



**CITY OF GLENDALE
City Hall
Glendale, Wisconsin 53209**

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AGENDA-PLANNING AND ARCHITECTURAL REVIEW BOARD MEETING

Tuesday, July 1, 2025

6:00 PM

Members: Chairman and Mayor Bryan Kennedy, Alderman Phillip Bailey,
Amanda Seligman, Shauntay Nelson, Fredrick Cohn, Shawn Storey,
Traci Fernandez, and Raymond Carlson (Alternate)

1. Roll Call and Pledge of Allegiance

2. Adoption of Minutes

- a. Adoption of Minutes: June 3, 2025

3. Public Hearing

- a. Conditional Use, Site Plan and Architectural Plan Approval: Glendale Heights
Childcare, 6045 N Green Bay Road, Taxkey Number 1619981000

4. New Business

- a. Review and Possible Action: Recommendation to Common Council: Amending 13.1.20
(b) of the Zoning Code to allow "General Business Offices with Common Accessory
Uses (light manufacturing) not exceeding 60 percent of the gross floor area of the
primary structure" as a permitted use in the B-1 "C-1" Zoning District, to allow
"Fitness Activity Studio" as a Permitted Use B-5 Zoning Districts and Amending
13.1.200, "Definitions" to add "Fitness Activity Studio".
- b. Business Use Approval: Top Line Gym, 2345 W Mill Rd, Taxkey Number 1609015000
- c. Business Use Approval: Bernie's Book Bank, 5235 North Ironwood Road, Taxkey

Number 1968996000

- d. Business Use Approval: WMSVision Detail Hub, 6161 N Flint Road, Taxkey Number 1609035000

5. Adjournment

The Planning and Architectural Review Commission currently holds meetings in person at City Hall, or an alternative physical location as allowed by the City Ordinance. As a courtesy to residents, Council meetings will also be made available live on Zoom virtual platform for viewing and possible participation. However, the City cannot guarantee the technology supporting the virtual viewing option will operate perfectly and continuously. The only way to guarantee the ability to offer public comment, or view the meeting uninterrupted, is to appear in person. If the Zoom platform fails, the meeting will continue as scheduled.



CITY OF GLENDALE

City Hall

Glendale, Wisconsin 53209

MINUTES- Planning and Architectural Review Board

Tuesday, June 3, 2025

6:00 PM

1. Roll Call and Pledge of Allegiance

Mayor Bryan Kennedy called the Common Council Meeting to order at 6:00 PM.

Roll Call

Present: Mayor Bryan Kennedy, Commissioner Seligman, Storey, Fernandez

Absent: Alderman Bailey, Commissioner Nelson, Cohn, Carlson

Other Officials Present: City Administrator; Karl Warwick, Assistant to the Administrator;
Benjamin Polony, Vandewalle and Associates; Meredith Perks

2. Adoption of Minutes

a. Adoption of May 6, 2025, Meeting Minutes

Motion made by Commissioner Seligman and Seconded by Commissioner Storey to approve
Adoption of May 6, 2025, Meeting Minutes.

Ayes: Unanimous Noes: None Abstain: None

Motion passed.

3. Public Hearing

4. New Business

a. Architectural Review: 902 W Eula Court New Home Construction, Tax Key Number
2331047000

Vandewalle and Associates Planner Meredith Perks provided an overview of the new single-family home construction on a vacant lot in the R7-A residential district. Perks noted some comments from City Services still need to be addressed prior to permitting. The contractor for the home build made a comment that since submittal the wood siding for the garage changed. No discussion or questions were had.

Motion made by Commissioner Storey and Seconded by Commissioner Fernandez to approve staff recommendation for Architectural Review: 902 W Eula Court New Home Construction, Tax Key Number 2331047000.

Ayes: Unanimous Noes: None Abstain: None

Motion passed.

5. Unfinished Business

- a. Business Use Approval: Open Wings Learning Community Inc., 4650 North Port Washington Road, Tax Key Number 2348012000

Mayor Kennedy asked a representative from Open Wing's to come up for questions. Questions pertained to the way the school operates, is funded, where the student body comes from, and whether any bussing provided by the district is needed. The representative from Open Wings provided an overview of the school noting its very small size and being geared towards children with special needs and they do participate in the special needs scholarship program which does take funds on a per pupil basis away from the public school district. The superintendent of the Glendale Heights Public School was also in attendance and provided some comments on the matter. A parent of a student from Open Wings provided some insight on the quality of the school. Commissioner Storey asked if the IEPs had to be done by a school district specialist and Open Wings representative noted it has to be done by the local district. about Commissioner Fernandez asked some questions pertaining to the financial difference in educating a student at Open Wings versus a public school. The representative noted there is no additional cost beyond what they charge directly. Commissioner Seligman provided some brief history on the site of the new school being a former chocolate factory and how it can excite the kids knowing that.

Motion made by Commissioner Fernandez and Seconded by Commissioner Storey to approve Business Use Approval: Open Wings Learning Community Inc., 4650 North Port Washington Road, Tax Key Number 2348012000.

Ayes: Unanimous Noes: None Abstain: None

Motion passed.

6. Set the Next Meeting Date

Next meeting schedule for July the 1st, 2025 per City Ordinance.

7. Adjournment

Motion made by Commissioner Storey and Seconded by Commissioner Seligman to Adjourn.

Ayes: Unanimous Noes: None Abstain: None

Meeting adjourned at 6:41 P.M.

[MIN_SIGNATURES]

SUBJECT: Conditional Use, Site Plan and Architectural Plan Approval: Glendale Heights Childcare, 6045 N Green Bay Road, Taxkey Number 1619981000

FROM: Meredith Perks, Vandewalle and Associates

MEETING: Planning and Architectural Review Commission

MEETING DATE: July 1, 2025

FISCAL SUMMARY:

Budget Summary: N/a
Budgeted Expenditure: N/a
Budgeted Revenue: N/a

STATUTORY REFERENCE:

Wisconsin Statutes: N/a
Municipal Code: 13.1.60

BACKGROUND & ANALYSIS:

Glendale Heights Day Care currently operates in Glendale at the former Good Hope School building. The daycare business is proposing to relocate to 6045 North Green Bay Avenue, Tax Key Number 1618037000, and renovate and expand the existing building, converting it from office use to daycare use. The proposed building plan will include a new addition to the front of the building and primary entrance. Site improvements will also include demolition of the existing parking area, site grading, parking lot expansion, stormwater improvements, and site landscaping.

Business operations will include 27-30 staff on site per day, Monday through Friday from 6:30am to 5:30pm. The property will include two fenced play areas at the rear of the site. Children will play outside during business hours, generally from 9:00am to noon and 3:00pm to 5:00pm. Glendale Heights is a licensed childcare provider and will adhere to State of Wisconsin licensing standards and national accreditation criteria. Onsite security will include code/key entry, interior and exterior security cameras, as well as fencing at the north and south

sidewalks adjacent to the building. A maximum of 157 children and 30 staff will be on site per day. Construction of the project is proposed from September 2025 to July 2026.

The applicant completed a Traffic Impact Analysis Study (TIA). Circulation recommendations for pick-up/drop-off, include queueing through the site in a single-file line to a loading zone toward the rear of the building. No intersection expansion, intersection control, or timing changes are recommended, however delays are expected at peak times and levels of service are anticipated to deteriorate significantly at these times. The City has required that the applicant restrict left turns on to Green Bay Avenue.

The property is currently zoned B-4 – Office Research Service Business District. Childcare is permitted as a conditional use in the B-4 district. Use is conditional on maintenance of a State of Wisconsin licensing. To approve a conditional use permit, the PARC is required to hold a fully noticed public hearing.

Site plan and architectural drawings include elevations of the building expansion, proposed materials, architectural plans, and landscape plans. The proposed expansion meets City design standards and will complement the existing building design and materials.

The majority of on-site parking will be located in the rear of the building. The site plan includes 52 parking stalls, including 2 ADA stalls at the front entrance. According to the City of Glendale Parking Regulations (Section 13.1.92), the maximum number of parking stalls for the project is 52 with 6 bike parking spots. Bike parking is provided at the rear of the building. The site plan includes landscaping at the rear of the parking area as well as the north and south sides of the parking area. Landscaping is also shown at the front of the building along Green Bay Avenue. The elevations include images of a wall sign. Staff requests the applicant provide a complete sign application with appropriate detail for sign plan approval prior to receiving construction permits.

The photometric plan provided indicates some locations on the north side of the site where the illumination at the property line exceeds the 3 foot candles permitted by the Code. The applicant will need to provide an updated photometric plan as well as details on exterior lighting fixtures prior to receiving construction permits.

The architectural plans provided show fencing along the north and south elevations. The application will need to provide a fence permit application, including details about the proposed fence height, materials, and design, prior to receiving construction permits.

City Services and Engineering have provided comments, attached in Appendix A.

RECOMMENDATION:

Staff recommends approval of the Conditional Use application, site plan and architectural approval for Glendale Heights Daycare at 6045 North Green Bay Avenue, subject to the

following conditions prior to receiving construction permits:

1. The maintenance of a State of Wisconsin Child Care license.
2. Provision of a detailed sign plan for approval.
3. Provision of a fence permit application for approval.
4. An updated photometric plan demonstrating compliance with Glendale zoning requirements.
5. Adherence to city engineering requirements on an updated stormwater plan.

ACTION REQUESTED:

Motion to approve the Conditional Use application and site and architectural approval for Glendale Heights Daycare at 6045 North Green Bay Avenue, subject to the following conditions prior to receiving construction permits:

1. The maintenance of a State of Wisconsin Child Care license.
2. Provision of a detailed sign plan for approval.
3. Provision of a fence permit application for approval.
4. An updated photometric plan demonstrating compliance with Glendale zoning requirements.
5. Adherence to city engineering requirements on an updated stormwater plan.

ATTACHMENTS:

Glendale Daycare PARC Application, Glendale Daycare Plan of Operations, Building Plans, Glendale Daycare SWMP, Glendale TIA

PLANNING AND ARCHITECTURAL REVIEW COMMISSION APPLICATION

FEE SCHEDULE

Application Type	Fee	Application Type	Fee
Standard Application	\$ 300	CSM	\$ 175 + \$15 per lot
Architectural Review:	\$ 50	Plat Review Preliminary	\$ 100 + \$5 per dwelling unit
Zoning Text or Map Amendment	\$ 250	Plat Review Preliminary - Re Application Fee	\$ 50
Zoning Text or Map Amendment - Planned Unit Development	\$ 500	Plat Review Final	\$ 50 + \$5 per dwelling unit
Conditional Use Permit – Minor	\$ 125	Plat Review Final Plat - Reapplication Fee	\$ 25
Conditional Use Permit - Standard	\$ 300	Sign Appeal	\$ 300
Conditional Use Permit - Wetland Areas	\$ 300	Street Renaming	\$ 1,000

APPLICANT INFORMATION

Name of Applicant: Cheryl Peters
 Legal Name of Business: Kids Klub Early Childcare DBA Glendale Heights
 Name of Business Owner (if different from Applicant): _____
 Applicant Address (City, State, and Zip Code): 2315 W Good Hope Rd, Glendale, WI 53209
 Office Phone Number: 414-352-2551 Cell: 414-334-0424 Fax: 414-247-1741
 Applicant E-Mail: cheryl.p@glendaleheightschildcare.com
 Applicants Signature: *Cheryl Peters* Date: 5/20/25

PROPERTY INFORMATION

Property Address: 6045 North Green Bay Ave Tax Key Number: 1618037000 Zoning District: B-4
 Project Description: Building Renovation/Expansion and New Parking lot
 Property Owner (if different from Applicant): _____
 Property Owner Address (City, State, and Zip Code): _____
 Property Owner Phone: _____ Cell: _____ Fax: _____
 Property Owner E-Mail: _____
 Property Owner Signature: _____ Date: _____

PRIMARY CONTACT

Primary Contact Person for this Project: Cheryl Peters
 Primary Contact Phone: 414-352-2551 Cell: 414-334-0424 Fax: 414-247-1741
 Primary Contact E-Mail: cheryl.p@glendaleheightschildcare.com

IMPORTANT NOTE: The City of Glendale is not accepting paper document submittals. Plan Commission Review Submittals are required to be submitted via email to b.polony@glendalewi.gov with PDF documents attached or as a web link to the PDF documents. Fee remittals may be delivered to Glendale City Hall, deposited in the drop box in front of City Hall, or mailed to:

*City of Glendale, WI, 5909 North Milwaukee River Parkway, Glendale, WI 53209-3815,
 Attn: Community Development Department*

CITY OF GLENDALE USE ONLY

Application Fee: _____ Date of Application: _____ Time: _____ Received by with date: _____ Tentative Hearing Date: _____
CH-DATA\CH-SERVER\G:\Community Development Planning Department\0003 Plan Commission Administration (2-4-4-)/001 PLAN COMMISSION PROCEDURES\09152021 Plan Commission Review Application

SUPPLEMENTARY INFORMATION:

Type of review being requested: Architectural & Site Plan Review

Name of Business and Type of Business/Use (Please be specific): Glendale Heights Child Care | Child Care Center

Total Building Area: 18,113 To Be Occupied Area: _____

Lot Size: Depth: 477' Width: 145' Area: 66,650

Previous Occupant in To Be Occupied Space: Tabak Law office

Other Uses of This Site: N/A

Total Number of Parking Spaces: 53 Parking Spaces Available to Tenancy: 53

Business Hours (Days and Hours of Operation): _____

Total Number of Employees: 50 Maximum Number of Employees at Site at One Time: 43

For applications regarding approval of a new business please refer to the list of information that should be included with a plan of operation or business plan.

May 21, 2025

City of Glendale - Planning
5909 North Milwaukee River Parkway
Glendale, WI 53209

Re: Glendale Day Care – Plan of Operations

Name of Business

Kids Klub Early Childcare dba Glendale Heights
Cheryl Peters
6045 N Green Bay Road
Glendale, WI 53209

Legal Description

N 145 FT OF THE S 394.15 FT OF THAT PT OF NE1/4 SEC. 30-8-22, LYING W'LY OF C/L OF N.
GREEN BAY AVE., EXC E 60 FT FOR AVE.

Zoning

B-4 – Office Research Service Business District

Project Description

The proposed development will renovate and expand on the existing building converting the building from a office use to a day care use. The site improvements will consist of demolition of the existing parking, site grading, parking lot construction, stormwater improvements, and site landscaping.

Lot size

Approximately 477'x145' for a lot area of 66,650+/- sf

Building Information

The total building area will be approximately 18,113+/- SF on one level.

Property Use

Minimum and Maximum number of employees – **27-30 staff onsite per day**

Days of Operation – **Monday - Friday**

Hours of Operation – **630AM to 530PM**

Note any problems such as noise, odors, hazards resulting from proposed use - **Children playing outside during business hours. Generally outside 9:00 a.m. -noon and 3:00 p.m.-5:00 p.m.**

What are your rules and regulations of the property - **Follow Wisconsin State licensing standards and National accreditation criteria (NAEYC).**

Proposed onsite security measures - **Code/key needed to enter building, outside security cameras, security cameras in hallways. Fence at north and south sidewalk adjacent to building.**

Maximum number of facility users (including special events) – **Maximum 157 children, 30 staff per day.**

Is there food service – **warming kitchen to heat up prepared food for children.**

What provisions are being made for fire protection and human safety – **Egress doors at most classrooms available in case of emergency, building to be separated by fire barriers to avoid fire protection system.**

Signage

Building Signage

Construction Schedule

Sept 2025 – July 2026

Sincerely,

Signature

Cheryl Peters, Glendale Heights

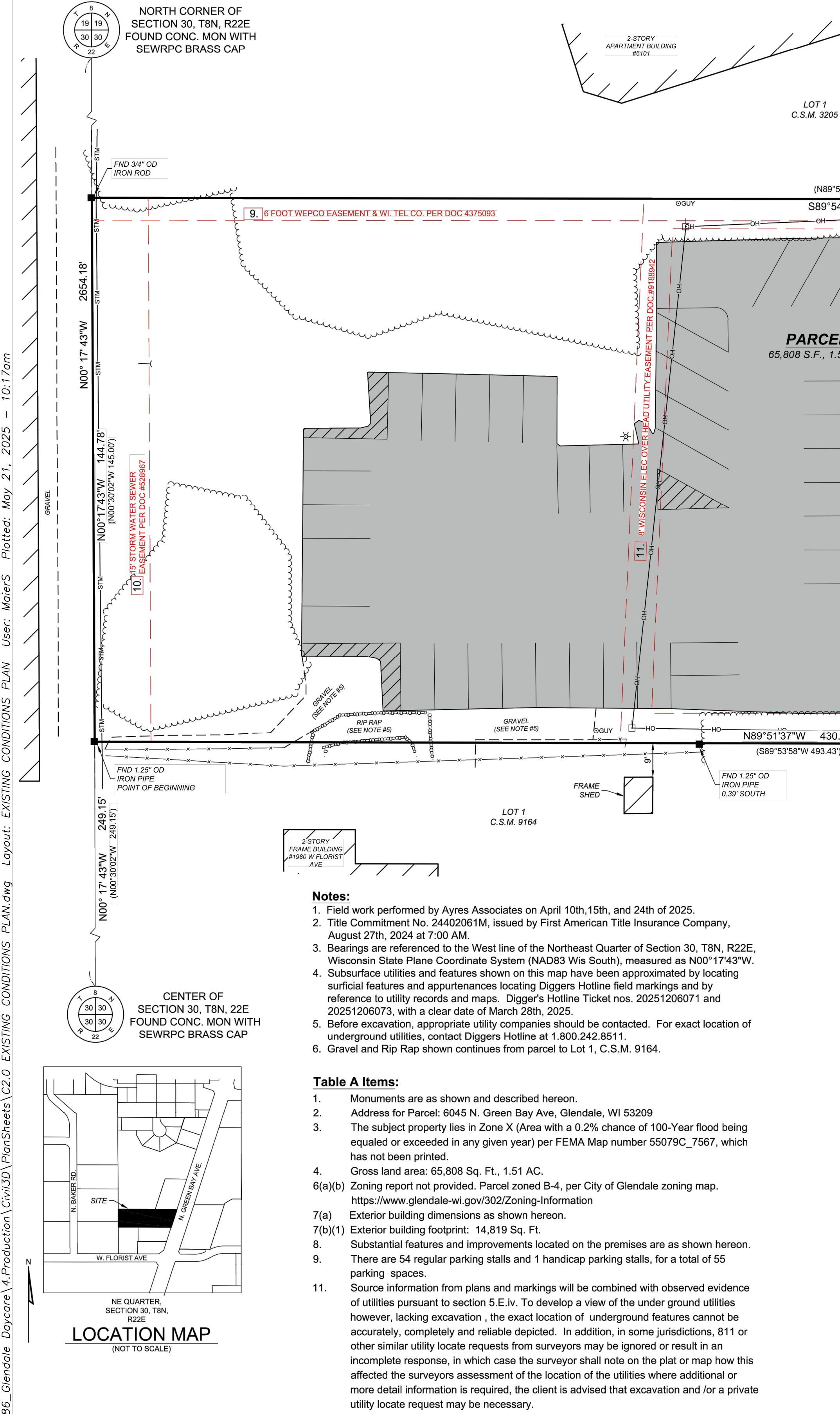
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REVISION	

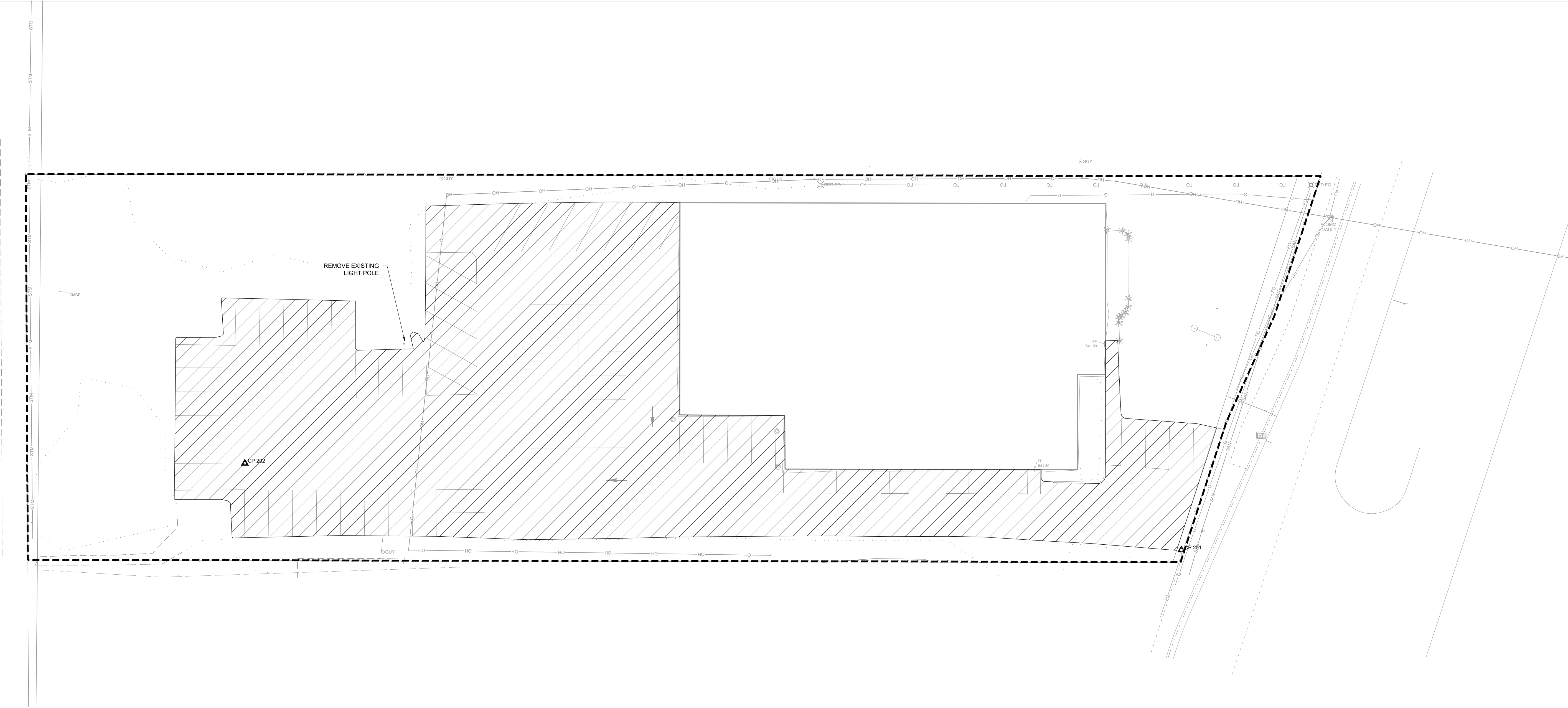
EXISTING CONDITIONS PLAN

GLENDALE DAY CARE
6045 N. GREEN BAY ROAD
GLENDALE, WI 53209

Drawn By: AJJ
Checked By: SEM
Date: 4/29/2025
Project No. 24-0424
Sheet Number

File: I:\24\24-0486_Glendale Daycare\4-Production\Civil3D\PlanSheets\C2.0 EXISTING CONDITIONS PLAN.dwg Layout: EXISTING CONDITIONS PLAN User: MoierS Plotted: May 21, 2025 -- 10:17am



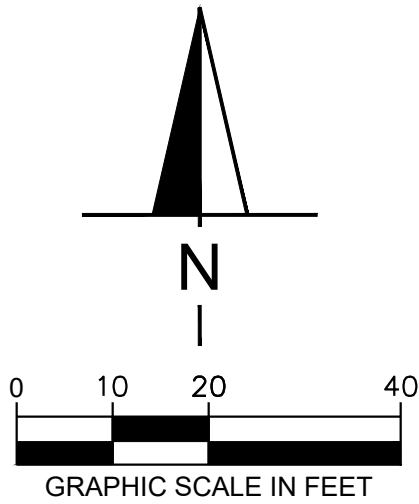


DEMOLITION NOTES

1. THE CONTRACTOR SHALL INCLUDE IN THE BID THE COST OF REMOVING ANY EXISTING SITE FEATURES AND APPURTENANCES NECESSARY TO ACCOMPLISH THE CONSTRUCTION OF THE PROPOSED SITE IMPROVEMENTS. THE CONTRACTOR SHALL ALSO INCLUDE IN THE BID THE COST NECESSARY TO RESTORE SUCH ITEMS IF THEY ARE SCHEDULED TO REMAIN AS PART OF THE FINAL SITE IMPROVEMENTS. REFER TO PLANS TO DETERMINE EXCAVATION, DEMOLITION AND TO DETERMINE THE LOCATION OF THE PROPOSED SITE IMPROVEMENTS.
2. UNLESS SPECIFICALLY NOTED TO BE SAVED / STOCKPILED (R&S) OR REUSED / RELOCATED (R&R), ALL SITE FEATURES CALLED FOR REMOVAL (REM) SHALL BE REMOVED WITH THEIR FOOTINGS, ATTACHMENTS, BASE MATERIAL, ETC., TRANSPORTED FROM THE SITE TO BE DISPOSED OF IN A LAWFUL MANNER AT AN ACCEPTABLE DISPOSAL SITE AND AT NO COST TO THE OWNER.
3. ALL EXISTING SITE FEATURES TO REMAIN SHALL BE PROTECTED THROUGHOUT THE CONSTRUCTION PERIOD. ANY FEATURES DAMAGED DURING CONSTRUCTION OPERATIONS SHALL BE REPAIRED OR REPLACED TO THE SATISFACTION OF THE OWNER'S REPRESENTATIVE AT NO ADDITIONAL COST.
4. DURING EARTHWORK OPERATIONS, CONTRACTOR SHALL TAKE CARE TO NOT DISTURB EXISTING MATERIALS TO REMAIN, OUTSIDE THE LIMITS OF EXCAVATION AND BACKFILL AND SHALL TAKE WHATEVER MEASURES NECESSARY, AT THE CONTRACTOR'S EXPENSE, TO PREVENT ANY EXCAVATED MATERIAL FROM COLLAPSING. ALL BACKFILL MATERIALS SHALL BE PLACED AND COMPACTED AS SPECIFIED TO THE SUBGRADE REQUIRED FOR THE INSTALLATION OF THE REMAINDER OF THE CONTRACT WORK.
5. ALL ITEMS CALLED FOR REMOVAL SHALL BE REMOVED TO FULL DEPTH INCLUDING ALL FOOTINGS, FOUNDATIONS, AND OTHER APPURTENANCES, EXCEPT AS SPECIFICALLY NOTED OTHERWISE.
6. 'CLEAR AND GRUB VEGETATION' SHALL INCLUDE REMOVAL OF GRASS, SHRUBS, AND UNDERBRUSH, REMOVAL OF ROOTS, ROUGH GRADING, INSTALLATION OF LOAM (IF APPLICABLE), FINE GRADING, SEEDING AND TURF ESTABLISHMENT BY THE CONTRACTOR.
7. TREES DESIGNATED FOR REMOVAL SHALL BE TAGGED BY CONTRACTOR AND APPROVED BY OWNER'S REPRESENTATIVE PRIOR TO COMMENCEMENT OF CONSTRUCTION.
8. THE STORAGE OF MATERIALS AND EQUIPMENT WILL BE PERMITTED AT LOCATIONS DESIGNATED BY OWNER OR OWNER'S REPRESENTATIVE. PROTECTION OF STORED MATERIALS AND EQUIPMENT SHALL BE THE SOLE RESPONSIBILITY OF THE CONTRACTOR.
9. STRIP & STORE EXISTING TOPSOIL FOR LATER REUSE WHERE APPROPRIATE WITH APPROPRIATE EROSION AND SEDIMENT CONTROLS.

KEY NOTES

- REMOVE ASPHALT PAVEMENT AND BASE COURSE
- PROJECT LIMITS



GLENDAL DAY CARE
6045 N. GREEN BAY ROAD
GLENDAL, WI 53209
DEMOLITION PLAN

Drawn By: AJJ
Checked By: SEM
Date: 4/29/2025
Project No. 24-0424
Sheet Number

C2.1

AYRES
20975 SWENSON DRIVE
SUITE 200
WAUKESHA, WI 53186
262.522.4901
www.AyresAssociates.com

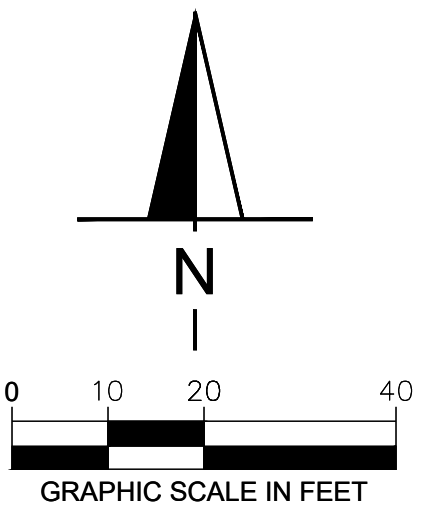
REVISION	DATE

GLENDALDE DAY CARE
6045 N. GREEN BAY ROAD
GLENDALDE, WI 53209

SITE PLAN

Drawn By:	AJJ
Checked By:	SEM
Date:	4/29/2025
Project No.	24-0424
Sheet Number	

C3.0



KEY NOTES

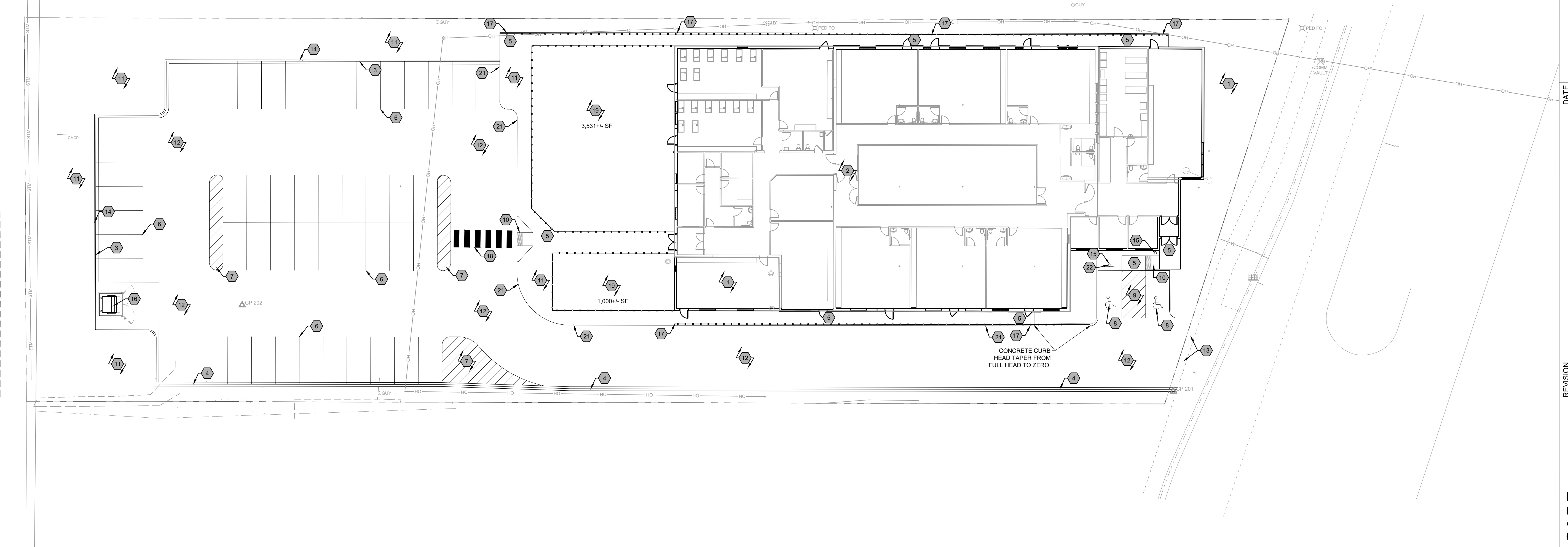
- 1 PROPOSED BUILDING (SEE ARCHITECTURAL PLANS FOR DESIGN)
- 2 EXISTING BUILDING TO REMAIN
- 3 CONCRETE CURB AND GUTTER
- 4 CONCRETE DRAINAGE PAN (SEE PAVING PLAN FOR DETAILS)
- 5 CONCRETE SIDEWALK
- 6 4" WIDE PAINTED STRIPE TYP. (WHITE)
- 7 STRIPED PAVEMENT MARKING
- 8 ADA PAVEMENT MARKING
- 9 ADA UNLOADING ZONE
- 10 CURB RAMP (SEE DETAILS)
- 11 LANDSCAPE AREA (SEE LANDSCAPE PLANS FOR DETAILS)
- 12 ASPHALT PAVEMENT (SEE PAVING PLAN)
- 13 CONNECT TO EXISTING PAVEMENT, SIDEWALK, CURB ETC. TYP
- 14 CONCRETE CURB CHASE
- 15 ADA SIGN (ONE SIGN TO BE "VAN")
- 16 TRASH ENCLOSURE
- 17 CHAIN LINK FENCE
- 18 PAINTED CROSSWALK STRIPING
- 19 PLAYGROUND AREA (SURFACE, AND AMENITIES TO BE DESIGNED BY OWNER)
- 20 PLAYGROUND FENCE (TO BE DESIGNED BY OWNER)
- 21 INTEGRAL SIDEWALK EDGE (SEE PAVING AND GRADING PLAN FOR DETAILS)
- 22 SIGN BOLLARD

GENERAL NOTES

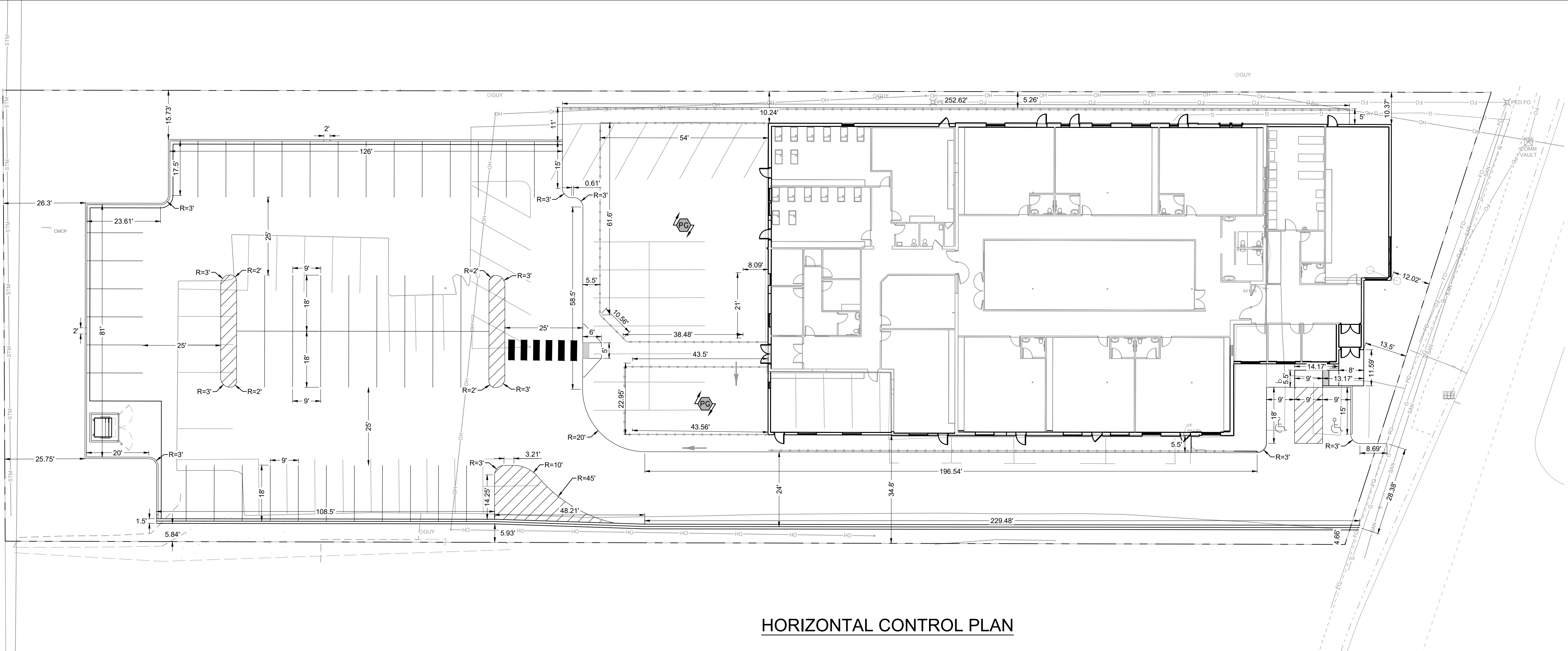
1. ALL PROPOSED ON-SITE STRIPING SHALL BE PAINTED UNLESS OTHERWISE NOTED.

LEGEND

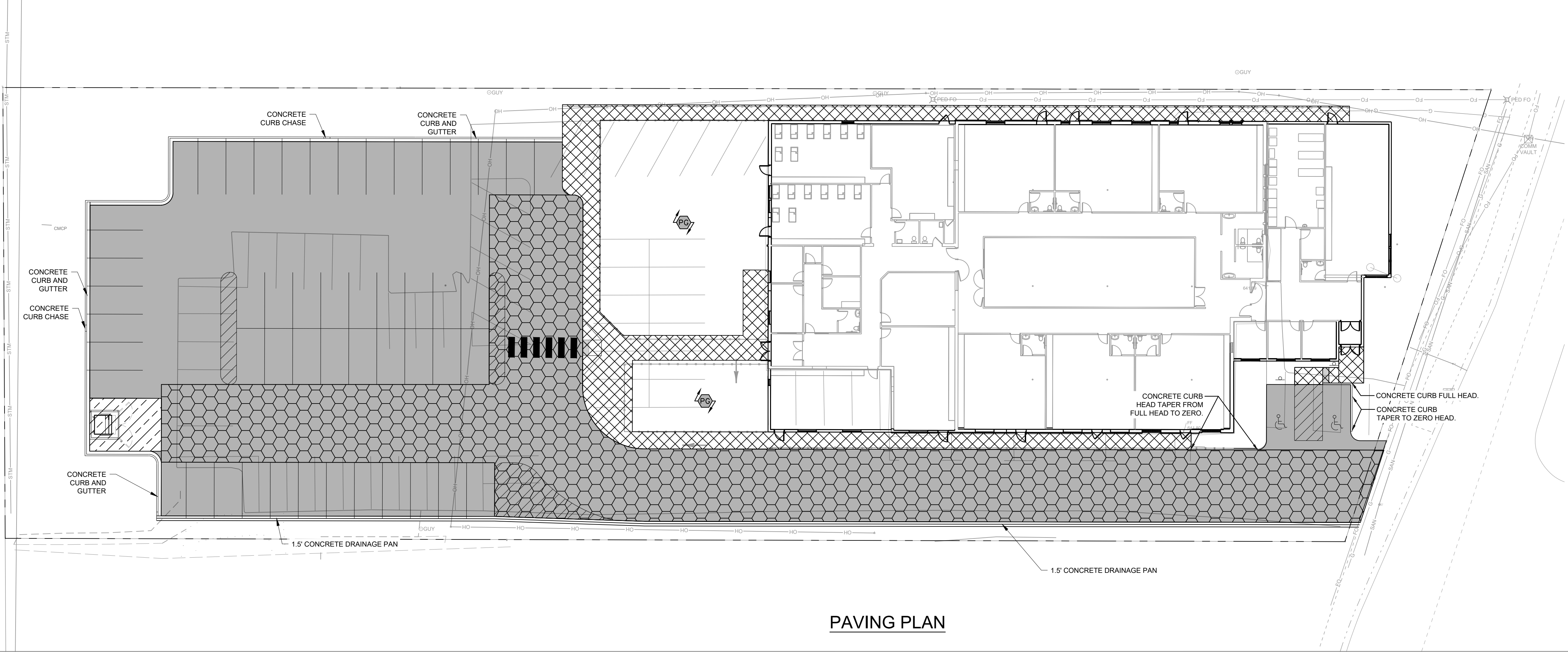
_____ PROPERTY LINE



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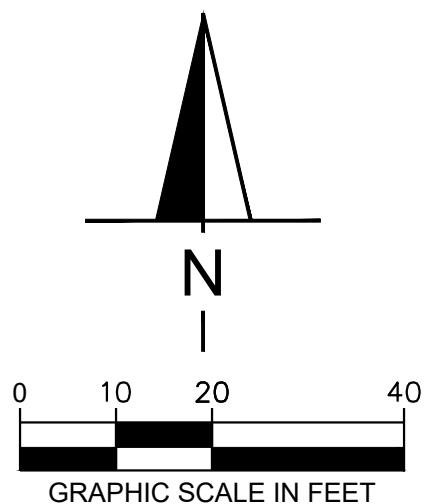
HORIZONTAL CONTROL PLAN



PAVING PLAN

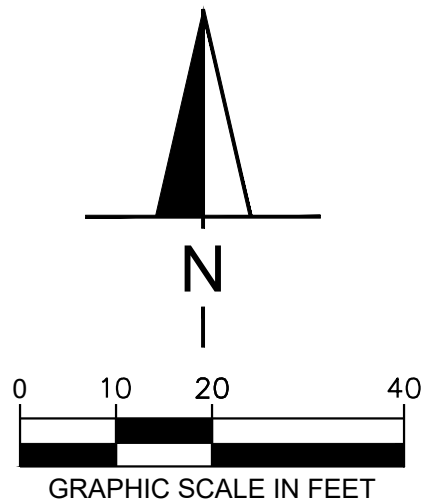
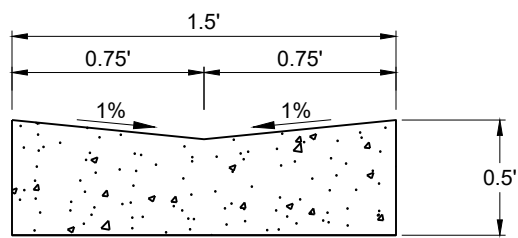
GENERAL NOTES

1. ALL DIMENSIONS REFER TO THE FACE OF CURB UNLESS OTHERWISE NOTED.
2. BUILDING DIMENSIONS ARE TO THE OUTSIDE FACE OF BUILDING UNLESS OTHERWISE NOTED.
3. REFER TO ARCHITECTURAL AND STRUCTURAL PLANS TO VERIFY ALL BUILDING DIMENSIONS.



