Water Body Areas	0.171	Entered	--	--

Land Use #2 2-SP (Off-Site):

Land Use:					
2-SP					
Source Area #	Source Area	Area (acres)	Source Area Parameters	First Control Practice	Second Control Practice
	Roofs	0.141			
1	Roofs 1	0.141	Entered	-- ▾	-- ▾
	Parking	0.000			
	Driveways/Sidewalks	0.014			
25	Driveways 1	0.014	Entered	-- ▾	-- ▾
	Streets	0.000			
	Landscaped Areas	0.718			
45	Large Landscaped Areas 1	0.718	Entered	-- ▾	-- ▾
	Other Areas	0.000			

Land Use #3 3-SP (On-Site):

Land Use:					
3-SP					
Source Area #	Source Area	Area (acres)	Source Area Parameters	First Control Practice	Second Control Practice
	Roofs	0.059			
1	Roofs 1	0.059	Entered	-- ▾	-- ▾
	Parking	0.000			
	Driveways/Sidewalks	0.016			
25	Driveways 1	0.004	Entered	-- ▾	-- ▾
31	Sidewalks 1	0.012	Entered	-- ▾	-- ▾
	Streets	0.000			
	Landscaped Areas	0.097			
45	Large Landscaped Areas 1	0.097	Entered	-- ▾	-- ▾
	Other Areas	0.000			

Land Use #4 3-SX (Off-Site):

Land Use:					
3-SX					
Source Area #	Source Area	Area (acres)	Source Area Parameters	First Control Practice	Second Control Practice
	Roofs	0.000			
	Parking	1.002			
13	Paved Parking 1	1.002	Entered	-- ▾	-- ▾
	Driveways/Sidewalks	0.000			
	Streets	0.000			
	Landscaped Areas	0.000			
	Other Areas	0.000			

Overall Control Practices:

CP #	Control Practice Type	Control Practice Name or Location
1	Other Device	DS Other Device # 1
2	Biofilter	DS Biofilters # 1

Individual Control Practices:

Control Practice #1 – DS Other Device # 1:

Other Control Device

Drainage System Control Practice

1. Particulate Pollutant Load Reduction (fraction):

2. Filterable Pollutant Load Reduction (fraction):

To credit this pollutant load reduction towards the overall drainage system reduction in the Outfall Summary calculation, uncheck the 'If Other Device pollutant load reduction values are set to 1, remove off-site pollutant loads from pollutant load percent reduction calculations' checkbox in the Default Model Options tab of the Tool/Program Options menu.

3. Water Volume (flow) Reduction (fraction):

4. Drainage Area Fraction served by Other Control (0-1):

Press 'F1' for Additional Help

To Delete This Practice, Right Mouse Click on Icon and Select Delete

Control Practice #: 1 CP Index #: 1

Control Practice #2 – 1P (DS Biofilters # 1):

Biofiltration Control Device
X

Drainage System Control Practice

Device Properties

Top Area (sf)	9900
Bottom Area (sf)	7400
Total Depth (ft)	6.50
Typical Width (ft) (Cost est. only)	10.00
Native Soil Infiltration Rate (in/hr)	0.500
Native Soil Infiltration Rate COV	N/A
Infil. Rate Fraction-Bottom (0.001-1)	1.000
Infil. Rate Fraction-Sides (0.001-1)	0.010
Rock Filled Depth (ft)	2.00
Rock Fill Porosity (0-1)	0.33

Engineered Media Type

Engineered Media Infiltration Rate	3.60
Engineered Media Infiltration Rate COV	N/A
Engineered Media Depth (ft)	1.50
Engineered Media Porosity (0-1)	0.27
Percent solids reduction due to Engineered Media (0-100)	80.00
Inflow Hydrograph Peak to Average Flow Ratio	3.80
Number of Devices in Source Area or Upstream Drainage System	1

Activate Pipe or Box Storage Pipe Box

Diameter (ft) _____

Length (ft) _____

Within Biofilter (check if Yes)

Perforated (check if Yes)

Bottom Elevation (ft above datum) _____

Discharge Orifice Diameter (ft) _____

Select Native Soil Infiltration Rate

- Sand - 8 in/hr
- Silty sand - 2.5 in/hr
- Silty clay loam - 0.05 in/hr
- Sandy loam - 1.0 in/hr
- Silty clay - 0.05 in/hr
- Loam - 0.5 in/hr
- Silt loam - 0.3 in/hr
- Clay - 0.02 in/hr
- Sandy silt loam - 0.2 in/hr
- Clay loam - 0.1 in/hr
- Silty clay loam - 0.05 in/hr
- Sandy clay - 0.05 in/hr
- Silty clay - 0.04 in/hr
- Clay - 0.02 in/hr
- Rain Barrel/Cistern - 0.00 in/hr

Remove Sharp Crested Weir

Weir Length (ft)	3.00
Height from datum to bottom of weir opening (ft)	4.00

Remove Broad Crested Weir-Reqd

Weir crest length (ft)	15.00
Weir crest width (ft)	10.00
Height from datum to bottom of weir opening (ft)	6.00

Remove Vertical Stand Pipe

Pipe diameter (ft)	4.00
Height above datum (ft)	5.00

Add Surface Discharge Pipe

Pipe Diameter (ft)	
Invert elevation above datum (ft)	
Number of pipes at invert elev.	

Remove Drain Tile/Underdrain

Pipe Diameter (ft)	0.50
Invert elevation above datum (ft)	1.50
Number of pipes at invert elev.	1

Other Outlet

Stage Number	Stage (ft)	Other Outflow Rate (cfs)
1		
2		
3		
4		
5		

Evapotranspiration

Soil porosity (saturation moisture content, 0-1)	
Soil field moisture capacity (0-1)	
Permanent wilting point (0-1)	
Supplemental irrigation used?	<input type="checkbox"/>
Fraction of available capacity when irrigation starts (0-1)	
Fraction of available capacity when irrigation stops (0-1)	
Fraction of biofilter that is vegetated	

Plant type _____

Root depth (ft) _____

ET Crop Adjustment Factor _____

Evaporation

Month	Evapotranspiration (in/day)	Evaporation (in/day)
Jan		
Feb		
Mar		
Apr		
May		
Jun		
Jul		
Aug		
Sep		
Oct		
Nov		
Dec		

Plant Types: 1 2 3 4

Biofilter Geometry Schematic

Use Random Number Generation to Account for Infiltration Rate Uncertainty

Copy Biofilter Data

Paste Biofilter Data

Estimated Surface Drain Time = 1.67 hrs.