PAVING AND CURB LEGEND

- ASPHALT PAVEMENT
SEE CONSTRUCTION DETAILS FOR PAVEMENT SECTION
- HEAVY DUTY ASPHALT PAVEMENT
SEE CONSTRUCTION DETAILS FOR PAVEMENT SECTION
- CONCRETE SIDEWALK
SEE CONSTRUCTION DETAILS FOR PAVEMENT SECTION
- CONCRETE PAVEMENT
SEE CONSTRUCTION DETAILS FOR PAVEMENT SECTION
- CATCH CONCRETE CURB AND GUTTER
(CURB HEIGHT VARIES, SEE GRADING PLAN)
- 1.5' CONCRETE DRAINAGE PAN
(SEE DETAIL BELOW)
- CONTRACTOR TO CREATE CLEAN SAWCUT LINE AT ALL JOINTS WITH NEW/EXISTING PAVEMENT CONNECTIONS
- PLAYGROUND AREA (SURFACE AND AMENITIES TO BE DESIGNED BY OWNER)



20975 SWENSON DRIVE
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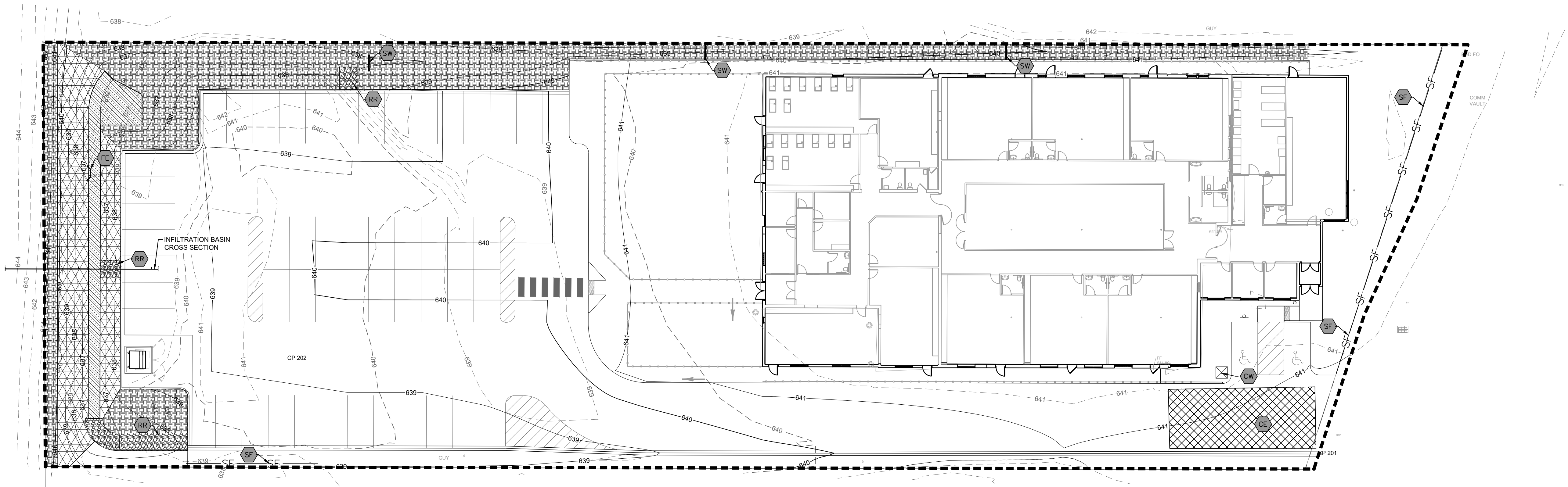
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GLENDALE DAY CARE
6045 N. GREEN BAY ROAD
GLENDALE, WI 53209
HORIZONTAL CONTROL AND
PAVING PLAN

Drawn By: AJJ
Checked By: SEM
Date: 4/29/2025
Project No. 24-0424
Sheet Number

C3.1

REVISION	DATE



EROSION CONTROL NOTES

- SITE GENERAL NOTES**
- CONSTRUCTION ENTRANCE SHALL BE LOCATED SO AS TO PROVIDE THE LEAST AMOUNT OF DISTURBANCE TO THE FLOW OF TRAFFIC IN AND OUT OF THE SITE. ADDITIONALLY, CONSTRUCTION ENTRANCE SHALL BE LOCATED TO COINCIDE WITH THE PHASING OF THE PAVEMENT REPLACEMENT.
 - TEMPORARY AND PERMANENT STABILIZATION PRACTICES AND BMP'S SHALL BE INSTALLED AT THE EARLIEST POSSIBLE TIME DURING THE CONSTRUCTION SEQUENCE. OTHER BMP'S SHALL BE INSTALLED AS SOON AS PRACTICABLE AND SHALL BE MAINTAINED UNTIL FINAL SITE STABILIZATION IS ATTAINED. CONTRACTOR SHALL ALSO REFERENCE CIVIL AND LANDSCAPE PLANS SINCE PERMANENT STABILIZATION IS PROVIDED BY LANDSCAPING, THE BUILDING(S) AND SITE PAVING.
 - BMP'S HAVE BEEN LOCATED AS INDICATED ON THIS PLAN IN ACCORDANCE WITH GENERALLY ACCEPTED ENGINEERING PRACTICES IN ORDER TO MINIMIZE SEDIMENT TRANSFER.
- TEMPORARY EROSION CONTROL NOTES**
- THE PLACEMENT OF EROSION/SEDIMENTATION CONTROLS SHALL BE IN ACCORDANCE WITH THE APPROVED EROSION AND SEDIMENTATION CONTROL PLAN.
 - ANY MAJOR VARIATION IN MATERIALS OR LOCATIONS OF CONTROLS OF FENCES FROM THOSE SHOWN ON THE APPROVED PLANS WILL REQUIRE A REVISION AND MUST BE APPROVED BY THE REVIEWING ENGINEER, ENVIRONMENTAL SPECIALIST, OR ARBORIST AS APPROPRIATE. MAJOR REVISIONS MUST BE APPROVED BY THE PLANNING AND DEVELOPMENT DEPARTMENT AND THE DRAINAGE UTILITY DEPARTMENT. MINOR CHANGES OR ADDITIONAL CONTROL MEASURES TO BE MADE AS FIELD REVISIONS TO THE EROSION AND SEDIMENTATION CONTROL PLAN MAY BE REQUIRED BY THE ENVIRONMENTAL INSPECTOR DURING THE COURSE OF CONSTRUCTION TO CORRECT CONTROL INADEQUACIES AT NO ADDITIONAL COST TO THE OWNER.
 - CONTRACTOR SHALL PLACE EROSION CONTROL BLANKET (DOUBLE NETTED LIGHT DUTY (WISDOT CLASS I TYPE B) EROSION MAT OR APPROVED EQUAL) ON ALL SITE AREAS WITH SLOPES GREATER THAN 4:1, AND IN THE BOTTOM AND SIDE SLOPES OF ALL SWALES.
 - PRIOR TO THE FINAL ACCEPTANCE, HAUL ROADS AND WATERWAY CROSSINGS CONSTRUCTED FOR TEMPORARY CONTRACTOR ACCESS MUST BE REMOVED, ACCUMULATED SEDIMENT REMOVED FROM WATERWAY AND THE AREA RESTORED TO THE ORIGINAL GRADE AND REVEGETATED. ALL LAND CLEARING SHALL BE DISPOSED OF IN APPROVED SPOIL DISPOSAL SITES.
 - PERMANENT EROSION CONTROL MEASURES SHALL BE INSTALLED PRIOR TO FINAL ACCEPTANCE.
 - ALL CONTROL DEVICES THAT FUNCTION SIMILARLY TO SILT FENCE OR FIBER ROLLS MUST BE REPAIRED, REPLACED OR SUPPLEMENTED WITH EFFECTIVE CONTROLS WHEN THEY BECOME NONFUNCTIONAL OR THE SEDIMENT REACHES ONE-THIRD THE HEIGHT OF THE DEVICE. THESE REPAIRS MUST BE MADE WITHIN 24 HOURS OF THE RAINFALL EVENT OR AS SOON AS FIELD CONDITIONS ALLOW ACCESS. TOPSOIL STOCKPILES MUST BE PROTECTED WITHIN 7 DAYS OF LAYUP AND STABILIZED WITHIN 30 DAYS OF LAYUP.
 - ACCUMULATIONS OF TRACKED AND DEPOSITED SEDIMENT MUST BE REMOVED FROM OFF-SITE PAVED SURFACES WITHIN 24 HOURS OR SOONER IF REQUIRED. SEDIMENT TRACKING MUST BE MINIMIZED BY THE APPROPRIATE MANAGING PRACTICE, LIKE A DEDICATED SITE EXIT WITH AN AGGREGATE SURFACE OR DESIGNATED OFF-SITE PARKING AREA. CONTRACTOR IS RESPONSIBLE FOR STREET SWEEPING AND/OR SCRAPING IF YOUR PRACTICES ARE NOT ADEQUATE TO PREVENT SEDIMENT FROM BEING TRACKED FROM THE SITE.
 - SURFACE WATERS, DRAINAGE DITCHES AND CONVEYANCE SYSTEMS MUST BE INSPECTED FOR SEDIMENT DEPOSITS.
 - THE CONTRACTOR SHALL INSTALL AND MAINTAIN ALL EROSION CONTROL MEASURES AS INDICATED ON THIS SHEET IN ACCORDANCE WITH THE STORMWATER POLLUTION PREVENTION PLAN (SWPPP). THE CONTRACTOR IS RESPONSIBLE FOR IMPLEMENTING THE PROVISIONS INDICATED IN THE SWPPP, INCLUDING EROSION CONTROL MEASURES AND INSPECTION FREQUENCY, AS REQUIRED BY THE WDNR NPDES PHASE II PERMIT PROGRAM REQUIREMENTS.
 - PUMPING SEDIMENT LADEN WATER INTO ANY STORMWATER FACILITY THAT IS NOT DESIGNATED TO BE A SEDIMENT TRAP, DRAINAGEWAY, OR OFFSITE AREA EITHER DIRECTLY OR INDIRECTLY WITHOUT FILTRATION IS PROHIBITED.
 - SOIL STOCKPILES SHALL NOT BE LOCATED IN A DRAINAGEWAY, FLOOD PLAIN AREA OR A DESIGNATED BUFFER, UNLESS OTHERWISE APPROVED. UNDER SPECIFIC CONDITIONS TO BE ESTABLISHED BY THE DIRECTOR OR ADMINISTRATOR.

EROSION CONTROL LEGEND

- | | | | |
|-----|-----|-----|--|
| --- | 775 | --- | EXISTING CONTOUR |
| --- | 775 | --- | PROPOSED CONTOUR |
| SF | SF | SF | SILT FENCE (OFFSET FOR PLAN CLARITY) (SEE EROSION CONTROL DETAILS) |
| --- | --- | --- | LIMITS OF DISTURBANCE (1.53 ACRES) |
| --- | --- | --- | CONSTRUCTION ENTRANCE (SEE EROSION CONTROL DETAILS) |
| --- | --- | --- | TEMPORARY EROSION CONTROL BLANKET (SEE TEMPORARY EROSION CONTROL NOTE 3) |
| --- | --- | --- | ENGINEERED SOIL (3" DEPTH) (PER DNR TECHNICAL STANDARD 1004) |
| --- | --- | --- | EROSION CONTROL BLANKET (PYRAMAT EXCEL PP5 PRO OR APPROVED EQUAL) |
| --- | --- | --- | CONCRETE WASHOUT (TO BE DETERMINED BY CONTRACTOR) |
| --- | --- | --- | STRAW WATTLES PER DNR TECH. STD |
| --- | --- | --- | STRAW WADDLE (PER DNR TECHNICAL STANDARD 1062) |
| --- | --- | --- | RIPRAP (REFERENCE: SWALE DETAIL) |

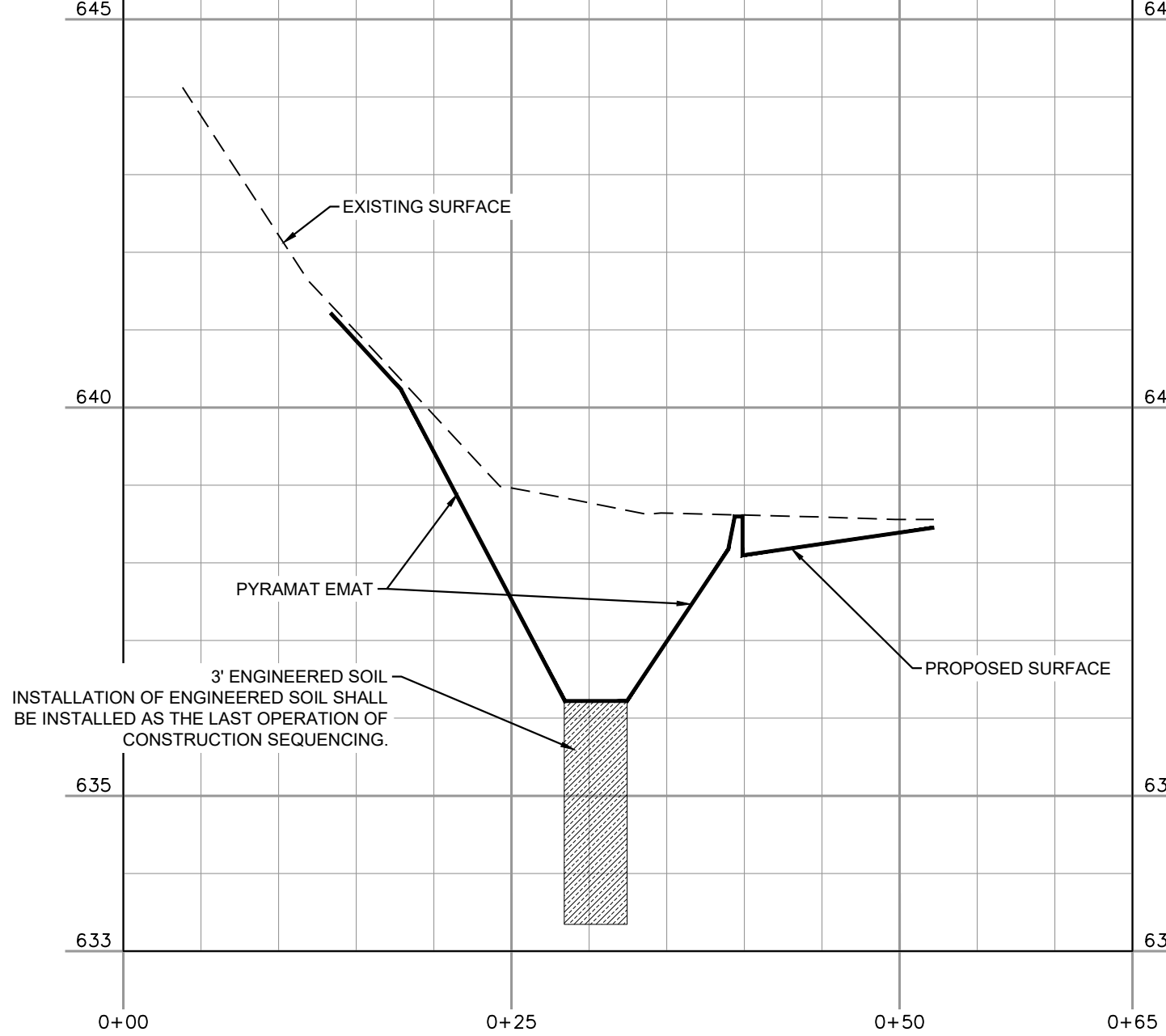
CONSTRUCTION INSPECTIONS

- ALL TEMPORARY EROSION CONTROL MEASURES SHOWN ON THIS PLAN SHALL BE INSTALLED DURING CONSTRUCTION.
- CONTRACTOR SHALL COMPLY WITH ALL CITY OF GLENDALE STORMWATER AND EROSION CONTROL PERMIT REQUIREMENTS DURING CONSTRUCTION.

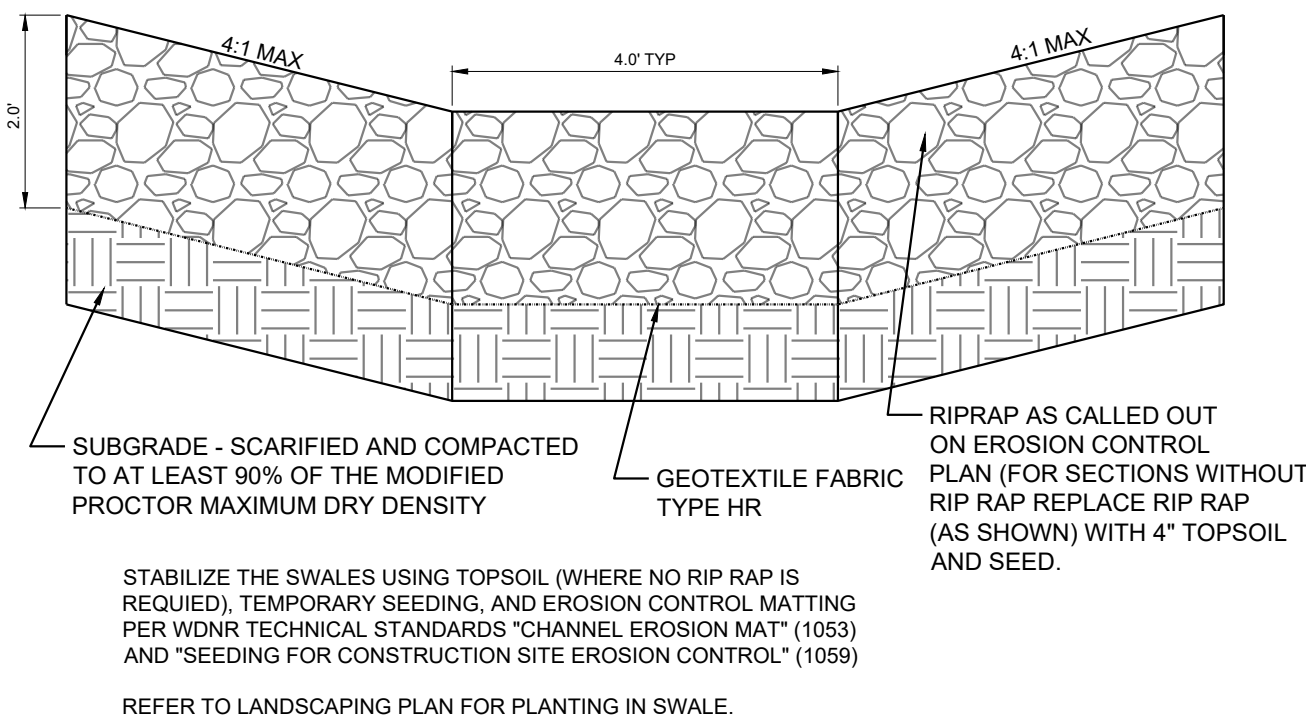
SITE STABILIZATION NOTES

- ALL TEMPORARY EROSION CONTROL MEASURES SHOWN ON THIS PLAN SHALL BE INSTALLED DURING CONSTRUCTION.
- CONTRACTOR SHALL COMPLY WITH ALL CITY OF GLENDALE STORMWATER AND EROSION CONTROL PERMIT REQUIREMENTS DURING CONSTRUCTION.
- SEE LANDSCAPE PLAN FOR PERMANENT SITE STABILIZATION. AS PARTS OF THE SITE GRADING ARE COMPLETE, THE PERMANENT STABILIZATION (SEE LANDSCAPE PLAN) SHALL BE INSTALLED.

INFILTRATION BASIN SECTION



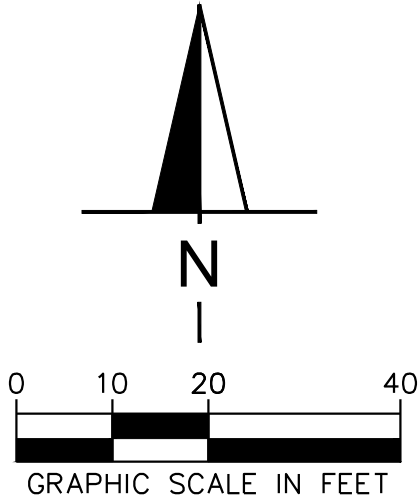
TYPICAL SWALE DETAIL



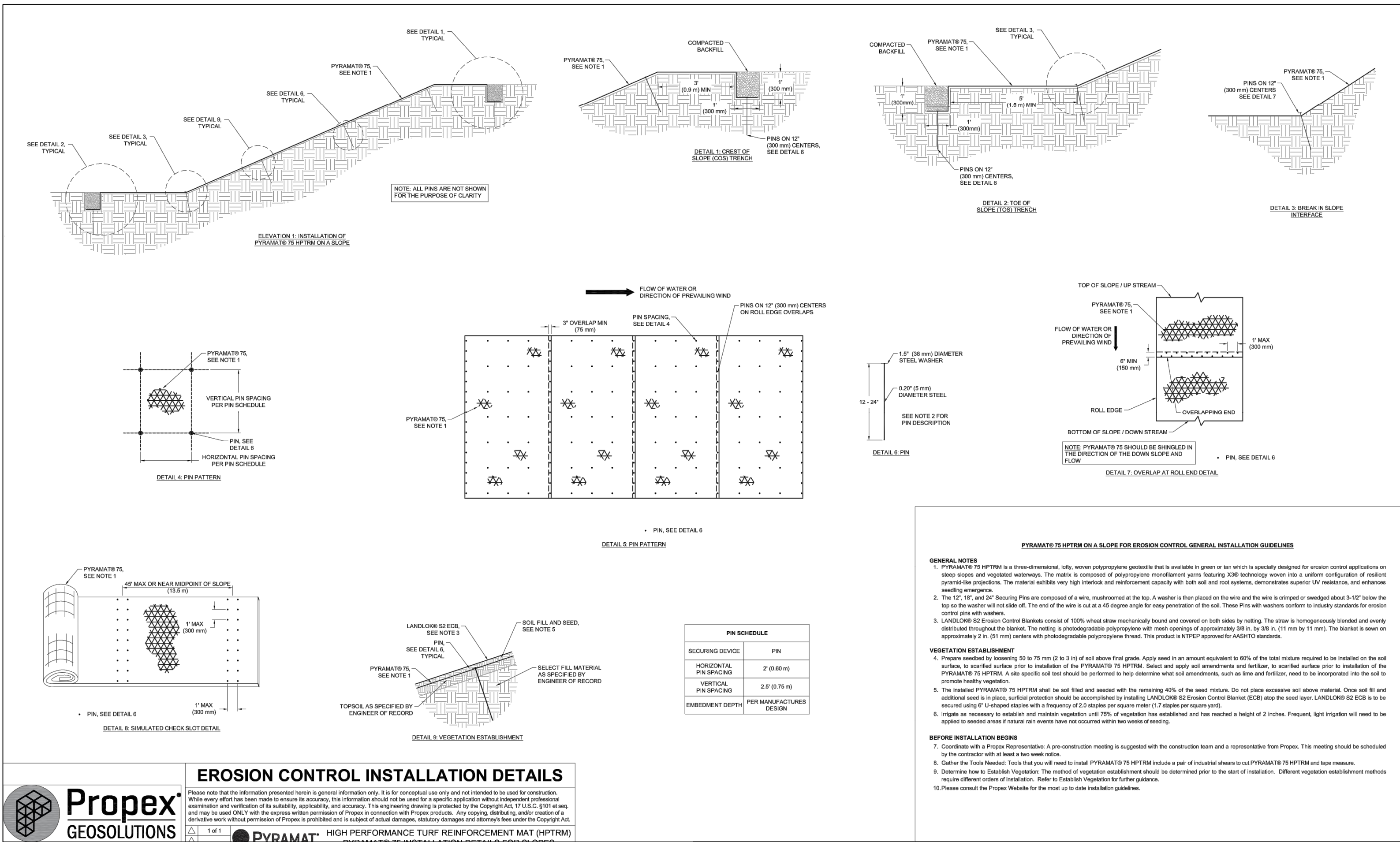
SEQUENCING OF CONSTRUCTION

DESCRIBED BELOW ARE THE MAJOR CONSTRUCTION ACTIVITIES THAT ARE THE SUBJECT OF THIS PLAN. THEY ARE PRESENTED IN THE ORDER (OR SEQUENCE) THEY ARE EXPECTED TO BEGIN, BUT EACH ACTIVITY WILL NOT NECESSARILY BE COMPLETED BEFORE THE NEXT BEGINS. ALSO, THESE ACTIVITIES COULD OCCUR IN A DIFFERENT ORDER IF NECESSARY TO MAINTAIN ADEQUATE EROSION AND SEDIMENTATION CONTROL.

- (AT START OF CONSTRUCTION) CONSTRUCT ROCK PADS FOR CONSTRUCTION ENTRANCE/EXIT. THIS WILL BE THE FIRST CONSTRUCTION WORK ON THE PROJECT. (ASSUMED JULY START CONSTRUCTION)
- (AT START OF CONSTRUCTION) INSTALL SEDIMENT BARRIERS DOWN SLOPE FROM CONSTRUCTION ACTIVITIES THAT DISTURB SITE SOIL. INSTALL SILT FENCE AND CONSTRUCT TEMPORARY SEDIMENT BASIN.
- (JULY - AUGUST) CLEAR AND GRUB IMPROVEMENT AREAS. SEDIMENT BARRIERS WILL ALREADY BE IN PLACE DOWN SLOPE.
- (JULY - AUGUST) REMOVE AND STOCKPILE AVAILABLE TOPSOIL FOR LATER USE. INSTALL PROPER EROSION CONTROL MEASURES AND SEEDING FOR STOCKPILED AREAS.
- (AUGUST) EXCAVATION AND EMBANKMENT TO FORM STORMWATER PONDS AND DRAINAGE CHANNELS.
- (SEPTEMBER) EXCAVATION AND EMBANKMENT TO FORM THE BUILDING PAD AND PAVEMENT AREAS.
- (OCTOBER) FINAL GRADING - SEDIMENT BARRIERS WILL BE MAINTAINED DOWN SLOPE FROM DISTURBED SOIL DURING THIS OPERATION. (FOLLOW LATE SEASON STABILIZATION REQUIREMENTS) AND
- (SPRING 2026) RESTORE NON-VEGETATTED AREAS AND COMPLETION OF ON-SITE STABILIZATION.



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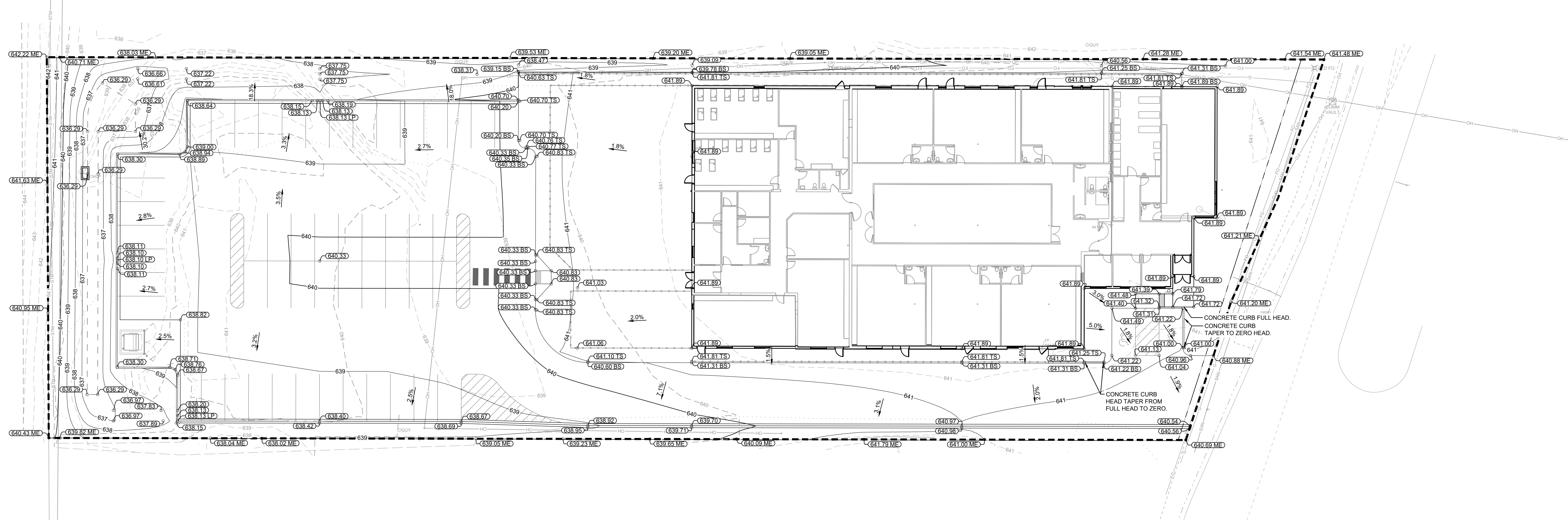
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GRLENDALE DAY CARE
6045 N. GREEN BAY ROAD
GRLENDALE, WI 53209

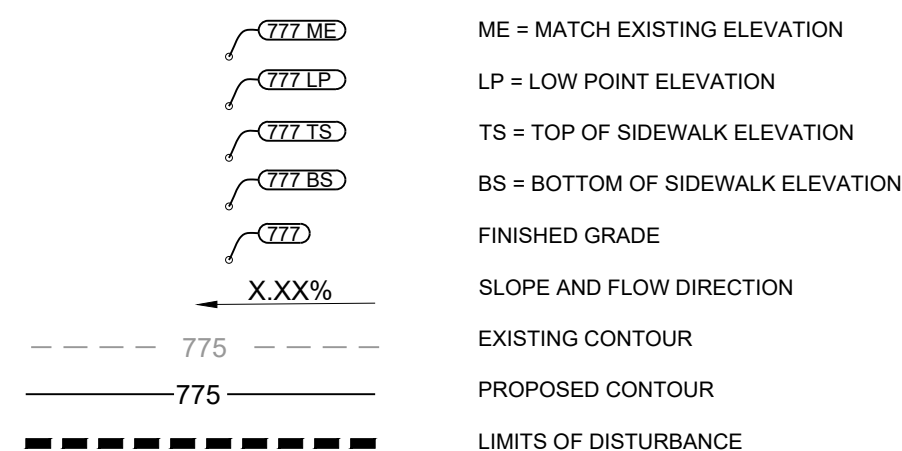
GRADING PLAN

Drawn By:	AJJ
Checked By:	SEM
Date:	4/29/2025
Project No.	24-0424
Sheet Number	

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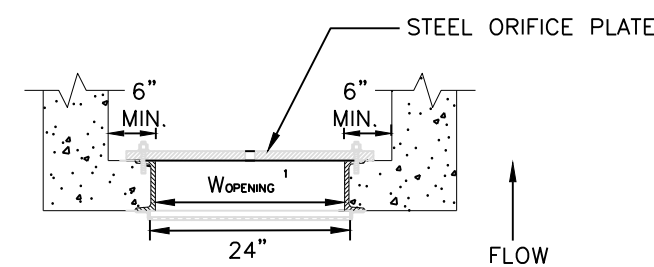
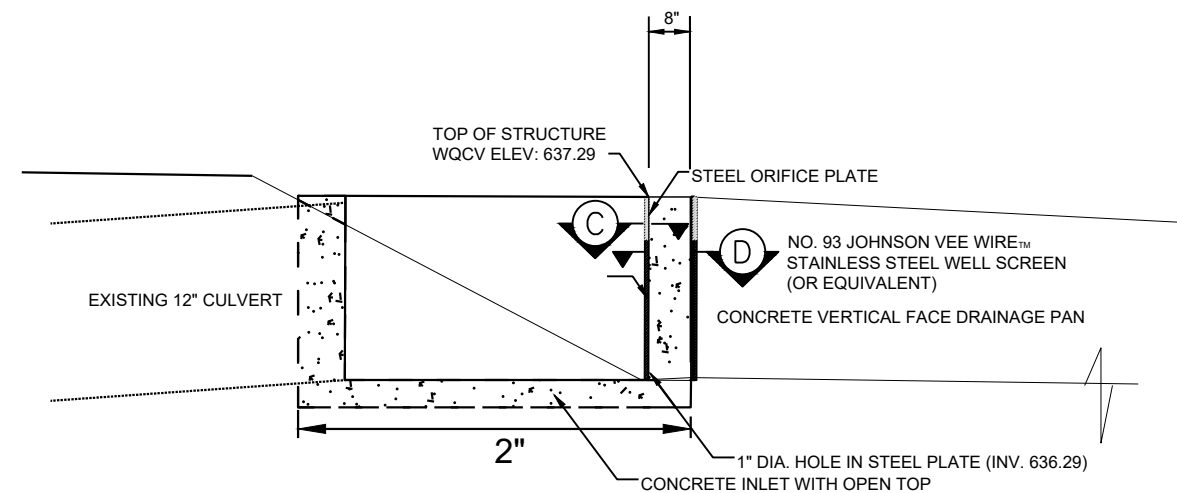


GRADING LEGEND

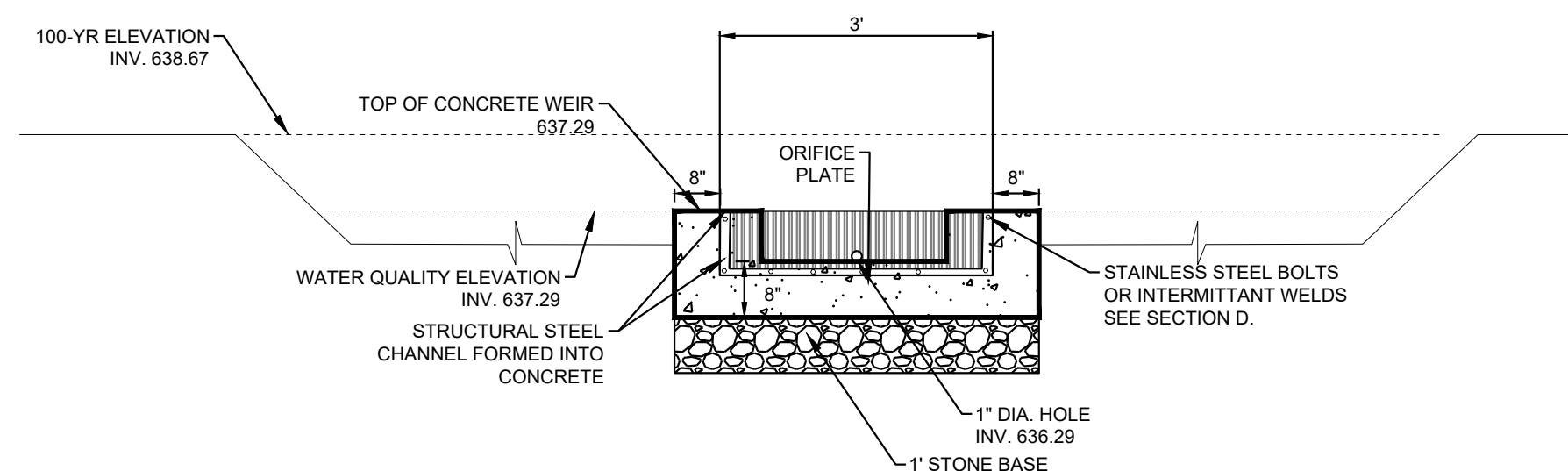


GRADING NOTES

- CONTRACTOR TO VERIFY ALL EXISTING TOPOGRAPHY AND STRUCTURES ON THE SITE AND IMMEDIATELY NOTIFY THE ENGINEER OF ANY DISCREPANCIES PRIOR TO STARTING WORK. THE CONTRACTOR SHALL ENSURE THAT POSITIVE DRAINAGE OCCURS AT ALL JOINTS WITH EXISTING CONDITIONS.
2. ALL PAVEMENT SPOT GRADE ELEVATIONS AND RIM ELEVATIONS WITHIN OR ALONG CURB AND GUTTER REFER TO FLOW LINE ELEVATIONS UNLESS OTHERWISE NOTED.
3. ALL ELEVATIONS SHOWN DEPicted FINISHED GRADE UNLESS OTHERWISE NOTED. GENERAL CONTRACTOR TO COORDINATE WITH EXCAVATION, LANDSCAPE AND PAVING SUBCONTRACTORS REGARDING TOPSOIL THICKNESS FOR LANDSCAPE AREAS AND PAVEMENT SECTION THICKNESS FOR PAVED AREAS TO PROPERLY ENSURE ADEQUATE CUT TO ESTABLISH SUBGRADE ELEVATIONS.
4. MAXIMUM SLOPE IN ACCESSIBLE PARKING SPACES AND LOADING ZONES SHALL NOT EXCEED 2.0% IN ALL DIRECTIONS.
5. MAXIMUM RUNNING SLOPE SHALL NOT EXCEED 5% AND CROSS SLOPE SHALL NOT EXCEED 2.0% ON ALL SIDEWALKS AND ACCESSIBLE ROUTES.
6. WHEN NATURAL FLOW OF DRAINAGE IS AWAY FROM CURB, CONTRACTOR TO INSTALL REVERSE GUTTER PITCH.
7. MATCH EXISTING ELEVATIONS AT THE PROPERTY LINE.
8. NO GRADING SLOPES SHALL EXCEED 4:1 SLOPES.
9. WATER TRUCK CALLED FOR BY THE CITY INSPECTOR WILL BE PROVIDED TO KEEP WIND EROSION IN CHECK.
10. ANY SETTLEMENT OR SOIL ACCUMULATIONS BEYOND THE PROPERTY LIMITS DUE TO GRADING OR EROSION SHALL BE REPAIRED IMMEDIATELY BY THE CONTRACTOR.
11. ANY CONSTRUCTION DEBRIS OR MUD TRACKING IN THE PUBLIC RIGHT-OF-WAY RESULTING FROM THIS DEVELOPMENT SHALL BE REMOVED IMMEDIATELY BY THE CONTRACTOR. THE CONTRACTOR SHALL IMMEDIATELY FIX ANY EXCAVATIONS OR EXPOSED PAVEMENT FAILURES CAUSED BY THE DEVELOPMENT AND SHALL PROPERLY BARRICADE THE SITE UNTIL CONSTRUCTION IS COMPLETE. FAILURE BY THE CONTRACTOR TO CORRECT ANY OF THE ABOVE WITHIN 48 HOURS OF WRITTEN NOTICE BY THE CITY SHALL CAUSE THE CITY TO ISSUE A STOP WORK ORDER (RED TAG) AND/OR DO THE WORK AND MAKE A CLAIM AGAINST THE LETTER OF CREDIT FOR ANY COST INCURRED BY THE CITY.
12. AREAS BEING DISTURBED BY THE GRADING SHALL BE RESEED WITH NATIVE VEGETATION OR AS APPROVED ON THE DEVELOPMENT PLAN.
13. THE CONTRACTOR SHALL BE SOLELY AND COMPLETELY RESPONSIBLE FOR CONDITIONS AT AND ADJACENT TO THE JOB SITE, INCLUDING SAFETY OF ALL PERSONS AND PROPERTY DURING PERFORMANCE OF THE WORK. THIS REQUEST SHALL APPLY CONTINUOUSLY AND NOT BE LIMITED TO NORMAL WORKING HOURS.
14. THE DUTY OF THE VILLAGE TO CONDUCT CONSTRUCTION REVIEW OF THE CONTRACTOR'S PERFORMANCE IS NOT INTENDED TO INCLUDE REVIEW OF THE ADEQUACY OF THE CONTRACTOR'S SAFETY MEASURE IN, ON, OR NEAR THE CONSTRUCTION SITE.
15. CONTRACTOR SHALL NOT COMPACT THE BOTTOM OF THE POND AND MINIMIZE EQUIPMENT DRIVING OVER IT DURING GRADING. AFTER GRADING THE POND DEEP TILLAGE SHALL BE PERFORMED TO BREAK UP COMPACTED SOIL. TOPSOIL TO BE REPLACED AT THE BOTTOM OF THE POND AFTER GRADING.



SECTION NTS (D)



STAINLESS STEEL
SUPPORT BARS
TE 0.074" X 0.50",
1" O.C.