Save or Delete Biofilter Data to Database File

Control Practice #: 2 CP Index #: 2

Get Biofilter Data From Database File

Press 'F1' for Help

To Delete This Practice, Right Mouse Click on Icon and Select Delete

Cancel

Continue

Runoff Volume:

Data File: V:\Projects\2024\124.1205.30\Design\StormwaterModels\WinSLAMM\Model_2025-04-14_OliveTreePostdev-Infil.mdb							
Rain File: WisReg - Madison WI 1981.RAN							
Date: 04-10-25 Time: 1:43:39 PM							
Site Description:							
Runoff Volume Total (cf) at the Outfall							
Rain Number	Start Date	Rain Total (in)	Outfall Total (cf)	Rv	Total Losses (in.)	Calculated CN*	Event Peak Flow (cfs)
73	08/28/81	0.04	3.010	0.005	0.04	98.3	0.001
74	08/31/81	0.03	1.689	0.004	0.03	98.7	0.001
75	08/31/81	1.52	423.1	0.019	1.49	64.5	0.029
76	09/07/81	0.89	236.3	0.019	0.87	75.5	0.042
77	09/11/81	0.08	12.91	0.011	0.08	97.0	0.011
78	09/16/81	0.03	1.689	0.004	0.03	98.7	0.000
79	09/21/81	0.45	111.0	0.017	0.44	85.7	0.012
80	09/24/81	0.90	239.2	0.019	0.88	75.3	0.009
81	09/26/81	0.12	22.76	0.013	0.12	95.6	0.004
82	09/28/81	0.10	17.59	0.012	0.10	96.3	0.005
83	09/29/81	0.16	32.42	0.014	0.16	94.3	0.014
84	09/30/81	0.36	85.95	0.017	0.35	88.2	0.076
85	10/01/81	0.01	0.1876	0.001	0.01	99.5	0.000
86	10/04/81	0.15	29.91	0.014	0.15	94.6	0.007
87	10/05/81	0.04	3.010	0.005	0.04	98.3	0.001
88	10/05/81	0.02	0.7505	0.003	0.02	99.1	0.000
89	10/09/81	0.14	27.46	0.014	0.14	94.9	0.005
90	10/13/81	1.20	330.5	0.019	1.18	69.7	0.022
91	10/15/81	0.02	0.7505	0.003	0.02	99.1	0.001
92	10/17/81	0.95	253.7	0.019	0.93	74.3	0.028
93	10/18/81	0.06	7.155	0.008	0.06	97.6	0.001
94	10/21/81	0.06	7.155	0.008	0.06	97.6	0.001
95	10/21/81	0.01	0.1876	0.001	0.01	99.5	0.000
96	10/24/81	0.01	0.1876	0.001	0.01	99.5	0.000
97	10/31/81	0.01	0.1876	0.001	0.01	99.5	0.000
98	11/05/81	0.04	3.010	0.005	0.04	98.3	0.001
99	11/15/81	0.07	9.888	0.010	0.07	97.3	0.001
100	11/18/81	0.05	4.863	0.007	0.05	98.0	0.002
101	11/19/81	0.26	58.22	0.016	0.26	91.1	0.002
102	11/23/81	0.18	37.64	0.015	0.18	93.6	0.004
103	11/25/81	0.89	236.3	0.019	0.87	75.5	0.010
104	11/30/81	0.37	88.89	0.017	0.36	87.9	0.003
105	12/03/81	-	-	-	-	-	-
106	12/14/81	-	-	-	-	-	-
107	12/20/81	-	-	-	-	-	-
108	12/26/81	-	-	-	-	-	-
109	12/31/81	-	-	-	-	-	-
Minimum:		0.00	0	0.001	0.01	62.1	0.000
Maximum:		2.59	6104	0.164	2.16	99.5	0.521
Average:		0.26	136.2	0.011	0.25	72.3	0.283
Total:		28.81	14844		27.78		

* Note: NRCS does not recommend using CN method for rains < 0.5 in.
See 'PreDevelopment Areas and CN' Help for more info.

Output Summary:

File Name:
 V:\Projects\2024\124.1205.30\Design\StormwaterModels\WinSLAMM\Model_2025-04-14_OliveTreePostdev-Infil.mdb

Outfall Output Summary

	Runoff Volume (cu. ft.)	Percent Runoff Reduction	Runoff Coefficient (Rv)	Particulate Solids Conc. (mg/L)	Particulate Solids Yield (lbs)	Percent Particulate Solids Reduction
Total of All Land Uses without Controls	214747		0.47	43.20 (1)	579.2 (1)	
Outfall Total with Controls	14844	93.09 %	0.03	40.20	37.26	93.57 %
Current File Output: Annualized Total After Outfall Controls	14885				37.36	

Years in Model Run: 1.00

(1) Values reduced to remove off-site loadings due to setting Other Control Device Concentration Reduction values to 1.

Print Output Summary to .csv File

Print Output Summary to Text File

Print Output Summary to Printer

A biofilter will clog. Review biofilter control practice summary tab to determine which biofilter it is.

Total Area Modeled (ac)
3.948

Receiving Water Impacts Due To Stormwater Runoff

(CWP Impervious Cover Model)

	Calculated Rv	Approximate Urban Stream Classification
Without Controls	0.47	Poor
With Controls	0.03	Good

Total Control Practice Costs

Capital Cost	N/A
Land Cost	N/A
Annual Maintenance Cost	N/A
Present Value of All Costs	N/A
Annualized Value of All Costs	N/A

Perform Outfall
Flow Duration
Curve Calculations



Infiltration Calculations

Average Annual Rainfall = 28.81 inches

Notes:

- 1.) Infiltration calculations are based on runoff volume outputs from WinSLAMM v10.2.1
- 2.) [Redacted] = Cells That Require Data Input.

Pre-Development Infiltration Calculations:

1.) Pre-development Project Site Area = **2.073** acres

$$2.073 \text{ acres} * (43,560 \text{ sq. ft./1 acre}) = 90,300 \text{ sq. ft.}$$

2.) Pre-development runoff volume = **19,381** cu. ft.

3.) Pre-development runoff depth = (19,381 cu. ft. / 90,300 sq. ft.)

$$= 0.21 \text{ ft.}$$

$$= 2.58 \text{ in.}$$

4.) Pre-development stay-on depth = (28.81 in. - 2.58 in.)

$$= 26.23 \text{ in}$$

Target Post-Development Stay-On Depth = **90.0%** of Pre-Development Stay-On Depth

5.) Target Post-development stay-on = (26.23 in. * 0.9)

$$= \mathbf{23.61 \text{ in.}}$$

Post-Development Infiltration Calculations:

1.) Post-development Project Site Area = 2.073 acres

$$2.073 \text{ acres} * (43,560 \text{ sq. ft./1 acre}) = 90,300 \text{ sq. ft.}$$

2.) Post-development runoff volume = **14,844** cu. ft.

3.) Post-development runoff depth = (14,844 cu. ft. / 90,300 sq. ft.)

$$= 0.16 \text{ ft.}$$

$$= 1.97 \text{ in.}$$

Post-Development Infiltration Calculations (Continued):

4.) Post-development stay-on depth = (28.81 in. - 1.97 in.)

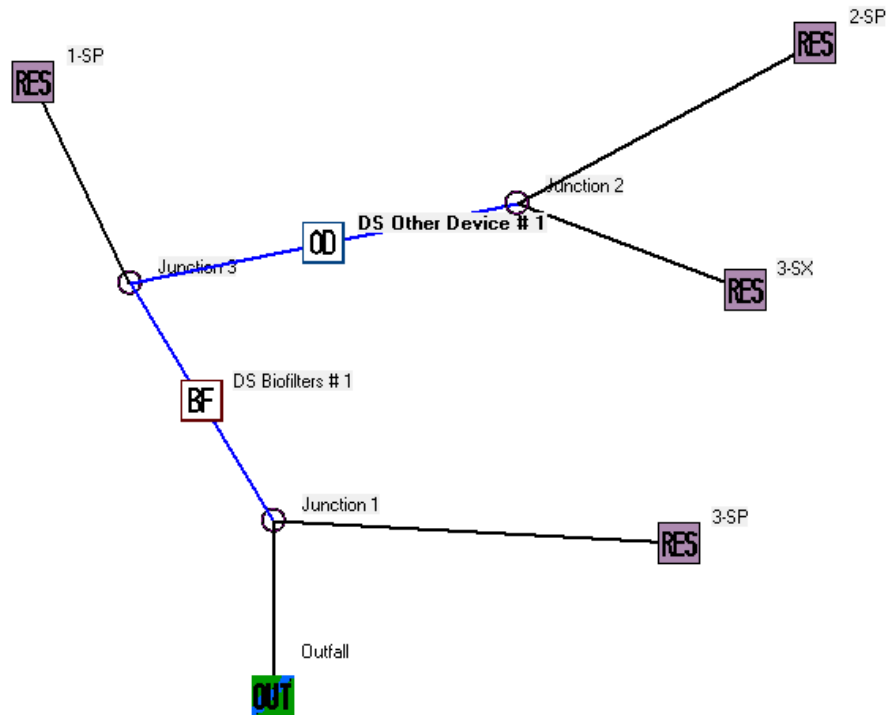
$$= \quad \mathbf{26.84 \text{ in}}$$

5.) Post-development stay-on percentage as compared to pre-development stay-on:

$$= (26.84 \text{ in.} / 26.23 \text{ in.})$$

$$= \quad \mathbf{102.3\%}$$

The post-development project site infiltrates approximately **102.3%** of the pre-development infiltration volume.



APPENDIX H

STORM SEWER CATCHMENT AREA MAP AND CALCULATIONS

PROJECT: OLIVE TREE RESIDENCES

No: 124.1205.30

SUBJECT: DRAINAGE AREA SUMMARY & COMPOSITE 'C' FACTOR COMPUTATIONS

DATE: April 14, 2025

BY: DMS CK: BCA

PAGE: 1 OF: 2



Drainage Area ID	Location On-site Off-site	Total Area (acres)	Impervious Surface			Grass Surface A			Grass Surface B			1/8 Acre Residential Lots			Total Area (acres)	Composite Runoff Coeff., C
			Runoff Coeff., C	Sub-area (acres)	% Total Area	Runoff Coeff., C	Sub-area (acres)	% Total Area	Runoff Coeff., C	Sub-area (acres)	% Total Area	Runoff Coeff., C	Sub-area (acres)	% Total Area		
-	-	-	0.95	-	-	0.38	-	-	0.4	-	-	0.5	-	-	-	-
1	On	0.288	0.95	0.056	19%	0.38	0.232	81%	0.4		0%	0.5		0%	0.29	0.49
2	On	0.091	0.95	0.061	67%	0.38	0.030	33%	0.4		0%	0.5		0%	0.09	0.76
3	On	0.107	0.95	0.048	45%	0.38	0.059	55%	0.4		0%	0.5		0%	0.11	0.63
4	On	0.179	0.95	0.057	32%	0.38	0.122	68%	0.4		0%	0.5		0%	0.18	0.56
RD-01	On	0.139	0.95	0.139	100%	0.38	0.000	0%	0.4		0%	0.5		0%	0.14	0.95

PROJECT: OLIVE TREE RESIDENCES

SUBJECT: STORM SEWER DESIGN - 200 YR

No: 124.1205.30

DATE: April 14, 2025

BY: DMS CK: BCA

PAGE: 2 OF: 2



SNYDER & ASSOCIATES
Engineers and Planners

Storm Recurrence Interval: 200-year

SECTION	Pipe Name	Drainage Area (acres) A	Runoff Coeff. C	Equiv. Area (acres) CA	Accum. Area (acres) Σ CA	Time of Concn. (min) T	Rainfall Intensity (in/hr) I	Other Flow (cfs)	TOTAL RUNOFF (cfs) Q=(ΣCA)I	TOTAL RUNOFF (gpm)	Pipe Length (ft) L	Pipe Slope (ft/ft) S	Req'd Pipe Size (in)	PIPE SIZE (in) D	Full Flow Velocity (fps) V _{full}	Full Flow Capacity (cfs) Q _{full}	Full Flow Capacity (gpm) Q _{full}	Time in Section (min) t	Type of Pipe	Comment
-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1	STP-5	0.288	0.49	0.14	0.14	5	12.00	-	1.70	762	84.9	0.0175	7.9	10	5.77	3.15	1413	0.25	HDPE	
2	STP-4	0.091	0.76	0.07	0.07	5	12.00	1.70	2.53	1135	78.3	0.0400	7.9	10	8.73	4.76	2137	0.15	HDPE	
3	STP-3	0.107	0.63	0.07	0.07	5	12.00	2.53	3.34	1501	28.0	0.0225	9.8	10	6.55	3.57	1602	0.07	HDPE	
	STP-2					5	12.00	3.34	3.34	1501	112.1	0.0080	11.8	12	4.41	3.46	1554	0.42	HDPE	
4	STP-1	0.179	0.56	0.10	0.10	5	12.00	3.34	4.55	2042	92.2	0.0225	11.0	12	7.39	5.81	2606	0.21	HDPE	

Comments:

- Design calculations based on Rational Method peak runoff flows and Manning's full flow pipe capacity.
- Roof Drain sized for 8" @0.50% min slope based on worst condition.



Nyloplast Inlet Capacity Table

DISCLAIMER: SAFETY FACTORS ARE NOT INCLUDED IN THESE CALCULATIONS. ACTUAL CALCULATIONS SHOULD BE CARRIED OUT AND VERIFIED BY THE DESIGN ENGINEER TAKING INTO ACCOUNT ALL LOCAL CONDITIONS. NYLOPLAST RECOMMENDS USING A MINIMUM SAFETY FACTOR OF 1.25 FOR PAVED AREAS AND 2.0 FOR TURF AREAS. ADS/NYLOPLAST IS NOT RESPONSIBLE FOR MISUSE OF THIS TOOL.

Input	
Type of Grate	10" Dome
Head (ft)	1
Properties	
Orifice Flow Area (in)	54.00
Orifice Flow Area (ft)	0.37
Weir Flow Perimeter (in)	32.30
Weir Flow Perimeter (ft)	2.69
Solution	
Capacity (cfs)	1.79
Capacity (gpm)	804.85

$$Q_{weir} = CLH^{3/2}$$

$C = 3.33$ Weir Discharge Coefficient

$L =$ Perimeter of Grate Opening (ft)

$H =$ Flow Height of Water Surface Above Weir (ft)

$$Q_{orifice} = CA\sqrt{2gh}$$

$C = 0.60$ Orifice Discharge Coefficient

$A =$ Area of the Orifice (ft²)

$g =$ Gravitational Constant $\left(32.2 \frac{ft}{s^2}\right)$

$H =$ Depth of Water Above Center of Orifice (ft)

REV 2.1.21



Nyloplast Inlet Capacity Table

DISCLAIMER: SAFETY FACTORS ARE NOT INCLUDED IN THESE CALCULATIONS. ACTUAL CALCULATIONS SHOULD BE CARRIED OUT AND VERIFIED BY THE DESIGN ENGINEER TAKING INTO ACCOUNT ALL LOCAL CONDITIONS. NYLOPLAST RECOMMENDS USING A MINIMUM SAFETY FACTOR OF 1.25 FOR PAVED AREAS AND 2.0 FOR TURF AREAS. ADS/NYLOPLAST IS NOT RESPONSIBLE FOR MISUSE OF THIS TOOL.

Input	
Type of Grate	10" Dome
Head (ft)	0.35
Properties	
Orifice Flow Area (in)	54.00
Orifice Flow Area (ft)	0.37
Weir Flow Perimeter (in)	32.30
Weir Flow Perimeter (ft)	2.69
Solution	
Capacity (cfs)	1.06
Capacity (gpm)	476.16

$$Q_{weir} = CLH^{3/2}$$

$C = 3.33$ Weir Discharge Coefficient

$L =$ Perimeter of Grate Opening (ft)

$H =$ Flow Height of Water Surface Above Weir (ft)

$$Q_{orifice} = CA\sqrt{2gh}$$

$C = 0.60$ Orifice Discharge Coefficient

$A =$ Area of the Orifice (ft²)

$g =$ Gravitational Constant $\left(32.2 \frac{ft}{s^2}\right)$

$H =$ Depth of Water Above Center of Orifice (ft)

REV 2.1.21



Nyloplast Inlet Capacity Table

DISCLAIMER: SAFETY FACTORS ARE NOT INCLUDED IN THESE CALCULATIONS. ACTUAL CALCULATIONS SHOULD BE CARRIED OUT AND VERIFIED BY THE DESIGN ENGINEER TAKING INTO ACCOUNT ALL LOCAL CONDITIONS. NYLOPLAST RECOMMENDS USING A MINIMUM SAFETY FACTOR OF 1.25 FOR PAVED AREAS AND 2.0 FOR TURF AREAS. ADS/NYLOPLAST IS NOT RESPONSIBLE FOR MISUSE OF THIS TOOL.

Input	
Type of Grate	10" Dome
Head (ft)	0.55
Properties	
Orifice Flow Area (in)	54.00
Orifice Flow Area (ft)	0.37
Weir Flow Perimeter (in)	32.30
Weir Flow Perimeter (ft)	2.69
Solution	
Capacity (cfs)	1.33
Capacity (gpm)	596.89

$$Q_{weir} = CLH^{3/2}$$

$C = 3.33$ Weir Discharge Coefficient

$L =$ Perimeter of Grate Opening (ft)

$H =$ Flow Height of Water Surface Above Weir (ft)

$$Q_{orifice} = CA\sqrt{2gh}$$

$C = 0.60$ Orifice Discharge Coefficient

$A =$ Area of the Orifice (ft²)

$g =$ Gravitational Constant $\left(32.2 \frac{ft}{s^2}\right)$

$H =$ Depth of Water Above Center of Orifice (ft)



Nyloplast Inlet Capacity Table

DISCLAIMER: SAFETY FACTORS ARE NOT INCLUDED IN THESE CALCULATIONS. ACTUAL CALCULATIONS SHOULD BE CARRIED OUT AND VERIFIED BY THE DESIGN ENGINEER TAKING INTO ACCOUNT ALL LOCAL CONDITIONS. NYLOPLAST RECOMMENDS USING A MINIMUM SAFETY FACTOR OF 1.25 FOR PAVED AREAS AND 2.0 FOR TURF AREAS. ADS/NYLOPLAST IS NOT RESPONSIBLE FOR MISUSE OF THIS TOOL.

Input	
Type of Grate	12" Dome
Head (ft)	0.69
Properties	
Orifice Flow Area (in)	70.37
Orifice Flow Area (ft)	0.49
Weir Flow Perimeter (in)	34.56
Weir Flow Perimeter (ft)	2.88
Solution	
Capacity (cfs)	1.94
Capacity (gpm)	871.23

$$Q_{weir} = CLH^{3/2}$$

$C = 3.33$ Weir Discharge Coefficient

$L =$ Perimeter of Grate Opening (ft)

$H =$ Flow Height of Water Surface Above Weir (ft)

$$Q_{orifice} = CA\sqrt{2gh}$$

$C = 0.60$ Orifice Discharge Coefficient

$A =$ Area of the Orifice (ft²)

$g =$ Gravitational Constant $\left(32.2 \frac{ft}{s^2}\right)$

$H =$ Depth of Water Above Center of Orifice (ft)

REV 2.1.21



2) Use map:

a) Select location
Move crosshair or double click

b) Click on station icon
 Show stations on map

Location information:
Name: Fitchburg, Wisconsin, USA*
Latitude: 43.0317°
Longitude: -89.3809°
Elevation: 870 ft **

* Source: ESRI Maps
** Source: USGS

POINT PRECIPITATION FREQUENCY (PF) ESTIMATES

WITH 90% CONFIDENCE INTERVALS AND SUPPLEMENTARY INFORMATION
 NOAA Atlas 14, Volume 8, Version 2

- PF tabular
- PF graphical
- Supplementary information

[Print page](#)

PDS-based precipitation frequency estimates with 90% confidence intervals (in inches/hour)¹

Duration	Average recurrence interval (years)									
	1	2	5	10	25	50	100	200	500	1000
5-min	4.48 (3.58-5.53)	5.11 (4.09-6.32)	6.20 (4.94-7.69)	7.16 (5.68-8.88)	8.54 (6.64-10.8)	9.66 (7.38-12.3)	10.8 (8.03-14.0)	12.0 (8.65-15.7)	13.8 (9.58-18.2)	15.1 (10.3-20.1)
10-min	3.28 (2.62-4.05)	3.74 (2.99-4.63)	4.55 (3.62-5.63)	5.24 (4.16-6.50)	6.25 (4.86-7.93)	7.07 (5.39-9.01)	7.93 (5.87-10.2)	8.83 (6.34-11.5)	10.1 (7.01-13.3)	11.0 (7.52-14.7)
15-min	2.66 (2.13-3.29)	3.04 (2.43-3.76)	3.70 (2.94-4.58)	4.26 (3.38-5.29)	5.08 (3.95-6.45)	5.75 (4.38-7.33)	6.44 (4.78-8.31)	7.17 (5.15-9.37)	8.18 (5.70-10.8)	8.98 (6.11-11.9)
30-min	1.87 (1.49-2.31)	2.14 (1.71-2.64)	2.59 (2.07-3.21)	2.99 (2.37-3.71)	3.57 (2.77-4.53)	4.04 (3.08-5.15)	4.53 (3.38-5.84)	5.04 (3.62-6.58)	5.75 (4.00-7.61)	6.31 (4.29-8.39)

APPENDIX I

UNIVERSAL SOIL LOSS EQUATION FOR CONSTRUCTION SITES

LEGEND	
	CONSTRUCTION ENTRANCE
	SILT FENCE
	INLET PROTECTION
	EROSION MATTING
	TURF REINFORCEMENT MAT
	RIP RAP

**PROPOSED GRADE USLE
PATH 2
9' @ 27.9%**

**PROPOSED GRADE USLE
PATH 3
493' @ 2.1%**

**EXISTING GRADE USLE
363' @ 3.1%**

**PROPOSED GRADE USLE
PATH 1
19' @ 40.7%**

CONSTRUCTION SEQUENCE (NORTH SLOPES)
 (08-04-2025) - INSTALL EROSION CONTROL DEVICES
 (08-04-2025 - 08-11-2025) - STRIP AND STOCKPILE TOPSOIL
 (08-11-2025 - 08-25-2025) - GRADE NORTH SLOPES
 (08-25-2025 - 10-25-2025) - SEED AND MULCH AND ESTABLISH VEGETATION & PLACE FOR ALL SLOPES ALONG NORTH PROPERTY LINE SHOWN WITHIN THE EROSION MATTING LIMITS
 *REMOVE EROSION CONTROL MEASURES ONLY AFTER SOILS HAVE BEEN STABILIZED