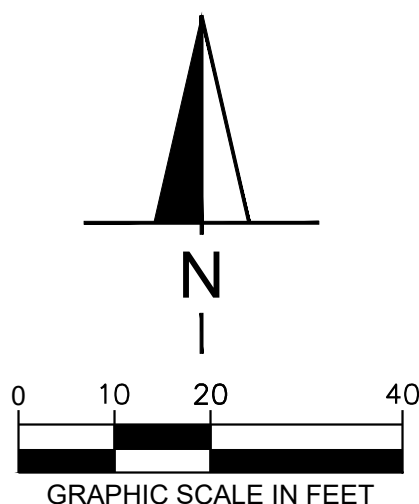
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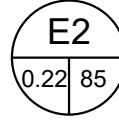
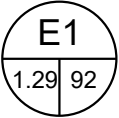
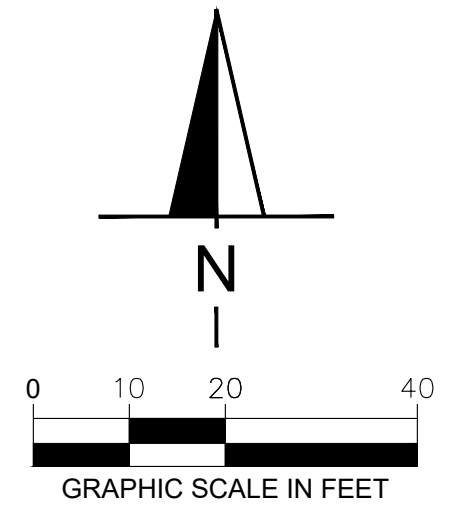
NO. 93 STAINLESS
STEEL

0.139" 0.090"

SECTION
NTS

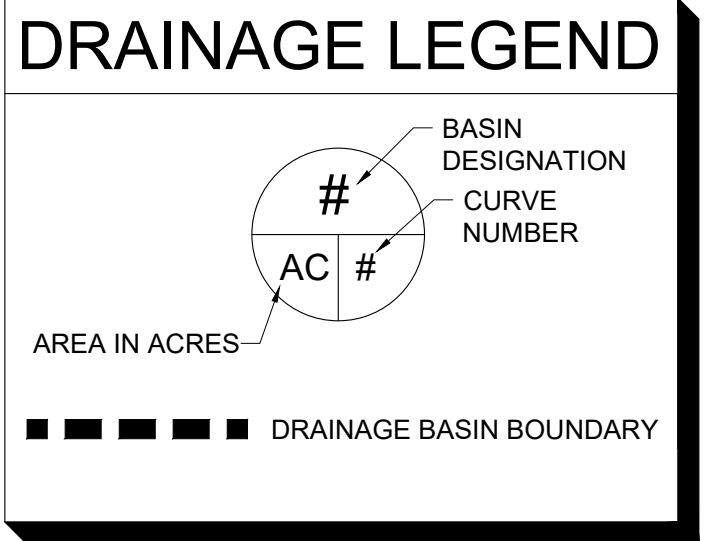
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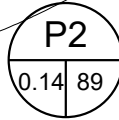
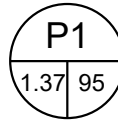


EXISTING CONDITIONS

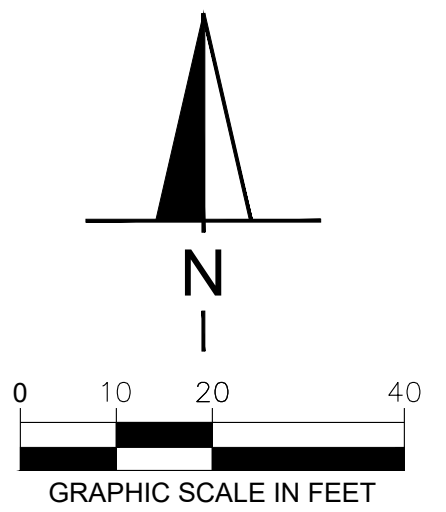
EXISTING RUNOFF					
BASIN	TIME OF CONCENTRATION (MINUTES)	STORM EVENT RUNOFF (CFS)			
		1-YR	2-YR	10-YR	100-YR
E1	5	3.78	4.42	6.73	11.61
E1 OUTFALL	5	2.87	3.20	3.75	7.18
E2	5	0.45	0.55	0.93	1.76



PROPOSED RUNOFF					
BASIN	TIME OF CONCENTRATION (MINUTES)	STORM EVENT RUNOFF (CFS)			
		1-YR	2-YR	10-YR	100-YR
P1	5	4.47	5.14	7.53	12.58
P1 OUTFALL	5	2.76	2.96	3.14	4.87
P2	5	0.36	0.42	0.69	1.20



PROPOSED CONDITIONS

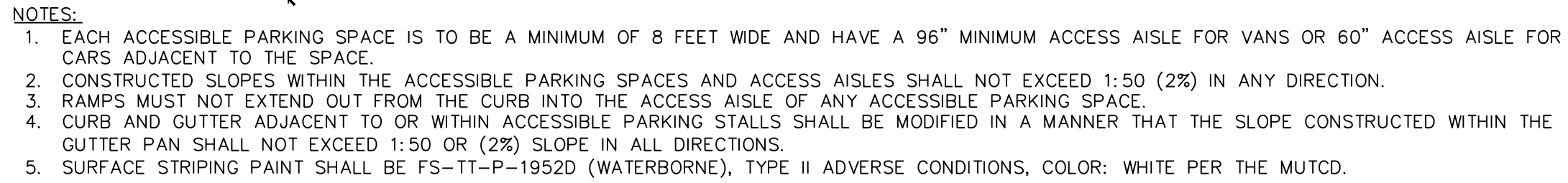


GLENDALDE DAY CARE
6045 N. GREEN BAY ROAD
GLENDALDE, WI 53209

DRAINAGE PLAN

Drawn By:	AJJ
Checked By:	SEM
Date:	4/29/2025
Project No.	24-0424
Sheet Number	

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ACCESSIBLE PARKING DETAIL



QUESTION	ANSWER

GLENDALDE DAY CARE
6045 N. GREEN BAY ROAD
GLENDALDE, WI 53209

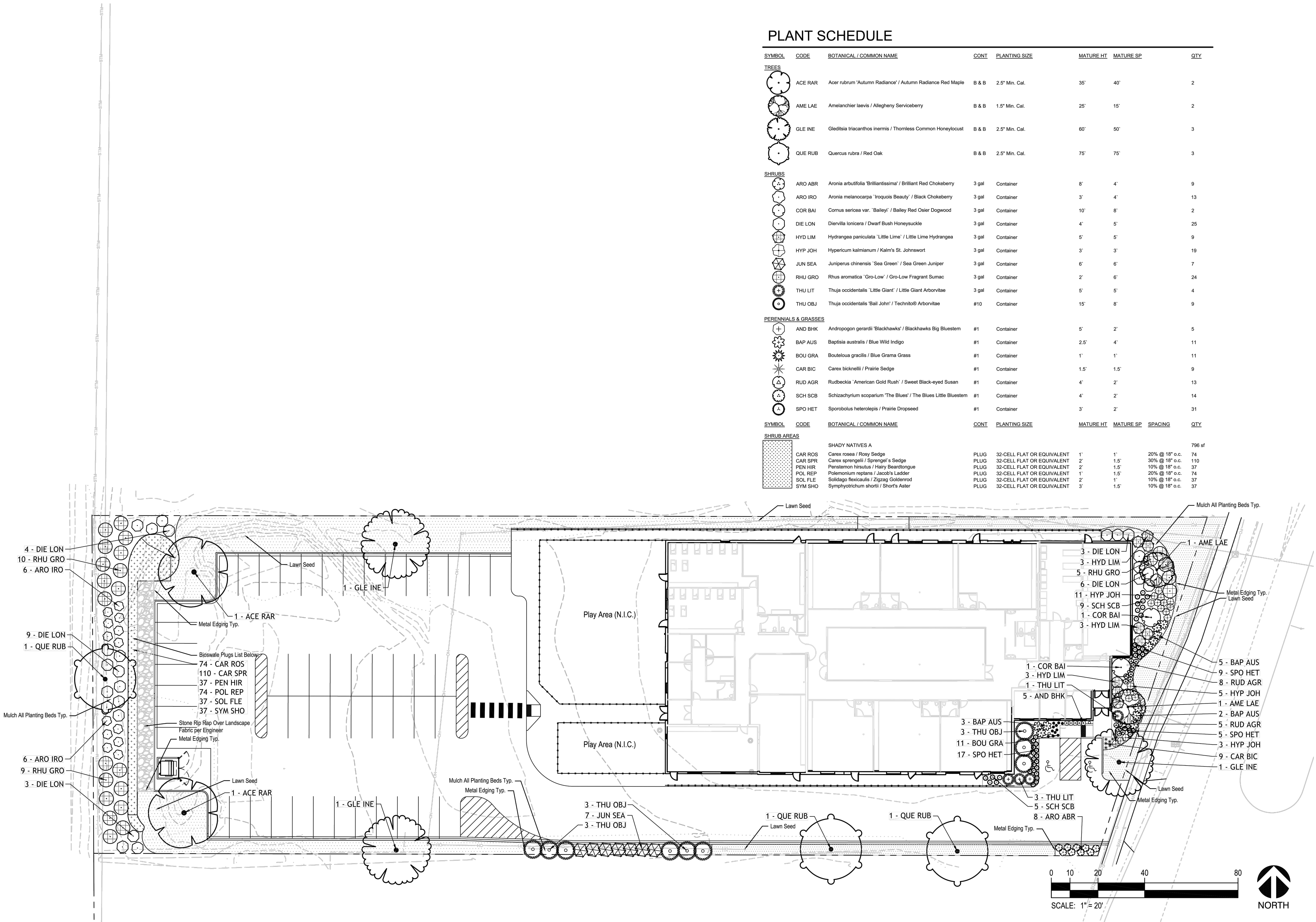
LANDSCAPE PLAN

Drawn By: JS
Checked By: KS
Date: 5/20/2025
Project No. 24-0424
Sheet Number

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PLANT SCHEDULE

SYMBOL	CODE	BOTANICAL / COMMON NAME	CONT	PLANTING SIZE	MATURE HT	MATURE SP	QTY	
TREES								
	AGE RAR	Acer rubrum 'Autumn Radiance' / Autumn Radiance Red Maple	B & B	2.5" Min. Cal.	35'	40'	2	
	AME LAE	Amelanchier laevis / Allegheny Serviceberry	B & B	1.5" Min. Cal.	25'	15'	2	
	GLE INE	Gleditsia triacanthos inermis / Thornless Common Honeylocust	B & B	2.5" Min. Cal.	60'	50'	3	
	QUE RUB	Quercus rubra / Red Oak	B & B	2.5" Min. Cal.	75'	75'	3	
SHRUBS								
	ARO ABR	Aronia arbutifolia 'Brilliantissima' / Brilliant Red Chokeberry	3 gal	Container	8'	4'	9	
	ARO IRO	Aronia melanocarpa 'Iroquois Beauty' / Black Chokeberry	3 gal	Container	3'	4'	13	
	COR BAI	Cornus sericea var. 'Baileyi' / Bailey Red Osler Dogwood	3 gal	Container	10'	8'	2	
	DIE LON	Diervilla lonicera / Dwarf Bush Honeysuckle	3 gal	Container	4'	5'	25	
	HYD LIM	Hydrangea paniculata 'Little Lime' / Little Lime Hydrangea	3 gal	Container	5'	5'	9	
	HYP JOH	Hypericum kalmianum / Kalm's St. Johnswort	3 gal	Container	3'	3'	19	
	JUN SEA	Juniperus chinensis 'Sea Green' / Sea Green Juniper	3 gal	Container	6'	6'	7	
	RHU GRO	Rhus aromatica 'Gro-Low' / Gro-Low Fragrant Sumac	3 gal	Container	2'	6'	24	
	THU LIT	Thuja occidentalis 'Little Giant' / Little Giant Arborvitae	3 gal	Container	5'	5'	4	
	THU OBJ	Thuja occidentalis 'Bail John' / Technit® Arborvitae	#10	Container	15'	8'	9	
PERENNIALS & GRASSES								
	AND BHK	Andropogon gerardii 'Blackhawks' / Blackhawks Big Bluestem	#1	Container	5'	2'	5	
	BAP AUS	Baptisia australis / Blue Wild Indigo	#1	Container	2.5'	4'	11	
	BOU GRA	Bouteloua gracilis / Blue Grama Grass	#1	Container	1'	1'	11	
	CAR BIC	Carex bicknellii / Prairie Sedge	#1	Container	1.5'	1.5'	9	
	RUD AGR	Rudbeckia 'American Gold Rush' / Sweet Black-eyed Susan	#1	Container	4'	2'	13	
	SCH SCB	Schizachyrium scoparium 'The Blues' / The Blues Little Bluestem	#1	Container	4'	2'	14	
	SPO HET	Sporobolus heterolepis / Prairie Dropseed	#1	Container	3'	2'	31	
SYMBOL	CODE	BOTANICAL / COMMON NAME	CONT	PLANTING SIZE	MATURE HT	MATURE SP	SPACING	QTY
SHRUB AREAS								
	SHADY NATIVES A							796 sf
	CAR ROS	Carex rosea / Rosy Sedge	PLUG	32-CELL FLAT OR EQUIVALENT	1'	1'	20% @ 18" o.c.	74
	CAR SPR	Carex sprengei / Sprengel's Sedge	PLUG	32-CELL FLAT OR EQUIVALENT	2'	1.5'	30% @ 18" o.c.	110
	PEN HIR	Penstemon hirsutus / Hairy Beardtongue	PLUG	32-CELL FLAT OR EQUIVALENT	2'	1.5'	10% @ 18" o.c.	37
	POL REP	Polygonum reptans / Jacob's Ladder	PLUG	32-CELL FLAT OR EQUIVALENT	1'	1.5'	20% @ 18" o.c.	74
	SOL FLE	Solidago flexicaulis / Zigzag Goldenrod	PLUG	32-CELL FLAT OR EQUIVALENT	2'	1"	10% @ 18" o.c.	37
SYM SHO	Symphoricarpon shortii / Short's Aster	PLUG	32-CELL FLAT OR EQUIVALENT	3'	1.5'	10% @ 18" o.c.	37	



GENERAL

LANDSCAPE NOTES

1.

CONTRACTOR SHALL VERIFY ALL EXISTING AND PROPOSED SITE ELEMENTS AND NOTIFY LANDSCAPE ARCHITECT OF ANY DISCREPANCIES. SURVEY DATA OF EXISTING CONDITIONS WAS SUPPLIED BY OTHERS.

2.

CONTRACTOR SHALL LOCATE ALL EXISTING UNDERGROUND UTILITIES AND NOTIFY LANDSCAPE ARCHITECT OF ANY CONFLICTS. CONTRACTOR SHALL EXERCISE CAUTION WHEN WORKING IN THE VICINITY OF UNDERGROUND UTILITIES.

3.

CONTRACTOR SHALL PROVIDE MINIMUM 2% SLOPE AWAY FROM ALL STRUCTURES.

4.

CONTRACTOR SHALL FINE GRADE AREAS TO ACHIEVE FINAL CONTOURS AS INDICATED. LEAVE AREAS TO RECEIVE TOPSOIL 3" BELOW FINAL FINISHED GRADE IN PLANTING AREAS AND 1" BELOW FINAL FINISHED GRADE IN LAWN AREAS.

5.

TOP OF MULCH SHALL BE ½" MINIMUM BELOW THE TOP OF WALKS AND CURBS

6.

OPTIONAL: LANDSCAPE AREAS SHALL BE PROVIDED WITH AN AUTOMATIC UNDERGROUND IRRIGATION SYSTEM WITH RAIN AND FREEZE SENSORS AND EVAPOTRANSPIRATION (ET) WEATHER-BASED CONTROLLERS AND SAID IRRIGATION SYSTEM SHALL BE DESIGNED BY A QUALIFIED PROFESSIONAL AND INSTALLED BY A LICENSED IRRIGATOR. NATIVE PLANTS DO NOT REQUIRE IRRIGATION.

7.

CONTRACTOR SHALL BE RESPONSIBLE FOR OBTAINING ALL REQUIRED LANDSCAPE AND IRRIGATION PERMITS.

MAINTENANCE NOTES

1.

THE OWNER, TENANT AND THEIR AGENT, IF ANY, SHALL BE JOINTLY AND SEVERALLY RESPONSIBLE FOR THE MAINTENANCE OF ALL LANDSCAPE.

2.

THE LANDSCAPE SHALL BE MAINTAINED IN A MANNER COMMON TO THE PRACTICE, INCLUDING MOWING, EDGING, PRUNING, FERTILIZING, WATERING, WEEDING, TRASH REMOVAL, AND OTHER SUCH ACTIVITIES.

3.

THE LANDSCAPE CONTRACTOR SHALL BE RESPONSIBLE FOR THE MAINTENANCE OF ALL WORK FROM THE TIME OF PLANTING FOR 60 DAYS, OR UNTIL FINAL ACCEPTANCE BY THE OWNER. AN ON-SITE INSPECTION BY THE OWNER'S AGENT WILL BE COMPLETED PRIOR TO FINAL ACCEPTANCE.

4.

DURING WORK, PREMISES SHALL BE KEPT NEAT AND ORDERLY AT ALL TIMES. ALL TRASH AND DEBRIS SHALL BE REMOVED FROM THE SITE AS THE WORK PROGRESSES. KEEP PAVED AREAS CLEAN BY SWEEPING OR HOSING THEM AT THE END OF EACH WORK DAY.

5.

THE LANDSCAPE CONTRACTOR SHALL GUARANTEE ALL PLANTS THROUGH ONE (1) YEAR AFTER FINAL ACCEPTANCE BY THE OWNER'S AGENT. PLANTS SHALL BE IN HEALTHY CONDITION AT THE END OF THE GUARANTEE PERIOD. ALL PLANT MATERIALS WHICH DIE SHALL BE REPLACED WITH PLANT MATERIAL OF EQUAL OR BETTER VALUE AT NO COST TO OWNER. RESTORE BEDS AS NECESSARY FOLLOWING PLANT REPLACEMENT.

6.

THE OWNER SHALL BE RESPONSIBLE FOR THE CONTINUED MAINTENANCE, REPAIR AND REPLACEMENT OF ALL LANDSCAPING MATERIALS AS NECESSARY FOLLOWING THE 60 DAY CONTRACTOR MAINTENANCE PERIOD.

QUALITY ASSURANCE

1.

LANDSCAPE CONTRACTOR SHALL COMPLY WITH APPLICABLE FEDERAL, STATE, COUNTY, AND LOCAL REGULATIONS GOVERNING LANDSCAPE MATERIALS AND WORK.

2.

SELECTION OF PLANT MATERIAL: MAKE CONTACT WITH SUPPLIERS IMMEDIATELY UPON NOTICE OF CONTRACT ACCEPTANCE TO SELECT AND BOOK MATERIALS.

3.

SUBSTITUTIONS: DO NOT MAKE PLANT MATERIAL SUBSTITUTIONS. IF THE SPECIFIED LANDSCAPE MATERIAL IS NOT OBTAINABLE, SUBMIT PROOF OF NON-AVAILABILITY TO LANDSCAPE ARCHITECT, TOGETHER WITH PROPOSAL FOR USE OF EQUIVALENT MATERIAL. WRITTEN VERIFICATION WILL BE REQUIRED DOCUMENTING MATERIAL SELECTION, SOURCE AND DELIVERY SCHEDULE TO SITE.

4.

MEASUREMENTS: TAKE CALIPER MEASUREMENTS OF TREES SIX INCHES ABOVE GROUND. MEASURE MAIN BODY OF ALL PLANT MATERIAL FOR HEIGHT AND SPREAD DIMENSIONS, NOT FROM TIP-TO-TIP.

5.

LANDSCAPE ARCHITECT OR OWNER, SHALL INSPECT ALL PLANT MATERIAL WITH RESPECT TO GENUS, SPECIES, CULTIVAR/VARIETY, SIZE AND QUALITY, INCLUDING SIZE AND CONDITION OF ROOT SYSTEMS, LIMBS, BRANCHING HABIT, INSECTS, INJURIES, OR OTHER LATENT DEFECTS UPON ARRIVAL TO SITE OR DURING INSTALLATION.

6.

LANDSCAPE ARCHITECT OR OWNER MAY REJECT UNSATISFACTORY OR DEFECTIVE MATERIAL AT ANY TIME DURING THE WORK PROCESS. REMOVE REJECTED MATERIALS FROM SITE AND REPLACE WITH ACCEPTABLE MATERIAL AT NO ADDITIONAL COST TO THE OWNER. PLANTS DAMAGED IN TRANSIT OR AT THE JOB SITE SHALL BE REJECTED.

PRODUCT DELIVERY, STORAGE AND HANDLING

1.

DELIVER ONLY PLANT MATERIALS THAT CAN BE PLANTED IN ONE DAY UNLESS ADEQUATE STORAGE AND WATERING FACILITIES ARE AVAILABLE ON THE JOB SITE.

2.

PROTECT PLANTS DURING DELIVERY TO PREVENT DAMAGE TO ROOT BALLS OR DESICCATION OF LEAVES. KEEP PLANTS MOIST AT ALL TIMES. COVER ALL MATERIALS DURING TRANSPORT. PROTECT ROOT BALLS BY HEELING IN WITH SAWDUST OR OTHER APPROVED MOISTURE RETAINING MATERIAL IF NO PLANTED WITHIN 24 HOURS OF DELIVERY.

3.

TO AVOID DAMAGE OR STRESS, DO NOT LIFT, MOVE, ADJUST TO PLUMB, OR OTHERWISE MANIPULATE PLANTS BY TRUNK OR STEMS.

4.

DELIVER PLANTS WITH LEGIBLE IDENTIFICATION LABELS.

MATERIALS

PLANTS

1.

ALL PLANTS SHALL CONFORM TO THE AMERICAN STANDARD FOR NURSERY STOCK ANSI Z60.1, MOST RECENT EDITION.

2.

PLANTS SHALL CONFORM TO THE SIZE GIVEN ON THE PLAN, AND SHALL BE HEALTHY, SYMMETRICAL, WELL-SHAPED, FULL BRANCHED AND FREE OF DISEASE AND INSECTS.

3.

ALL PLANTS WHICH ARE FOUND UNSUITABLE IN GROWTH, OR ARE IN ANY UNHEALTHY, BADLY SHAPED, OR UNDERSIZED CONDITION WILL BE REJECTED BY THE LANDSCAPE ARCHITECT EITHER BEFORE OR AFTER PLANTING AND SHALL BE REMOVED AT THE EXPENSE OF THE LANDSCAPE CONTRACTOR AND REPLACED WITH ACCEPTABLE PLANT AS SPECIFIED AT NO ADDITIONAL COST TO THE OWNER.

4.

PLANTS SHALL NURSERY GROWN IN ACCORDANCE WITH GOOD HORTICULTURAL PRACTICES UNDER CLIMATIC CONDITIONS SIMILAR TO THOSE IN THE LOCALITY OF THE PROJECT FOR AT LEAST 2 YEARS.

5.

PLANTS SHALL BE FRESHLY DUG FROM DURING THE MOST RECENT APPROPRIATE HARVEST SEASON.

6.

PRUNING SHALL BE LIMITED TO DEAD BRANCHES, LIMBS DAMAGED OR BROKEN DURING THE PLANTING PROCESS. PRUNING SHALL CONFORM TO AMERICAN STANDARD FOR TREE CARE OPERATIONS ANSI A300.

SOILS

1.

PLANTING SOIL AND TOPSOIL TO BE A CLEAN, FRIABLE LOAM FROM A LOCAL SOURCE, FREE FROM STONES OR DEBRIS OVER ¾" IN DIAMETER, AND FREE FROM TOXINS AND WEEDS. TOPSOIL SHALL HAVE A pH VALUE BETWEEN 5.5 AND 7. ORGANIC MATERIAL SHALL BE 2.0-5.0% OF TOTAL DRY WEIGHT. SOLUBLE SALT LEVELS SHALL BE LESS THAN 2 mmho/cm. PLANTING SOIL AND TOPSOIL SHALL BE TESTED AND AMENDED TO MEET THESE SPECIFICATIONS.

2.

COMPOST SHALL BE COMMERCIALY PREPARED, PEAT-FREE COMPOST AND MEET US COMPOST COUNCIL STA/TMECC CRITERIA AND SHALL CONSIST OF PLANT-BASED MATERIALS, COMPOSTED FOR A MINIMUM OF 9 MONTHS AT TEMPERATURES SUFFICIENT TO BREAK DOWN ALL WOODY FIBERS, SEEDS, AND LEAF STRUCTURES.

3.

ALL PLANTING AREAS WITHIN THE DRIP LINE OF EXISTING TREES SHALL BE PREPARED BY TILLING EXISTING SOIL TO A DEPTH OF SIX (6") INCHES PRIOR TO PLACING COMPOST AND FERTILIZER. APPLY FERTILIZER AS PER MANUFACTURER'S RECOMMENDATIONS. ADD THREE (3") INCHES OF COMPOST AND TILL INTO A DEPTH OF SIX (6") INCHES OF THE TOPSOIL.

4.

ALL PLANTING AREAS WITHOUT EXISTING TREES SHALL BE PREPARED BY TILLING EXISTING SOIL TO A DEPTH OF EIGHTEEN (18") INCHES PRIOR TO PLACING COMPOST AND FERTILIZER. APPLY FERTILIZER AS PER MANUFACTURER'S RECOMMENDATIONS. ADD SIX (6") INCHES OF COMPOST AND TILL INTO A DEPTH OF EIGHTEEN (18") INCHES OF THE TOPSOIL.

5.

BACKFILL FOR TREE PITS SHALL CONSIST OF EXISTING TOPSOIL ON SITE (OR IMPORTED AS NEEDED) FREE FROM LARGE CLUMPS, ROCKS, DEBRIS, SUBSOILS, ETC., PLACED IN NINE (9") LAYERS AND WATERED IN THOROUGHLY.

OTHER MATERIALS

1.

SHREDDED HARDWOOD BARK MULCH: ALL PLANTING AREAS LABELED ON PLAN SHALL RECEIVE CERTIFIED WEED-FREE SHREDDED HARDWOOD BARK MULCH SPREAD TO A DEPTH OF THREE (3") INCHES OVER ALL PLANTING AREAS. SHREDDED HARDWOOD BARK MULCH, SIZE AND COLOR TO BE APPROVED BY OWNER'S AGENT PRIOR TO INSTALLATION. MULCHED AREAS SHALL NOT RECEIVE A WOVEN WEED BARRIER FABRIC.

2.

STONE MULCH: ALL PLANTING AREAS LABELED ON PLAN (IF APPLICABLE) SHALL RECEIVE STONE MULCH SPREAD TO A MINIMUM DEPTH OF THREE (3") OVER ALL DESIGNATED AREAS. STONE MULCH TYPE, SIZE, AND COLOR TO BE APPROVED BY OWNER'S AGENT PRIOR TO INSTALLATION. STONE AREAS SHALL BE UNDERLAIN BY A WOVEN WEED BARRIER FABRIC.

3.

EDGING: EDGING SHALL BE 5" DEEP, POLYETHYLENE EDGING, TO BE APPROVED BY OWNER'S AGENT.

4.

WEED BARRIER FABRIC: ALL STONE MULCH BEDS (IF APPLICABLE) SHALL BE INSTALLED WITH WOVEN WEED BARRIER FABRIC PRIOR TO LAYING DOWN THE STONE. NO PLASTIC OR IMPERVIOUS BARRIERS WILL BE ALLOWED.

5.

SOD (IF APPLICABLE): ALL AREAS SPECIFIED ON PLAN AS SOD (IF APPLICABLE) SHALL BE A PREMIUM GRADE APPROVED TURFGRASS SOD. ONLY IMPROVED TYPES OF SOD (ELITE) ARE ACCEPTABLE. STANDARD SIZE SECTIONS OF TURFGRASS SOD SHALL BE STRONG ENOUGH SO THAT THEY CAN BE PICKED UP AND HANDLED WITHOUT DAMAGE. TURFGRASS SOD SHALL NOT BE HARVESTED OR TRANSPLANTED WHEN MOISTURE CONTENT IS EXCESSIVELY DRY OR WET, AS THIS MAY ADVERSELY AFFECT ITS SURVIVAL. TURFGRASS SOD SHALL BE REASONABLY FREE OF DISEASES, NEMATODES, INSECTS, GRASSY AND BROAD-LEAF WEEDS.

6.

LAWN SEED: DISTURBED LAWN AREAS LABELED AS SUCH ON PLAN, SHALL BE SPREAD BY HAND BROADCAST METHOD OR APPROPRIATE SPREADER EQUIPMENT WITH 'MADISON PARKS' OR EQUIVALENT SEED MIX AS APPROVED BY OWNER'S AGENT, AND INSTALLED PER MANUFACTURER'S RECOMMENDATIONS. IN ADDITION TO LAWN SEED, ANNUAL RYE SHALL BE APPLIED TO ALL DISTURBED AREAS WITH SLOPES EXCEEDING 3:1 AT A RATE OF 1 ½ POUNDS PER 1000 SQUARE FEET. FERTILIZE AND MULCH PER MANUFACTURER'S RECOMMENDATIONS.

7.

NATIVE SEED MIXES (IF APPLICABLE): SEE PLANT SCHEDULE NOTES FOR SEED MIX TYPES, APPLICATION, AND COVER CROP TYPE.

8.

TREE PROTECTION TUBES (IF APPLICABLE): PROVIDE 5' LONG (60") TREE PROTECTION TUBES FOR ALL TREE SEEDLINGS AND 3' LONG TREE TUBES FOR ALL SHRUB SEEDLINGS (SEE PLANT SCHEDULES). BASIS OF DESIGN OR APPROVED EQUAL: TUBEX TREE SHELTERS, 5' L (60") AND 3' L (36") FROM WWW.FORESTRY-SUPPLIERS.COM. TUBE MATERIAL SHALL BE UV-STABILIZED POLYPROPYLENE CO-POLYMER, GREEN COLOR, DIAMETER RANGING FROM 3 ¼" TO 4 ¾", WITH AN EXPECTED LIFESPAN OF APPROXIMATELY 5-7 YEARS. REQUIRED ACCESSORIES INCLUDE RELEASABLE NYLON, RATCHET-LOCKING FASTENING TIES, MESH NETTING, AND BAMBOO STAKES.

INSTALLATION

1.

PLANT MATERIALS SHALL BE DELIVERED TO THE SITE ONLY AFTER THE BEDS ARE PREPARED AND AREAS ARE READY FOR PLANTING. WOODY PLANT MATERIAL MAY BE PLANTED FROM LATE APRIL TO EARLY JUNE OR FROM LATE AUGUST TO OCTOBER.

2.

EXCAVATE PITS WITH VERTICAL SIDES AND HORIZONTAL BOTTOM. TREE PITS SHALL BE LARGE ENOUGH TO PERMIT HANDLING AND PLANTING WITHOUT INJURY TO THE ROOT BALLS, AND SHALL BE PLACED AT THE SAME DEPTH RELATIVE TO FINISH GRADE AS IT DID TO THE SOIL SURFACE IN THE ORIGINAL PLACE OF GROWTH.

3.

SHRUB AND TREE PITS SHALL BE NO LESS THAN TWO TIMES WIDER THAN THE LATERAL DIMENSIONS OF THE EARTH BALL AND NO DEEPER THAN ITS VERTICAL DIMENSION. THE SIDES OF THE HOLE SHALL BE ROUGH AND JAGGED, NEVER SLICK AND GLAZED, ROUGH UP WITH SHOVEL IF NEEDED.

4.

BACKFILL HOLE WITH 5 PARTS EXISTING SOIL AND 1 PART PLANT BED PREPARATION SOIL. CAREFULLY SETTLE BY WATERING TO PREVENT AIR POCKETS. REMOVE THE BURLAP, NYLON, STRING, AND WIRE FROM THE TOP ¼ OF THE BALL. MULCH THE TOP OF THE BALL WITH A MINIMUM OF TWO (2") INCHES OF SPECIFIED MULCH OVER THE PLANTING PIT.

5.

DO NOT WRAP TREES. STAKE TREES AND LARGE SHRUBS ONLY AS SITE CONDITIONS REQUIRE. INSTALL TREE PROTECTION TUBES FOR SMALL SIZE TREE STOCK (IF APPLICABLE) AS DIRECTED BY MANUFACTURER

6.

TURFGRASS SOD SHALL BE HARVESTED, DELIVERED, AND INSTALLED WITHIN A PERIOD OF 24 HOURS. ENSURE EDGES OF SOD ARE STAGGERED AND TOUCHING. TOP DRESS JOINTS BY HAND WITH TOPSOIL TO FILL VOIDS. POST-PLANT IRRIGATION WILL BE NECESSARY TO ENSURE SOD STAYS ALIVE AND ROOTS INTO THE SOIL. THE CONTRACTOR IS RESPONSIBLE FOR WATERING SOD UNTIL TIME OF ACCEPTANCE BY OWNER. THE SOD SUPPLIER MAY MAKE RECOMMENDATIONS REGARDING THE WATERING SCHEDULE. THE WATERING SCHEDULE SHOULD BEGIN IMMEDIATELY AFTER THE SOD IS INSTALLED.

7.

PREPARE THE SITE FOR NATIVE SEEDING AS NEEDED AS DICTATED BY SITE CONDITIONS. THIS MAY INCLUDE HERBICIDE APPLICATION PRIOR TO PLANTING TO REMOVE UNDESIRABLE WEEDS. A MINIMUM OF TWO WEEKS MUST PASS BEFORE NEW PLANTINGS CAN BE INSTALLED IN THE HERBICIDED AREA. PLANT THE NATIVE SEED MIX USING AN ACCEPTABLE METHOD INCLUDING NO TILL DRILL OR HAND BROADCASTING. BROADCASTED SEED MUST BE ROLLED OR RAKED IN TO ENSURE ADEQUATE SEED-SOIL CONTACT. SEE PLANT SCHEDULE NOTES FOR SEED MIX TYPES, APPLICATION, AND COVER CROP TYPE (IF APPLICABLE). SEEDING SHALL BE AVOIDED IN JULY AND AUGUST OR DURING DRY CONDITIONS. DORMANT SEEDING MAY OCCUR BETWEEN NOV. 30 AND MAR. 1.

MAINTENANCE AFTER PLANTING

1.

THE LANDSCAPE CONTRACTOR SHALL GUARANTEE ALL PLANTS THROUGH ONE (1) YEAR AFTER FINAL ACCEPTANCE BY THE OWNER'S AGENT. PLANTS SHALL BE IN HEALTHY CONDITION AT THE END OF THE GUARANTEE PERIOD. ALL WOODY PLANT MATERIALS WHICH ARE MORE THAN 25% DEAD SHALL BE REPLACED WITH PLANT MATERIAL OF EQUAL OR BETTER VALUE AT NO COST TO OWNER. RESTORE BEDS AS NECESSARY FOLLOWING PLANT REPLACEMENT. ANY MORE THAN 10% PLUG LOSS SHALL BE REPLACED BY NEW PLUGS. LAWN AREAS SHALL HAVE 100% COVER AT END OF THE TWO-YEAR PERIOD. NATIVE SEEDED AREAS SHALL HAVE A MINIMUM OF 85% COVER AND NO MORE THAN 5% COVER BY AGGRESSIVE INVASIVE SPECIES WITHIN TWO YEARS AFTER SUBSTANTIAL COMPLETION. WASHED OUT OR ERODED AREAS SHALL BE REPAIRED AND RESEEDED.

2.

THE LAWN AREAS AND THE TREES AND SHRUBS SHALL BE MAINTAINED IN A MANNER COMMON TO THE PRACTICE, INCLUDING MOWING, EDGING, PRUNING, FERTILIZING, WATERING, WEEDING, TRASH REMOVAL, AND OTHER SUCH ACTIVITIES. SPRAYING OF TREES AND SHRUBS SHALL BE CONDUCTED MONTHLY TO KEEP FREE OF INSECTS AND DISEASE.

3.

WATERING AND RAINFALL SHALL SUPPLY A MINIMUM OF 1 INCH OF WATER PER WEEK UNTIL PLANTS ARE ESTABLISHED. SUPPLEMENTAL WATERING MAY BE REQUIRED DURING THE FIRST 60 DAYS OF GROWTH.

4.

WEEDING SHALL OCCUR BIMONTHLY FROM APRIL TO OCTOBER OR MORE FREQUENTLY AS NEEDED TO REMOVE INVASIVE OR EXOTIC PLANTS TO LESS THAN 5% OF TOTAL VEGETATIVE COVER.

5.

NATIVE LANDSCAPE AREAS INCLUDING THE PLUGGED AND SEEDED AREAS SHALL BE MAINTAINED AS FOLLOWS:

5.1.

WEED CONTROL METHODS SHALL INCLUDE SELECTIVE MOWING, HAND CUTTING, PULLING, AND HERBICIDE APPLICATIONS AS APPROPRIATE AND SHALL INCLUDE AGGRESSIVE INVASIVE SPECIES. AN EFFORT SHOULD BE MADE TO REMOVE WEED PLANTS BEFORE THEY SET SEED.

5.2.

MOW OR BURN SEEDED PRAIRIE, NATIVE MEADOW, OR WETLAND AREAS AT LEAST ONCE A YEAR IN LATE MARCH TO KEEP WOODY PLANTS FROM INVADING. DO NOT MOW PLUG PLANTINGS UNTIL AFTER THEY HAVE HAD THREE GROWING SEASONS TO BECOME ESTABLISHED.

5.3.

WEED WHIP OR MOW A FIVE-FOOT DIAMETER CIRCLE AROUND THE BASE OF ALL SMALL DIAMETER PLANTED TREES AT LEAST ONCE A YEAR TO REDUCE COMPETITION FOR THE PLANTED TREES. SELECTIVELY CONTROL AGGRESSIVE INVASIVE SPECIES SEVERAL TIMES DURING THE GROWING SEASON. WEED CONTROL METHODS SHALL INCLUDE SELECTIVE MOWING, HAND CUTTING, PULLING, AND HERBICIDE APPLICATIONS AS APPROPRIATE. AN EFFORT SHOULD BE MADE TO REMOVE WEED PLANTS BEFORE THEY SET SEED.

5.4.

LANDSCAPE CONTRACTOR MAY ADAPT MANAGEMENT STRATEGIES FOR CHANGING SITE CONDITIONS AS NEEDED OR APPROPRIATE.

AYRES

20975 SWENSON DRIVE
SUITE 200
WAUKESHA, WI 53186
262.522.4901
www.AyresAssociates.com

LANDCO2

DATE

REVISION

GLENDAL DAY CARE

6045 N. GREEN BAY ROAD
GLENDAL, WI 53209

LANDSCAPE NOTES

Drawn By: JS

Checked By: KS

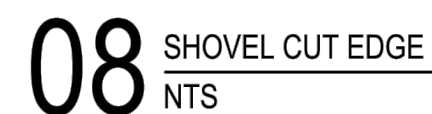
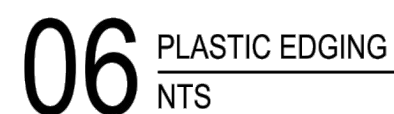
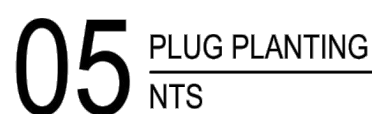
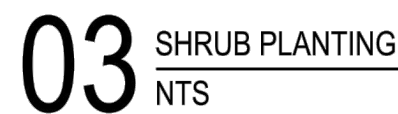
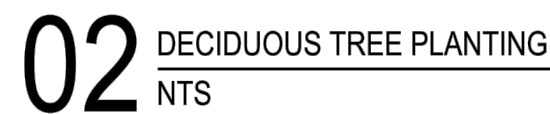
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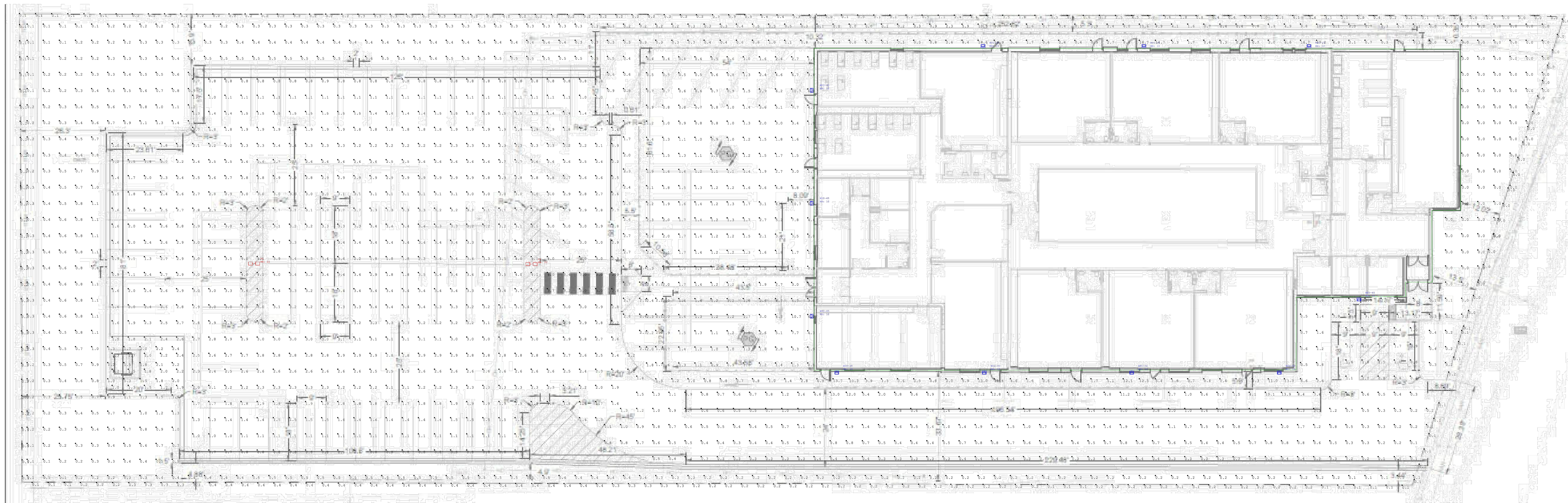
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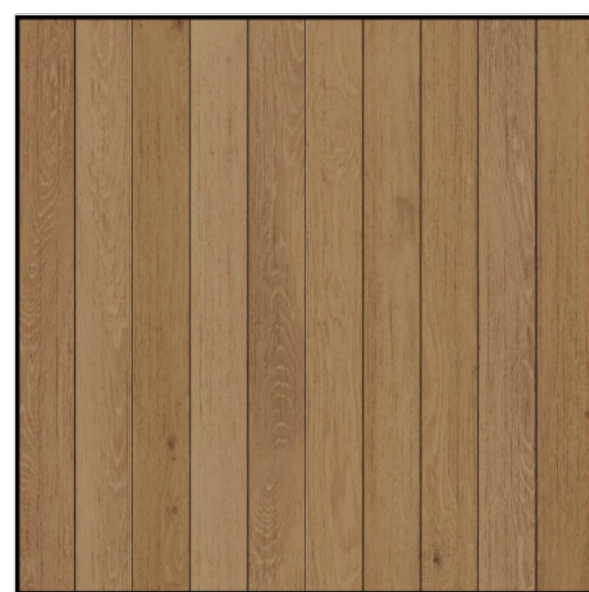


Fixture Schedule								
Symbol	Label	Qty	[MANUFAC]	Catalog Number	LLF	Lumens	Watts	Tot. Watts
	WP2-30	4	RAB Lighting Inc.	SLIM22-S-30 @25W5000K angle 30	0.900	4114	27.3	109.2
	WP2-15	3	RAB Lighting Inc.	SLIM22-S-30 @25W5000K angle 15	0.900	4120	27.3	81.9
	WP2-45	4	RAB Lighting Inc.	SLIM22-S-30 @25W3000K angle 45	0.900	3797	27.2	108.8
	P1	4	EXO	ASL1-160L-115-4K7-5QW	0.900	15632	109.7	438.8

Calculation Summary							
Label	CalcType	Units	Avg	Max	Min	Avg/Min	Max/Min
Driveway	Illuminance	Fc	1.59	13.9	0.1	15.90	139.00
Parking Lot	Illuminance	Fc	2.37	4.1	0.7	3.39	5.86
Playground Area	Illuminance	Fc	2.08	10.7	0.4	5.20	26.75
Prop Line	Illuminance	Fc	0.42	5.4	0.0	N.A.	N.A.
Site	Illuminance	Fc	1.11	18.7	0.0	N.A.	N.A.

1. Standard Reflectance of 80/50/20 unless noted otherwise
2. Not a Construction Document, for Design purposes only
3. Standard indoor calc points @ 30" A.F.F. unless noted otherwise
4. Standard outdoor calc points @ Grade unless noted otherwise
5. CED Pewaukee assumes no responsibility for installed light levels due to field conditions, etc.





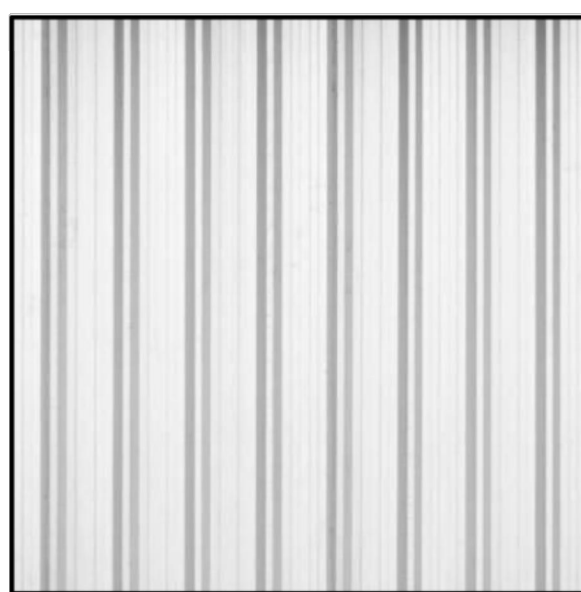
WOOD LOOK PLANKS



METAL REVEAL PANEL



WINDOWS & DOORS



METAL SIDING



BRICK

NEW MATERIALS

EXISTING MATERIALS



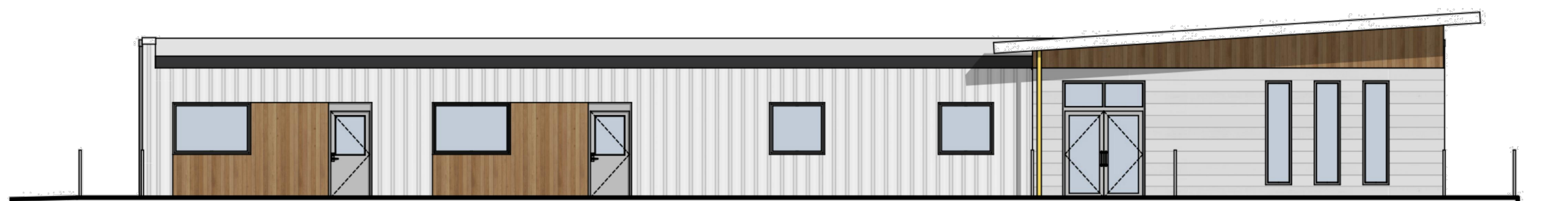
EAST ELEVATION

SCALE: 1/16" = 1'-0"



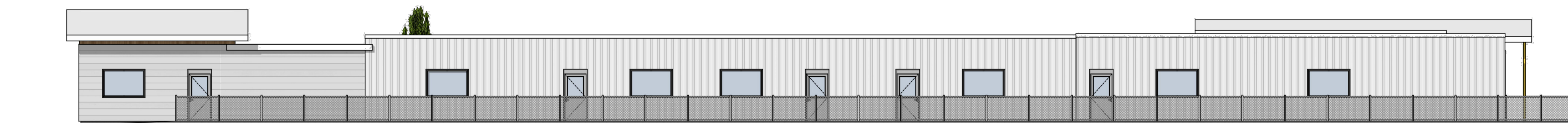
SOUTH ELEVATION

SCALE: 1/16" = 1'-0"



WEST ELEVATION

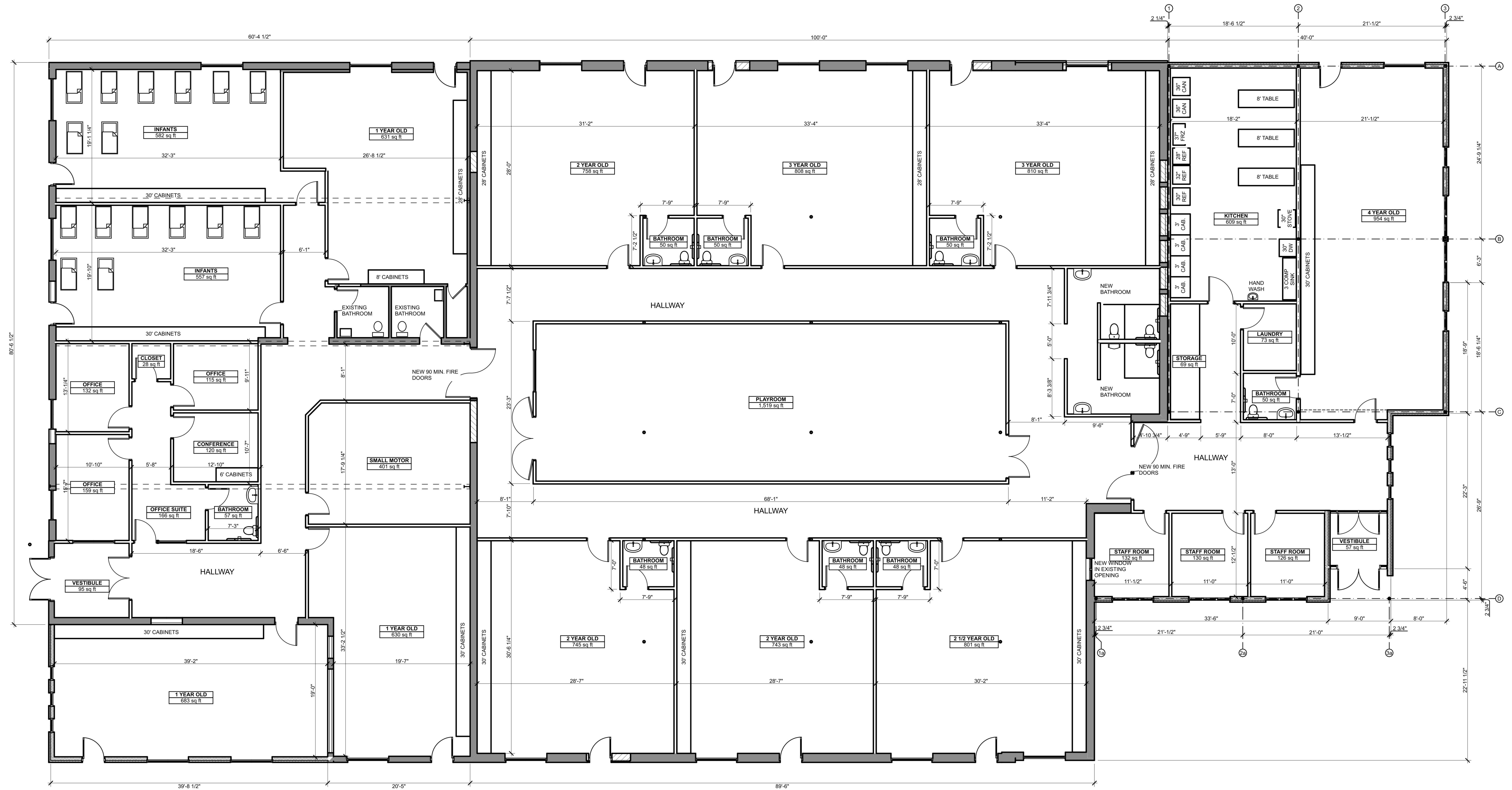
SCALE: 1/16" = 1'-0"



NORTH ELEVATION

SCALE: 1/16" = 1'-0"





FLOOR PLAN

SCALE: 1/16" = 1'-0"

Stormwater Management Report

Glendale Day Care

6045 N Green Bay Ave, Glendale, WI 53209

Glendale, Wisconsin

Prepared for:

Glendale Daycare

June 18, 2025



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List of Appendices

Appendix A - Site Map
Appendix B - Site Photographs
Appendix C - Soils Information
Appendix D - Erosion Control Plans
Appendix E - Drainage Plan
Appendix F - Drainage Calculations
Appendix G - WinSLAMM Output Files
Appendix H - Endangered Species and Wetland Review

1 Project Team

1.1 Project Designees

Land Owner

Cheryl Peters
Administrator
Glendale Heights Child Care Center
2315 W Good Hope Rd
Glendale, WI 53209
cherylp@glendaleheightschildcare.com

General Contractor (Responsible Operator for Stormwater Installation):

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W229 N1870 Westwood Dr, Waukesha, WI 53186
262.323.6883
aroensch@duffekconstruction.com

Project Engineer

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Ayres Associates
20975 Swenson Dr, Suite 200, Waukesha, WI 53186
262.522.4901
maiers@ayresassociates.com

2 Project Site

2.1 Legal Description

CERTIFIED SURVEY MAP NO 9164 NE1/4 SEC 30-8-22 LOT 2

2.2 Site Location

The project is located at 6045 N Green Bay Ave, Glendale, WI 53209
The surface stormwater drainage from an existing 12" culvert located on the property and drains into an existing storm sewer that runs parallel to the western property line and drains south into an existing unnamed waterway. The ultimate outfall is into the Lincoln Creek.

2.3 Existing Site

The Glendale Daycare consists of 1.5+/- acre parcel that is currently developed. The existing site includes a building with areas of 14,819+/- sf. The existing parking lot is approximately 22,758+/- sf. The existing site generally drains to the west where stormwater is collected in an existing 12" culvert that drains to a storm sewer that runs parallel to the western property line. The existing has some vegetation at the perimeter of the site; however, the majority of the site is covered with building and paved parking lot.

2.4 Proposed Site

This development will consist of a building expansion, redevelopment of the asphalt parking lot, curb and gutter adjacent to the proposed building and a dry detention basin and swale for storm water management. The detention basin has been designed to allow native infiltration through the bottom of the basin. The water quality TSS removal will be provided in the stormwater swale and basin. The stormwater was modeled using HydroCAD and WinSLAMM. The proposed stormwater facilities are designed to meet the City of Glendale and WDNR requirements.

2.5 Stormwater Approach

The proposed development site is required to meet various water quantity and quality standards for the City of Glendale Stormwater Ordinance, MMSD Chapter 13, and WDNR NR151 using the Atlas, MSE3/SEWRPC Distributions. The following is a summary of the requirement that needed to be met:

- Green Infrastructure (Per MMSD Chapter 13) – Green Infrastructure Detention Volume for 0.5 inch of net new impervious area.
- Water Quality (Per Wisconsin NR151) - (Redevelopment) 40% TSS reduction from parking areas as compared to no runoff controls.
- Water Quantity (Pre construction vs Post Construction) – Compare existing vs post construction peak runoff rates for 2 and 100 year storm events.

2.6 Summary of Results

Per the City of Glendale, MMSD Chapter 13, and NR151 standards, this redevelopment will meet the applicable requirements. Below is a general summary of the results. Detail calculations can be found in the subsequent sections.

Peak Runoff – The peak runoff comparing the post-development to the pre-development conditions will have a net reduction from the existing conditions.

TSS Reduction – The TSS removal will have a 40% TSS reduction for the paved parking lot.

Storage Volume – The storage volume comparing the post-development to the pre-development conditions will have a net increase from the existing conditions.

Green Infrastructure – The proposed bioswale at the outlet infiltrates enough volume to meet the green infrastructure requirements.

Infiltration – The proposed pos-development stormwater management will exceed the pre-development stay on volume requirements.

3 Pre-Development Site Conditions

3.1 Pre-Development Runoff

The existing site has an existing building and parking lot onsite that is going to be redeveloped. There are two basins onsite. As shown on the existing drainage plan (shown in the appendix) basin E1 includes the building and the majority of the parking lot that drains to the west and is collected in an existing 12" culvert. Basin E2 is a small area in front of the existing building that includes landscaping and a small amount of parking. The runoff from this basin drains into Green Bay Road and is collected in street inlets.

Pre-Development Runoff Summary

Description	Impervious Area (SF)	Area (Ac)	Runoff Curve Number (CN)	Time of Concentration (Min)	Peak Flow (cfs)			
					1-year	2-year	10-year	100-year
E1	37,577	1.29	92	5	3.78	4.42	6.73	11.61
E2	3,216	0.24	85	5	0.49	0.60	1.01	1.92
OFN	4,685	0.55	83	5	0.90	1.13	2.05	4.12
OFS	15,911	0.67	89	5	1.72	2.04	3.25	5.81
EX 12" OUTFALL					3.64	3.79	4.20	4.74

Basin E1's release point (12" culvert) restricts the peak flow runoff. The runoff shown above is the peak runoff rate after the restriction.

Pre-Development Storage Volume

Description	EXISTING DETENTION VOLUME (CUBIC FEET)			
	1-year	2-year	10-year	100-year
EXISTING STORAGE VOLUME	1,477	2,040	4,655	12,119
Elevation	638.27	638.40	638.77	639.31

Outfall is an existing 12" Culvert at elevation 636.29.

4 Post -Development Site Conditions

The existing building will remain and will be expanded. The existing parking lot will be redeveloped and reconfigured from it's original layout. With the redevelopment of the parking lot and the building addition the net impervious area will increase. Below is a summary of the net impervious area increase:

Description	Impervious Area Comparison		
	E1 Compared to P1 (SF)	E2 Compared to P2 (SF)	Net Impervious (SF)
Pre-Development	37,577	3,216	40,793
Post-Development	49,390	3,224	52,614
Difference	+11,813	8	+11,821

Post-Development Runoff Summary

Below is a table showing the post development runoff based on the proposed development.

Description	Impervious Ares (SF)	Area (Ac)	Runoff Curve Number (CN)	Time of Concentration (Min)	Peak Flow (cfs)			
					1-year	2-year	10-year	100-year
P1	49,390	1.37	95	5	4.50	5.17	7.59	12.67
P2	3,354	0.17	85	5	0.36	0.42	0.67	1.20
OFN	4,685	0.55	83	5	0.90	1.13	2.05	4.12
OFS	15,911	0.67	89	5	1.72	2.04	3.25	5.81
EX 12" OUTFALL					3.38	3.58	4.11	4.65

Basin P1's release point (12" culvert) restricts the peak flow runoff using the existing 12" culvert. The runoff shown above is the peak runoff rate after the restriction.

Post-Development Storage Volume

Description	EXISTING DETENTION VOLUME (CUBIC FEET)			
	1-year	2-year	10-year	100-year
P1 Storage Volume	3,008	3,670	6,559	14,608
Pond Elevation	638.07	638.23	638.69	639.21

TSS Removal

Per the Wisconsin NR151, This site will require a 40% TSS remove of the parking areas of the site. The bottom of the outlet area will have 4' wide x 240' long x 2' depth engineered soil to create a bioswale to the outlet. A restrictor weir wall with a 5" outlet to create the treatment storage volume will be stalled prior to the primary outlet.

The paved parking area for the post development site will be 34,073 SF. Paved parking (Directly Connected) produces 616.0 lbs/year/acre; therefore producing 481.8 lbs/year. **A 40% TSS reduction would require the stormwater treatment to trap 192.7 lbs/year.**

	Particulates Solids Yield (lbs) No Controls	Particulates Solids Yield (lbs) With Controls	TSS REMOVAL TRAPPED
Parking Lot TSS	432.7	235.9	196.8 LBS

Green Infrastructure

The net new impervious area is 11,683 SF. Per MMSD Chapter 13 requirements green infrastructure requires 11,683 (SF) x 0.5 Inch = 487 CF of green infrastructure volume.

The Bioswale used for TSS will infiltrate 31,700 cf of runoff, therefore the green infrastructure requirement is being met.

Infiltration

Description	Area (Ac)	Average Rainfall (in)	Annual Total Rainfall Volume (CF)	Annual Runoff Volume (CF) – From Winslamm	Annual Stay on Volume (CF)
Existing Conditions	1.53	28.81	157,994	75,299	82,695
Requirement (90% of Ex Stay on Volume)					Min. stay on volume at 90% = 74,425
Proposed Conditions	1.53	28.81	157,994	29,956	128,038

5 Construction and Permanent Stormwater Maintenance

5.1 Construction Sequencing

Prior to removal of the existing parking lot, a construction access to the site will be constructed followed by site clearing and stripping topsoil. Work can then begin on the building, drives, and parking lot. Base course for parking surfaces will then be installed followed by asphalt paving and lawn restoration.

The following is an anticipated sequence of construction activities:

- Mobilization and erosion control installation – Install Silt Fencing and Construction Entrance.
- Site preparation, construction entrance, clearing and grubbing – Maintain Silt Fencing and Ditch Checks. The Contractor will need to maintain inspections and repairs as needed.
- Earthwork and site grading - Maintain Silt Fencing and Ditch Checks.
- Building construction - Maintain Silt Fencing and Ditch Checks.
- Base course surfacing and asphalt surfacing construction.
- Site restoration/seeding.
- Erosion control removal and demobilization – Remove sediment from stormwater pond and finish grading.

Street sweeping/cleaning will be completed as needed throughout the construction project.

5.2 Erosion Control

The stipulated erosion control features planned will follow suitable DNR technical standards. Erosion control features will include silt fence where appropriate, disturbed soil seeding and mulching, erosion protection in areas with steep slopes, inlet protection, and ditch checks where appropriate prior to waters of the state. These BMPs will be put in place early in construction so that those disturbance activities will drain to and be controlled by these features. Dust control will be the responsibility of the contractor and enforced by the City of Glendale during the construction period.

The following is a list of erosion control and sediment control best management practices that are planned for this project:

- Silt fence per Wisconsin DNR Technical Standards will be used in all locations where overland flow from the construction site could potentially drain off site into waters of the state. The silt fence will be installed at the beginning of construction activities as a temporary BMP and maintained throughout the construction period. Silt fence will be removed once vegetation has been established.
- Straw bale ditch checks will be installed where appropriate prior to ditch discharge to waters of the state to filter and slow any runoff from the site. They will be installed before construction starts and removed once stabilization has been completed.
- Erosion Mat/Blanket will be placed at spot locations where the slope exceeds 4:1. This blanket like covering laid on top of a prepared seedbed is used to protect the soil and seed from erosion until vegetation is established.

5.3 Maintenance

The stormwater system will require periodic maintenance. Table 5.3 describes maintenance activities and frequency of the activities.

Maintenance Activities

Activity	Frequency
Litter Removal	As Needed
Inspect inlets, outlets, and plantings	Monthly
Engineer's site inspection of BMP's	Annually

The owner shall install the stormwater basin in accordance with plans approved by the City of Glendale. To ensure the proper function of the storm water management practices, the following activities must be completed:

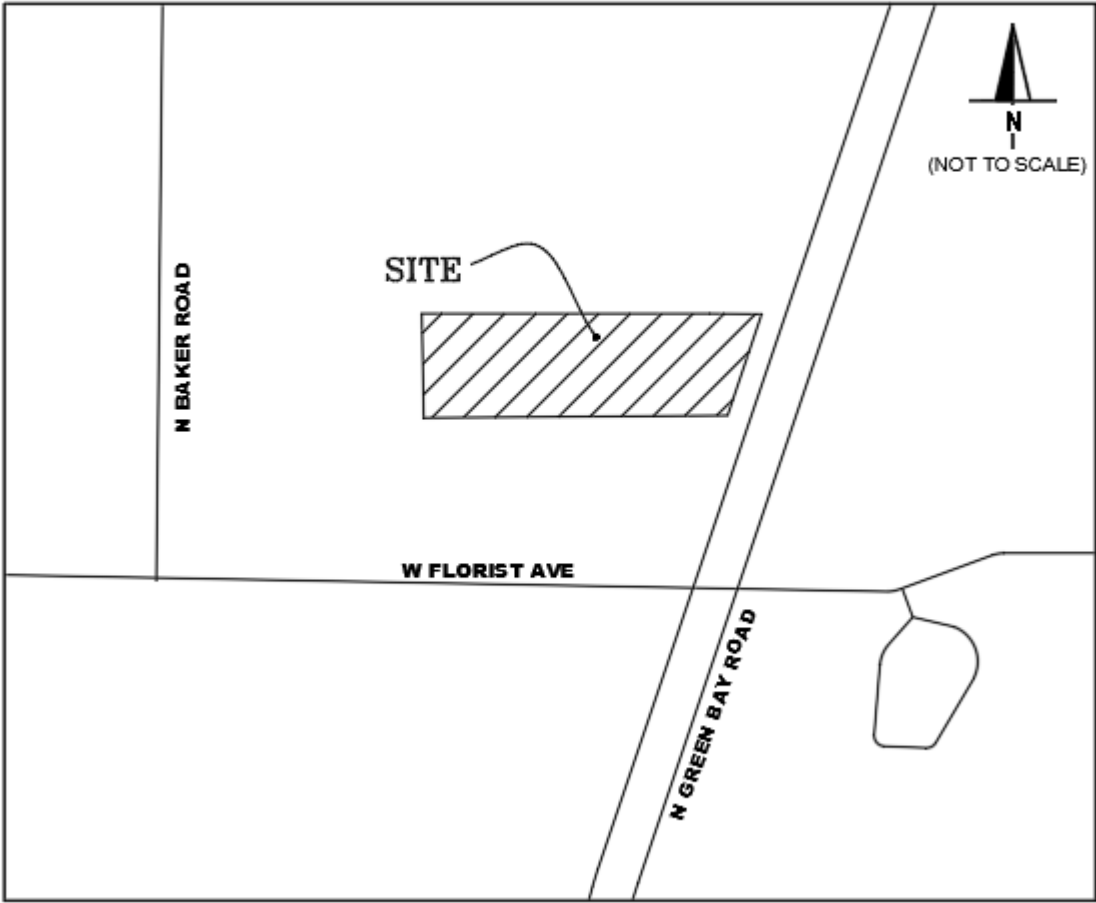
1. The stormwater basin shall have annual inspections done as well as checking for signs of erosion on the banks and bottom. Debris shall be removed from the stormwater basin to ensure maximum storage and the overflow weir is flowing freely and not blocked. Any areas where planted vegetation has died, should be replanted using plugs per the original construction plans. Cleaning shall consist of removal of sediment. Restoration of plant material shall be by plugging.
2. The storm structures leading to and from the stormwater pond area will be inspected and cleaned annually.
3. The Owner(s) or their designer shall maintain records of installation, inspections, cleaning and any other maintenance or replacement of the Stormwater Basin system all in accordance with the City of Glendale General Ordinances. Documentation shall include at a minimum:
 - i. Inspectors name, address and telephone number.
 - ii. Date of inspections.
 - iii. Condition report of the storm water management practice.
 - iv. Corrective actions to be taken and time from for completion.
 - v. Follow-up documentation after completion of the maintenance activities.

All documentation for the life of the system must be made available by the system owner to the City of Glendale Inspector should it be requested.

Appendix A

Site Map

LOCATION MAP



Appendix B

Site Photographs









Appendix C

Soils Information

Appendix D

Erosion Control Plans

1. CONSTRUCTION ENTRANCE SHALL BE LOCATED SO AS TO PROVIDE THE LEAST AMOUNT OF DISTURBANCE TO THE FLOW OF TRAFFIC IN AND OUT OF THE SITE. ADDITIONALLY, CONSTRUCTION ENTRANCE SHALL BE LOCATED TO COINCIDE WITH THE PHASING OF THE PAVEMENT REPLACEMENT.
2. TEMPORARY AND PERMANENT STABILIZATION PRACTICES AND BMP'S SHALL BE INSTALLED AT THE EARLIEST POSSIBLE TIME DURING THE CONSTRUCTION SEQUENCE. OTHER BMP'S SHALL BE INSTALLED AS SOON AS PRACTICABLE AND SHALL BE MAINTAINED UNTIL FINAL SITE STABILIZATION IS ATTAINED. CONTRACTOR SHALL ALSO REFERENCE CIVIL AND LANDSCAPE PLANS SINCE PERMANENT STABILIZATION IS PROVIDED BY LANDSCAPING, THE BUILDING(S) AND SITE PAVING.
3. BMP'S HAVE BEEN LOCATED AS INDICATED ON THIS PLAN IN ACCORDANCE WITH GENERALLY ACCEPTED ENGINEERING PRACTICES IN ORDER TO MINIMIZE SEDIMENT TRANSFER.

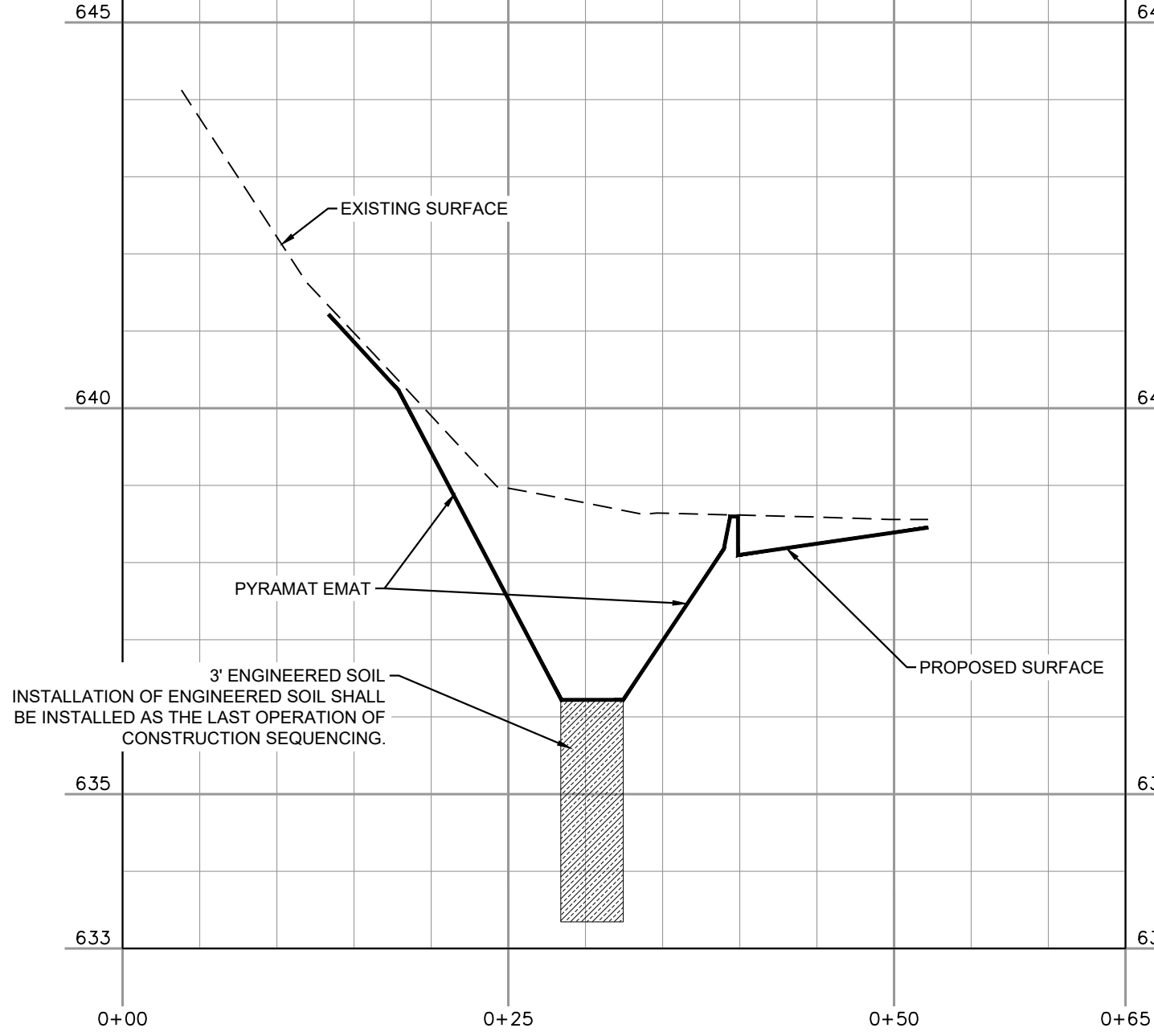
TEMPORARY EROSION CONTROL NOTES

1. THE PLACEMENT OF EROSION/SEDIMENTATION CONTROLS SHALL BE IN ACCORDANCE WITH THE APPROVED EROSION AND SEDIMENTATION CONTROL PLAN.
2. ANY MAJOR VARIATION IN MATERIALS OR LOCATIONS OF CONTROLS OF FENCES FROM THOSE SHOWN ON THE APPROVED PLANS WILL REQUIRE A REVISION AND MUST BE APPROVED BY THE REVIEWING ENGINEER, ENVIRONMENTAL SPECIALIST, OR ARBORIST AS APPROPRIATE. MAJOR REVISIONS MUST BE APPROVED BY THE PLANNING AND DEVELOPMENT DEPARTMENT AND THE DRAINAGE UTILITY DEPARTMENT. MINOR CHANGES OR ADDITIONAL CONTROL MEASURES TO BE MADE AS FIELD REVISORS TO THE EROSION AND SEDIMENTATION CONTROL PLAN MAY BE REQUIRED BY THE ENVIRONMENTAL INSPECTOR DURING THE COURSE OF CONSTRUCTION TO CORRECT CONTROL INADEQUACIES AT NO ADDITIONAL COST TO THE OWNER.
3. CONTRACTOR SHALL PLACE EROSION CONTROL BLANKET (DOUBLE NETTED LIGHT DUTY (WISDOT CLASS I) TYPE B) EROSION MATS OR APPROVED EQUAL) ON ALL SITE AREAS WITH SLOPES GREATER THAN 4:1, AND IN THE BOTTOM AND SIDE SLOPE OF ALL SWALES.
4. PRIOR TO THE FINAL ACCEPTANCE, HAUL ROADS AND WATERWAY CROSSINGS CONSTRUCTED FOR TEMPORARY CONTRACTOR ACCESS MUST BE REMOVED, ACCUMULATED SEDIMENT REMOVED FROM WATERWAY AND THE AREA RESTORED TO THE ORIGINAL GRADE AND REVEGETATED. ALL LAND CLEARING SHALL BE DISPOSED OF IN APPROVED SOIL DISPOSAL SITES.
5. PERMANENT EROSION CONTROL MEASURES SHALL BE INSTALLED PRIOR TO FINAL ACCEPTANCE.
6. ALL CONTROL DEVICES THAT FUNCTION SIMILARLY TO SILT FENCE OR FIBER ROLLS MUST BE REPAIRED, REPLACED OR SUPPLEMENTED WITH EFFECTIVE CONTROLS WHEN THEY BECOME NONFUNCTIONAL OR THE SEDIMENT REACHES ONE-THIRD THE HEIGHT OF THE DEVICE. THESE REPAIRS MUST BE MADE WITHIN 24 HOURS OF THE RAINFALL EVENT OR AS SOON AS FIELD CONDITIONS ALLOW ACCESS. TOPSOIL STOCKPILES MUST BE PROTECTED WITHIN 7 DAYS OF LAYUP AND STABILIZED WITHIN 30 DAYS OF LAYUP.
7. ACCUMULATIONS OF TRACKED AND DEPOSITED SEDIMENT MUST BE REMOVED FROM OFF-SITE PAVED SURFACES WITHIN 24 HOURS OR SOONER IF REQUIRED. SEDIMENT TRACKING MUST BE MINIMIZED BY THE APPROPRIATE MANAGEMENT PRACTICE. LIKE A DESIGNATED SITE EXIT WITH AN AGGREGATE SURFACE OR DESIGNATED OFFSITE PARKING AREA. CONTRACTOR IS RESPONSIBLE FOR STREET SWEEPING AND/OR SCRAPING IF YOUR PRACTICES ARE NOT ADEQUATE TO PREVENT SEDIMENT FROM BEING TRACKED FROM THE SITE.
8. SURFACE FIELDS, DRAINAGE DITCHES AND CONVEYANCE SYSTEMS MUST BE INSPECTED FOR SEDIMENT DEPOSITS.
9. THE CONTRACTOR SHALL INSTALL AND MAINTAIN ALL EROSION CONTROL MEASURES AS INDICATED ON THIS SHEET IN ACCORDANCE WITH THE STORMWATER POLLUTION PREVENTION PLAN (SWPPP). THE CONTRACTOR IS RESPONSIBLE FOR IMPLEMENTING THE PROVISIONS INDICATED IN THE SWPPP, INCLUDING EROSION CONTROL MEASURES AND INSPECTION FREQUENCY, AS REQUIRED BY THE WDRN NPDES PHASE II PERMIT PROGRAM REQUIREMENTS.
10. PUMPING SEDIMENT LADEN WATER INTO ANY STORMWATER FACILITY THAT IS NOT DESIGNATED TO BE A SEDIMENT TRAP, DRAINAGEWAY, OR OFFSITE AREA EITHER DIRECTLY OR INDIRECTLY WITHOUT FILTRATION IS PROHIBITED.
11. SOIL STOCKPILES SHALL NOT BE LOCATED IN A DRAINAGEWAY, FLOOD PLAIN AREA OR A DESIGNATED BUFFER, UNLESS OTHERWISE APPROVED, UNDER SPECIFIC CONDITIONS TO BE ESTABLISHED BY THE DIRECTOR OR ADMINISTRATOR.

	EXISTING CONTOUR
	PROPOSED CONTOUR
	SILT FENCE (OFFSET FOR PLAN CLARITY) (SEE EROSION CONTROL DETAILS)
	LIMITS OF DISTURBANCE (1.2+/- ACRES)
	CONSTRUCTION ENTRANCE (SEE EROSION CONTROL DETAILS)
	TEMPORARY EROSION CONTROL BLANKET (SEE TEMPORARY EROSION CONTROL NOTE 3)
	ENGINEERED SOIL (3' DEPTH) (PER DNR TECHNICAL STANDARD 1004)
	EROSION CONTROL BLANKET (PYRAMAT EXCEL PP5 PRO OR APPROVED EQUAL)
	CONCRETE WASHOUT (TO BE DETERMINED BY CONTRACTOR)
	STRAW WATTLES PER DNR TECH. STD
	STRAW WADDLE (PER DNR TECHNICAL STANDARD 1062)
	RIPRAP (REFERENCE SWALE DETAIL)

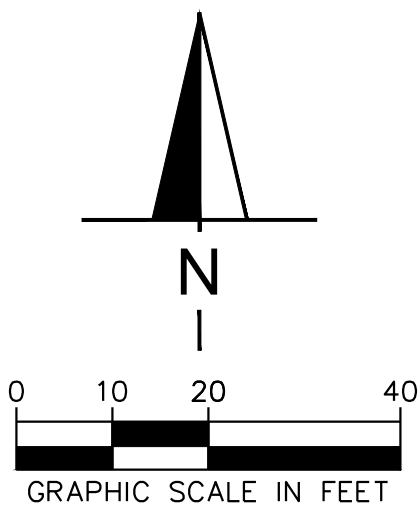
1. ALL TEMPORARY EROSION CONTROL MEASURES SHOWN ON THIS PLAN SHALL BE INSTALLED DURING CONSTRUCTION.
2. CONTRACTOR SHALL COMPLY WITH ALL CITY OF GLENDALE STORMWATER AND EROSION CONTROL PERMIT REQUIREMENTS DURING CONSTRUCTION.

1. ALL TEMPORARY EROSION CONTROL MEASURES SHOWN ON THIS PLAN SHALL BE INSTALLED DURING CONSTRUCTION.
2. CONTRACTOR SHALL COMPLY WITH ALL CITY OF GLENDALE STORMWATER AND EROSION CONTROL PERMIT REQUIREMENTS DURING CONSTRUCTION.
3. SEE LANDSCAPE PLAN FOR PERMANENT SITE STABILIZATION. AS PARTS OF THE SITE GRADING ARE COMPLETE, THE PERMANENT STABILIZATION (SEE LANDSCAPE PLAN) SHALL BE INSTALLED.



DESCRIBED BELOW ARE THE MAJOR CONSTRUCTION ACTIVITIES THAT ARE THE SUBJECT OF THIS PLAN. THEY ARE PRESENTED IN THE ORDER (OR SEQUENCE) THEY ARE EXPECTED TO BEGIN, BUT EACH ACTIVITY WILL NOT NECESSARILY BE COMPLETED BEFORE THE NEXT BEGINS. ALSO, THESE ACTIVITIES COULD OCCUR IN A DIFFERENT ORDER IF NECESSARY TO MAINTAIN ADEQUATE EROSION AND SEDIMENTATION CONTROL:

- A. (AT START OF CONSTRUCTION) CONSTRUCT ROCK PADS FOR CONSTRUCTION ENTRANCE/EXIT. THIS WILL BE THE FIRST CONSTRUCTION WORK ON THE PROJECT. (ASSUMED JULY START CONSTRUCTION)
- B. (AT START OF CONSTRUCTION) INSTALL SEDIMENT BARRIERS DOWN SLOPE FROM CONSTRUCTION ACTIVITIES TO PREVENT EROSION AND SILT FROM CONSTRUCTION TEMPORARY SEDIMENT BASIN.
- C. (JULY - AUGUST) CLEAR AND GRUB IMPROVEMENT AREAS. SEDIMENT BARRIERS WILL ALREADY BE IN PLACE DOWN SLOPE.
- D. (JULY - AUGUST) REMOVE AND STOCKPILE AVAILABLE TOPSOIL FOR LATER USE. INSTALL PROPER EROSION CONTROL MEASURES AND SEEDING FOR STOCKPILED AREA.
- E. (AUGUST) EXCAVATION AND EMBANKMENT TO FORM STORMWATER PONDS AND DRAINAGE CHANNELS.
- F. (SEPTEMBER) EXCAVATION AND EMBANKMENT TO FORM THE BUILDING PAD AND PAVEMENT AREAS.
- G. (OCTOBER) FINAL GRADING - SEDIMENT BARRIERS WILL BE MAINTAINED DOWN SLOPE FROM DISTURBED SOILS TO PREVENT EROSION AND SILT FROM CONSTRUCTION TEMPORARY SEDIMENT BASIN.
- H. (SPRING 2026) RESTORE NON-VEGETATED AREAS AND COMPLETION OF ON-SITE STABILIZATION.



Appendix E

Drainage Plan

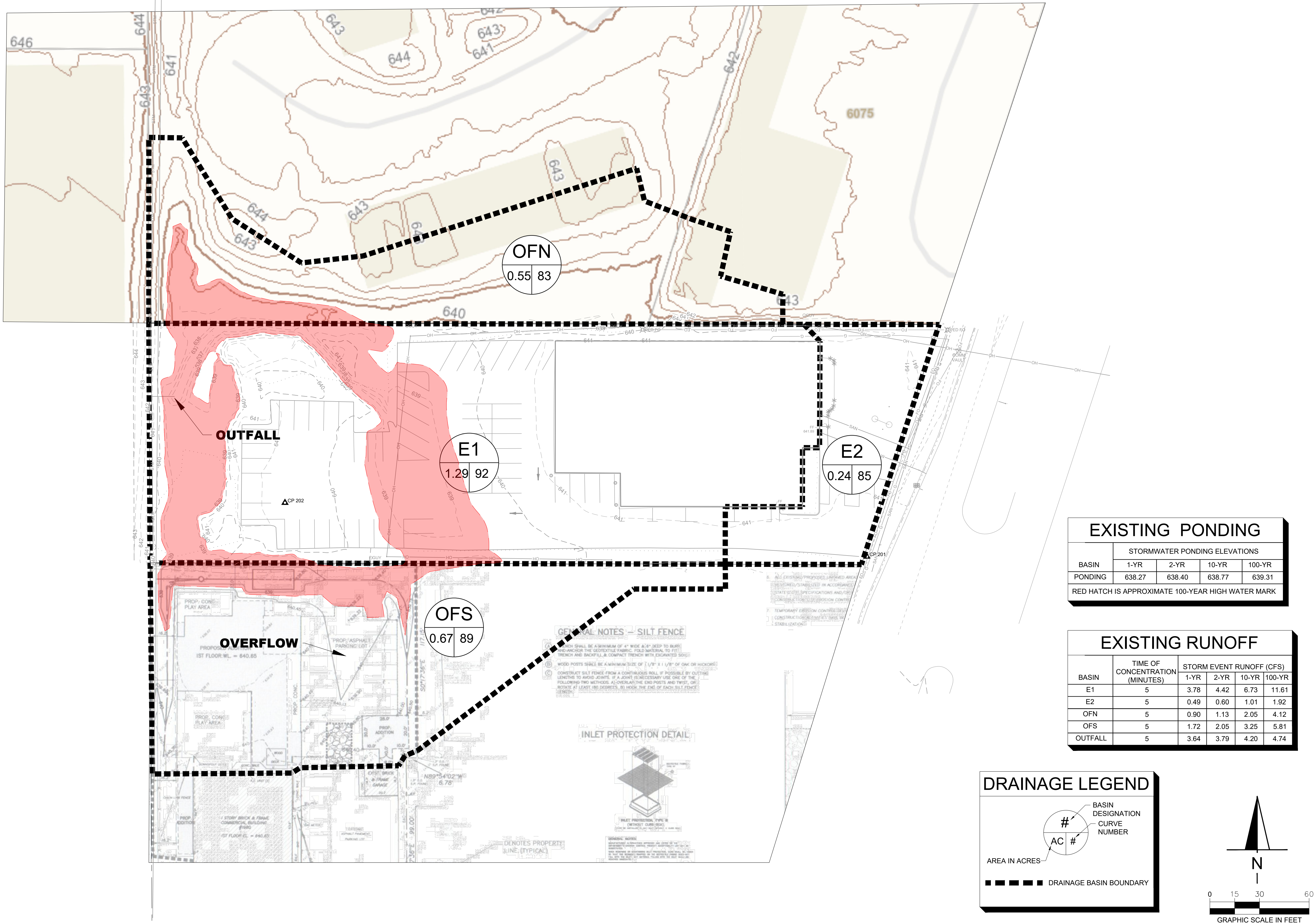
Appendix F

Drainage Calculations

**6045 N. GREEN BAY ROAD
GLENDALE, WI 53209**

Drawn By:	AJJ
Checked By:	SEM
Date:	6/18/2025
Project No.	24-0424
Sheet Number	

C5.1



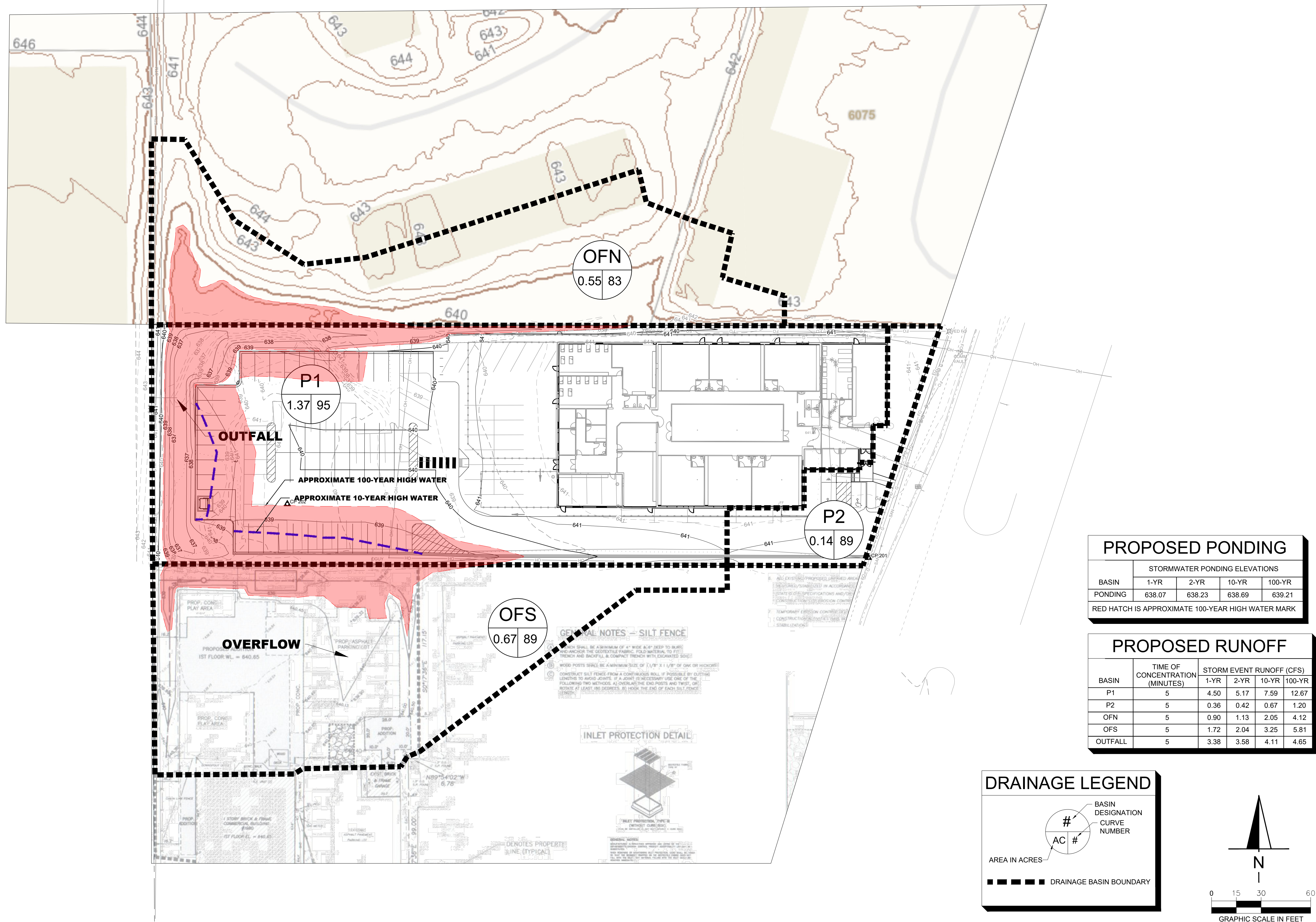
GLENDALE DAY CARE

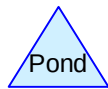
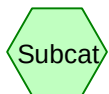
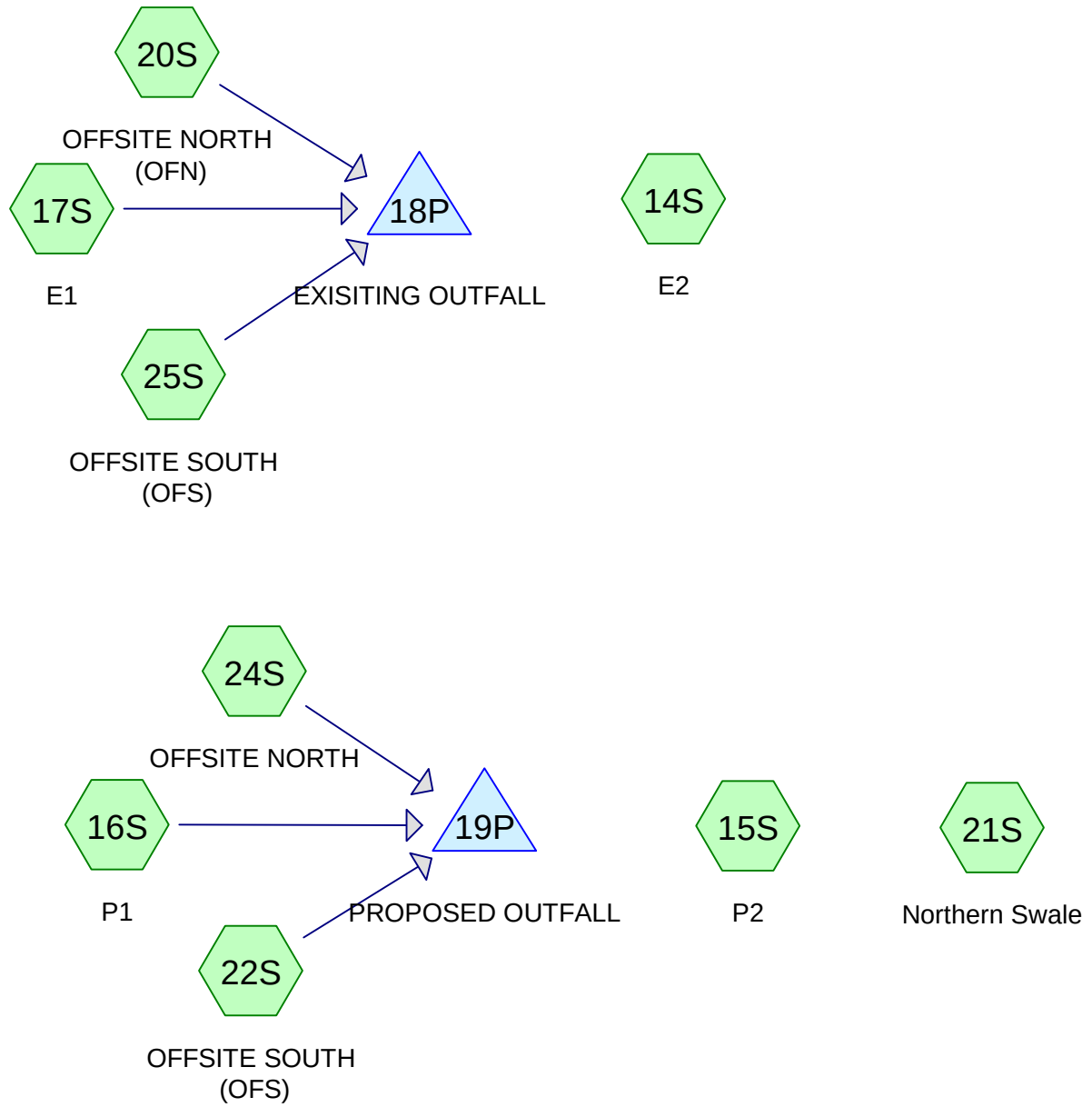
45 N. GREEN BAY ROAD
GLENDALE, WI 53209