CONSTRUCTION SEQUENCE (BASIN SLOPES)
 (08-04-2025) - INSTALL EROSION CONTROL DEVICES
 (08-04-2025 - 08-11-2025) - STRIP AND STOCKPILE TOPSOIL
 (08-11-2025 - 08-17-2025) - GRADE BASIN (TO BE UTILIZED AS SEDIMENT BASIN)
 (08-17-2025 - 10-17-2025) - SEED AND MULCH AND ESTABLISH VEGETATION & PLACE FOR ALL BASIN SLOPES AND SURROUNDING SLOPES WITHIN THE EROSION MATTING LIMITS
 *REMOVE EROSION CONTROL MEASURES ONLY AFTER SOILS HAVE BEEN STABILIZED

CONSTRUCTION SEQUENCE (REMAINING SITE)
 (08-04-2025) - INSTALL EROSION CONTROL DEVICES
 (08-04-2025 - 08-11-2025) - STRIP AND STOCKPILE TOPSOIL
 (08-11-2025 - 06-03-2026) - GRADE SITE WITH TEMPORARY STABILIZATION BY 09-15-2025
 (06-03-2026 - 08-03-2026) - SEED AND MULCH AND ESTABLISH VEGETATION & PLACE
 *REMOVE EROSION CONTROL MEASURES ONLY AFTER SOILS HAVE BEEN STABILIZED

V:\proj\241224\124.1205\30CAD\124.1205_Plan.dwg BRAN ARCAD, USLE 20250410, 3.25 RW ANSIFULL BLEED.B (17.0X11.0) INCHES

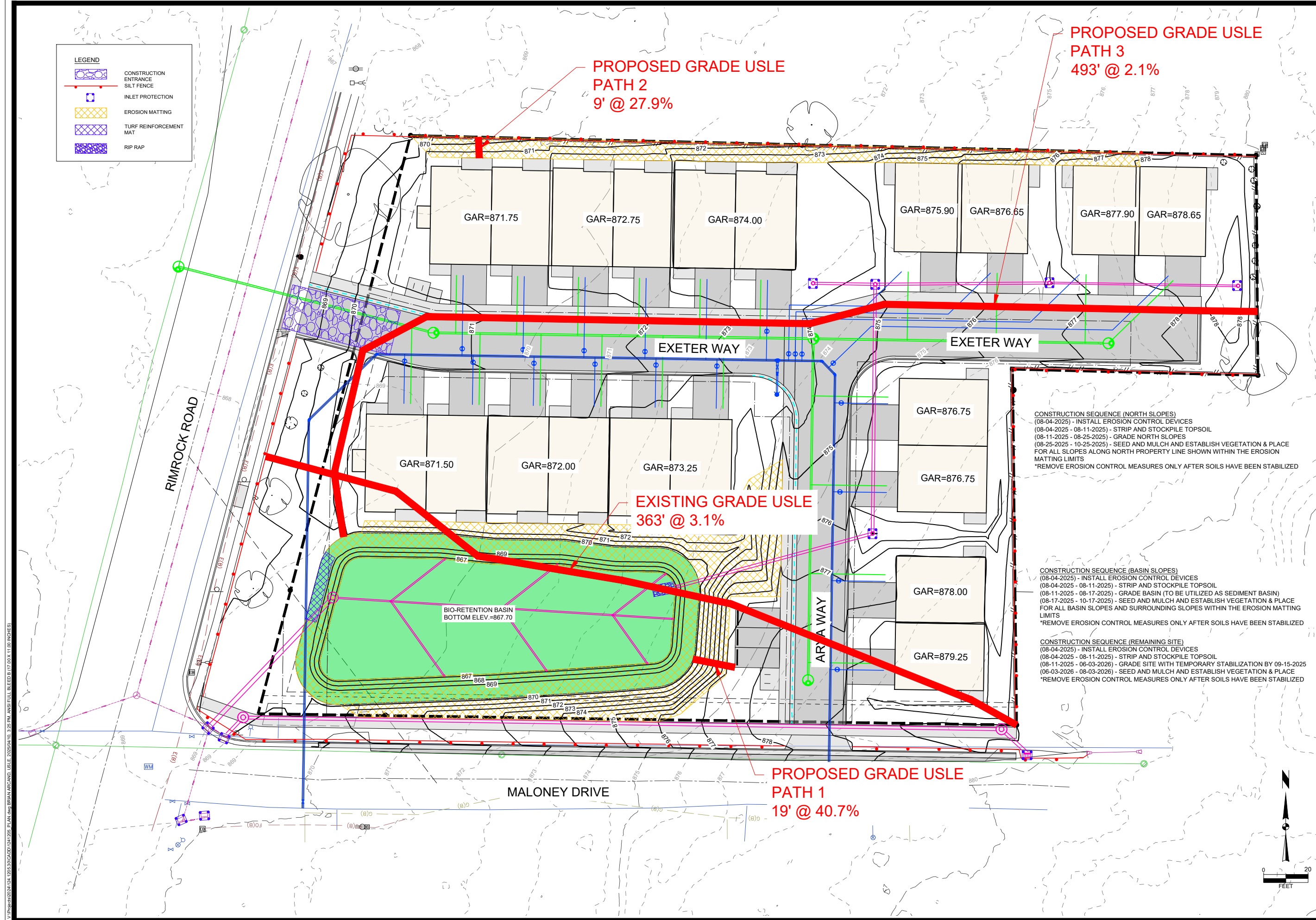
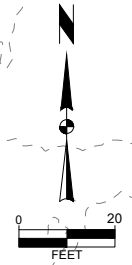
PIP SUBMITTAL	04-14-25	BCA	MARK	REVISION	DATE	BY	
GIP RESUBMITTAL	03-07-25	BCA	Engineer:	BCA	Checked By:	MJC	
GIP RESUBMITTAL	02-24-25	BCA	Technician:	DMS	Date:	11-04-2024	
GIP RESUBMITTAL	02-07-25	BCA					
					Scale:	1" = 20'	
					T-R-S:	TIN+RRW+SS	
						Project No:	124.1205.30
						Sheet	APP I

OLIVE TREE RESIDENCES
 USLE
 CITY OF FITCHBURG, DANE COUNTY, WISCONSIN
SNYDER & ASSOCIATES, INC.



SNYDER & ASSOCIATES

Project No: 124.1205.30
 Sheet APP I





Soil Loss & Sediment Discharge Calculation Tool

for use on Construction Sites in the State of Wisconsin

WDNR Version 2.1 (12-05-2024)



YEAR 1

Developer: Hoopoe Holdings, LLC

Project: Olive Tree Residences (Basin Slopes - Path 1)

Date: 04/10/25

County: Dane

Version 2.1

Activity (1)	Begin Date (2)	End Date (3)	Period % R (4)	Annual R Factor (5)	Sub Soil Texture (6)	Soil Erodibility K Factor (7)	Slope (%) (8)	Slope Length (ft) (9)	LS Factor (10)	Land Cover C Factor (11)	Soil loss A (tons/acre) (12)	SDF (13)	Sediment Control Practice (14)	Sediment Discharge (t/ac) (15)
Bare Ground	08/04/25	08/11/25	4.5%	150	Silty Clay	0.28	3.1%	363	0.51	1.00	1.0	0.843	Silt Fence	0.5
Bare Ground	08/11/25	08/17/25	3.3%	150	Silty Clay	0.28	40.7%	19	6.53	1.00	9.2	1.476	Sediment Basin	2.7
Seed with Mulch or Er	08/17/25	10/17/25	21.1%	150	Silty Clay	0.28	40.7%	19	6.53	0.10	5.8	1.476	Sediment Basin	1.7
End	10/17/25	-----	-----	-----	-----	-----	40.7%	19	6.53	-----	-----	0.000	Sediment Basin	0.0
		-----	-----	-----	-----	-----	40.7%	0	-----	-----	-----	0.000		0.0
		-----	-----	-----	-----	-----	0.0%	0	-----	-----	-----	0.000		0.0
TOTAL											15.9		TOTAL	4.9
													% Reduction Required	NONE

SLOPE > 20% USE PRESCRIPTIVE COMPLIANCE

Notes:

See Help Page for further descriptions of variables and items in drop-down boxes.
 The last land disturbing activity on each sheet must be 'End'. This is either 12 months from the start of construction or final stabilization.
 For periods of construction that exceed 12 months, please demonstrate that 5 tons/acre/year is not exceeded in any given 12 month period.