PROPOSED DRAINAGE PLAN

Drawn By:	AJJ
Checked By:	SEM
Date:	6/18/2025
Project No.	24-0424
Sheet Number	

C5.2





Routing Diagram for Glendale Daycare_REV1
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Glendale Daycare_REV1

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Rainfall Events Listing

Event#	Event Name	Storm Type	Curve	Mode	Duration (hours)	B/B	Depth (inches)	AMC
1	1-year	MSE 24-hr	3	Default	24.00	1	2.34	2
2	2-Year	MSE 24-hr	3	Default	24.00	1	2.64	2
3	10-Year	MSE 24-hr	3	Default	24.00	1	3.73	2
4	100-Year	MSE 24-hr	3	Default	24.00	1	6.06	2

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Area Listing (all nodes)

Area (acres)	CN	Description (subcatchment-numbers)
2.525	79	50-75% Grass cover, Fair, HSG C (14S, 15S, 16S, 17S, 20S, 21S, 22S, 24S, 25S)
1.811	98	Paved parking, HSG C (14S, 15S, 16S, 17S, 22S, 25S)
0.484	98	Roof (21S)
1.279	98	Unconnected roofs, HSG C (16S, 17S, 20S, 22S, 24S, 25S)
6.100	90	TOTAL AREA

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Soil Listing (all nodes)

Area (acres)	Soil Group	Subcatchment Numbers
0.000	HSG A	
0.000	HSG B	
5.615	HSG C	14S, 15S, 16S, 17S, 20S, 21S, 22S, 24S, 25S
0.000	HSG D	
0.484	Other	21S
6.100		TOTAL AREA

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Ground Covers (all nodes)

HSG-A (acres)	HSG-B (acres)	HSG-C (acres)	HSG-D (acres)	Other (acres)	Total (acres)	Ground Cover	Subcatchment Numbers
0.000	0.000	2.525	0.000	0.000	2.525	50-75% Grass cover, Fair	14S, 15S, 16S, 17S, 20S, 21S, 22S, 24S, 25S
0.000	0.000	1.811	0.000	0.000	1.811	Paved parking	14S, 15S, 16S, 17S, 22S, 25S
0.000	0.000	0.000	0.000	0.484	0.484	Roof	21S
0.000	0.000	1.279	0.000	0.000	1.279	Unconnected roofs	16S, 17S, 20S, 22S, 24S, 25S
0.000	0.000	5.615	0.000	0.484	6.100	TOTAL AREA	

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Pipe Listing (all nodes)

Line#	Node Number	In-Invert (feet)	Out-Invert (feet)	Length (feet)	Slope (ft/ft)	n	Diam/Width (inches)	Height (inches)	Inside-Fill (inches)
1	18P	636.29	636.00	14.0	0.0207	0.025	12.0	0.0	0.0
2	19P	636.29	636.00	14.0	0.0207	0.025	12.0	0.0	0.0

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MSE 24-hr 3 1-year Rainfall=2.34"

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Time span=0.00-20.00 hrs, dt=0.01 hrs, 2001 points
 Runoff by SCS TR-20 method, UH=SCS, Weighted-CN
 Reach routing by Stor-Ind+Trans method - Pond routing by Stor-Ind method

Subcatchment 14S: E2	Runoff Area=10,320 sf 31.16% Impervious Runoff Depth>1.00" Tc=5.0 min CN=85 Runoff=0.49 cfs 0.020 af
Subcatchment 15S: P2	Runoff Area=6,079 sf 53.04% Impervious Runoff Depth>1.26" Tc=5.0 min CN=89 Runoff=0.36 cfs 0.015 af
Subcatchment 16S: P1	Runoff Area=59,729 sf 82.69% Impervious Runoff Depth>1.75" Tc=5.0 min CN=95 Runoff=4.50 cfs 0.200 af
Subcatchment 17S: E1	Runoff Area=56,330 sf 66.71% Impervious Runoff Depth>1.49" Tc=5.0 min CN=92 Runoff=3.78 cfs 0.160 af
Subcatchment 20S: OFFSITE NORTH (OFN)	Runoff Area=24,030 sf 19.50% Impervious Runoff Depth>0.79" Tc=5.0 min UI Adjusted CN=81 Runoff=0.90 cfs 0.036 af
Subcatchment 21S: Northern Swale	Runoff Area=26,513 sf 79.55% Impervious Runoff Depth>1.66" Tc=5.0 min CN=94 Runoff=1.93 cfs 0.084 af
Subcatchment 22S: OFFSITE SOUTH (OFS)	Runoff Area=29,333 sf 54.24% Impervious Runoff Depth>1.26" Tc=5.0 min CN=89 Runoff=1.72 cfs 0.071 af
Subcatchment 24S: OFFSITE NORTH	Runoff Area=24,030 sf 19.50% Impervious Runoff Depth>0.79" Tc=5.0 min UI Adjusted CN=81 Runoff=0.90 cfs 0.036 af
Subcatchment 25S: OFFSITE SOUTH (OFS)	Runoff Area=29,333 sf 54.24% Impervious Runoff Depth>1.26" Tc=5.0 min CN=89 Runoff=1.72 cfs 0.071 af
Pond 18P: EXISTING OUTFALL	Peak Elev=638.27' Storage=1,477 cf Inflow=6.39 cfs 0.267 af 12.0" Round Culvert n=0.025 L=14.0' S=0.0207 ' Outflow=3.64 cfs 0.267 af
Pond 19P: PROPOSED OUTFALL	Peak Elev=638.07' Storage=3,008 cf Inflow=7.11 cfs 0.307 af Outflow=3.38 cfs 0.285 af

Total Runoff Area = 6.100 ac Runoff Volume = 0.693 af Average Runoff Depth = 1.36"
41.40% Pervious = 2.525 ac 58.60% Impervious = 3.574 ac

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MSE 24-hr 3 1-year Rainfall=2.34"

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Summary for Subcatchment 14S: E2

Runoff = 0.49 cfs @ 12.13 hrs, Volume= 0.020 af, Depth> 1.00"

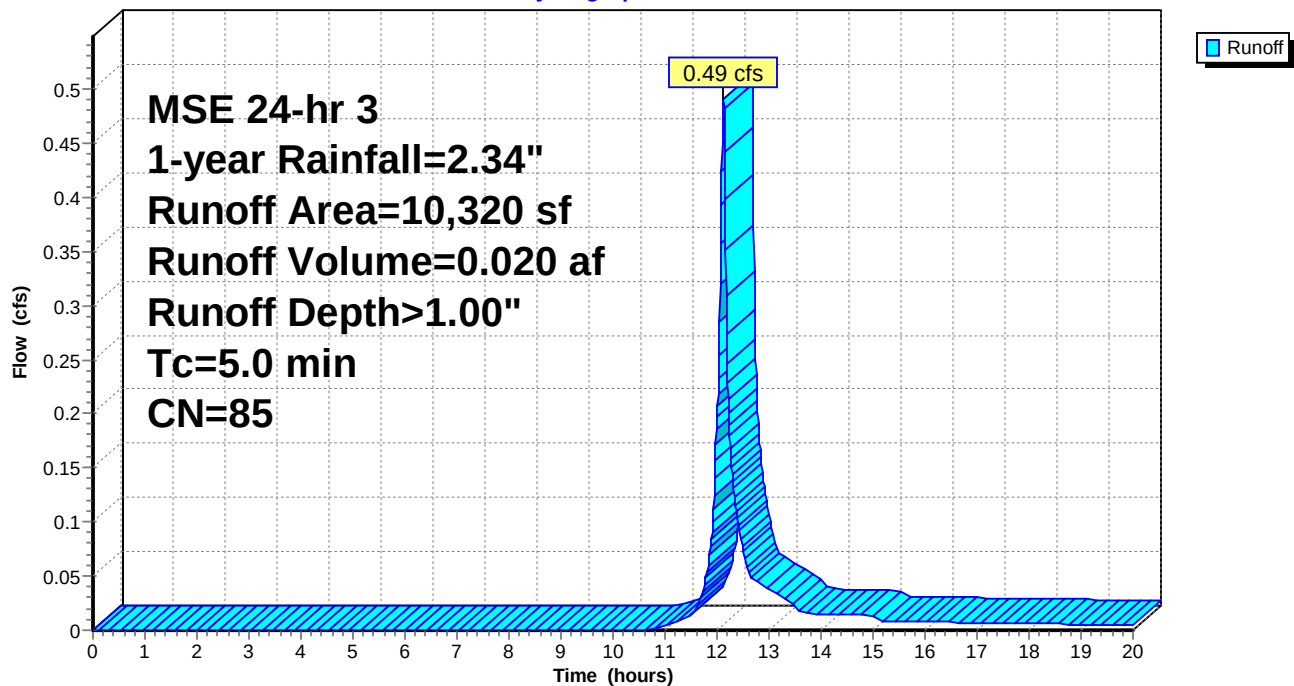
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-20.00 hrs, dt= 0.01 hrs
MSE 24-hr 3 1-year Rainfall=2.34"

Area (sf)	CN	Description
7,104	79	50-75% Grass cover, Fair, HSG C
3,216	98	Paved parking, HSG C
10,320	85	Weighted Average
7,104		68.84% Pervious Area
3,216		31.16% Impervious Area

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

Subcatchment 14S: E2

Hydrograph



Glendale Daycare REV1

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MSE 24-hr 3 1-year Rainfall=2.34"

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Hydrograph for Subcatchment 14S: E2

Time (hours)	Precip. (inches)	Excess (inches)	Runoff (cfs)	Time (hours)	Precip. (inches)	Excess (inches)	Runoff (cfs)
0.00	0.00	0.00	0.00	10.80	0.41	0.00	0.00
0.20	0.00	0.00	0.00	11.00	0.45	0.01	0.00
0.40	0.00	0.00	0.00	11.20	0.50	0.01	0.01
0.60	0.00	0.00	0.00	11.40	0.55	0.02	0.01
0.80	0.01	0.00	0.00	11.60	0.62	0.04	0.02
1.00	0.01	0.00	0.00	11.80	0.76	0.08	0.05
1.20	0.01	0.00	0.00	12.00	1.08	0.21	0.20
1.40	0.01	0.00	0.00	12.20	1.58	0.50	0.25
1.60	0.02	0.00	0.00	12.40	1.72	0.59	0.10
1.80	0.02	0.00	0.00	12.60	1.79	0.64	0.05
2.00	0.02	0.00	0.00	12.80	1.84	0.68	0.04
2.20	0.02	0.00	0.00	13.00	1.89	0.71	0.04
2.40	0.03	0.00	0.00	13.20	1.93	0.74	0.03
2.60	0.03	0.00	0.00	13.40	1.96	0.77	0.03
2.80	0.03	0.00	0.00	13.60	1.98	0.78	0.02
3.00	0.04	0.00	0.00	13.80	2.00	0.80	0.02
3.20	0.04	0.00	0.00	14.00	2.02	0.81	0.02
3.40	0.05	0.00	0.00	14.20	2.04	0.82	0.01
3.60	0.05	0.00	0.00	14.40	2.05	0.83	0.01
3.80	0.06	0.00	0.00	14.60	2.07	0.85	0.01
4.00	0.06	0.00	0.00	14.80	2.08	0.86	0.01
4.20	0.07	0.00	0.00	15.00	2.10	0.87	0.01
4.40	0.07	0.00	0.00	15.20	2.11	0.88	0.01
4.60	0.08	0.00	0.00	15.40	2.12	0.88	0.01
4.80	0.08	0.00	0.00	15.60	2.13	0.89	0.01
5.00	0.09	0.00	0.00	15.80	2.14	0.90	0.01
5.20	0.09	0.00	0.00	16.00	2.14	0.90	0.01
5.40	0.10	0.00	0.00	16.20	2.15	0.91	0.01
5.60	0.11	0.00	0.00	16.40	2.16	0.91	0.01
5.80	0.11	0.00	0.00	16.60	2.17	0.92	0.01
6.00	0.12	0.00	0.00	16.80	2.18	0.93	0.01
6.20	0.13	0.00	0.00	17.00	2.18	0.93	0.01
6.40	0.13	0.00	0.00	17.20	2.19	0.94	0.01
6.60	0.14	0.00	0.00	17.40	2.20	0.94	0.01
6.80	0.15	0.00	0.00	17.60	2.21	0.95	0.01
7.00	0.16	0.00	0.00	17.80	2.21	0.96	0.01
7.20	0.16	0.00	0.00	18.00	2.22	0.96	0.01
7.40	0.17	0.00	0.00	18.20	2.23	0.97	0.01
7.60	0.18	0.00	0.00	18.40	2.23	0.97	0.01
7.80	0.19	0.00	0.00	18.60	2.24	0.98	0.01
8.00	0.20	0.00	0.00	18.80	2.25	0.98	0.01
8.20	0.20	0.00	0.00	19.00	2.25	0.98	0.01
8.40	0.21	0.00	0.00	19.20	2.26	0.99	0.01
8.60	0.22	0.00	0.00	19.40	2.26	0.99	0.01
8.80	0.23	0.00	0.00	19.60	2.27	1.00	0.00
9.00	0.24	0.00	0.00	19.80	2.27	1.00	0.00
9.20	0.26	0.00	0.00	20.00	2.28	1.01	0.00
9.40	0.27	0.00	0.00				
9.60	0.29	0.00	0.00				
9.80	0.30	0.00	0.00				
10.00	0.32	0.00	0.00				
10.20	0.34	0.00	0.00				
10.40	0.36	0.00	0.00				
10.60	0.38	0.00	0.00				

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MSE 24-hr 3 1-year Rainfall=2.34"

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Summary for Subcatchment 15S: P2

Runoff = 0.36 cfs @ 12.13 hrs, Volume= 0.015 af, Depth> 1.26"

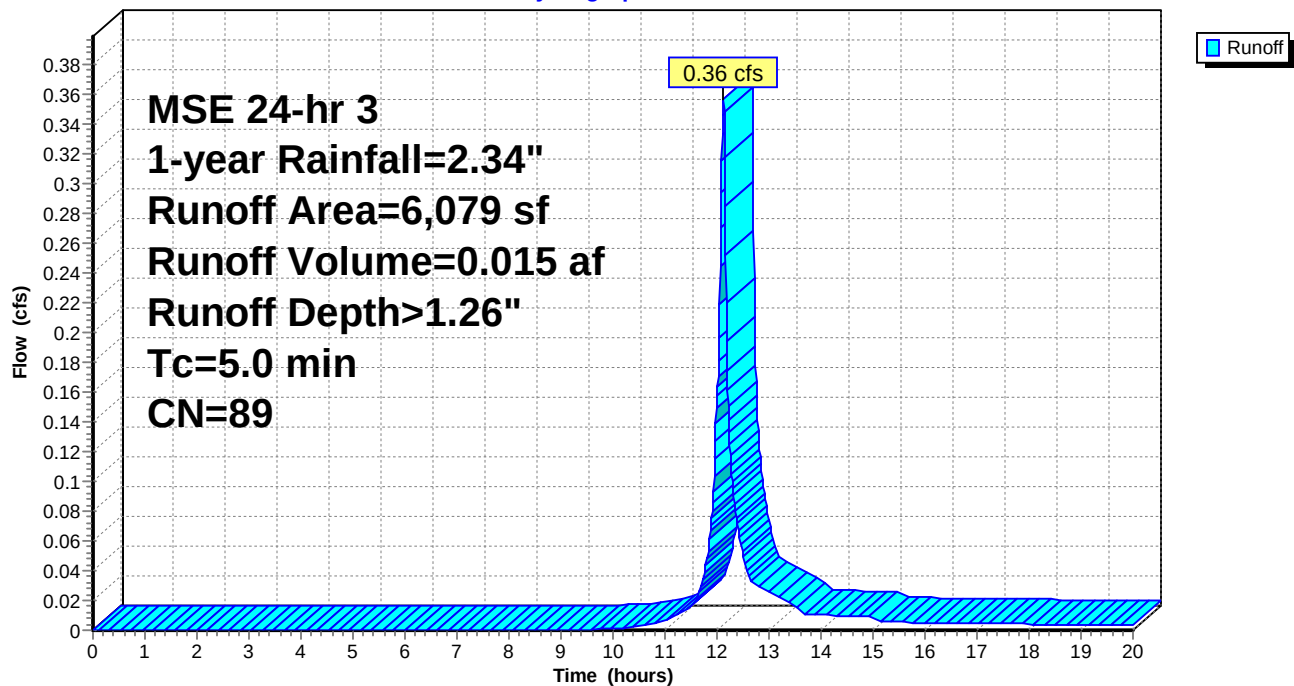
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-20.00 hrs, dt= 0.01 hrs
MSE 24-hr 3 1-year Rainfall=2.34"

Area (sf)	CN	Description
2,855	79	50-75% Grass cover, Fair, HSG C
3,224	98	Paved parking, HSG C
6,079	89	Weighted Average
2,855		46.96% Pervious Area
3,224		53.04% Impervious Area

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

Subcatchment 15S: P2

Hydrograph



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MSE 24-hr 3 1-year Rainfall=2.34"

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Hydrograph for Subcatchment 15S: P2

Time (hours)	Precip. (inches)	Excess (inches)	Runoff (cfs)	Time (hours)	Precip. (inches)	Excess (inches)	Runoff (cfs)
0.00	0.00	0.00	0.00	10.80	0.41	0.02	0.00
0.20	0.00	0.00	0.00	11.00	0.45	0.03	0.01
0.40	0.00	0.00	0.00	11.20	0.50	0.04	0.01
0.60	0.00	0.00	0.00	11.40	0.55	0.06	0.01
0.80	0.01	0.00	0.00	11.60	0.62	0.09	0.02
1.00	0.01	0.00	0.00	11.80	0.76	0.15	0.05
1.20	0.01	0.00	0.00	12.00	1.08	0.34	0.16
1.40	0.01	0.00	0.00	12.20	1.58	0.69	0.17
1.60	0.02	0.00	0.00	12.40	1.72	0.80	0.07
1.80	0.02	0.00	0.00	12.60	1.79	0.86	0.04
2.00	0.02	0.00	0.00	12.80	1.84	0.90	0.03
2.20	0.02	0.00	0.00	13.00	1.89	0.94	0.03
2.40	0.03	0.00	0.00	13.20	1.93	0.97	0.02
2.60	0.03	0.00	0.00	13.40	1.96	1.00	0.02
2.80	0.03	0.00	0.00	13.60	1.98	1.01	0.01
3.00	0.04	0.00	0.00	13.80	2.00	1.03	0.01
3.20	0.04	0.00	0.00	14.00	2.02	1.04	0.01
3.40	0.05	0.00	0.00	14.20	2.04	1.06	0.01
3.60	0.05	0.00	0.00	14.40	2.05	1.07	0.01
3.80	0.06	0.00	0.00	14.60	2.07	1.08	0.01
4.00	0.06	0.00	0.00	14.80	2.08	1.10	0.01
4.20	0.07	0.00	0.00	15.00	2.10	1.11	0.01
4.40	0.07	0.00	0.00	15.20	2.11	1.12	0.01
4.60	0.08	0.00	0.00	15.40	2.12	1.13	0.01
4.80	0.08	0.00	0.00	15.60	2.13	1.13	0.01
5.00	0.09	0.00	0.00	15.80	2.14	1.14	0.01
5.20	0.09	0.00	0.00	16.00	2.14	1.15	0.01
5.40	0.10	0.00	0.00	16.20	2.15	1.16	0.01
5.60	0.11	0.00	0.00	16.40	2.16	1.16	0.00
5.80	0.11	0.00	0.00	16.60	2.17	1.17	0.00
6.00	0.12	0.00	0.00	16.80	2.18	1.18	0.00
6.20	0.13	0.00	0.00	17.00	2.18	1.18	0.00
6.40	0.13	0.00	0.00	17.20	2.19	1.19	0.00
6.60	0.14	0.00	0.00	17.40	2.20	1.20	0.00
6.80	0.15	0.00	0.00	17.60	2.21	1.20	0.00
7.00	0.16	0.00	0.00	17.80	2.21	1.21	0.00
7.20	0.16	0.00	0.00	18.00	2.22	1.21	0.00
7.40	0.17	0.00	0.00	18.20	2.23	1.22	0.00
7.60	0.18	0.00	0.00	18.40	2.23	1.22	0.00
7.80	0.19	0.00	0.00	18.60	2.24	1.23	0.00
8.00	0.20	0.00	0.00	18.80	2.25	1.24	0.00
8.20	0.20	0.00	0.00	19.00	2.25	1.24	0.00
8.40	0.21	0.00	0.00	19.20	2.26	1.25	0.00
8.60	0.22	0.00	0.00	19.40	2.26	1.25	0.00
8.80	0.23	0.00	0.00	19.60	2.27	1.25	0.00
9.00	0.24	0.00	0.00	19.80	2.27	1.26	0.00
9.20	0.26	0.00	0.00	20.00	2.28	1.26	0.00
9.40	0.27	0.00	0.00				
9.60	0.29	0.00	0.00				
9.80	0.30	0.00	0.00				
10.00	0.32	0.00	0.00				
10.20	0.34	0.01	0.00				
10.40	0.36	0.01	0.00				
10.60	0.38	0.01	0.00				

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MSE 24-hr 3 1-year Rainfall=2.34"

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Summary for Subcatchment 16S: P1

Runoff = 4.50 cfs @ 12.12 hrs, Volume= 0.200 af, Depth> 1.75"

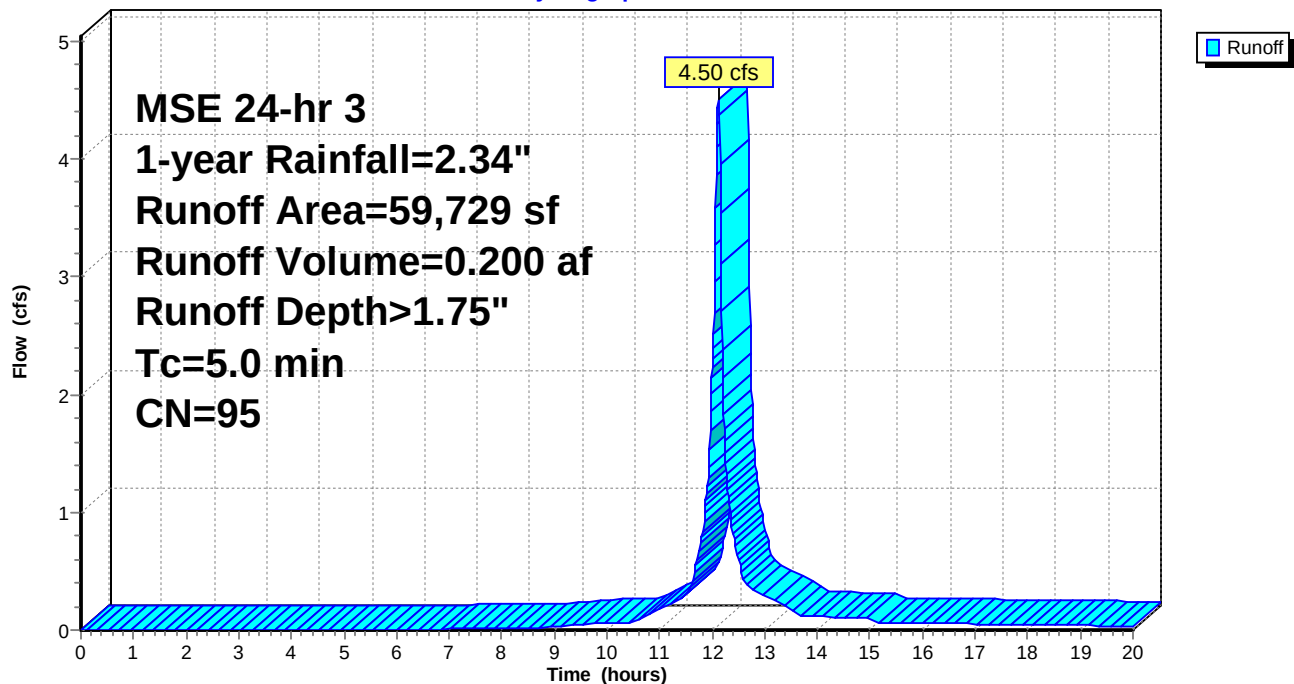
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-20.00 hrs, dt= 0.01 hrs
MSE 24-hr 3 1-year Rainfall=2.34"

Area (sf)	CN	Description
10,339	79	50-75% Grass cover, Fair, HSG C
30,849	98	Paved parking, HSG C
18,541	98	Unconnected roofs, HSG C
59,729	95	Weighted Average
10,339		17.31% Pervious Area
49,390		82.69% Impervious Area
18,541		37.54% Unconnected

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

Subcatchment 16S: P1

Hydrograph



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MSE 24-hr 3 1-year Rainfall=2.34"

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Hydrograph for Subcatchment 16S: P1

Time (hours)	Precip. (inches)	Excess (inches)	Runoff (cfs)	Time (hours)	Precip. (inches)	Excess (inches)	Runoff (cfs)
0.00	0.00	0.00	0.00	10.80	0.41	0.11	0.14
0.20	0.00	0.00	0.00	11.00	0.45	0.14	0.17
0.40	0.00	0.00	0.00	11.20	0.50	0.17	0.22
0.60	0.00	0.00	0.00	11.40	0.55	0.20	0.26
0.80	0.01	0.00	0.00	11.60	0.62	0.26	0.40
1.00	0.01	0.00	0.00	11.80	0.76	0.36	0.80
1.20	0.01	0.00	0.00	12.00	1.08	0.64	2.23
1.40	0.01	0.00	0.00	12.20	1.58	1.09	2.14
1.60	0.02	0.00	0.00	12.40	1.72	1.21	0.80
1.80	0.02	0.00	0.00	12.60	1.79	1.28	0.42
2.00	0.02	0.00	0.00	12.80	1.84	1.33	0.34
2.20	0.02	0.00	0.00	13.00	1.89	1.38	0.30
2.40	0.03	0.00	0.00	13.20	1.93	1.41	0.25
2.60	0.03	0.00	0.00	13.40	1.96	1.45	0.21
2.80	0.03	0.00	0.00	13.60	1.98	1.47	0.13
3.00	0.04	0.00	0.00	13.80	2.00	1.48	0.12
3.20	0.04	0.00	0.00	14.00	2.02	1.50	0.11
3.40	0.05	0.00	0.00	14.20	2.04	1.52	0.11
3.60	0.05	0.00	0.00	14.40	2.05	1.53	0.11
3.80	0.06	0.00	0.00	14.60	2.07	1.55	0.11
4.00	0.06	0.00	0.00	14.80	2.08	1.56	0.10
4.20	0.07	0.00	0.00	15.00	2.10	1.58	0.10
4.40	0.07	0.00	0.00	15.20	2.11	1.59	0.06
4.60	0.08	0.00	0.00	15.40	2.12	1.60	0.06
4.80	0.08	0.00	0.00	15.60	2.13	1.60	0.06
5.00	0.09	0.00	0.00	15.80	2.14	1.61	0.06
5.20	0.09	0.00	0.00	16.00	2.14	1.62	0.06
5.40	0.10	0.00	0.00	16.20	2.15	1.63	0.06
5.60	0.11	0.00	0.00	16.40	2.16	1.64	0.05
5.80	0.11	0.00	0.00	16.60	2.17	1.64	0.05
6.00	0.12	0.00	0.00	16.80	2.18	1.65	0.05
6.20	0.13	0.00	0.00	17.00	2.18	1.66	0.05
6.40	0.13	0.00	0.00	17.20	2.19	1.67	0.05
6.60	0.14	0.00	0.01	17.40	2.20	1.67	0.05
6.80	0.15	0.00	0.01	17.60	2.21	1.68	0.05
7.00	0.16	0.00	0.01	17.80	2.21	1.69	0.05
7.20	0.16	0.01	0.01	18.00	2.22	1.69	0.05
7.40	0.17	0.01	0.01	18.20	2.23	1.70	0.04
7.60	0.18	0.01	0.01	18.40	2.23	1.71	0.04
7.80	0.19	0.01	0.01	18.60	2.24	1.71	0.04
8.00	0.20	0.01	0.02	18.80	2.25	1.72	0.04
8.20	0.20	0.02	0.02	19.00	2.25	1.72	0.04
8.40	0.21	0.02	0.02	19.20	2.26	1.73	0.04
8.60	0.22	0.02	0.02	19.40	2.26	1.74	0.04
8.80	0.23	0.02	0.02	19.60	2.27	1.74	0.04
9.00	0.24	0.03	0.02	19.80	2.27	1.75	0.03
9.20	0.26	0.03	0.04	20.00	2.28	1.75	0.03
9.40	0.27	0.04	0.04				
9.60	0.29	0.05	0.05				
9.80	0.30	0.05	0.05				
10.00	0.32	0.06	0.06				
10.20	0.34	0.07	0.06				
10.40	0.36	0.08	0.07				
10.60	0.38	0.09	0.10				

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MSE 24-hr 3 1-year Rainfall=2.34"

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Summary for Subcatchment 17S: E1

Runoff = 3.78 cfs @ 12.12 hrs, Volume= 0.160 af, Depth> 1.49"

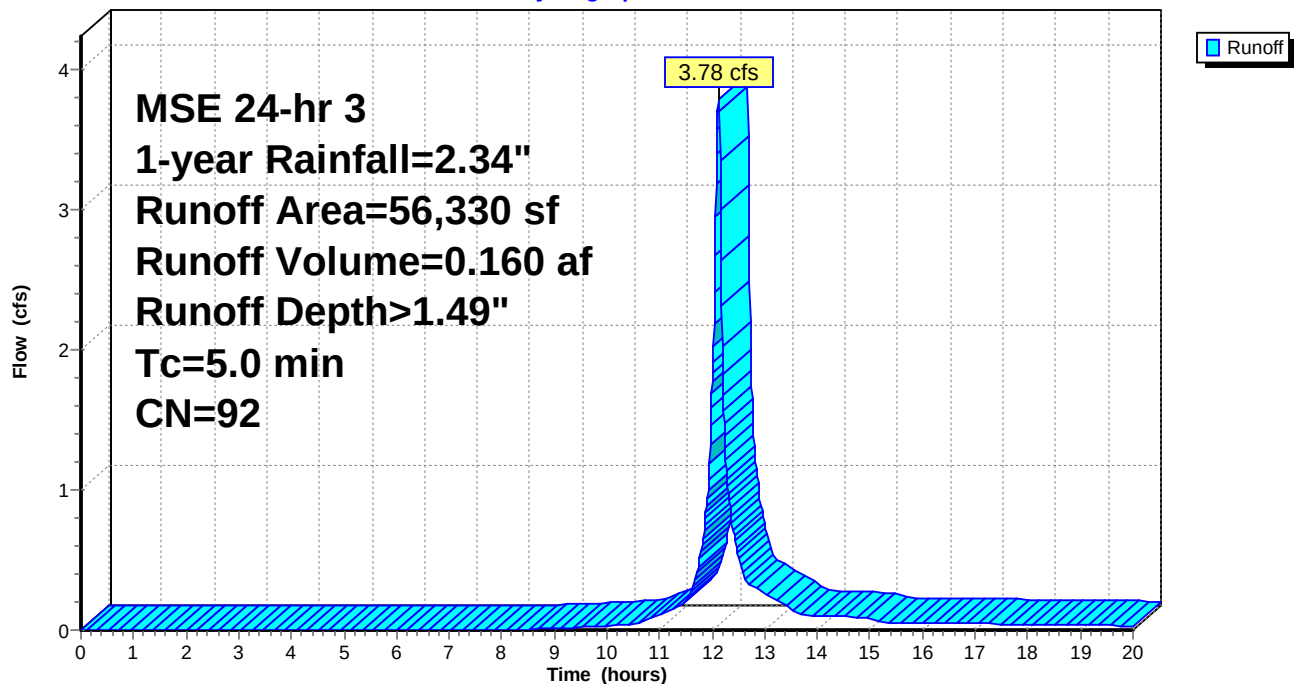
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-20.00 hrs, dt= 0.01 hrs
MSE 24-hr 3 1-year Rainfall=2.34"

Area (sf)	CN	Description
18,753	79	50-75% Grass cover, Fair, HSG C
22,758	98	Paved parking, HSG C
14,819	98	Unconnected roofs, HSG C
56,330	92	Weighted Average
18,753		33.29% Pervious Area
37,577		66.71% Impervious Area
14,819		39.44% Unconnected

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

Subcatchment 17S: E1

Hydrograph



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MSE 24-hr 3 1-year Rainfall=2.34"

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Hydrograph for Subcatchment 17S: E1

Time (hours)	Precip. (inches)	Excess (inches)	Runoff (cfs)	Time (hours)	Precip. (inches)	Excess (inches)	Runoff (cfs)
0.00	0.00	0.00	0.00	10.80	0.41	0.05	0.08
0.20	0.00	0.00	0.00	11.00	0.45	0.07	0.11
0.40	0.00	0.00	0.00	11.20	0.50	0.09	0.14
0.60	0.00	0.00	0.00	11.40	0.55	0.11	0.18
0.80	0.01	0.00	0.00	11.60	0.62	0.15	0.28
1.00	0.01	0.00	0.00	11.80	0.76	0.24	0.59
1.20	0.01	0.00	0.00	12.00	1.08	0.46	1.78
1.40	0.01	0.00	0.00	12.20	1.58	0.87	1.82
1.60	0.02	0.00	0.00	12.40	1.72	0.99	0.70
1.80	0.02	0.00	0.00	12.60	1.79	1.05	0.37
2.00	0.02	0.00	0.00	12.80	1.84	1.10	0.30
2.20	0.02	0.00	0.00	13.00	1.89	1.14	0.26
2.40	0.03	0.00	0.00	13.20	1.93	1.17	0.22
2.60	0.03	0.00	0.00	13.40	1.96	1.20	0.18
2.80	0.03	0.00	0.00	13.60	1.98	1.22	0.12
3.00	0.04	0.00	0.00	13.80	2.00	1.24	0.10
3.20	0.04	0.00	0.00	14.00	2.02	1.25	0.10
3.40	0.05	0.00	0.00	14.20	2.04	1.27	0.10
3.60	0.05	0.00	0.00	14.40	2.05	1.28	0.10
3.80	0.06	0.00	0.00	14.60	2.07	1.30	0.09
4.00	0.06	0.00	0.00	14.80	2.08	1.31	0.09
4.20	0.07	0.00	0.00	15.00	2.10	1.33	0.09
4.40	0.07	0.00	0.00	15.20	2.11	1.33	0.06
4.60	0.08	0.00	0.00	15.40	2.12	1.34	0.05
4.80	0.08	0.00	0.00	15.60	2.13	1.35	0.05
5.00	0.09	0.00	0.00	15.80	2.14	1.36	0.05
5.20	0.09	0.00	0.00	16.00	2.14	1.37	0.05
5.40	0.10	0.00	0.00	16.20	2.15	1.37	0.05
5.60	0.11	0.00	0.00	16.40	2.16	1.38	0.05
5.80	0.11	0.00	0.00	16.60	2.17	1.39	0.05
6.00	0.12	0.00	0.00	16.80	2.18	1.40	0.05
6.20	0.13	0.00	0.00	17.00	2.18	1.40	0.05
6.40	0.13	0.00	0.00	17.20	2.19	1.41	0.04
6.60	0.14	0.00	0.00	17.40	2.20	1.42	0.04
6.80	0.15	0.00	0.00	17.60	2.21	1.42	0.04
7.00	0.16	0.00	0.00	17.80	2.21	1.43	0.04
7.20	0.16	0.00	0.00	18.00	2.22	1.44	0.04
7.40	0.17	0.00	0.00	18.20	2.23	1.44	0.04
7.60	0.18	0.00	0.00	18.40	2.23	1.45	0.04
7.80	0.19	0.00	0.00	18.60	2.24	1.45	0.04
8.00	0.20	0.00	0.00	18.80	2.25	1.46	0.04
8.20	0.20	0.00	0.00	19.00	2.25	1.47	0.03
8.40	0.21	0.00	0.00	19.20	2.26	1.47	0.03
8.60	0.22	0.00	0.01	19.40	2.26	1.48	0.03
8.80	0.23	0.00	0.01	19.60	2.27	1.48	0.03
9.00	0.24	0.00	0.01	19.80	2.27	1.49	0.03
9.20	0.26	0.01	0.02	20.00	2.28	1.49	0.03
9.40	0.27	0.01	0.02				
9.60	0.29	0.01	0.02				
9.80	0.30	0.02	0.03				
10.00	0.32	0.02	0.03				
10.20	0.34	0.03	0.03				
10.40	0.36	0.03	0.04				
10.60	0.38	0.04	0.05				

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MSE 24-hr 3 1-year Rainfall=2.34"

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Summary for Subcatchment 20S: OFFSITE NORTH (OFN)

Runoff = 0.90 cfs @ 12.13 hrs, Volume= 0.036 af, Depth> 0.79"

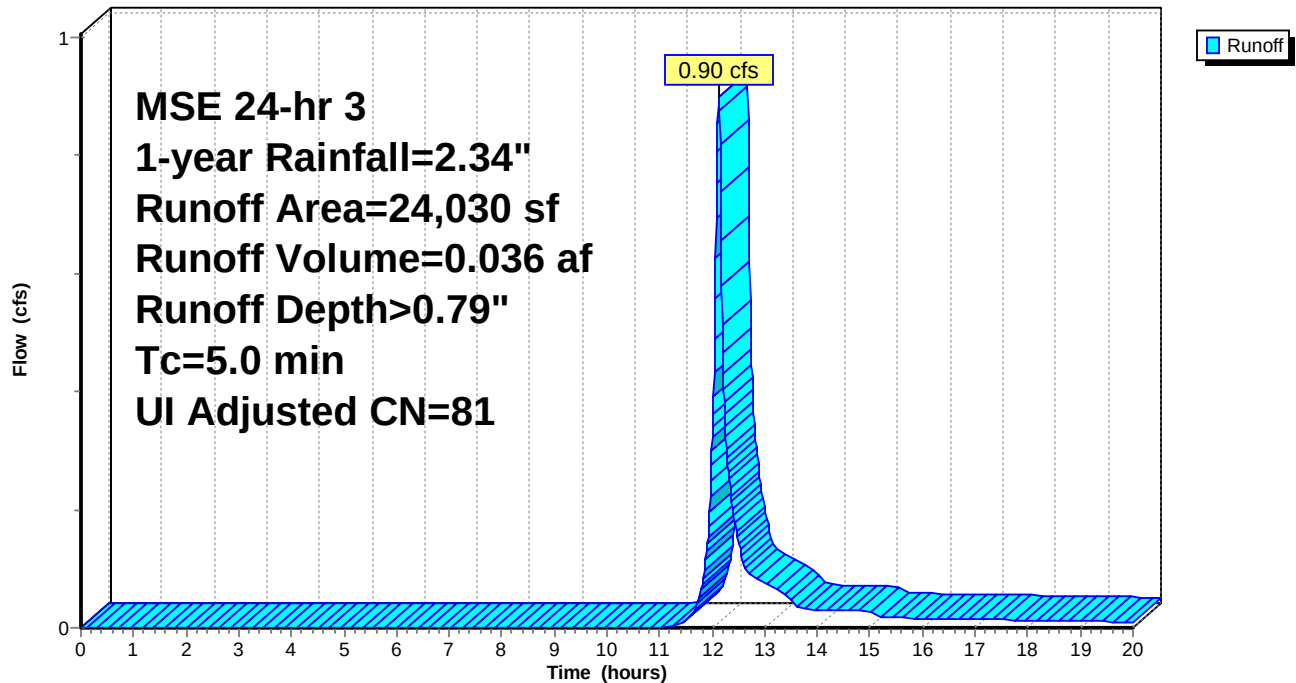
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-20.00 hrs, dt= 0.01 hrs
MSE 24-hr 3 1-year Rainfall=2.34"

Area (sf)	CN	Adj	Description
19,345	79		50-75% Grass cover, Fair, HSG C
4,685	98		Unconnected roofs, HSG C
24,030	83	81	Weighted Average, UI Adjusted
19,345			80.50% Pervious Area
4,685			19.50% Impervious Area
4,685			100.00% Unconnected

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

Subcatchment 20S: OFFSITE NORTH (OFN)

Hydrograph



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Hydrograph for Subcatchment 20S: OFFSITE NORTH (OFN)

Time (hours)	Precip. (inches)	Excess (inches)	Runoff (cfs)	Time (hours)	Precip. (inches)	Excess (inches)	Runoff (cfs)
0.00	0.00	0.00	0.00	10.80	0.41	0.00	0.00
0.20	0.00	0.00	0.00	11.00	0.45	0.00	0.00
0.40	0.00	0.00	0.00	11.20	0.50	0.00	0.00
0.60	0.00	0.00	0.00	11.40	0.55	0.00	0.01
0.80	0.01	0.00	0.00	11.60	0.62	0.01	0.02
1.00	0.01	0.00	0.00	11.80	0.76	0.03	0.07
1.20	0.01	0.00	0.00	12.00	1.08	0.13	0.32
1.40	0.01	0.00	0.00	12.20	1.58	0.36	0.46
1.60	0.02	0.00	0.00	12.40	1.72	0.43	0.19
1.80	0.02	0.00	0.00	12.60	1.79	0.48	0.11
2.00	0.02	0.00	0.00	12.80	1.84	0.51	0.09
2.20	0.02	0.00	0.00	13.00	1.89	0.54	0.08
2.40	0.03	0.00	0.00	13.20	1.93	0.56	0.07
2.60	0.03	0.00	0.00	13.40	1.96	0.58	0.05
2.80	0.03	0.00	0.00	13.60	1.98	0.59	0.04
3.00	0.04	0.00	0.00	13.80	2.00	0.61	0.03
3.20	0.04	0.00	0.00	14.00	2.02	0.62	0.03
3.40	0.05	0.00	0.00	14.20	2.04	0.63	0.03
3.60	0.05	0.00	0.00	14.40	2.05	0.64	0.03
3.80	0.06	0.00	0.00	14.60	2.07	0.65	0.03
4.00	0.06	0.00	0.00	14.80	2.08	0.66	0.03
4.20	0.07	0.00	0.00	15.00	2.10	0.67	0.03
4.40	0.07	0.00	0.00	15.20	2.11	0.67	0.02
4.60	0.08	0.00	0.00	15.40	2.12	0.68	0.02
4.80	0.08	0.00	0.00	15.60	2.13	0.69	0.02
5.00	0.09	0.00	0.00	15.80	2.14	0.69	0.02
5.20	0.09	0.00	0.00	16.00	2.14	0.70	0.02
5.40	0.10	0.00	0.00	16.20	2.15	0.70	0.02
5.60	0.11	0.00	0.00	16.40	2.16	0.71	0.02
5.80	0.11	0.00	0.00	16.60	2.17	0.71	0.01
6.00	0.12	0.00	0.00	16.80	2.18	0.72	0.01
6.20	0.13	0.00	0.00	17.00	2.18	0.72	0.01
6.40	0.13	0.00	0.00	17.20	2.19	0.73	0.01
6.60	0.14	0.00	0.00	17.40	2.20	0.73	0.01
6.80	0.15	0.00	0.00	17.60	2.21	0.74	0.01
7.00	0.16	0.00	0.00	17.80	2.21	0.74	0.01
7.20	0.16	0.00	0.00	18.00	2.22	0.75	0.01
7.40	0.17	0.00	0.00	18.20	2.23	0.75	0.01
7.60	0.18	0.00	0.00	18.40	2.23	0.76	0.01
7.80	0.19	0.00	0.00	18.60	2.24	0.76	0.01
8.00	0.20	0.00	0.00	18.80	2.25	0.77	0.01
8.20	0.20	0.00	0.00	19.00	2.25	0.77	0.01
8.40	0.21	0.00	0.00	19.20	2.26	0.77	0.01
8.60	0.22	0.00	0.00	19.40	2.26	0.78	0.01
8.80	0.23	0.00	0.00	19.60	2.27	0.78	0.01
9.00	0.24	0.00	0.00	19.80	2.27	0.78	0.01
9.20	0.26	0.00	0.00	20.00	2.28	0.79	0.01
9.40	0.27	0.00	0.00				
9.60	0.29	0.00	0.00				
9.80	0.30	0.00	0.00				
10.00	0.32	0.00	0.00				
10.20	0.34	0.00	0.00				
10.40	0.36	0.00	0.00				
10.60	0.38	0.00	0.00				

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MSE 24-hr 3 1-year Rainfall=2.34"

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Summary for Subcatchment 21S: Northern Swale

Runoff = 1.93 cfs @ 12.12 hrs, Volume= 0.084 af, Depth> 1.66"

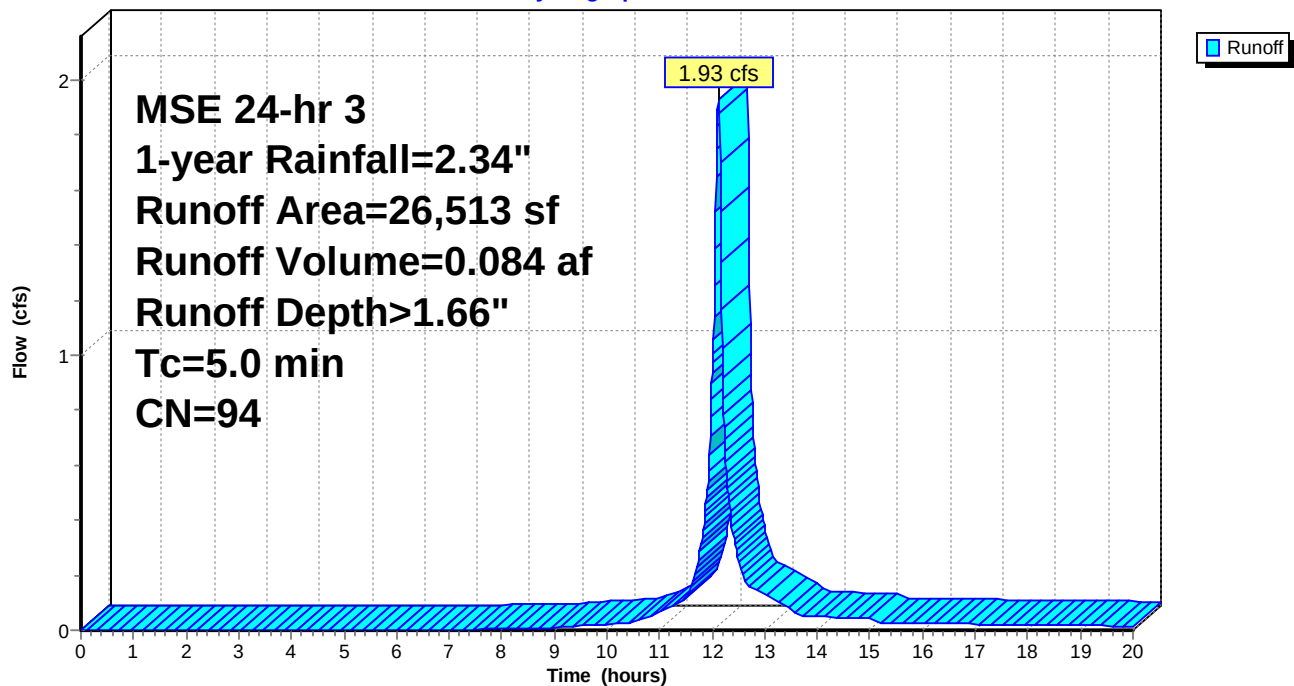
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-20.00 hrs, dt= 0.01 hrs
MSE 24-hr 3 1-year Rainfall=2.34"

Area (sf)	CN	Description
5,422	79	50-75% Grass cover, Fair, HSG C
* 21,091	98	Roof
26,513	94	Weighted Average
5,422		20.45% Pervious Area
21,091		79.55% Impervious Area

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

Subcatchment 21S: Northern Swale

Hydrograph



Hydrograph for Subcatchment 21S: Northern Swale

Time (hours)	Precip. (inches)	Excess (inches)	Runoff (cfs)	Time (hours)	Precip. (inches)	Excess (inches)	Runoff (cfs)
0.00	0.00	0.00	0.00	10.80	0.41	0.09	0.05
0.20	0.00	0.00	0.00	11.00	0.45	0.11	0.07
0.40	0.00	0.00	0.00	11.20	0.50	0.14	0.08
0.60	0.00	0.00	0.00	11.40	0.55	0.17	0.10
0.80	0.01	0.00	0.00	11.60	0.62	0.22	0.16
1.00	0.01	0.00	0.00	11.80	0.76	0.31	0.33
1.20	0.01	0.00	0.00	12.00	1.08	0.57	0.94
1.40	0.01	0.00	0.00	12.20	1.58	1.01	0.92
1.60	0.02	0.00	0.00	12.40	1.72	1.13	0.35
1.80	0.02	0.00	0.00	12.60	1.79	1.20	0.18
2.00	0.02	0.00	0.00	12.80	1.84	1.25	0.15
2.20	0.02	0.00	0.00	13.00	1.89	1.29	0.13
2.40	0.03	0.00	0.00	13.20	1.93	1.33	0.11
2.60	0.03	0.00	0.00	13.40	1.96	1.36	0.09
2.80	0.03	0.00	0.00	13.60	1.98	1.38	0.06
3.00	0.04	0.00	0.00	13.80	2.00	1.40	0.05
3.20	0.04	0.00	0.00	14.00	2.02	1.41	0.05
3.40	0.05	0.00	0.00	14.20	2.04	1.43	0.05
3.60	0.05	0.00	0.00	14.40	2.05	1.44	0.05
3.80	0.06	0.00	0.00	14.60	2.07	1.46	0.05
4.00	0.06	0.00	0.00	14.80	2.08	1.47	0.05
4.20	0.07	0.00	0.00	15.00	2.10	1.49	0.04
4.40	0.07	0.00	0.00	15.20	2.11	1.50	0.03
4.60	0.08	0.00	0.00	15.40	2.12	1.51	0.03
4.80	0.08	0.00	0.00	15.60	2.13	1.52	0.03
5.00	0.09	0.00	0.00	15.80	2.14	1.52	0.03
5.20	0.09	0.00	0.00	16.00	2.14	1.53	0.03
5.40	0.10	0.00	0.00	16.20	2.15	1.54	0.02
5.60	0.11	0.00	0.00	16.40	2.16	1.55	0.02
5.80	0.11	0.00	0.00	16.60	2.17	1.56	0.02
6.00	0.12	0.00	0.00	16.80	2.18	1.56	0.02
6.20	0.13	0.00	0.00	17.00	2.18	1.57	0.02
6.40	0.13	0.00	0.00	17.20	2.19	1.58	0.02
6.60	0.14	0.00	0.00	17.40	2.20	1.58	0.02
6.80	0.15	0.00	0.00	17.60	2.21	1.59	0.02
7.00	0.16	0.00	0.00	17.80	2.21	1.60	0.02
7.20	0.16	0.00	0.00	18.00	2.22	1.60	0.02
7.40	0.17	0.00	0.00	18.20	2.23	1.61	0.02
7.60	0.18	0.00	0.00	18.40	2.23	1.62	0.02
7.80	0.19	0.01	0.00	18.60	2.24	1.62	0.02
8.00	0.20	0.01	0.00	18.80	2.25	1.63	0.02
8.20	0.20	0.01	0.01	19.00	2.25	1.63	0.02
8.40	0.21	0.01	0.01	19.20	2.26	1.64	0.02
8.60	0.22	0.01	0.01	19.40	2.26	1.64	0.02
8.80	0.23	0.01	0.01	19.60	2.27	1.65	0.02
9.00	0.24	0.02	0.01	19.80	2.27	1.65	0.01
9.20	0.26	0.02	0.01	20.00	2.28	1.66	0.01
9.40	0.27	0.03	0.02				
9.60	0.29	0.03	0.02				
9.80	0.30	0.04	0.02				
10.00	0.32	0.05	0.02				
10.20	0.34	0.05	0.02				
10.40	0.36	0.06	0.02				
10.60	0.38	0.07	0.04				

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MSE 24-hr 3 1-year Rainfall=2.34"

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Summary for Subcatchment 22S: OFFSITE SOUTH (OFS)

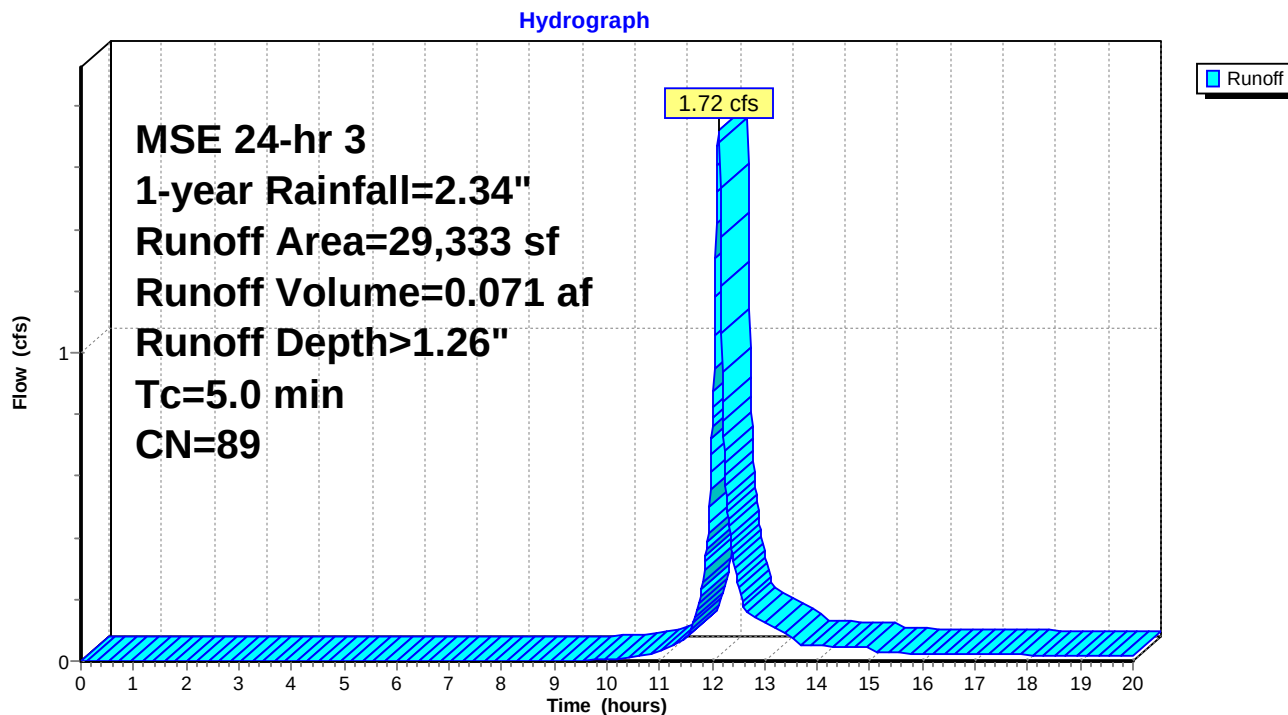
Runoff = 1.72 cfs @ 12.13 hrs, Volume= 0.071 af, Depth> 1.26"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-20.00 hrs, dt= 0.01 hrs
MSE 24-hr 3 1-year Rainfall=2.34"

Area (sf)	CN	Description
13,422	79	50-75% Grass cover, Fair, HSG C
6,500	98	Unconnected roofs, HSG C
9,411	98	Paved parking, HSG C
29,333	89	Weighted Average
13,422		45.76% Pervious Area
15,911		54.24% Impervious Area
6,500		40.85% Unconnected

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

Subcatchment 22S: OFFSITE SOUTH (OFS)



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MSE 24-hr 3 1-year Rainfall=2.34"

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Hydrograph for Subcatchment 22S: OFFSITE SOUTH (OFS)

Time (hours)	Precip. (inches)	Excess (inches)	Runoff (cfs)	Time (hours)	Precip. (inches)	Excess (inches)	Runoff (cfs)
0.00	0.00	0.00	0.00	10.80	0.41	0.02	0.02
0.20	0.00	0.00	0.00	11.00	0.45	0.03	0.03
0.40	0.00	0.00	0.00	11.20	0.50	0.04	0.05
0.60	0.00	0.00	0.00	11.40	0.55	0.06	0.06
0.80	0.01	0.00	0.00	11.60	0.62	0.09	0.11
1.00	0.01	0.00	0.00	11.80	0.76	0.15	0.23
1.20	0.01	0.00	0.00	12.00	1.08	0.34	0.76
1.40	0.01	0.00	0.00	12.20	1.58	0.69	0.84
1.60	0.02	0.00	0.00	12.40	1.72	0.80	0.33
1.80	0.02	0.00	0.00	12.60	1.79	0.86	0.18
2.00	0.02	0.00	0.00	12.80	1.84	0.90	0.14
2.20	0.02	0.00	0.00	13.00	1.89	0.94	0.13
2.40	0.03	0.00	0.00	13.20	1.93	0.97	0.11
2.60	0.03	0.00	0.00	13.40	1.96	1.00	0.09
2.80	0.03	0.00	0.00	13.60	1.98	1.01	0.06
3.00	0.04	0.00	0.00	13.80	2.00	1.03	0.05
3.20	0.04	0.00	0.00	14.00	2.02	1.04	0.05
3.40	0.05	0.00	0.00	14.20	2.04	1.06	0.05
3.60	0.05	0.00	0.00	14.40	2.05	1.07	0.05
3.80	0.06	0.00	0.00	14.60	2.07	1.08	0.05
4.00	0.06	0.00	0.00	14.80	2.08	1.10	0.04
4.20	0.07	0.00	0.00	15.00	2.10	1.11	0.04
4.40	0.07	0.00	0.00	15.20	2.11	1.12	0.03
4.60	0.08	0.00	0.00	15.40	2.12	1.13	0.03
4.80	0.08	0.00	0.00	15.60	2.13	1.13	0.03
5.00	0.09	0.00	0.00	15.80	2.14	1.14	0.03
5.20	0.09	0.00	0.00	16.00	2.14	1.15	0.02
5.40	0.10	0.00	0.00	16.20	2.15	1.16	0.02
5.60	0.11	0.00	0.00	16.40	2.16	1.16	0.02
5.80	0.11	0.00	0.00	16.60	2.17	1.17	0.02
6.00	0.12	0.00	0.00	16.80	2.18	1.18	0.02
6.20	0.13	0.00	0.00	17.00	2.18	1.18	0.02
6.40	0.13	0.00	0.00	17.20	2.19	1.19	0.02
6.60	0.14	0.00	0.00	17.40	2.20	1.20	0.02
6.80	0.15	0.00	0.00	17.60	2.21	1.20	0.02
7.00	0.16	0.00	0.00	17.80	2.21	1.21	0.02
7.20	0.16	0.00	0.00	18.00	2.22	1.21	0.02
7.40	0.17	0.00	0.00	18.20	2.23	1.22	0.02
7.60	0.18	0.00	0.00	18.40	2.23	1.22	0.02
7.80	0.19	0.00	0.00	18.60	2.24	1.23	0.02
8.00	0.20	0.00	0.00	18.80	2.25	1.24	0.02
8.20	0.20	0.00	0.00	19.00	2.25	1.24	0.02
8.40	0.21	0.00	0.00	19.20	2.26	1.25	0.02
8.60	0.22	0.00	0.00	19.40	2.26	1.25	0.02
8.80	0.23	0.00	0.00	19.60	2.27	1.25	0.02
9.00	0.24	0.00	0.00	19.80	2.27	1.26	0.01
9.20	0.26	0.00	0.00	20.00	2.28	1.26	0.01
9.40	0.27	0.00	0.00				
9.60	0.29	0.00	0.00				
9.80	0.30	0.00	0.00				
10.00	0.32	0.00	0.01				
10.20	0.34	0.01	0.01				
10.40	0.36	0.01	0.01				
10.60	0.38	0.01	0.01				

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MSE 24-hr 3 1-year Rainfall=2.34"

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Summary for Subcatchment 24S: OFFSITE NORTH

Runoff = 0.90 cfs @ 12.13 hrs, Volume= 0.036 af, Depth> 0.79"

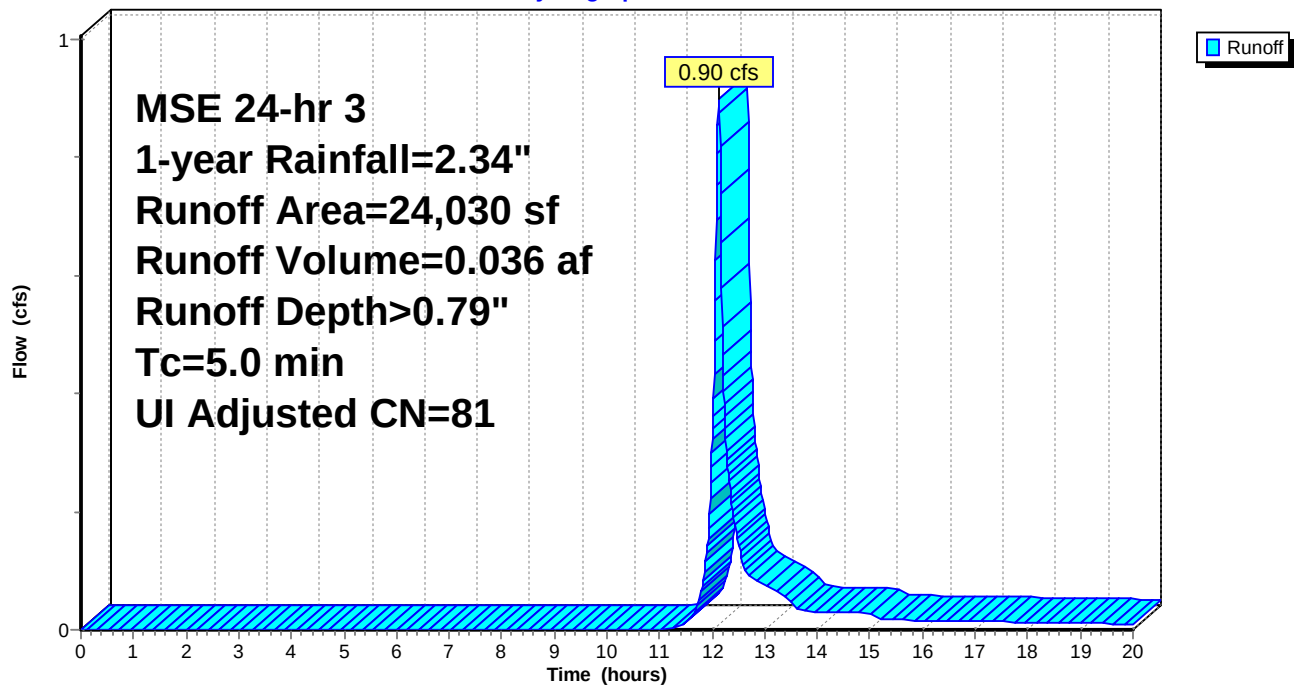
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-20.00 hrs, dt= 0.01 hrs
MSE 24-hr 3 1-year Rainfall=2.34"

Area (sf)	CN	Adj	Description
19,345	79		50-75% Grass cover, Fair, HSG C
4,685	98		Unconnected roofs, HSG C
24,030	83	81	Weighted Average, UI Adjusted
19,345			80.50% Pervious Area
4,685			19.50% Impervious Area
4,685			100.00% Unconnected

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

Subcatchment 24S: OFFSITE NORTH

Hydrograph



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MSE 24-hr 3 1-year Rainfall=2.34"

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Hydrograph for Subcatchment 24S: OFFSITE NORTH

Time (hours)	Precip. (inches)	Excess (inches)	Runoff (cfs)	Time (hours)	Precip. (inches)	Excess (inches)	Runoff (cfs)
0.00	0.00	0.00	0.00	10.80	0.41	0.00	0.00
0.20	0.00	0.00	0.00	11.00	0.45	0.00	0.00
0.40	0.00	0.00	0.00	11.20	0.50	0.00	0.00
0.60	0.00	0.00	0.00	11.40	0.55	0.00	0.01
0.80	0.01	0.00	0.00	11.60	0.62	0.01	0.02
1.00	0.01	0.00	0.00	11.80	0.76	0.03	0.07
1.20	0.01	0.00	0.00	12.00	1.08	0.13	0.32
1.40	0.01	0.00	0.00	12.20	1.58	0.36	0.46
1.60	0.02	0.00	0.00	12.40	1.72	0.43	0.19
1.80	0.02	0.00	0.00	12.60	1.79	0.48	0.11
2.00	0.02	0.00	0.00	12.80	1.84	0.51	0.09
2.20	0.02	0.00	0.00	13.00	1.89	0.54	0.08
2.40	0.03	0.00	0.00	13.20	1.93	0.56	0.07
2.60	0.03	0.00	0.00	13.40	1.96	0.58	0.05
2.80	0.03	0.00	0.00	13.60	1.98	0.59	0.04
3.00	0.04	0.00	0.00	13.80	2.00	0.61	0.03
3.20	0.04	0.00	0.00	14.00	2.02	0.62	0.03
3.40	0.05	0.00	0.00	14.20	2.04	0.63	0.03
3.60	0.05	0.00	0.00	14.40	2.05	0.64	0.03
3.80	0.06	0.00	0.00	14.60	2.07	0.65	0.03
4.00	0.06	0.00	0.00	14.80	2.08	0.66	0.03
4.20	0.07	0.00	0.00	15.00	2.10	0.67	0.03
4.40	0.07	0.00	0.00	15.20	2.11	0.67	0.02
4.60	0.08	0.00	0.00	15.40	2.12	0.68	0.02
4.80	0.08	0.00	0.00	15.60	2.13	0.69	0.02
5.00	0.09	0.00	0.00	15.80	2.14	0.69	0.02
5.20	0.09	0.00	0.00	16.00	2.14	0.70	0.02
5.40	0.10	0.00	0.00	16.20	2.15	0.70	0.02
5.60	0.11	0.00	0.00	16.40	2.16	0.71	0.02
5.80	0.11	0.00	0.00	16.60	2.17	0.71	0.01
6.00	0.12	0.00	0.00	16.80	2.18	0.72	0.01
6.20	0.13	0.00	0.00	17.00	2.18	0.72	0.01
6.40	0.13	0.00	0.00	17.20	2.19	0.73	0.01
6.60	0.14	0.00	0.00	17.40	2.20	0.73	0.01
6.80	0.15	0.00	0.00	17.60	2.21	0.74	0.01
7.00	0.16	0.00	0.00	17.80	2.21	0.74	0.01
7.20	0.16	0.00	0.00	18.00	2.22	0.75	0.01
7.40	0.17	0.00	0.00	18.20	2.23	0.75	0.01
7.60	0.18	0.00	0.00	18.40	2.23	0.76	0.01
7.80	0.19	0.00	0.00	18.60	2.24	0.76	0.01
8.00	0.20	0.00	0.00	18.80	2.25	0.77	0.01
8.20	0.20	0.00	0.00	19.00	2.25	0.77	0.01
8.40	0.21	0.00	0.00	19.20	2.26	0.77	0.01
8.60	0.22	0.00	0.00	19.40	2.26	0.78	0.01
8.80	0.23	0.00	0.00	19.60	2.27	0.78	0.01
9.00	0.24	0.00	0.00	19.80	2.27	0.78	0.01
9.20	0.26	0.00	0.00	20.00	2.28	0.79	0.01
9.40	0.27	0.00	0.00				
9.60	0.29	0.00	0.00				
9.80	0.30	0.00	0.00				
10.00	0.32	0.00	0.00				
10.20	0.34	0.00	0.00				
10.40	0.36	0.00	0.00				
10.60	0.38	0.00	0.00				

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MSE 24-hr 3 1-year Rainfall=2.34"

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Summary for Subcatchment 25S: OFFSITE SOUTH (OFS)

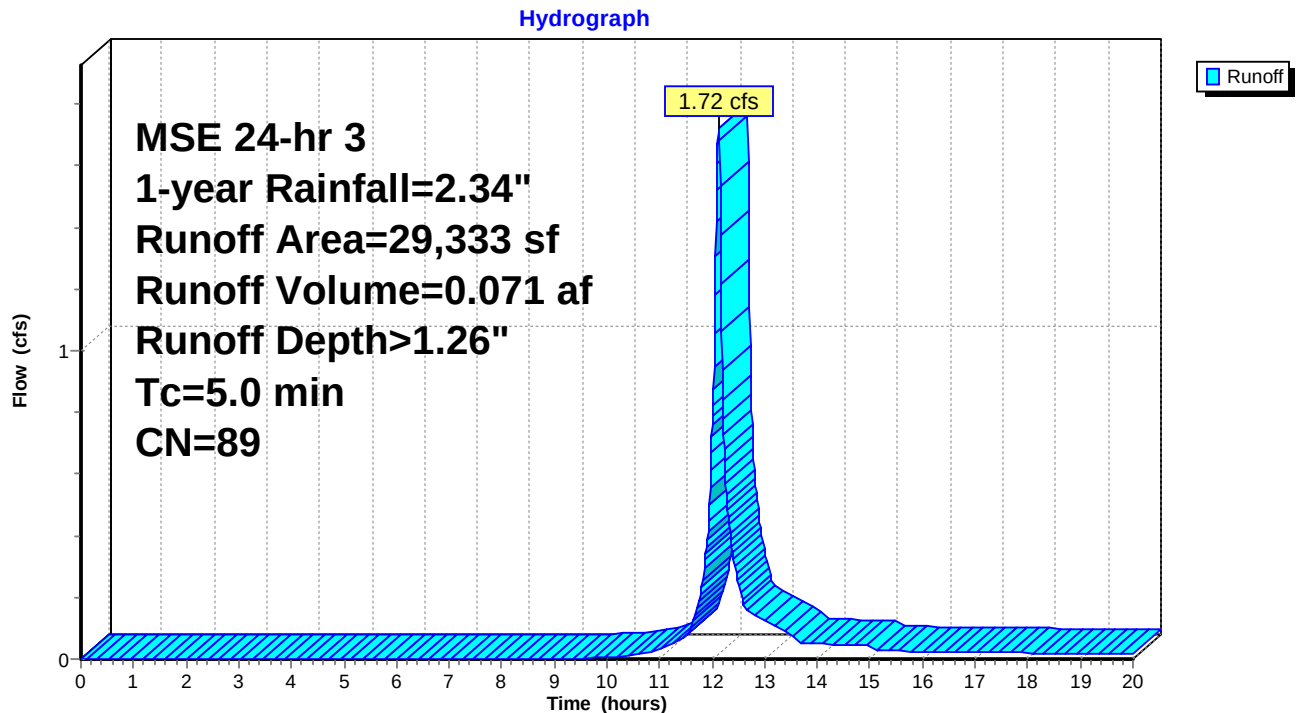
Runoff = 1.72 cfs @ 12.13 hrs, Volume= 0.071 af, Depth> 1.26"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-20.00 hrs, dt= 0.01 hrs
MSE 24-hr 3 1-year Rainfall=2.34"

Area (sf)	CN	Description
13,422	79	50-75% Grass cover, Fair, HSG C
6,500	98	Unconnected roofs, HSG C
9,411	98	Paved parking, HSG C
29,333	89	Weighted Average
13,422		45.76% Pervious Area
15,911		54.24% Impervious Area
6,500		40.85% Unconnected

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

Subcatchment 25S: OFFSITE SOUTH (OFS)



Glendale Daycare REV1

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MSE 24-hr 3 1-year Rainfall=2.34"

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Hydrograph for Subcatchment 25S: OFFSITE SOUTH (OFS)

Time (hours)	Precip. (inches)	Excess (inches)	Runoff (cfs)	Time (hours)	Precip. (inches)	Excess (inches)	Runoff (cfs)
0.00	0.00	0.00	0.00	10.80	0.41	0.02	0.02
0.20	0.00	0.00	0.00	11.00	0.45	0.03	0.03
0.40	0.00	0.00	0.00	11.20	0.50	0.04	0.05
0.60	0.00	0.00	0.00	11.40	0.55	0.06	0.06
0.80	0.01	0.00	0.00	11.60	0.62	0.09	0.11
1.00	0.01	0.00	0.00	11.80	0.76	0.15	0.23
1.20	0.01	0.00	0.00	12.00	1.08	0.34	0.76
1.40	0.01	0.00	0.00	12.20	1.58	0.69	0.84
1.60	0.02	0.00	0.00	12.40	1.72	0.80	0.33
1.80	0.02	0.00	0.00	12.60	1.79	0.86	0.18
2.00	0.02	0.00	0.00	12.80	1.84	0.90	0.14
2.20	0.02	0.00	0.00	13.00	1.89	0.94	0.13
2.40	0.03	0.00	0.00	13.20	1.93	0.97	0.11
2.60	0.03	0.00	0.00	13.40	1.96	1.00	0.09
2.80	0.03	0.00	0.00	13.60	1.98	1.01	0.06
3.00	0.04	0.00	0.00	13.80	2.00	1.03	0.05
3.20	0.04	0.00	0.00	14.00	2.02	1.04	0.05
3.40	0.05	0.00	0.00	14.20	2.04	1.06	0.05
3.60	0.05	0.00	0.00	14.40	2.05	1.07	0.05
3.80	0.06	0.00	0.00	14.60	2.07	1.08	0.05
4.00	0.06	0.00	0.00	14.80	2.08	1.10	0.04
4.20	0.07	0.00	0.00	15.00	2.10	1.11	0.04
4.40	0.07	0.00	0.00	15.20	2.11	1.12	0.03
4.60	0.08	0.00	0.00	15.40	2.12	1.13	0.03
4.80	0.08	0.00	0.00	15.60	2.13	1.13	0.03
5.00	0.09	0.00	0.00	15.80	2.14	1.14	0.03
5.20	0.09	0.00	0.00	16.00	2.14	1.15	0.02
5.40	0.10	0.00	0.00	16.20	2.15	1.16	0.02
5.60	0.11	0.00	0.00	16.40	2.16	1.16	0.02
5.80	0.11	0.00	0.00	16.60	2.17	1.17	0.02
6.00	0.12	0.00	0.00	16.80	2.18	1.18	0.02
6.20	0.13	0.00	0.00	17.00	2.18	1.18	0.02
6.40	0.13	0.00	0.00	17.20	2.19	1.19	0.02
6.60	0.14	0.00	0.00	17.40	2.20	1.20	0.02
6.80	0.15	0.00	0.00	17.60	2.21	1.20	0.02
7.00	0.16	0.00	0.00	17.80	2.21	1.21	0.02
7.20	0.16	0.00	0.00	18.00	2.22	1.21	0.02
7.40	0.17	0.00	0.00	18.20	2.23	1.22	0.02
7.60	0.18	0.00	0.00	18.40	2.23	1.22	0.02
7.80	0.19	0.00	0.00	18.60	2.24	1.23	0.02
8.00	0.20	0.00	0.00	18.80	2.25	1.24	0.02
8.20	0.20	0.00	0.00	19.00	2.25	1.24	0.02
8.40	0.21	0.00	0.00	19.20	2.26	1.25	0.02
8.60	0.22	0.00	0.00	19.40	2.26	1.25	0.02
8.80	0.23	0.00	0.00	19.60	2.27	1.25	0.02
9.00	0.24	0.00	0.00	19.80	2.27	1.26	0.01
9.20	0.26	0.00	0.00	20.00	2.28	1.26	0.01
9.40	0.27	0.00	0.00				
9.60	0.29	0.00	0.00				
9.80	0.30	0.00	0.00				
10.00	0.32	0.00	0.01				
10.20	0.34	0.01	0.01				
10.40	0.36	0.01	0.01				
10.60	0.38	0.01	0.01				

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MSE 24-hr 3 1-year Rainfall=2.34"

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Summary for Pond 18P: EXISITING OUTFALL

Inflow Area = 2.518 ac, 53.03% Impervious, Inflow Depth > 1.27" for 1-year event
 Inflow = 6.39 cfs @ 12.12 hrs, Volume= 0.267 af
 Outflow = 3.64 cfs @ 12.19 hrs, Volume= 0.267 af, Atten= 43%, Lag= 3.7 min
 Primary = 3.64 cfs @ 12.19 hrs, Volume= 0.267 af

Routing by Stor-Ind method, Time Span= 0.00-20.00 hrs, dt= 0.01 hrs
 Peak Elev= 638.27' @ 12.19 hrs Surf.Area= 3,781 sf Storage= 1,477 cf

Plug-Flow detention time= 3.1 min calculated for 0.267 af (100% of inflow)
 Center-of-Mass det. time= 2.9 min (779.2 - 776.3)

Volume	Invert	Avail.Storage	Storage Description
#1	636.29'	34,985 cf	Custom Stage Data (Prismatic) Listed below (Recalc)

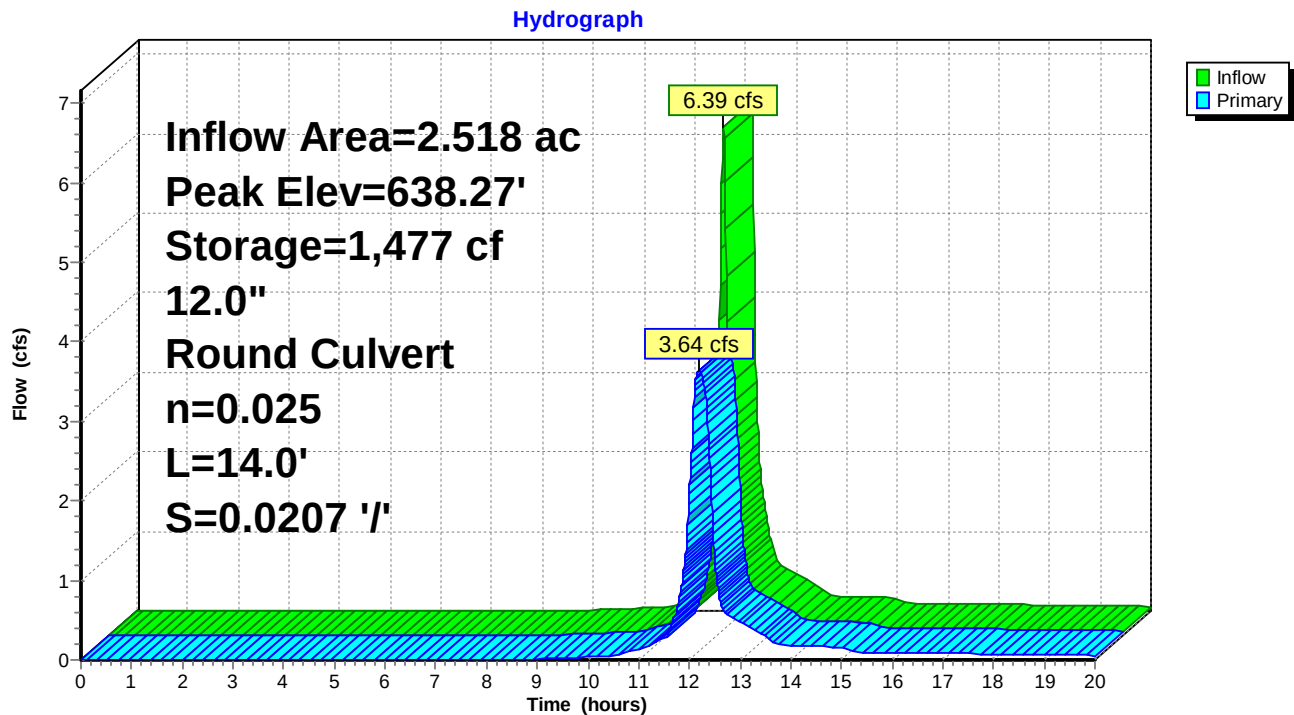
Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
636.29	2	0	0
637.00	450	160	160
638.00	905	678	838
639.00	11,448	6,177	7,014
640.00	44,493	27,971	34,985

Device	Routing	Invert	Outlet Devices
#1	Primary	636.29'	12.0" Round CMP_Round 12" L= 14.0' CMP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 636.29' / 636.00' S= 0.0207 ' S= 0.0207 ' Cc= 0.900 n= 0.025 Corrugated metal, Flow Area= 0.79 sf

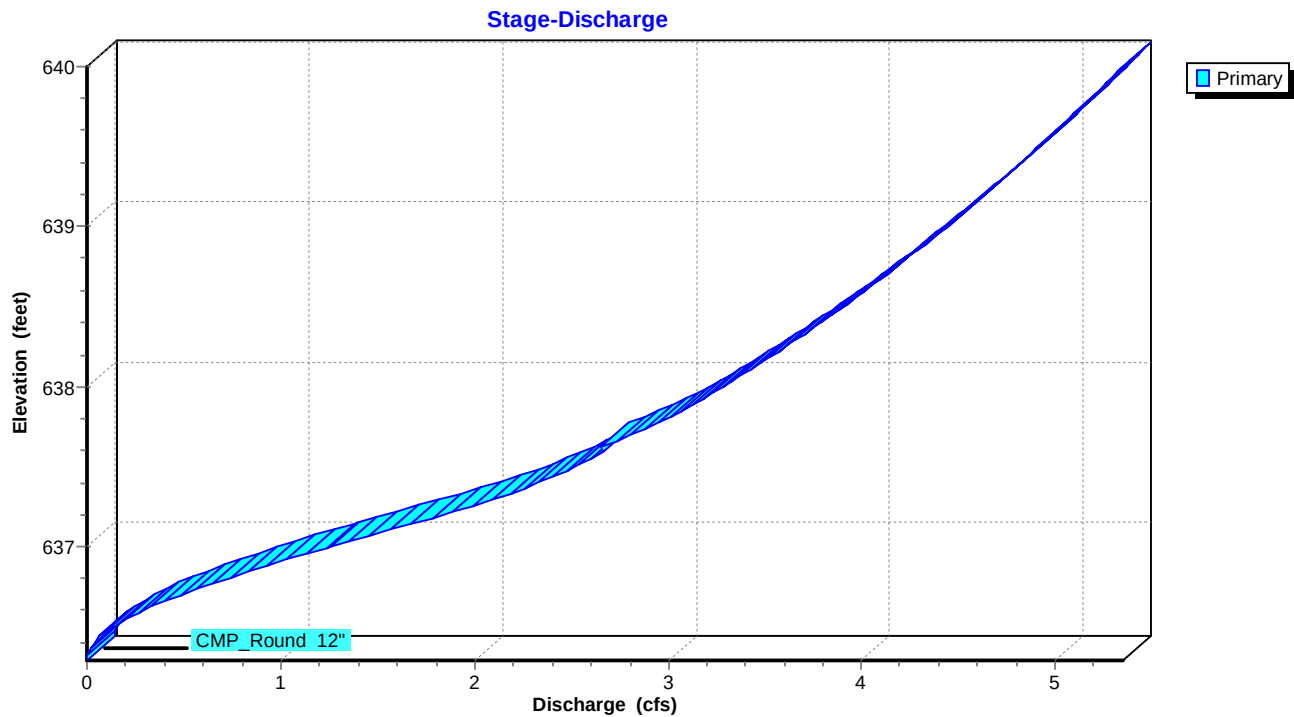
Primary OutFlow Max=3.64 cfs @ 12.19 hrs HW=638.27' (Free Discharge)

↑ **1=CMP_Round 12"** (Inlet Controls 3.64 cfs @ 4.63 fps)