NOTE: THIS TOOL ONLY ADDRESSED SOIL EROSION DUE TO SHEET FLOW. MEASURES TO CONTROL CHANNEL EROSION MAY ALSO BE REQUIRED TO MEET SEDIMENT DISCHARGE REQUIREMENTS.

Recommended Permanent Seeding Dates:

4/1-5/15 and 8/7-8/29 Turf, introduced grasses and legumes
 Thaw-6/30 Native Grasses, forbs, and legumes

Designed By:	
Date	



Soil Loss & Sediment Discharge Calculation Tool

for use on Construction Sites in the State of Wisconsin

WDNR Version 2.1 (12-05-2024)



YEAR 1

Developer: Hoopoe Holdings, LLC

Project: Olive Tree Residences (North Slopes - Path 2)

Date: 04/10/25

County: Dane

Version 2.1

Activity (1)	Begin Date (2)	End Date (3)	Period % R (4)	Annual R Factor (5)	Sub Soil Texture (6)	Soil Erodibility K Factor (7)	Slope (%) (8)	Slope Length (ft) (9)	LS Factor (10)	Land Cover C Factor (11)	Soil loss A (tons/acre) (12)	SDF (13)	Sediment Control Practice (14)	Sediment Discharge (t/ac) (15)
Bare Ground	08/04/25	08/11/25	4.5%	150	Silty Clay	0.28	3.1%	363	0.51	1.00	1.0	0.843	Silt Fence	0.5
Bare Ground	08/11/25	08/25/25	7.1%	150	Silty Clay	0.28	27.9%	9	2.26	1.00	6.8	0.844	Silt Fence	3.4
Seed with Mulch or Er	08/25/25	10/25/25	18.8%	150	Silty Clay	0.28	27.9%	9	2.26	0.10	1.8	0.844	Silt Fence	0.9
End	10/25/25	-----	-----	-----	-----	-----	27.9%	9	2.26	-----	-----	0.000	Silt Fence	0.0
		-----	-----	-----	-----	-----	27.9%	0	-----	-----	-----	0.000		0.0
		-----	-----	-----	-----	-----	0.0%	0	-----	-----	-----	0.000		0.0
TOTAL											9.5		TOTAL	4.8
													% Reduction Required	NONE

SLOPE > 20% USE PRESCRIPTIVE COMPLIANCE

Notes:

See Help Page for further descriptions of variables and items in drop-down boxes.
 The last land disturbing activity on each sheet must be 'End'. This is either 12 months from the start of construction or final stabilization.
 For periods of construction that exceed 12 months, please demonstrate that 5 tons/acre/year is not exceeded in any given 12 month period.

NOTE: THIS TOOL ONLY ADDRESSED SOIL EROSION DUE TO SHEET FLOW. MEASURES TO CONTROL CHANNEL EROSION MAY ALSO BE REQUIRED TO MEET SEDIMENT DISCHARGE REQUIREMENTS.

Recommended Permanent Seeding Dates:

4/1-5/15 and 8/7-8/29 Turf, introduced grasses and legumes
 Thaw-6/30 Native Grasses, forbs, and legumes

Designed By:	
Date	



Soil Loss & Sediment Discharge Calculation Tool

for use on Construction Sites in the State of Wisconsin

WDNR Version 2.1 (12-05-2024)



YEAR 1

Developer: Hoopoe Holdings, LLC

Project: Olive Tree Residences (Remaining Site - Path 3)

Date: 04/10/25

County: Dane

Version 2.1

Activity (1)	Begin Date (2)	End Date (3)	Period % R (4)	Annual R Factor (5)	Sub Soil Texture (6)	Soil Erodibility K Factor (7)	Slope (%) (8)	Slope Length (ft) (9)	LS Factor (10)	Land Cover C Factor (11)	Soil loss A (tons/acre) (12)	SDF (13)	Sediment Control Practice (14)	Sediment Discharge (t/ac) (15)
Bare Ground	08/04/25	08/11/25	4.5%	150	Silty Clay	0.28	3.1%	363	0.51	1.00	1.0	0.843	Silt Fence	0.5
Bare Ground	08/11/25	06/03/26	51.6%	150	Silty Clay	0.28	2.1%	493	0.34	1.00	7.3	0.858	Sediment Trap	1.3
Seed with Mulch or Er	06/03/26	08/03/26	43.2%	150	Silty Clay	0.28	2.1%	493	0.34	0.10	0.6	0.858	Sediment Trap	0.1
End	08/03/26	-----	-----	-----	-----	-----	2.1%	493	0.34	-----	-----	0.000	Sediment Trap	0.0
		-----	-----	-----	-----	-----	2.1%	0	-----	-----	-----	0.000		0.0
		-----	-----	-----	-----	-----	0.0%	0	-----	-----	-----	0.000		0.0
TOTAL											8.9		TOTAL	1.8
													% Reduction Required	NONE

Notes:

See Help Page for further descriptions of variables and items in drop-down boxes.
 The last land disturbing activity on each sheet must be 'End'. This is either 12 months from the start of construction or final stabilization.
 For periods of construction that exceed 12 months, please demonstrate that 5 tons/acre/year is not exceeded in any given 12 month period.

NOTE: THIS TOOL ONLY ADDRESSED SOIL EROSION DUE TO SHEET FLOW. MEASURES TO CONTROL CHANNEL EROSION MAY ALSO BE REQUIRED TO MEET SEDIMENT DISCHARGE REQUIREMENTS.

Recommended Permanent Seeding Dates:

4/1-5/15 and 8/7-8/29 Turf, introduced grasses and legumes
 Thaw-6/30 Native Grasses, forbs, and legumes

Designed By:	
Date	

APPENDIX J

DRAFT MAINTENANCE AGREEMENT

DECLARATION OF CONDITIONS AND RESTRICTIONS FOR
MAINTENANCE OF STORMWATER MANAGEMENT MEASURES

RECITALS:

- A. _____ (“Owner”) is the owner of _____ more particularly described on Exhibit A attached hereto (the “Property”).
- B. Owner desires to construct stormwater management measures on the Property in accordance with certain plans and specifications approved by the City of Fitchburg (the “City”).
- C. The City requires Owner to record this Declaration of Conditions and Restrictions for Maintenance of Stormwater Management Measures (this “Declaration”) regarding maintenance of certain stormwater management measures (“Stormwater Management Measures”) to be located on the Property all as more particularly described in Exhibit A and shown on Exhibit B. Owner agrees to maintain the Stormwater Management Measures and to grant to the City the rights set forth below.