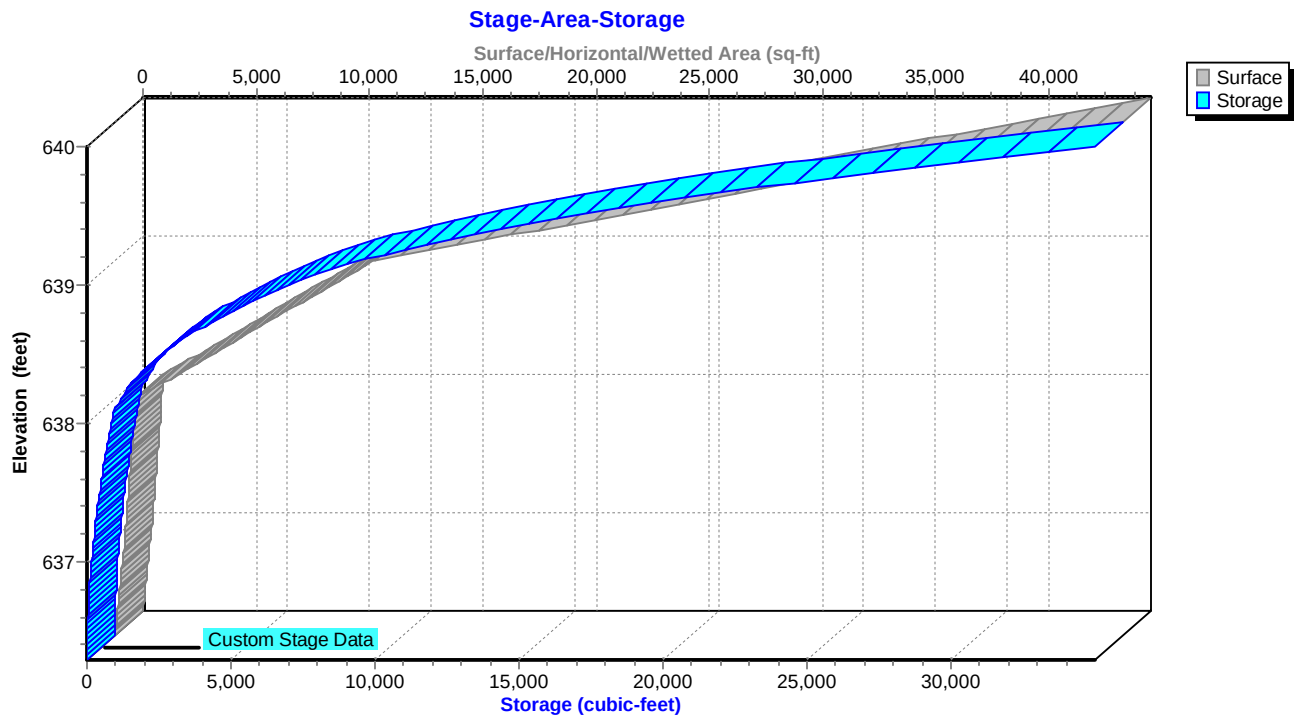
Pond 18P: EXISITING OUTFALL



Pond 18P: EXISITING OUTFALL



Pond 18P: EXISITING OUTFALL



Hydrograph for Pond 18P: EXISITING OUTFALL

Time (hours)	Inflow (cfs)	Storage (cubic-feet)	Elevation (feet)	Primary (cfs)
0.00	0.00	0	636.29	0.00
0.50	0.00	0	636.29	0.00
1.00	0.00	0	636.29	0.00
1.50	0.00	0	636.29	0.00
2.00	0.00	0	636.29	0.00
2.50	0.00	0	636.29	0.00
3.00	0.00	0	636.29	0.00
3.50	0.00	0	636.29	0.00
4.00	0.00	0	636.29	0.00
4.50	0.00	0	636.29	0.00
5.00	0.00	0	636.29	0.00
5.50	0.00	0	636.29	0.00
6.00	0.00	0	636.29	0.00
6.50	0.00	0	636.29	0.00
7.00	0.00	0	636.29	0.00
7.50	0.00	0	636.29	0.00
8.00	0.00	0	636.31	0.00
8.50	0.01	1	636.33	0.00
9.00	0.01	1	636.34	0.01
9.50	0.02	3	636.37	0.02
10.00	0.03	4	636.40	0.03
10.50	0.05	5	636.41	0.05
11.00	0.14	14	636.50	0.14
11.50	0.28	29	636.59	0.27
12.00	2.86	310	637.29	2.09
12.50	0.92	163	637.01	1.27
13.00	0.46	53	636.70	0.48
13.50	0.29	32	636.61	0.30
14.00	0.18	19	636.53	0.18
14.50	0.17	18	636.53	0.17
15.00	0.16	17	636.52	0.16
15.50	0.10	10	636.47	0.10
16.00	0.09	10	636.46	0.09
16.50	0.09	9	636.46	0.09
17.00	0.08	9	636.45	0.08
17.50	0.08	8	636.45	0.08
18.00	0.07	8	636.44	0.07
18.50	0.07	7	636.44	0.07
19.00	0.06	7	636.43	0.06
19.50	0.06	6	636.43	0.06
20.00	0.05	6	636.42	0.05

Stage-Discharge for Pond 18P: EXISTING OUTFALL

Elevation (feet)	Primary (cfs)	Elevation (feet)	Primary (cfs)	Elevation (feet)	Primary (cfs)	Elevation (feet)	Primary (cfs)
636.29	0.00	637.37	2.27	638.45	3.85	639.53	4.94
636.31	0.00	637.39	2.31	638.47	3.87	639.55	4.96
636.33	0.00	637.41	2.35	638.49	3.89	639.57	4.98
636.35	0.01	637.43	2.39	638.51	3.92	639.59	5.00
636.37	0.02	637.45	2.43	638.53	3.94	639.61	5.01
636.39	0.03	637.47	2.46	638.55	3.96	639.63	5.03
636.41	0.04	637.49	2.50	638.57	3.98	639.65	5.05
636.43	0.06	637.51	2.53	638.59	4.01	639.67	5.07
636.45	0.08	637.53	2.57	638.61	4.03	639.69	5.08
636.47	0.10	637.55	2.60	638.63	4.05	639.71	5.10
636.49	0.12	637.57	2.64	638.65	4.07	639.73	5.12
636.51	0.15	637.59	2.67	638.67	4.09	639.75	5.14
636.53	0.18	637.61	2.69	638.69	4.12	639.77	5.15
636.55	0.20	637.63	2.66	638.71	4.14	639.79	5.17
636.57	0.24	637.65	2.71	638.73	4.16	639.81	5.19
636.59	0.27	637.67	2.75	638.75	4.18	639.83	5.21
636.61	0.31	637.69	2.79	638.77	4.20	639.85	5.22
636.63	0.34	637.71	2.83	638.79	4.22	639.87	5.24
636.65	0.38	637.73	2.87	638.81	4.24	639.89	5.26
636.67	0.42	637.75	2.91	638.83	4.26	639.91	5.27
636.69	0.46	637.77	2.95	638.85	4.29	639.93	5.29
636.71	0.51	637.79	2.98	638.87	4.31	639.95	5.31
636.73	0.55	637.81	3.02	638.89	4.33	639.97	5.32
636.75	0.60	637.83	3.04	638.91	4.35	639.99	5.34
636.77	0.64	637.85	3.07	638.93	4.37		
636.79	0.69	637.87	3.10	638.95	4.39		
636.81	0.74	637.89	3.13	638.97	4.41		
636.83	0.79	637.91	3.16	638.99	4.43		
636.85	0.84	637.93	3.19	639.01	4.45		
636.87	0.90	637.95	3.22	639.03	4.47		
636.89	0.95	637.97	3.24	639.05	4.49		
636.91	1.00	637.99	3.27	639.07	4.51		
636.93	1.06	638.01	3.30	639.09	4.53		
636.95	1.12	638.03	3.32	639.11	4.55		
636.97	1.17	638.05	3.35	639.13	4.57		
636.99	1.23	638.07	3.38	639.15	4.59		
637.01	1.29	638.09	3.40	639.17	4.61		
637.03	1.34	638.11	3.43	639.19	4.63		
637.05	1.40	638.13	3.46	639.21	4.64		
637.07	1.46	638.15	3.48	639.23	4.66		
637.09	1.52	638.17	3.51	639.25	4.68		
637.11	1.58	638.19	3.53	639.27	4.70		
637.13	1.64	638.21	3.56	639.29	4.72		
637.15	1.69	638.23	3.58	639.31	4.74		
637.17	1.75	638.25	3.61	639.33	4.76		
637.19	1.81	638.27	3.63	639.35	4.78		
637.21	1.87	638.29	3.66	639.37	4.80		
637.23	1.93	638.31	3.68	639.39	4.81		
637.25	1.98	638.33	3.70	639.41	4.83		
637.27	2.04	638.35	3.73	639.43	4.85		
637.29	2.09	638.37	3.75	639.45	4.87		
637.31	2.15	638.39	3.78	639.47	4.89		
637.33	2.19	638.41	3.80	639.49	4.91		
637.35	2.23	638.43	3.82	639.51	4.92		

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MSE 24-hr 3 1-year Rainfall=2.34"

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Stage-Area-Storage for Pond 18P: EXISITING OUTFALL

Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)	Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)
636.29	2	0	638.99	11,343	6,901
636.34	34	1	639.04	12,770	7,499
636.39	65	3	639.09	14,422	8,179
636.44	97	7	639.14	16,074	8,941
636.49	128	13	639.19	17,727	9,786
636.54	160	20	639.24	19,379	10,714
636.59	191	29	639.29	21,031	11,724
636.64	223	39	639.34	22,683	12,817
636.69	254	51	639.39	24,336	13,992
636.74	286	65	639.44	25,988	15,250
636.79	317	80	639.49	27,640	16,591
636.84	349	97	639.54	29,292	18,014
636.89	381	115	639.59	30,945	19,520
636.94	412	135	639.64	32,597	21,109
636.99	444	156	639.69	34,249	22,780
637.04	468	179	639.74	35,901	24,534
637.09	491	203	639.79	37,554	26,370
637.14	514	228	639.84	39,206	28,289
637.19	536	254	639.89	40,858	30,291
637.24	559	282	639.94	42,510	32,375
637.29	582	310	639.99	44,163	34,542
637.34	605	340			
637.39	627	371			
637.44	650	403			
637.49	673	436			
637.54	696	470			
637.59	718	505			
637.64	741	542			
637.69	764	579			
637.74	787	618			
637.79	809	658			
637.84	832	699			
637.89	855	741			
637.94	878	784			
637.99	900	829			
638.04	1,327	883			
638.09	1,854	962			
638.14	2,381	1,068			
638.19	2,908	1,200			
638.24	3,435	1,359			
638.29	3,962	1,544			
638.34	4,490	1,755			
638.39	5,017	1,993			
638.44	5,544	2,257			
638.49	6,071	2,547			
638.54	6,598	2,864			
638.59	7,125	3,207			
638.64	7,653	3,576			
638.69	8,180	3,972			
638.74	8,707	4,394			
638.79	9,234	4,843			
638.84	9,761	5,318			
638.89	10,288	5,819			
638.94	10,815	6,347			

Summary for Pond 19P: PROPOSED OUTFALL

Inflow Area = 2.596 ac, 61.88% Impervious, Inflow Depth > 1.42" for 1-year event
 Inflow = 7.11 cfs @ 12.12 hrs, Volume= 0.307 af
 Outflow = 3.38 cfs @ 12.20 hrs, Volume= 0.285 af, Atten= 53%, Lag= 4.7 min
 Primary = 3.38 cfs @ 12.20 hrs, Volume= 0.285 af

Routing by Stor-Ind method, Time Span= 0.00-20.00 hrs, dt= 0.01 hrs
 Peak Elev= 638.07' @ 12.20 hrs Surf.Area= 3,716 sf Storage= 3,008 cf

Plug-Flow detention time= 38.8 min calculated for 0.285 af (93% of inflow)
 Center-of-Mass det. time= 14.6 min (782.7 - 768.1)

Volume	Invert	Avail.Storage	Storage Description
#1	636.29'	38,270 cf	Custom Stage Data (Prismatic) Listed below (Recalc)
Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
636.29	2	0	0
637.00	1,307	465	465
638.00	3,298	2,303	2,767
638.60	6,955	3,076	5,843
639.00	16,745	4,740	10,583
640.00	38,628	27,687	38,270

Device	Routing	Invert	Outlet Devices
#1	Primary	636.29'	12.0" Round CMP_Round 12" L= 14.0' CMP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 636.29' / 636.00' S= 0.0207 ' / Cc= 0.900 n= 0.025 Corrugated metal, Flow Area= 0.79 sf
#2	Device 1	636.29'	1.0" Vert. Orifice/Grate C= 0.600 Limited to weir flow at low heads
#3	Device 1	637.29'	24.0" x 36.0" Horiz. Orifice/Grate C= 0.600 Limited to weir flow at low heads

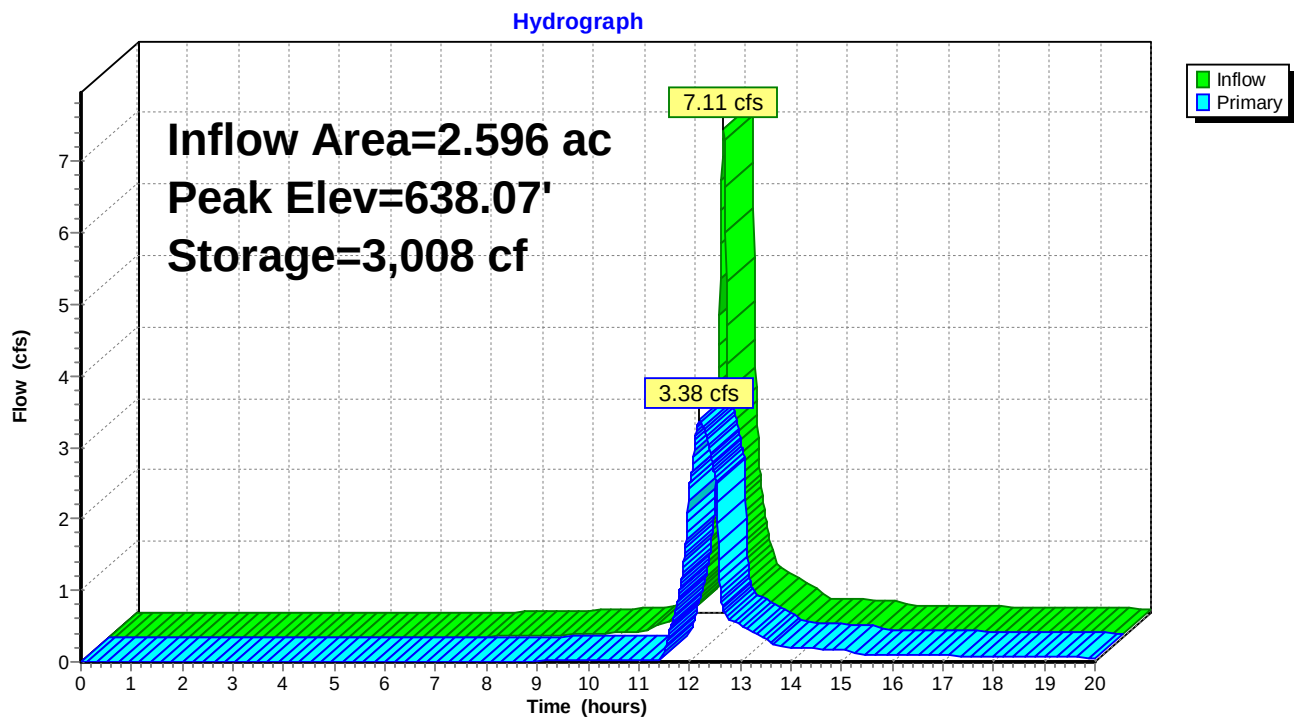
Primary OutFlow Max=3.38 cfs @ 12.20 hrs HW=638.07' (Free Discharge)

↑ **1=CMP_Round 12"** (Inlet Controls 3.38 cfs @ 4.30 fps)

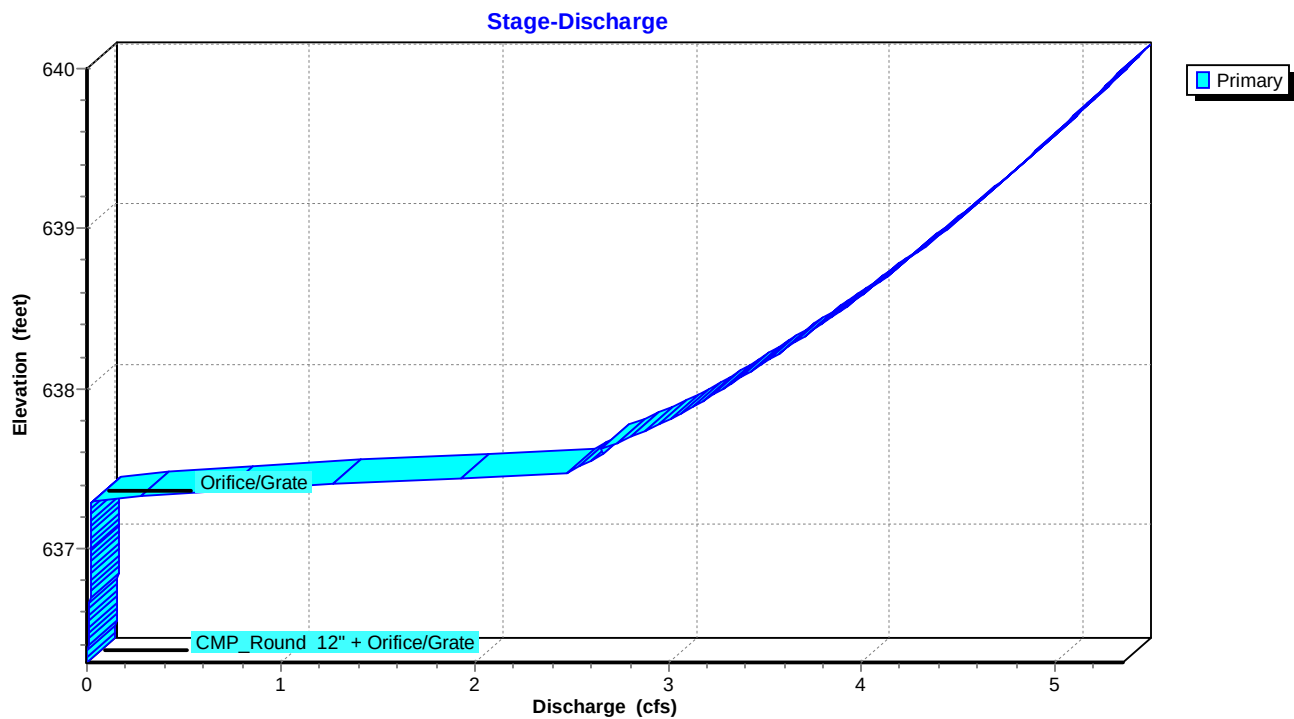
↑ **2=Orifice/Grate** (Passes < 0.03 cfs potential flow)

↑ **3=Orifice/Grate** (Passes < 22.45 cfs potential flow)

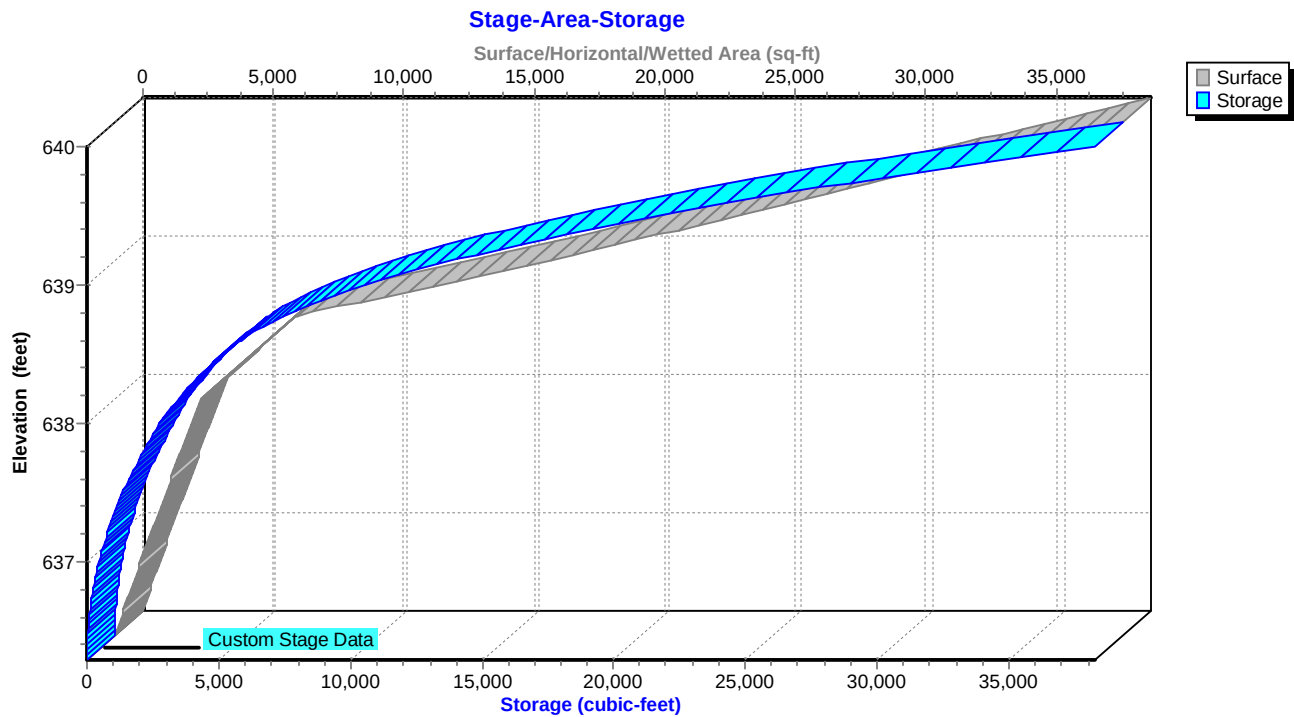
Pond 19P: PROPOSED OUTFALL



Pond 19P: PROPOSED OUTFALL



Pond 19P: PROPOSED OUTFALL



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MSE 24-hr 3 1-year Rainfall=2.34"

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Hydrograph for Pond 19P: PROPOSED OUTFALL

Time (hours)	Inflow (cfs)	Storage (cubic-feet)	Elevation (feet)	Primary (cfs)
0.00	0.00	0	636.29	0.00
0.50	0.00	0	636.29	0.00
1.00	0.00	0	636.29	0.00
1.50	0.00	0	636.29	0.00
2.00	0.00	0	636.29	0.00
2.50	0.00	0	636.29	0.00
3.00	0.00	0	636.29	0.00
3.50	0.00	0	636.29	0.00
4.00	0.00	0	636.29	0.00
4.50	0.00	0	636.29	0.00
5.00	0.00	0	636.29	0.00
5.50	0.00	0	636.29	0.00
6.00	0.00	1	636.31	0.00
6.50	0.00	3	636.35	0.00
7.00	0.01	7	636.38	0.01
7.50	0.01	14	636.41	0.01
8.00	0.02	24	636.45	0.01
8.50	0.02	38	636.49	0.01
9.00	0.02	56	636.54	0.01
9.50	0.05	106	636.63	0.01
10.00	0.06	179	636.73	0.02
10.50	0.08	274	636.84	0.02
11.00	0.21	499	637.03	0.02
11.50	0.37	957	637.31	0.12
12.00	3.31	1,335	637.49	2.49
12.50	0.99	1,566	637.58	2.66
13.00	0.50	1,044	637.35	0.52
13.50	0.31	1,011	637.33	0.33
14.00	0.19	979	637.32	0.20
14.50	0.18	976	637.32	0.18
15.00	0.17	972	637.31	0.17
15.50	0.10	953	637.30	0.10
16.00	0.10	951	637.30	0.10
16.50	0.09	950	637.30	0.09
17.00	0.09	948	637.30	0.09
17.50	0.08	947	637.30	0.08
18.00	0.08	945	637.30	0.08
18.50	0.07	944	637.30	0.07
19.00	0.07	942	637.30	0.07
19.50	0.06	941	637.30	0.06
20.00	0.06	939	637.30	0.06

Stage-Discharge for Pond 19P: PROPOSED OUTFALL

Elevation (feet)	Primary (cfs)	Elevation (feet)	Primary (cfs)	Elevation (feet)	Primary (cfs)	Elevation (feet)	Primary (cfs)
636.29	0.00	637.37	0.77	638.45	3.85	639.53	4.94
636.31	0.00	637.39	1.06	638.47	3.87	639.55	4.96
636.33	0.00	637.41	1.39	638.49	3.89	639.57	4.98
636.35	0.00	637.43	1.74	638.51	3.92	639.59	5.00
636.37	0.01	637.45	2.12	638.53	3.94	639.61	5.01
636.39	0.01	637.47	2.46	638.55	3.96	639.63	5.03
636.41	0.01	637.49	2.50	638.57	3.98	639.65	5.05
636.43	0.01	637.51	2.53	638.59	4.01	639.67	5.07
636.45	0.01	637.53	2.57	638.61	4.03	639.69	5.08
636.47	0.01	637.55	2.60	638.63	4.05	639.71	5.10
636.49	0.01	637.57	2.64	638.65	4.07	639.73	5.12
636.51	0.01	637.59	2.67	638.67	4.09	639.75	5.14
636.53	0.01	637.61	2.69	638.69	4.12	639.77	5.15
636.55	0.01	637.63	2.66	638.71	4.14	639.79	5.17
636.57	0.01	637.65	2.71	638.73	4.16	639.81	5.19
636.59	0.01	637.67	2.75	638.75	4.18	639.83	5.21
636.61	0.01	637.69	2.79	638.77	4.20	639.85	5.22
636.63	0.01	637.71	2.83	638.79	4.22	639.87	5.24
636.65	0.01	637.73	2.87	638.81	4.24	639.89	5.26
636.67	0.02	637.75	2.91	638.83	4.26	639.91	5.27
636.69	0.02	637.77	2.95	638.85	4.29	639.93	5.29
636.71	0.02	637.79	2.98	638.87	4.31	639.95	5.31
636.73	0.02	637.81	3.02	638.89	4.33	639.97	5.32
636.75	0.02	637.83	3.04	638.91	4.35	639.99	5.34
636.77	0.02	637.85	3.07	638.93	4.37		
636.79	0.02	637.87	3.10	638.95	4.39		
636.81	0.02	637.89	3.13	638.97	4.41		
636.83	0.02	637.91	3.16	638.99	4.43		
636.85	0.02	637.93	3.19	639.01	4.45		
636.87	0.02	637.95	3.22	639.03	4.47		
636.89	0.02	637.97	3.24	639.05	4.49		
636.91	0.02	637.99	3.27	639.07	4.51		
636.93	0.02	638.01	3.30	639.09	4.53		
636.95	0.02	638.03	3.32	639.11	4.55		
636.97	0.02	638.05	3.35	639.13	4.57		
636.99	0.02	638.07	3.38	639.15	4.59		
637.01	0.02	638.09	3.40	639.17	4.61		
637.03	0.02	638.11	3.43	639.19	4.63		
637.05	0.02	638.13	3.46	639.21	4.64		
637.07	0.02	638.15	3.48	639.23	4.66		
637.09	0.02	638.17	3.51	639.25	4.68		
637.11	0.02	638.19	3.53	639.27	4.70		
637.13	0.02	638.21	3.56	639.29	4.72		
637.15	0.02	638.23	3.58	639.31	4.74		
637.17	0.02	638.25	3.61	639.33	4.76		
637.19	0.02	638.27	3.63	639.35	4.78		
637.21	0.02	638.29	3.66	639.37	4.80		
637.23	0.02	638.31	3.68	639.39	4.81		
637.25	0.03	638.33	3.70	639.41	4.83		
637.27	0.03	638.35	3.73	639.43	4.85		
637.29	0.03	638.37	3.75	639.45	4.87		
637.31	0.12	638.39	3.78	639.47	4.89		
637.33	0.29	638.41	3.80	639.49	4.91		
637.35	0.51	638.43	3.82	639.51	4.92		

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MSE 24-hr 3 1-year Rainfall=2.34"

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Stage-Area-Storage for Pond 19P: PROPOSED OUTFALL

Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)	Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)
636.29	2	0	638.99	16,500	10,417
636.34	94	2	639.04	17,620	11,270
636.39	186	9	639.09	18,714	12,179
636.44	278	21	639.14	19,809	13,142
636.49	370	37	639.19	20,903	14,160
636.54	462	58	639.24	21,997	15,232
636.59	553	83	639.29	23,091	16,359
636.64	645	113	639.34	24,185	17,541
636.69	737	148	639.39	25,279	18,778
636.74	829	187	639.44	26,374	20,069
636.79	921	231	639.49	27,468	21,415
636.84	1,013	279	639.54	28,562	22,816
636.89	1,105	332	639.59	29,656	24,271
636.94	1,197	390	639.64	30,750	25,782
636.99	1,289	452	639.69	31,844	27,346
637.04	1,387	519	639.74	32,938	28,966
637.09	1,486	590	639.79	34,033	30,640
637.14	1,586	667	639.84	35,127	32,369
637.19	1,685	749	639.89	36,221	34,153
637.24	1,785	836	639.94	37,315	35,991
637.29	1,884	927	639.99	38,409	37,884
637.34	1,984	1,024			
637.39	2,083	1,126			
637.44	2,183	1,233			
637.49	2,283	1,344			
637.54	2,382	1,461			
637.59	2,482	1,582			
637.64	2,581	1,709			
637.69	2,681	1,840			
637.74	2,780	1,977			
637.79	2,880	2,119			
637.84	2,979	2,265			
637.89	3,079	2,416			
637.94	3,179	2,573			
637.99	3,278	2,734			
638.04	3,542	2,904			
638.09	3,847	3,089			
638.14	4,151	3,289			
638.19	4,456	3,504			
638.24	4,761	3,734			
638.29	5,066	3,980			
638.34	5,370	4,241			
638.39	5,675	4,517			
638.44	5,980	4,808			
638.49	6,285	5,115			
638.54	6,589	5,437			
638.59	6,894	5,774			
638.64	7,934	6,141			
638.69	9,158	6,568			
638.74	10,381	7,057			
638.79	11,605	7,606			
638.84	12,829	8,217			
638.89	14,053	8,889			
638.94	15,276	9,622			

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MSE 24-hr 3 2-Year Rainfall=2.64"

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Time span=0.00-20.00 hrs, dt=0.01 hrs, 2001 points
 Runoff by SCS TR-20 method, UH=SCS, Weighted-CN
 Reach routing by Stor-Ind+Trans method - Pond routing by Stor-Ind method

Subcatchment 14S: E2	Runoff Area=10,320 sf 31.16% Impervious Runoff Depth>1.23" Tc=5.0 min CN=85 Runoff=0.60 cfs 0.024 af
Subcatchment 15S: P2	Runoff Area=6,079 sf 53.04% Impervious Runoff Depth>1.52" Tc=5.0 min CN=89 Runoff=0.42 cfs 0.018 af
Subcatchment 16S: P1	Runoff Area=59,729 sf 82.69% Impervious Runoff Depth>2.03" Tc=5.0 min CN=95 Runoff=5.17 cfs 0.232 af
Subcatchment 17S: E1	Runoff Area=56,330 sf 66.71% Impervious Runoff Depth>1.76" Tc=5.0 min CN=92 Runoff=4.42 cfs 0.189 af
Subcatchment 20S: OFFSITE NORTH (OFN)	Runoff Area=24,030 sf 19.50% Impervious Runoff Depth>0.99" Tc=5.0 min UI Adjusted CN=81 Runoff=1.13 cfs 0.046 af
Subcatchment 21S: Northern Swale	Runoff Area=26,513 sf 79.55% Impervious Runoff Depth>1.94" Tc=5.0 min CN=94 Runoff=2.23 cfs 0.098 af
Subcatchment 22S: OFFSITE SOUTH (OFS)	Runoff Area=29,333 sf 54.24% Impervious Runoff Depth>1.52" Tc=5.0 min CN=89 Runoff=2.04 cfs 0.085 af
Subcatchment 24S: OFFSITE NORTH	Runoff Area=24,030 sf 19.50% Impervious Runoff Depth>0.99" Tc=5.0 min UI Adjusted CN=81 Runoff=1.13 cfs 0.046 af
Subcatchment 25S: OFFSITE SOUTH (OFS)	Runoff Area=29,333 sf 54.24% Impervious Runoff Depth>1.52" Tc=5.0 min CN=89 Runoff=2.04 cfs 0.085 af
Pond 18P: EXISTING OUTFALL	Peak Elev=638.40' Storage=2,040 cf Inflow=7.59 cfs 0.320 af 12.0" Round Culvert n=0.025 L=14.0' S=0.0207 ' Outflow=3.79 cfs 0.320 af
Pond 19P: PROPOSED OUTFALL	Peak Elev=638.23' Storage=3,670 cf Inflow=8.34 cfs 0.363 af Outflow=3.58 cfs 0.341 af

Total Runoff Area = 6.100 ac Runoff Volume = 0.823 af Average Runoff Depth = 1.62"
41.40% Pervious = 2.525 ac 58.60% Impervious = 3.574 ac

Summary for Subcatchment 14S: E2

Runoff = 0.60 cfs @ 12.13 hrs, Volume= 0.024 af, Depth> 1.23"

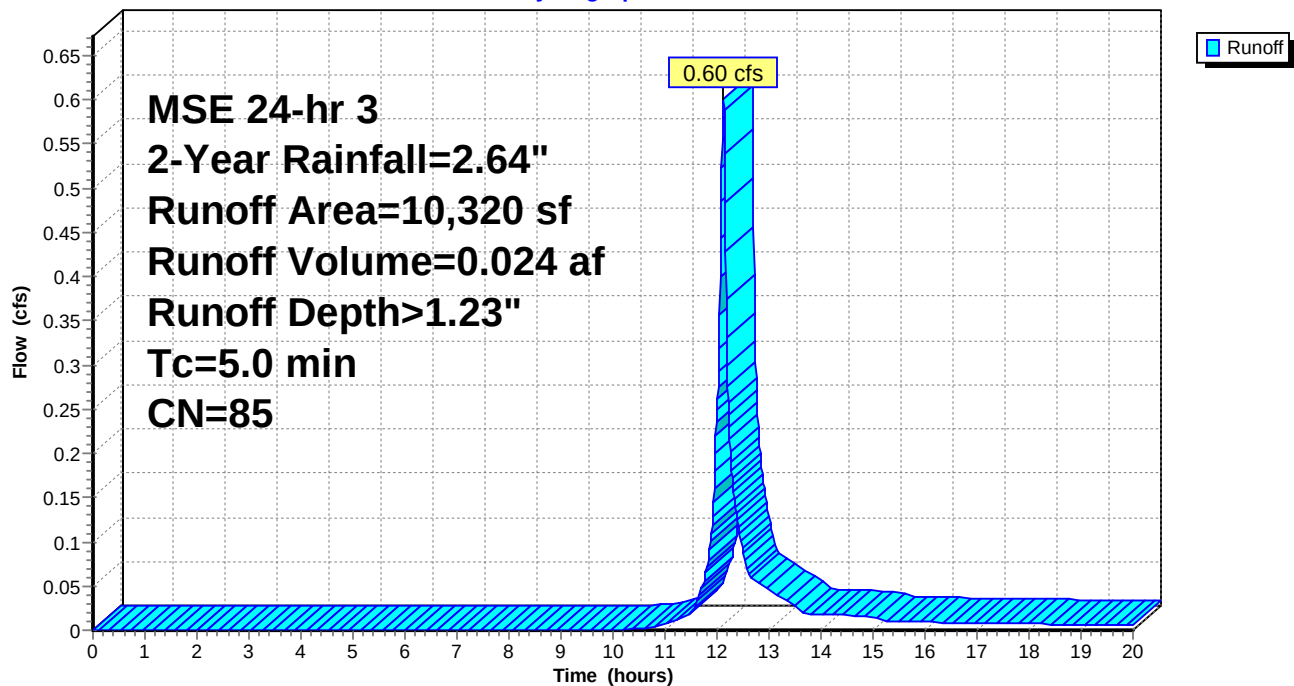
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-20.00 hrs, dt= 0.01 hrs
MSE 24-hr 3 2-Year Rainfall=2.64"

Area (sf)	CN	Description
7,104	79	50-75% Grass cover, Fair, HSG C
3,216	98	Paved parking, HSG C
10,320	85	Weighted Average
7,104		68.84% Pervious Area
3,216		31.16% Impervious Area

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

Subcatchment 14S: E2

Hydrograph



Glendale Daycare REV1

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MSE 24-hr 3 2-Year Rainfall=2.64"

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Hydrograph for Subcatchment 14S: E2

Time (hours)	Precip. (inches)	Excess (inches)	Runoff (cfs)	Time (hours)	Precip. (inches)	Excess (inches)	Runoff (cfs)
0.00	0.00	0.00	0.00	10.80	0.46	0.01	0.00
0.20	0.00	0.00	0.00	11.00	0.51	0.01	0.01
0.40	0.00	0.00	0.00	11.20	0.56	0.02	0.01
0.60	0.01	0.00	0.00	11.40	0.62	0.04	0.02
0.80	0.01	0.00	0.00	11.60	0.70	0.06	0.03
1.00	0.01	0.00	0.00	11.80	0.86	0.11	0.07
1.20	0.01	0.00	0.00	12.00	1.22	0.29	0.25
1.40	0.01	0.00	0.00	12.20	1.78	0.64	0.30
1.60	0.02	0.00	0.00	12.40	1.94	0.75	0.12
1.80	0.02	0.00	0.00	12.60	2.02	0.81	0.06
2.00	0.02	0.00	0.00	12.80	2.08	0.85	0.05
2.20	0.03	0.00	0.00	13.00	2.13	0.89	0.05
2.40	0.03	0.00	0.00	13.20	2.18	0.93	0.04
2.60	0.04	0.00	0.00	13.40	2.21	0.95	0.03
2.80	0.04	0.00	0.00	13.60	2.24	0.97	0.02
3.00	0.04	0.00	0.00	13.80	2.26	0.99	0.02
3.20	0.05	0.00	0.00	14.00	2.28	1.00	0.02
3.40	0.05	0.00	0.00	14.20	2.30	1.02	0.02
3.60	0.06	0.00	0.00	14.40	2.31	1.03	0.02
3.80	0.06	0.00	0.00	14.60	2.33	1.05	0.02
4.00	0.07	0.00	0.00	14.80	2.35	1.06	0.02
4.20	0.07	0.00	0.00	15.00	2.37	1.07	0.02
4.40	0.08	0.00	0.00	15.20	2.38	1.08	0.01
4.60	0.09	0.00	0.00	15.40	2.39	1.09	0.01
4.80	0.09	0.00	0.00	15.60	2.40	1.10	0.01
5.00	0.10	0.00	0.00	15.80	2.41	1.11	0.01
5.20	0.11	0.00	0.00	16.00	2.42	1.11	0.01
5.40	0.11	0.00	0.00	16.20	2.43	1.12	0.01
5.60	0.12	0.00	0.00	16.40	2.44	1.13	0.01
5.80	0.13	0.00	0.00	16.60	2.45	1.14	0.01
6.00	0.13	0.00	0.00	16.80	2.46	1.14	0.01
6.20	0.14	0.00	0.00	17.00	2.46	1.15	0.01
6.40	0.15	0.00	0.00	17.20	2.47	1.16	0.01
6.60	0.16	0.00	0.00	17.40	2.48	1.16	0.01
6.80	0.17	0.00	0.00	17.60	2.49	1.17	0.01
7.00	0.18	0.00	0.00	17.80	2.50	1.18	0.01
7.20	0.18	0.00	0.00	18.00	2.51	1.18	0.01
7.40	0.19	0.00	0.00	18.20	2.51	1.19	0.01
7.60	0.20	0.00	0.00	18.40	2.52	1.19	0.01
7.80	0.21	0.00	0.00	18.60	2.53	1.20	0.01
8.00	0.22	0.00	0.00	18.80	2.53	1.21	0.01
8.20	0.23	0.00	0.00	19.00	2.54	1.21	0.01
8.40	0.24	0.00	0.00	19.20	2.55	1.22	0.01
8.60	0.25	0.00	0.00	19.40	2.55	1.22	0.01
8.80	0.26	0.00	0.00	19.60	2.56	1.23	0.01
9.00	0.27	0.00	0.00	19.80	2.57	1.23	0.01
9.20	0.29	0.00	0.00	20.00	2.57	1.24	0.01
9.40	0.31	0.00	0.00				
9.60	0.33	0.00	0.00				
9.80	0.34	0.00	0.00				
10.00	0.36	0.00	0.00				
10.20	0.38	0.00	0.00				
10.40	0.40	0.00	0.00				
10.60	0.43	0.00	0.00				

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MSE 24-hr 3 2-Year Rainfall=2.64"

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Summary for Subcatchment 15S: P2

Runoff = 0.42 cfs @ 12.12 hrs, Volume= 0.018 af, Depth> 1.52"

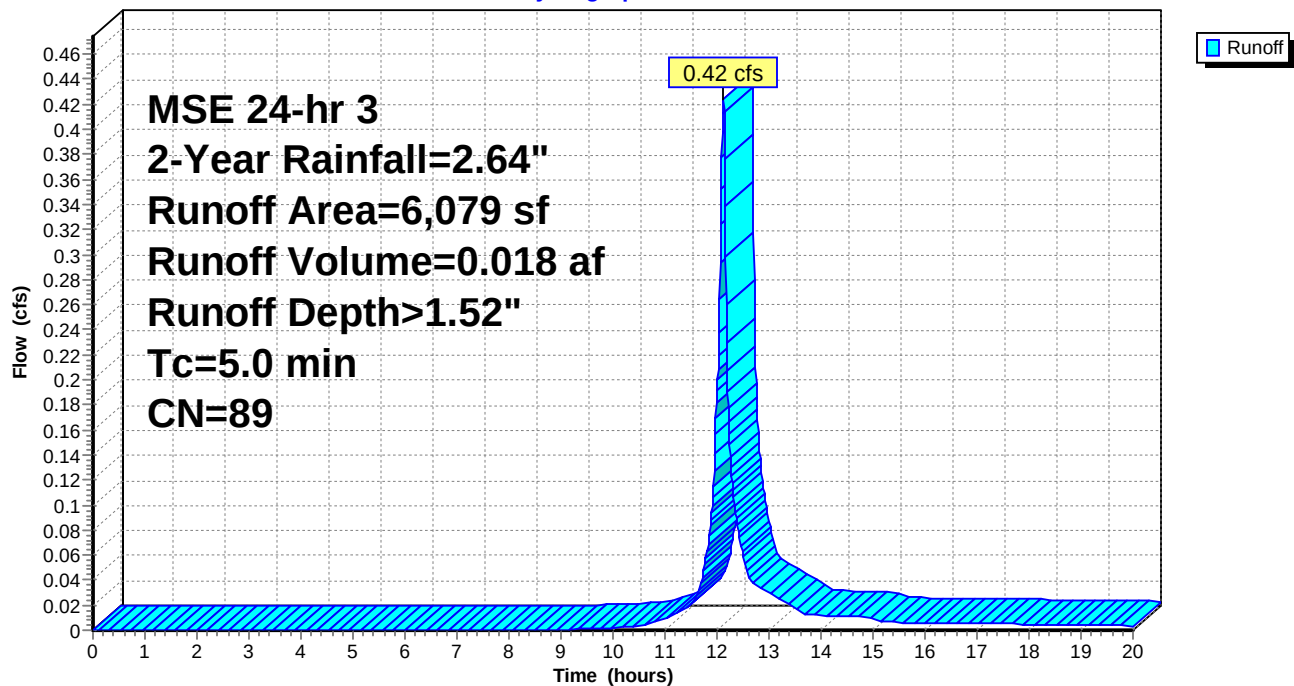
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-20.00 hrs, dt= 0.01 hrs
MSE 24-hr 3 2-Year Rainfall=2.64"