NOW, THEREFORE, in consideration of the declarations herein and other good and valuable consideration, the receipt and sufficiency of which are hereby acknowledged, the owner agrees as follows:

- 1. Maintenance. Owner and its successors and assigns shall be responsible to repair and maintain the Stormwater Management Measures located on the Property in good condition and in working order and such that the measures comply with approved plans on file with the City. Said maintenance shall be at the Owner’s sole cost and expense. Owner will conduct such maintenance or repair work in accordance with all applicable laws, codes, regulations, and similar requirements. *Specific maintenance tasks and their schedules shall be conducted in accordance with Exhibit A.*
- 2. Easement to City. In the event that the Owner fails to maintain the Stormwater Management Measures as required by Section 1, and such failure continues for a period of 30 days following the delivery of written notice to the Owner, then the City and its agents, employees, and contractors, shall have the right, but not the obligation, to enter the Property at any time for purposes of inspection, maintenance, and repairs. The City is hereby granted a permanent, non-exclusive easement over Property to conduct such inspections, maintenance, and repairs. These rights and remedies include, but are not limited to, ultimately contracting to perform such maintenance or repairs as it shall deem necessary and charging the costs incurred by the City as a special assessment or a special charge upon the next tax roll equally against Property. In accordance with Wisconsin Statutes Section 66.0703(7)(b), Owner or any subsequent owner of the Property hereby waive all special assessment notices and hearings required by Wisconsin Section 66.0703, and further agree and admit that the assessed property receives a benefit from the work, which is equal to or greater than the total cost of the work.
- 3. Term/Termination. The term of this Declaration shall commence on the date that this Declaration is filed of record with the Register of Deeds Office for Dane County, Wisconsin, and except as otherwise herein specifically provided, shall continue in perpetuity. Notwithstanding the foregoing, this Declaration may be terminated by recording with the Register of Deeds Office for Dane County, Wisconsin, a written instrument of termination signed by the City and all of the then-owners of the Property.
- 4. Miscellaneous.
 - (a) Notices. Any notice, request or demand required or permitted under this Declaration shall be in writing and shall be deemed given when personally served or three (3) days after the same has been deposited with the United States Post Office, registered or certified mail, return receipt requested, postage prepaid and addressed as follows:

If to Owner:

If to the City: City Engineering Division
5520 Lacy Road

This space reserved for recording data

Return to:
City of Fitchburg
5520 Lacy Road
Fitchburg, WI 53711

PIN#:

EXHIBIT A
Stormwater Management Maintenance Measures

Legal Description of Property:

Tax Parcel Numbers: _____

Stormwater Management Measures Included in this Agreement (as shown on the attached Erosion Control Plan, Grading Plan, and Utility Plan, hereby made a part of Exhibit B):

- All site storm sewer pipes and structures
- Infiltration Trenches/Ponds
- Stormwater Conveyance Channel

Specific Maintenance Requirements:

Short Term Maintenance (during construction and/or restoration):

- The building construction contractor at the owner's expense or as agreed to by the owner and contractor shall perform inspection of all facilities during construction and until site stabilization.
- Inspections during construction shall be weekly and/or after a rainfall event of 0.5" or more.
- Repairs necessary to restore the facility to design performance will be made within 48 hours of the inspection.
- Deficiencies include, but are not limited to, rill erosion, sediment deposition in the infiltration pond or behind perimeter control, and deposition of sediment on the tracking pad.
- Tracking on the public right-of-way shall be inspected regularly during days that construction traffic is leaving the construction site. Any excessive sediment tracked onto the public right-of-way shall be scraped immediately. Thorough sweeping, with appropriate equipment that physically picks up and removes the sediment (vs. pushing it to other locations within the public right-of-way) shall be conducted at the end of each working day during construction activities.

Long Term Maintenance:

- Inspector qualifications for Long Term Maintenance: Inspectors under this item shall maintain a current Registered Professional Engineer License in the State of Wisconsin or possess an alternate certification approved by the **City of Fitchburg's** Public Works Department.
- All stormwater provisions constructed as part of this project are permanent in location and function over time. The constructed stormwater provisions such as infiltration ponds, inlet filters, and storm structures shall not be removed or significantly altered without written permission from the **City of Fitchburg's** Public Works Department. Owner shall maintain records of inspections and maintenance as described below in accordance with Chapter 30 – Article II of the **City of Fitchburg** Municipal Code of Ordinances. Inspections and maintenance reports shall be submitted to the **City of Fitchburg's** Public Works Department on an annual basis.
- An operation and maintenance plan shall be developed that is consistent with the purposes of the infiltration device, its intended life, safety requirements and the criteria for its design. The plan shall be developed for inspection, operation and maintenance of the device. The plan shall assign responsibility for activities and the qualifications of the personnel performing the work.

STORM SEWER

- Proprietary sedimentation devices shall be installed and maintained in a manner consistent with laboratory testing and modeling assumptions used to predict effectiveness. This includes the following requirements: the device shall be installed in accordance with manufacturer recommendations; the installed device shall be equipped with an internal or external bypass to divert flows in excess of the design treatment flow rate.
- Storm structures outfitted with devices to capture total suspended solids (TSS) shall be inspected semi-annually in early spring and early fall. Cleaning of TSS and other debris shall be performed anytime the sediment in the unit reaches 8 inches in depth or the volume exceeds 15% of the total storage volume.
- Visual inspection of components shall be performed, and debris removed from inlets and storm sewer manholes.
- Repair inlet/outlet areas that are damaged or show signs of erosion.
- Rip-rap shall be replaced as necessary.
- Repairs must restore the component to the specifications of the original plan.

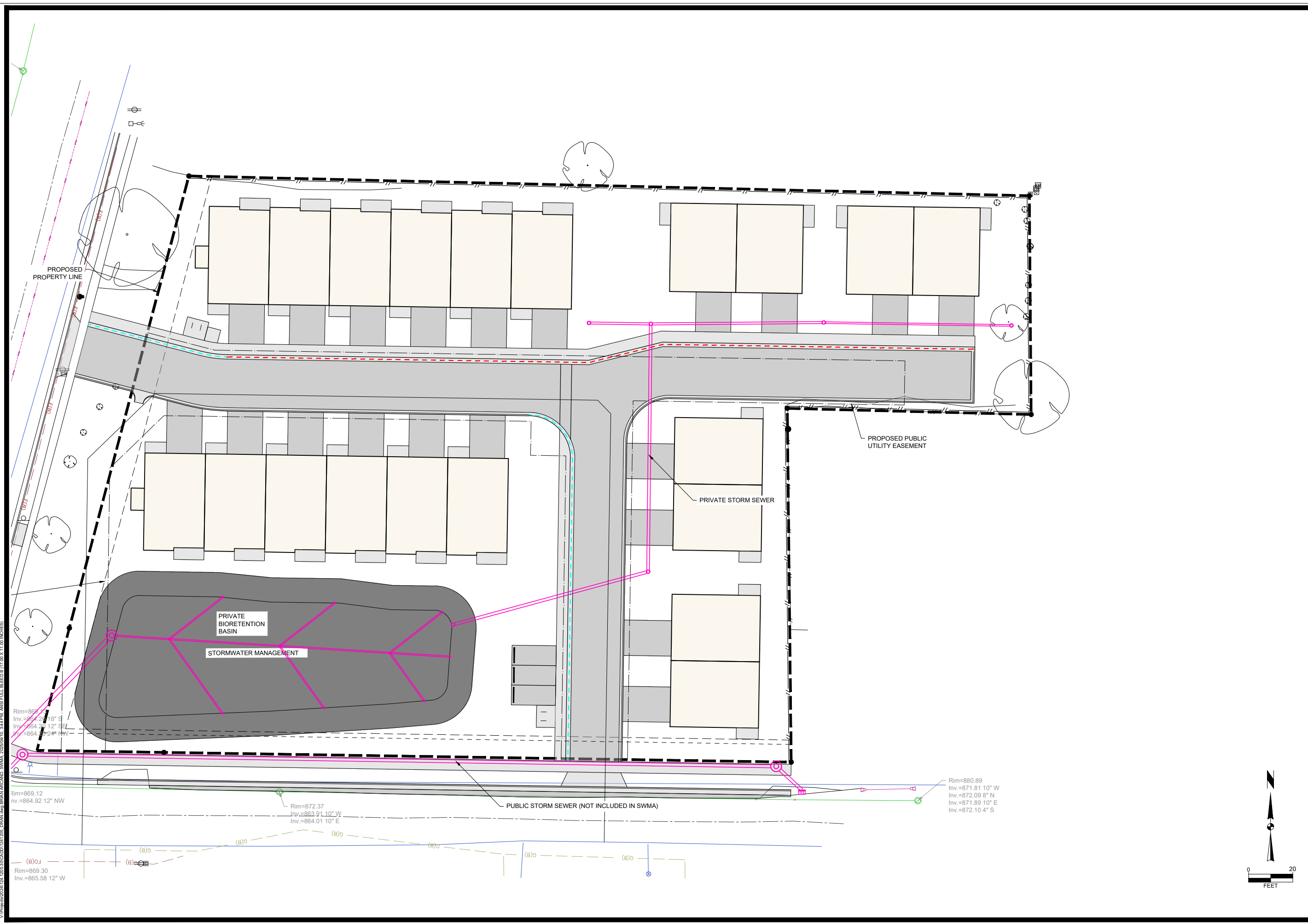
BIORETENTION BASIN

- The Owner is responsible for carrying out typical maintenance activities for bioretention areas and shall include details on these activities that are consistent with the following standards:
 - Inspect soil and repair eroded areas on a monthly basis;
 - Remove litter and debris on a monthly basis;
 - Add additional mulch on an annual basis;
 - Water plants accordingly during first growing season and as necessary during dry periods after first growing season;
 - Re-mulch void areas as needed;
 - Treat diseased trees and shrubs as needed.
- Snow shall not be dumped directly onto the conditioned planting bed.
- If the bioretention device receives runoff only from residential land uses other than streets, the mulch layer can be discontinued at maturity provided that a dense vegetation layer is formed.
- If not listed above, all components of the bioretention basin shall be inspected on an annual basis at a minimum.
- Repairs must restore the component to the specifications of the original plan.

TURF DITCH

- Inspect turf ditches annually to detect signs of bare ground / soil erosion. Turf ditches that show signs of erosion shall be restored. If erosion is persistent, erosion control matting may be helpful in establishing vegetation.
- Inspect turn ditches for signs of standing water or sediment buildup. Regrade the ditch as necessary to maintain proper stormwater conveyance.
- Repairs must restore the component to the specifications of the original plan.

EXHIBIT B
Figure(s) of Stormwater Management Maintenance Measures



V:\p\10\1024\124.1205\124.1205.DRAWN.dwg BRAN.ABC AND SWMA 2/25/2024 3:44 PM ANSI FULL BLEED B (17.00 X 11.00 INCHES)

PIP SUBMITTAL	04-14-25	BCA
GIP RESUBMITTAL	03-07-25	BCA
GIP RESUBMITTAL	02-24-25	BCA
GIP RESUBMITTAL	02-07-25	BCA
MARK	REVISION	DATE
Engineer: BCA	Checked By: MLC	Scale: 1" = 20'
Technician: DMS	Date: 11-04-2024	T-R-S: TTN-RRW-SS
Project No.: 124.1205.30		Sheet APP J

OLIVE TREE RESIDENCES

SWMA

CITY OF FITCHBURG, DANE COUNTY, WISCONSIN

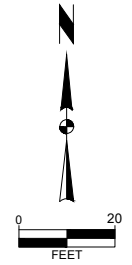
SNYDER & ASSOCIATES, INC.

5010 VOGES ROAD
MADISON, WISCONSIN 53718
608-838-0444 | www.snyder-associates.com

SNYDER & ASSOCIATES

Project No.: 124.1205.30

Sheet APP J



APPENDIX K

SOIL TEST PITS

EXHIBIT A

Address: 2735 Rimrock Road, Madison, WI 53713

Tax Parcel Number: 225/0709-363-9330-3 and 225/0709-363-9400-8

Legal Description

Parcel A:

A parcel of land lying in and being a part of the South $\frac{1}{2}$ of the South $\frac{1}{2}$ of the Southwest $\frac{1}{4}$ of Section 36, Township 7 North, Range 9 East, in the Town of Madison, Dane County, Wisconsin, and described more fully as follows: Beginning at a point (iron stake) which is 364 feet South of an iron stake (which is a point on the North line of the above mentioned South $\frac{1}{2}$ of the South $\frac{1}{2}$ of the Southwest $\frac{1}{4}$, and 1382 feet West of the Northeast corner thereof); thence South 99 feet to an iron stake; thence West parallel to said North line 435.5 feet to an iron stake at public highway; thence North $14^{\circ}15'$ East along said public highway, 101.8 feet to an iron stake; thence East parallel to said North line 408.6 feet to the point of beginning.

Parcel B:

Part of the South $\frac{1}{2}$ of the South $\frac{1}{2}$ of the Southwest $\frac{1}{4}$ of Section 36, Township 7 North, Range 9 East, in the Town of Madison, Dane County, Wisconsin, and which is more fully described as follows: Beginning 1379.5 feet West of the Northeast corner of said South $\frac{1}{2}$ of the South $\frac{1}{2}$ of the Southwest $\frac{1}{4}$ (said point previously being described as West 1382.0 feet); thence South $1^{\circ}26'$ West, 652.0 feet to the South line of Section 36, said point being the Southeast corner of parcel described in Volume 509, on page 407 of Deeds, Dane County Registry; thence West along center line of a 50.0 foot road, 110.0 feet to the point of beginning of this description, said point also being the Southwest corner of parcel described in Volume 516, on page 38 of Deeds, Dane County Registry; thence continue West along said center line of 50.0 foot road, 377.0 feet more or less to intersect center line public highway; thence North $14^{\circ}15'$ East along center line said public highway, 197.7 feet; thence East parallel to the South line of Town Road, 325.5 feet more or less to the Northwest corner of parcel described in Volume 516, on Page 38, of Deeds, Dane County Registry; thence Southerly along West line of above mentioned parcel, 164.0 feet to the North line of 50.0 foot road; thence continue Southerly on said West line, 25.0 feet to the center line of highway and the point of beginning; EXCEPTING THEREFROM those lands conveyed to the Town of Madison in Quit Claim Deed recorded in Volume 593 of Deeds, Page 254 as Document No. 851999.



Conditional Use -

Owner or Authorized Agent Acknowledgement

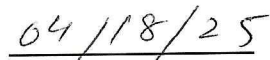
** It is highly recommended that an applicant hold at least one neighborhood meeting prior to submitting a CUP application to identify any concerns or issues of surrounding residents.

PLEASE NOTE - Applicants shall be responsible for legal or outside consultant costs incurred by the City. Submissions shall be made at least four (4) weeks prior to desired plan commission meeting.

By signing below, I certify that the information included with this Conditional Use application is true and correct, to the best of my knowledge. Any agent signing below verifies that he/she has the consent of the owner to file the application.



Owner's or Authorized Agent's Signature



Date (DD/MM/YYYY)