Area (sf)	CN	Description
2,855	79	50-75% Grass cover, Fair, HSG C
3,224	98	Paved parking, HSG C
6,079	89	Weighted Average
2,855		46.96% Pervious Area
3,224		53.04% Impervious Area

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

Subcatchment 15S: P2

Hydrograph



Hydrograph for Subcatchment 15S: P2

Time (hours)	Precip. (inches)	Excess (inches)	Runoff (cfs)	Time (hours)	Precip. (inches)	Excess (inches)	Runoff (cfs)
0.00	0.00	0.00	0.00	10.80	0.46	0.03	0.01
0.20	0.00	0.00	0.00	11.00	0.51	0.05	0.01
0.40	0.00	0.00	0.00	11.20	0.56	0.06	0.01
0.60	0.01	0.00	0.00	11.40	0.62	0.09	0.02
0.80	0.01	0.00	0.00	11.60	0.70	0.12	0.03
1.00	0.01	0.00	0.00	11.80	0.86	0.20	0.06
1.20	0.01	0.00	0.00	12.00	1.22	0.43	0.19
1.40	0.01	0.00	0.00	12.20	1.78	0.85	0.21
1.60	0.02	0.00	0.00	12.40	1.94	0.98	0.08
1.80	0.02	0.00	0.00	12.60	2.02	1.04	0.04
2.00	0.02	0.00	0.00	12.80	2.08	1.09	0.03
2.20	0.03	0.00	0.00	13.00	2.13	1.14	0.03
2.40	0.03	0.00	0.00	13.20	2.18	1.18	0.03
2.60	0.04	0.00	0.00	13.40	2.21	1.21	0.02
2.80	0.04	0.00	0.00	13.60	2.24	1.23	0.01
3.00	0.04	0.00	0.00	13.80	2.26	1.24	0.01
3.20	0.05	0.00	0.00	14.00	2.28	1.26	0.01
3.40	0.05	0.00	0.00	14.20	2.30	1.28	0.01
3.60	0.06	0.00	0.00	14.40	2.31	1.29	0.01
3.80	0.06	0.00	0.00	14.60	2.33	1.31	0.01
4.00	0.07	0.00	0.00	14.80	2.35	1.33	0.01
4.20	0.07	0.00	0.00	15.00	2.37	1.34	0.01
4.40	0.08	0.00	0.00	15.20	2.38	1.35	0.01
4.60	0.09	0.00	0.00	15.40	2.39	1.36	0.01
4.80	0.09	0.00	0.00	15.60	2.40	1.37	0.01
5.00	0.10	0.00	0.00	15.80	2.41	1.38	0.01
5.20	0.11	0.00	0.00	16.00	2.42	1.38	0.01
5.40	0.11	0.00	0.00	16.20	2.43	1.39	0.01
5.60	0.12	0.00	0.00	16.40	2.44	1.40	0.01
5.80	0.13	0.00	0.00	16.60	2.45	1.41	0.01
6.00	0.13	0.00	0.00	16.80	2.46	1.42	0.01
6.20	0.14	0.00	0.00	17.00	2.46	1.42	0.01
6.40	0.15	0.00	0.00	17.20	2.47	1.43	0.01
6.60	0.16	0.00	0.00	17.40	2.48	1.44	0.01
6.80	0.17	0.00	0.00	17.60	2.49	1.45	0.00
7.00	0.18	0.00	0.00	17.80	2.50	1.45	0.00
7.20	0.18	0.00	0.00	18.00	2.51	1.46	0.00
7.40	0.19	0.00	0.00	18.20	2.51	1.47	0.00
7.60	0.20	0.00	0.00	18.40	2.52	1.47	0.00
7.80	0.21	0.00	0.00	18.60	2.53	1.48	0.00
8.00	0.22	0.00	0.00	18.80	2.53	1.48	0.00
8.20	0.23	0.00	0.00	19.00	2.54	1.49	0.00
8.40	0.24	0.00	0.00	19.20	2.55	1.50	0.00
8.60	0.25	0.00	0.00	19.40	2.55	1.50	0.00
8.80	0.26	0.00	0.00	19.60	2.56	1.51	0.00
9.00	0.27	0.00	0.00	19.80	2.57	1.51	0.00
9.20	0.29	0.00	0.00	20.00	2.57	1.52	0.00
9.40	0.31	0.00	0.00				
9.60	0.33	0.00	0.00				
9.80	0.34	0.01	0.00				
10.00	0.36	0.01	0.00				
10.20	0.38	0.01	0.00				
10.40	0.40	0.02	0.00				
10.60	0.43	0.02	0.00				

Glendale Daycare REV1

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MSE 24-hr 3 2-Year Rainfall=2.64"

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Summary for Subcatchment 16S: P1

Runoff = 5.17 cfs @ 12.12 hrs, Volume= 0.232 af, Depth> 2.03"

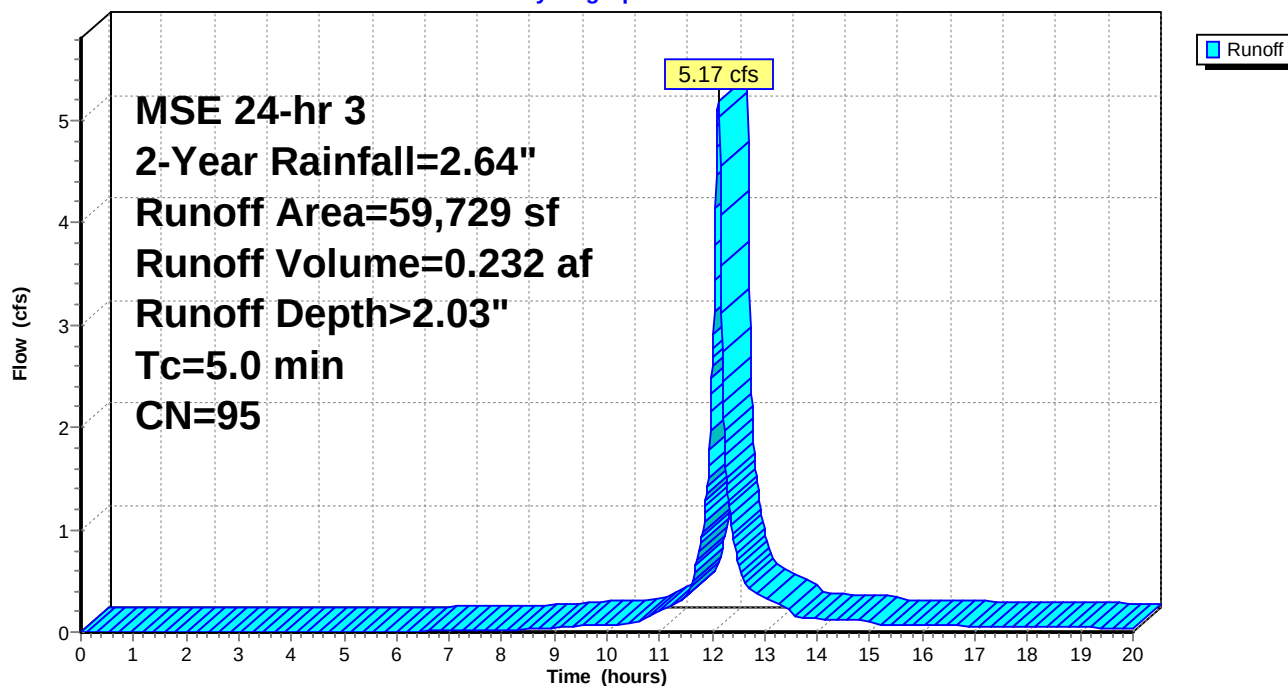
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-20.00 hrs, dt= 0.01 hrs
MSE 24-hr 3 2-Year Rainfall=2.64"

Area (sf)	CN	Description
10,339	79	50-75% Grass cover, Fair, HSG C
30,849	98	Paved parking, HSG C
18,541	98	Unconnected roofs, HSG C
59,729	95	Weighted Average
10,339		17.31% Pervious Area
49,390		82.69% Impervious Area
18,541		37.54% Unconnected

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

Subcatchment 16S: P1

Hydrograph



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MSE 24-hr 3 2-Year Rainfall=2.64"

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Hydrograph for Subcatchment 16S: P1

Time (hours)	Precip. (inches)	Excess (inches)	Runoff (cfs)	Time (hours)	Precip. (inches)	Excess (inches)	Runoff (cfs)
0.00	0.00	0.00	0.00	10.80	0.46	0.15	0.16
0.20	0.00	0.00	0.00	11.00	0.51	0.18	0.21
0.40	0.00	0.00	0.00	11.20	0.56	0.21	0.26
0.60	0.01	0.00	0.00	11.40	0.62	0.26	0.31
0.80	0.01	0.00	0.00	11.60	0.70	0.32	0.48
1.00	0.01	0.00	0.00	11.80	0.86	0.44	0.94
1.20	0.01	0.00	0.00	12.00	1.22	0.76	2.59
1.40	0.01	0.00	0.00	12.20	1.78	1.28	2.45
1.60	0.02	0.00	0.00	12.40	1.94	1.42	0.92
1.80	0.02	0.00	0.00	12.60	2.02	1.50	0.48
2.00	0.02	0.00	0.00	12.80	2.08	1.56	0.39
2.20	0.03	0.00	0.00	13.00	2.13	1.61	0.34
2.40	0.03	0.00	0.00	13.20	2.18	1.65	0.29
2.60	0.04	0.00	0.00	13.40	2.21	1.69	0.23
2.80	0.04	0.00	0.00	13.60	2.24	1.71	0.15
3.00	0.04	0.00	0.00	13.80	2.26	1.73	0.13
3.20	0.05	0.00	0.00	14.00	2.28	1.75	0.13
3.40	0.05	0.00	0.00	14.20	2.30	1.77	0.13
3.60	0.06	0.00	0.00	14.40	2.31	1.78	0.12
3.80	0.06	0.00	0.00	14.60	2.33	1.80	0.12
4.00	0.07	0.00	0.00	14.80	2.35	1.82	0.12
4.20	0.07	0.00	0.00	15.00	2.37	1.84	0.11
4.40	0.08	0.00	0.00	15.20	2.38	1.85	0.07
4.60	0.09	0.00	0.00	15.40	2.39	1.86	0.07
4.80	0.09	0.00	0.00	15.60	2.40	1.87	0.07
5.00	0.10	0.00	0.00	15.80	2.41	1.88	0.07
5.20	0.11	0.00	0.00	16.00	2.42	1.88	0.07
5.40	0.11	0.00	0.00	16.20	2.43	1.89	0.06
5.60	0.12	0.00	0.00	16.40	2.44	1.90	0.06
5.80	0.13	0.00	0.00	16.60	2.45	1.91	0.06
6.00	0.13	0.00	0.00	16.80	2.46	1.92	0.06
6.20	0.14	0.00	0.01	17.00	2.46	1.93	0.06
6.40	0.15	0.00	0.01	17.20	2.47	1.94	0.06
6.60	0.16	0.00	0.01	17.40	2.48	1.95	0.06
6.80	0.17	0.01	0.01	17.60	2.49	1.95	0.05
7.00	0.18	0.01	0.01	17.80	2.50	1.96	0.05
7.20	0.18	0.01	0.01	18.00	2.51	1.97	0.05
7.40	0.19	0.01	0.02	18.20	2.51	1.98	0.05
7.60	0.20	0.02	0.02	18.40	2.52	1.98	0.05
7.80	0.21	0.02	0.02	18.60	2.53	1.99	0.05
8.00	0.22	0.02	0.02	18.80	2.53	2.00	0.05
8.20	0.23	0.02	0.02	19.00	2.54	2.00	0.04
8.40	0.24	0.03	0.02	19.20	2.55	2.01	0.04
8.60	0.25	0.03	0.03	19.40	2.55	2.02	0.04
8.80	0.26	0.04	0.03	19.60	2.56	2.02	0.04
9.00	0.27	0.04	0.03	19.80	2.57	2.03	0.04
9.20	0.29	0.05	0.05	20.00	2.57	2.03	0.04
9.40	0.31	0.06	0.06				
9.60	0.33	0.06	0.06				
9.80	0.34	0.07	0.07				
10.00	0.36	0.08	0.07				
10.20	0.38	0.10	0.08				
10.40	0.40	0.11	0.08				
10.60	0.43	0.12	0.12				

Glendale Daycare REV1

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MSE 24-hr 3 2-Year Rainfall=2.64"

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Summary for Subcatchment 17S: E1

Runoff = 4.42 cfs @ 12.12 hrs, Volume= 0.189 af, Depth> 1.76"

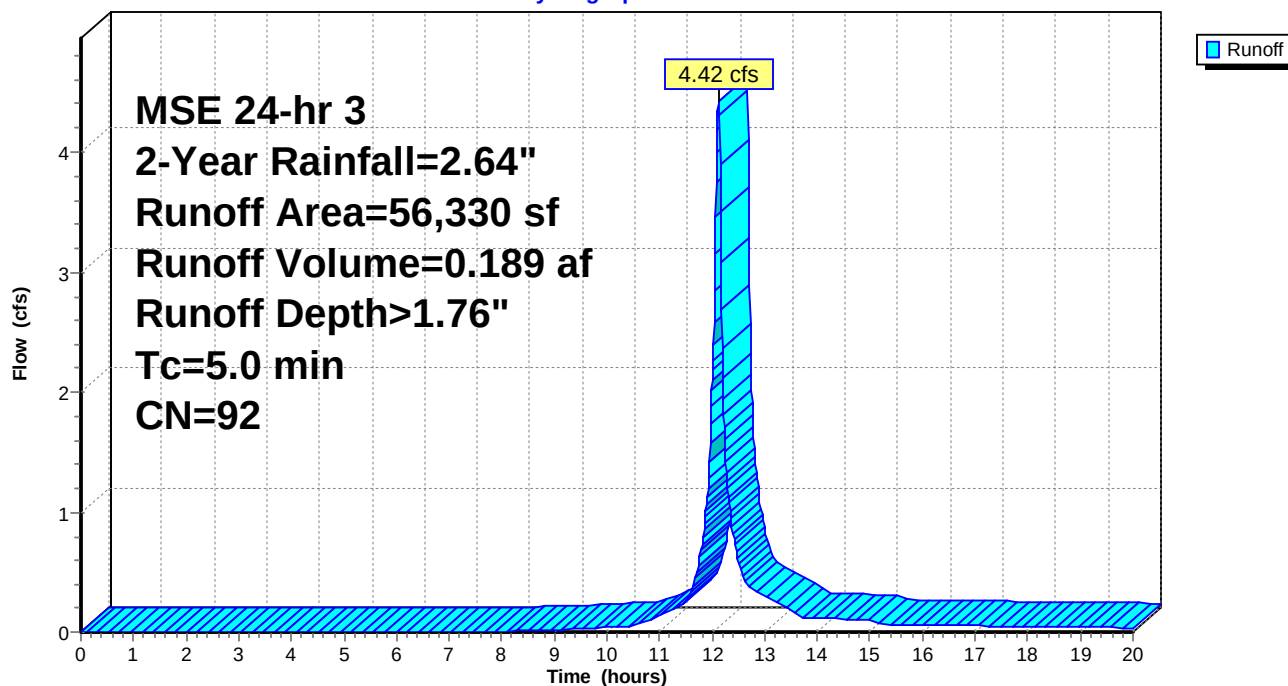
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-20.00 hrs, dt= 0.01 hrs
MSE 24-hr 3 2-Year Rainfall=2.64"

Area (sf)	CN	Description
18,753	79	50-75% Grass cover, Fair, HSG C
22,758	98	Paved parking, HSG C
14,819	98	Unconnected roofs, HSG C
56,330	92	Weighted Average
18,753		33.29% Pervious Area
37,577		66.71% Impervious Area
14,819		39.44% Unconnected

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

Subcatchment 17S: E1

Hydrograph



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MSE 24-hr 3 2-Year Rainfall=2.64"

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Hydrograph for Subcatchment 17S: E1

Time (hours)	Precip. (inches)	Excess (inches)	Runoff (cfs)	Time (hours)	Precip. (inches)	Excess (inches)	Runoff (cfs)
0.00	0.00	0.00	0.00	10.80	0.46	0.07	0.10
0.20	0.00	0.00	0.00	11.00	0.51	0.09	0.14
0.40	0.00	0.00	0.00	11.20	0.56	0.12	0.18
0.60	0.01	0.00	0.00	11.40	0.62	0.15	0.22
0.80	0.01	0.00	0.00	11.60	0.70	0.20	0.35
1.00	0.01	0.00	0.00	11.80	0.86	0.30	0.72
1.20	0.01	0.00	0.00	12.00	1.22	0.57	2.11
1.40	0.01	0.00	0.00	12.20	1.78	1.04	2.12
1.60	0.02	0.00	0.00	12.40	1.94	1.18	0.81
1.80	0.02	0.00	0.00	12.60	2.02	1.25	0.43
2.00	0.02	0.00	0.00	12.80	2.08	1.31	0.35
2.20	0.03	0.00	0.00	13.00	2.13	1.36	0.30
2.40	0.03	0.00	0.00	13.20	2.18	1.40	0.26
2.60	0.04	0.00	0.00	13.40	2.21	1.43	0.21
2.80	0.04	0.00	0.00	13.60	2.24	1.45	0.13
3.00	0.04	0.00	0.00	13.80	2.26	1.47	0.12
3.20	0.05	0.00	0.00	14.00	2.28	1.49	0.12
3.40	0.05	0.00	0.00	14.20	2.30	1.51	0.11
3.60	0.06	0.00	0.00	14.40	2.31	1.52	0.11
3.80	0.06	0.00	0.00	14.60	2.33	1.54	0.11
4.00	0.07	0.00	0.00	14.80	2.35	1.56	0.11
4.20	0.07	0.00	0.00	15.00	2.37	1.57	0.10
4.40	0.08	0.00	0.00	15.20	2.38	1.58	0.06
4.60	0.09	0.00	0.00	15.40	2.39	1.59	0.06
4.80	0.09	0.00	0.00	15.60	2.40	1.60	0.06
5.00	0.10	0.00	0.00	15.80	2.41	1.61	0.06
5.20	0.11	0.00	0.00	16.00	2.42	1.62	0.06
5.40	0.11	0.00	0.00	16.20	2.43	1.63	0.06
5.60	0.12	0.00	0.00	16.40	2.44	1.64	0.06
5.80	0.13	0.00	0.00	16.60	2.45	1.64	0.05
6.00	0.13	0.00	0.00	16.80	2.46	1.65	0.05
6.20	0.14	0.00	0.00	17.00	2.46	1.66	0.05
6.40	0.15	0.00	0.00	17.20	2.47	1.67	0.05
6.60	0.16	0.00	0.00	17.40	2.48	1.68	0.05
6.80	0.17	0.00	0.00	17.60	2.49	1.68	0.05
7.00	0.18	0.00	0.00	17.80	2.50	1.69	0.05
7.20	0.18	0.00	0.00	18.00	2.51	1.70	0.05
7.40	0.19	0.00	0.00	18.20	2.51	1.71	0.05
7.60	0.20	0.00	0.00	18.40	2.52	1.71	0.04
7.80	0.21	0.00	0.00	18.60	2.53	1.72	0.04
8.00	0.22	0.00	0.01	18.80	2.53	1.72	0.04
8.20	0.23	0.00	0.01	19.00	2.54	1.73	0.04
8.40	0.24	0.00	0.01	19.20	2.55	1.74	0.04
8.60	0.25	0.01	0.01	19.40	2.55	1.74	0.04
8.80	0.26	0.01	0.01	19.60	2.56	1.75	0.04
9.00	0.27	0.01	0.01	19.80	2.57	1.75	0.04
9.20	0.29	0.01	0.02	20.00	2.57	1.76	0.03
9.40	0.31	0.02	0.03				
9.60	0.33	0.02	0.03				
9.80	0.34	0.03	0.04				
10.00	0.36	0.03	0.04				
10.20	0.38	0.04	0.04				
10.40	0.40	0.05	0.05				
10.60	0.43	0.06	0.07				

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MSE 24-hr 3 2-Year Rainfall=2.64"

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Summary for Subcatchment 20S: OFFSITE NORTH (OFN)

Runoff = 1.13 cfs @ 12.13 hrs, Volume= 0.046 af, Depth> 0.99"

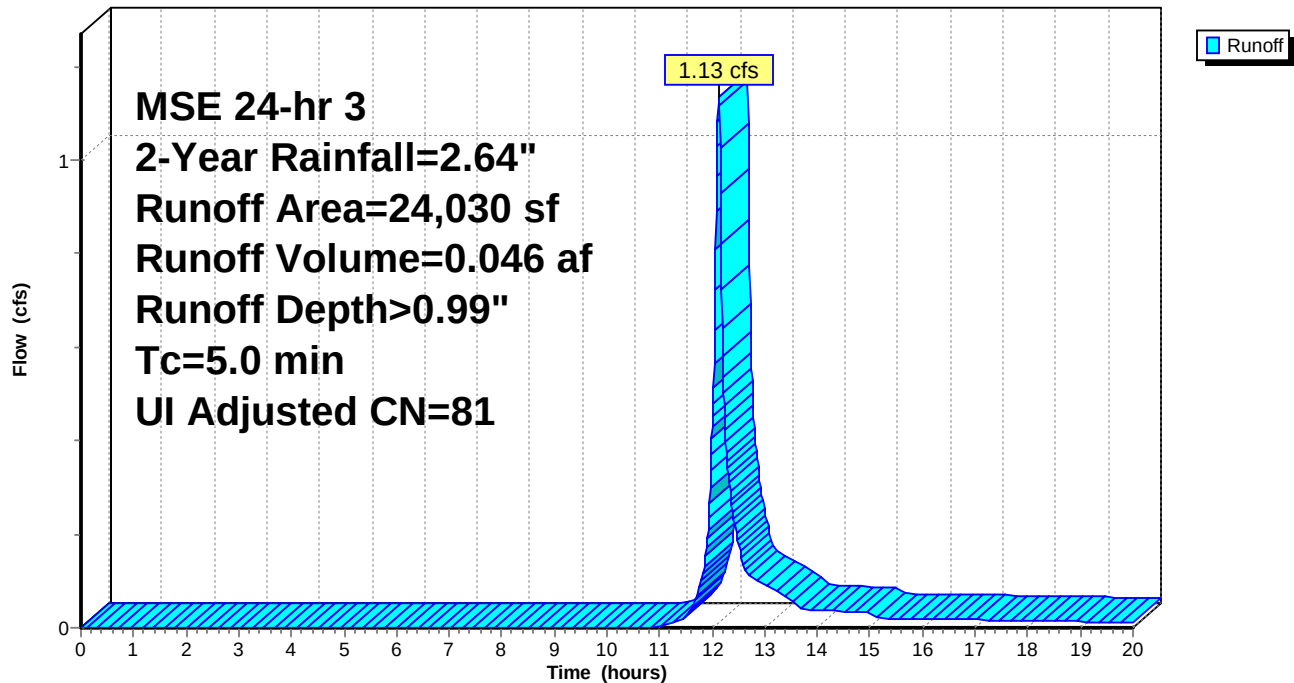
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-20.00 hrs, dt= 0.01 hrs
MSE 24-hr 3 2-Year Rainfall=2.64"

Area (sf)	CN	Adj	Description
19,345	79		50-75% Grass cover, Fair, HSG C
4,685	98		Unconnected roofs, HSG C
24,030	83	81	Weighted Average, UI Adjusted
19,345			80.50% Pervious Area
4,685			19.50% Impervious Area
4,685			100.00% Unconnected

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

Subcatchment 20S: OFFSITE NORTH (OFN)

Hydrograph



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MSE 24-hr 3 2-Year Rainfall=2.64"

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Hydrograph for Subcatchment 20S: OFFSITE NORTH (OFN)

Time (hours)	Precip. (inches)	Excess (inches)	Runoff (cfs)	Time (hours)	Precip. (inches)	Excess (inches)	Runoff (cfs)
0.00	0.00	0.00	0.00	10.80	0.46	0.00	0.00
0.20	0.00	0.00	0.00	11.00	0.51	0.00	0.00
0.40	0.00	0.00	0.00	11.20	0.56	0.00	0.01
0.60	0.01	0.00	0.00	11.40	0.62	0.01	0.02
0.80	0.01	0.00	0.00	11.60	0.70	0.02	0.04
1.00	0.01	0.00	0.00	11.80	0.86	0.05	0.11
1.20	0.01	0.00	0.00	12.00	1.22	0.18	0.43
1.40	0.01	0.00	0.00	12.20	1.78	0.47	0.58
1.60	0.02	0.00	0.00	12.40	1.94	0.56	0.24
1.80	0.02	0.00	0.00	12.60	2.02	0.62	0.13
2.00	0.02	0.00	0.00	12.80	2.08	0.66	0.11
2.20	0.03	0.00	0.00	13.00	2.13	0.69	0.09
2.40	0.03	0.00	0.00	13.20	2.18	0.72	0.08
2.60	0.04	0.00	0.00	13.40	2.21	0.74	0.07
2.80	0.04	0.00	0.00	13.60	2.24	0.76	0.04
3.00	0.04	0.00	0.00	13.80	2.26	0.77	0.04
3.20	0.05	0.00	0.00	14.00	2.28	0.79	0.04
3.40	0.05	0.00	0.00	14.20	2.30	0.80	0.04
3.60	0.06	0.00	0.00	14.40	2.31	0.81	0.04
3.80	0.06	0.00	0.00	14.60	2.33	0.83	0.03
4.00	0.07	0.00	0.00	14.80	2.35	0.84	0.03
4.20	0.07	0.00	0.00	15.00	2.37	0.85	0.03
4.40	0.08	0.00	0.00	15.20	2.38	0.86	0.02
4.60	0.09	0.00	0.00	15.40	2.39	0.86	0.02
4.80	0.09	0.00	0.00	15.60	2.40	0.87	0.02
5.00	0.10	0.00	0.00	15.80	2.41	0.88	0.02
5.20	0.11	0.00	0.00	16.00	2.42	0.89	0.02
5.40	0.11	0.00	0.00	16.20	2.43	0.89	0.02
5.60	0.12	0.00	0.00	16.40	2.44	0.90	0.02
5.80	0.13	0.00	0.00	16.60	2.45	0.90	0.02
6.00	0.13	0.00	0.00	16.80	2.46	0.91	0.02
6.20	0.14	0.00	0.00	17.00	2.46	0.92	0.02
6.40	0.15	0.00	0.00	17.20	2.47	0.92	0.02
6.60	0.16	0.00	0.00	17.40	2.48	0.93	0.02
6.80	0.17	0.00	0.00	17.60	2.49	0.94	0.02
7.00	0.18	0.00	0.00	17.80	2.50	0.94	0.02
7.20	0.18	0.00	0.00	18.00	2.51	0.95	0.02
7.40	0.19	0.00	0.00	18.20	2.51	0.95	0.01
7.60	0.20	0.00	0.00	18.40	2.52	0.96	0.01
7.80	0.21	0.00	0.00	18.60	2.53	0.96	0.01
8.00	0.22	0.00	0.00	18.80	2.53	0.97	0.01
8.20	0.23	0.00	0.00	19.00	2.54	0.97	0.01
8.40	0.24	0.00	0.00	19.20	2.55	0.98	0.01
8.60	0.25	0.00	0.00	19.40	2.55	0.98	0.01
8.80	0.26	0.00	0.00	19.60	2.56	0.99	0.01
9.00	0.27	0.00	0.00	19.80	2.57	0.99	0.01
9.20	0.29	0.00	0.00	20.00	2.57	0.99	0.01
9.40	0.31	0.00	0.00				
9.60	0.33	0.00	0.00				
9.80	0.34	0.00	0.00				
10.00	0.36	0.00	0.00				
10.20	0.38	0.00	0.00				
10.40	0.40	0.00	0.00				
10.60	0.43	0.00	0.00				

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MSE 24-hr 3 2-Year Rainfall=2.64"

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Summary for Subcatchment 21S: Northern Swale

Runoff = 2.23 cfs @ 12.12 hrs, Volume= 0.098 af, Depth> 1.94"

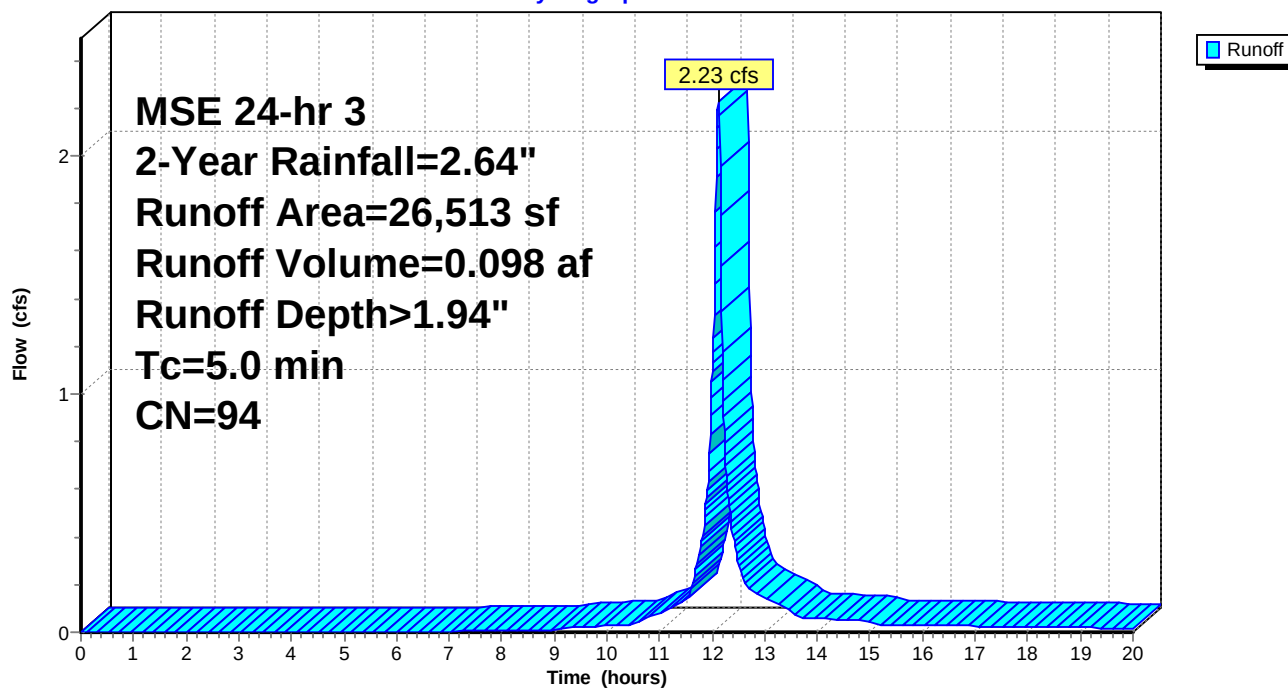
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-20.00 hrs, dt= 0.01 hrs
MSE 24-hr 3 2-Year Rainfall=2.64"

Area (sf)	CN	Description
5,422	79	50-75% Grass cover, Fair, HSG C
* 21,091	98	Roof
26,513	94	Weighted Average
5,422		20.45% Pervious Area
21,091		79.55% Impervious Area

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

Subcatchment 21S: Northern Swale

Hydrograph



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Hydrograph for Subcatchment 21S: Northern Swale

Time (hours)	Precip. (inches)	Excess (inches)	Runoff (cfs)	Time (hours)	Precip. (inches)	Excess (inches)	Runoff (cfs)
0.00	0.00	0.00	0.00	10.80	0.46	0.12	0.06
0.20	0.00	0.00	0.00	11.00	0.51	0.14	0.08
0.40	0.00	0.00	0.00	11.20	0.56	0.18	0.10
0.60	0.01	0.00	0.00	11.40	0.62	0.22	0.13
0.80	0.01	0.00	0.00	11.60	0.70	0.27	0.20
1.00	0.01	0.00	0.00	11.80	0.86	0.39	0.39
1.20	0.01	0.00	0.00	12.00	1.22	0.69	1.10
1.40	0.01	0.00	0.00	12.20	1.78	1.20	1.06
1.60	0.02	0.00	0.00	12.40	1.94	1.34	0.40
1.80	0.02	0.00	0.00	12.60	2.02	1.41	0.21
2.00	0.02	0.00	0.00	12.80	2.08	1.47	0.17
2.20	0.03	0.00	0.00	13.00	2.13	1.52	0.15
2.40	0.03	0.00	0.00	13.20	2.18	1.56	0.13
2.60	0.04	0.00	0.00	13.40	2.21	1.60	0.10
2.80	0.04	0.00	0.00	13.60	2.24	1.62	0.07
3.00	0.04	0.00	0.00	13.80	2.26	1.64	0.06
3.20	0.05	0.00	0.00	14.00	2.28	1.66	0.06
3.40	0.05	0.00	0.00	14.20	2.30	1.68	0.06
3.60	0.06	0.00	0.00	14.40	2.31	1.69	0.05
3.80	0.06	0.00	0.00	14.60	2.33	1.71	0.05
4.00	0.07	0.00	0.00	14.80	2.35	1.73	0.05
4.20	0.07	0.00	0.00	15.00	2.37	1.74	0.05
4.40	0.08	0.00	0.00	15.20	2.38	1.75	0.03
4.60	0.09	0.00	0.00	15.40	2.39	1.76	0.03
4.80	0.09	0.00	0.00	15.60	2.40	1.77	0.03
5.00	0.10	0.00	0.00	15.80	2.41	1.78	0.03
5.20	0.11	0.00	0.00	16.00	2.42	1.79	0.03
5.40	0.11	0.00	0.00	16.20	2.43	1.80	0.03
5.60	0.12	0.00	0.00	16.40	2.44	1.81	0.03
5.80	0.13	0.00	0.00	16.60	2.45	1.82	0.03
6.00	0.13	0.00	0.00	16.80	2.46	1.83	0.03
6.20	0.14	0.00	0.00	17.00	2.46	1.84	0.03
6.40	0.15	0.00	0.00	17.20	2.47	1.84	0.02
6.60	0.16	0.00	0.00	17.40	2.48	1.85	0.02
6.80	0.17	0.00	0.00	17.60	2.49	1.86	0.02
7.00	0.18	0.00	0.00	17.80	2.50	1.87	0.02
7.20	0.18	0.00	0.00	18.00	2.51	1.87	0.02
7.40	0.19	0.01	0.00	18.20	2.51	1.88	0.02
7.60	0.20	0.01	0.01	18.40	2.52	1.89	0.02
7.80	0.21	0.01	0.01	18.60	2.53	1.90	0.02
8.00	0.22	0.01	0.01	18.80	2.53	1.90	0.02
8.20	0.23	0.01	0.01	19.00	2.54	1.91	0.02
8.40	0.24	0.02	0.01	19.20	2.55	1.91	0.02
8.60	0.25	0.02	0.01	19.40	2.55	1.92	0.02
8.80	0.26	0.02	0.01	19.60	2.56	1.93	0.02
9.00	0.27	0.03	0.01	19.80	2.57	1.93	0.02
9.20	0.29	0.03	0.02	20.00	2.57	1.94	0.02
9.40	0.31	0.04	0.02				
9.60	0.33	0.05	0.02				
9.80	0.34	0.05	0.02				
10.00	0.36	0.06	0.03				
10.20	0.38	0.07	0.03				
10.40	0.40	0.08	0.03				
10.60	0.43	0.10	0.05				

Summary for Subcatchment 22S: OFFSITE SOUTH (OFS)

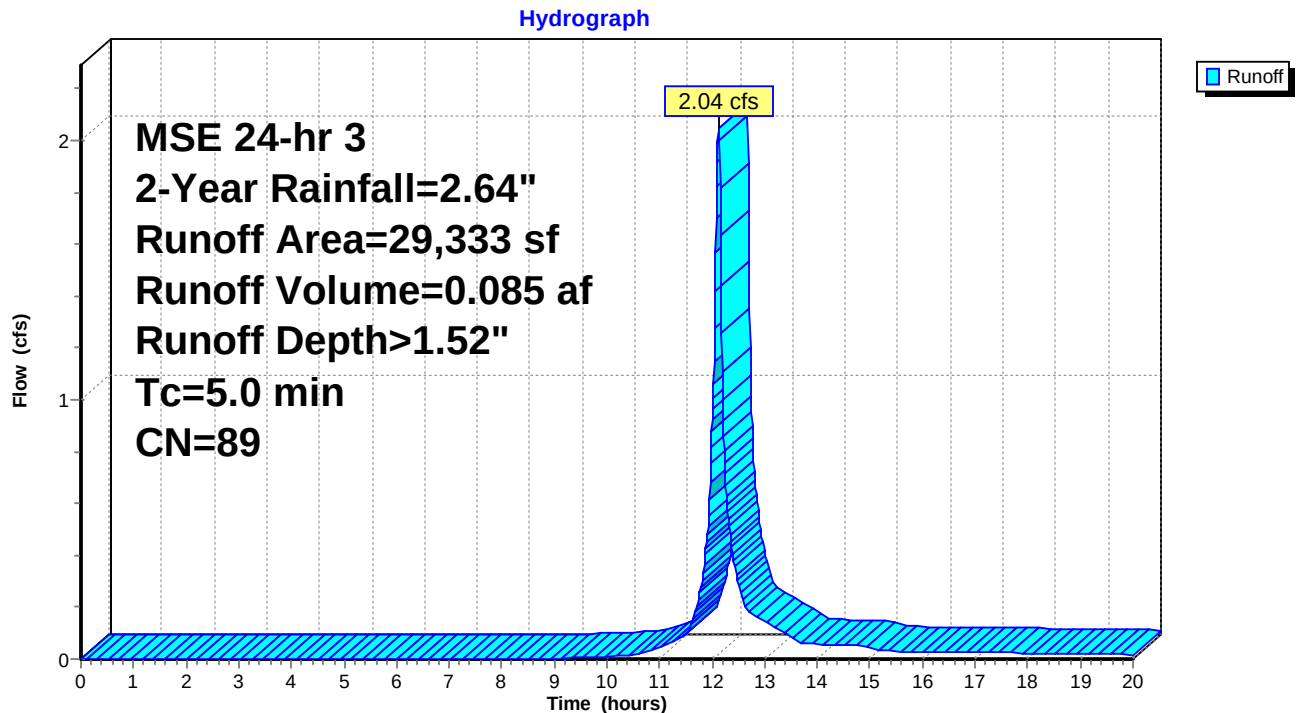
Runoff = 2.04 cfs @ 12.12 hrs, Volume= 0.085 af, Depth> 1.52"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-20.00 hrs, dt= 0.01 hrs
MSE 24-hr 3 2-Year Rainfall=2.64"

Area (sf)	CN	Description
13,422	79	50-75% Grass cover, Fair, HSG C
6,500	98	Unconnected roofs, HSG C
9,411	98	Paved parking, HSG C
29,333	89	Weighted Average
13,422		45.76% Pervious Area
15,911		54.24% Impervious Area
6,500		40.85% Unconnected

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

Subcatchment 22S: OFFSITE SOUTH (OFS)



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MSE 24-hr 3 2-Year Rainfall=2.64"

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Hydrograph for Subcatchment 22S: OFFSITE SOUTH (OFS)

Time (hours)	Precip. (inches)	Excess (inches)	Runoff (cfs)	Time (hours)	Precip. (inches)	Excess (inches)	Runoff (cfs)
0.00	0.00	0.00	0.00	10.80	0.46	0.03	0.03
0.20	0.00	0.00	0.00	11.00	0.51	0.05	0.05
0.40	0.00	0.00	0.00	11.20	0.56	0.06	0.06
0.60	0.01	0.00	0.00	11.40	0.62	0.09	0.08
0.80	0.01	0.00	0.00	11.60	0.70	0.12	0.14
1.00	0.01	0.00	0.00	11.80	0.86	0.20	0.29
1.20	0.01	0.00	0.00	12.00	1.22	0.43	0.92
1.40	0.01	0.00	0.00	12.20	1.78	0.85	1.00
1.60	0.02	0.00	0.00	12.40	1.94	0.98	0.39
1.80	0.02	0.00	0.00	12.60	2.02	1.04	0.21
2.00	0.02	0.00	0.00	12.80	2.08	1.09	0.17
2.20	0.03	0.00	0.00	13.00	2.13	1.14	0.15
2.40	0.03	0.00	0.00	13.20	2.18	1.18	0.12
2.60	0.04	0.00	0.00	13.40	2.21	1.21	0.10
2.80	0.04	0.00	0.00	13.60	2.24	1.23	0.07
3.00	0.04	0.00	0.00	13.80	2.26	1.24	0.06
3.20	0.05	0.00	0.00	14.00	2.28	1.26	0.06
3.40	0.05	0.00	0.00	14.20	2.30	1.28	0.06
3.60	0.06	0.00	0.00	14.40	2.31	1.29	0.05
3.80	0.06	0.00	0.00	14.60	2.33	1.31	0.05
4.00	0.07	0.00	0.00	14.80	2.35	1.33	0.05
4.20	0.07	0.00	0.00	15.00	2.37	1.34	0.05
4.40	0.08	0.00	0.00	15.20	2.38	1.35	0.03
4.60	0.09	0.00	0.00	15.40	2.39	1.36	0.03
4.80	0.09	0.00	0.00	15.60	2.40	1.37	0.03
5.00	0.10	0.00	0.00	15.80	2.41	1.38	0.03
5.20	0.11	0.00	0.00	16.00	2.42	1.38	0.03
5.40	0.11	0.00	0.00	16.20	2.43	1.39	0.03
5.60	0.12	0.00	0.00	16.40	2.44	1.40	0.03
5.80	0.13	0.00	0.00	16.60	2.45	1.41	0.03
6.00	0.13	0.00	0.00	16.80	2.46	1.42	0.03
6.20	0.14	0.00	0.00	17.00	2.46	1.42	0.03
6.40	0.15	0.00	0.00	17.20	2.47	1.43	0.03
6.60	0.16	0.00	0.00	17.40	2.48	1.44	0.02
6.80	0.17	0.00	0.00	17.60	2.49	1.45	0.02
7.00	0.18	0.00	0.00	17.80	2.50	1.45	0.02
7.20	0.18	0.00	0.00	18.00	2.51	1.46	0.02
7.40	0.19	0.00	0.00	18.20	2.51	1.47	0.02
7.60	0.20	0.00	0.00	18.40	2.52	1.47	0.02
7.80	0.21	0.00	0.00	18.60	2.53	1.48	0.02
8.00	0.22	0.00	0.00	18.80	2.53	1.48	0.02
8.20	0.23	0.00	0.00	19.00	2.54	1.49	0.02
8.40	0.24	0.00	0.00	19.20	2.55	1.50	0.02
8.60	0.25	0.00	0.00	19.40	2.55	1.50	0.02
8.80	0.26	0.00	0.00	19.60	2.56	1.51	0.02
9.00	0.27	0.00	0.00	19.80	2.57	1.51	0.02
9.20	0.29	0.00	0.00	20.00	2.57	1.52	0.02
9.40	0.31	0.00	0.00				
9.60	0.33	0.00	0.01				
9.80	0.34	0.01	0.01				
10.00	0.36	0.01	0.01				
10.20	0.38	0.01	0.01				
10.40	0.40	0.02	0.01				
10.60	0.43	0.02	0.02				

Glendale Daycare REV1

Prepared by Ayres Associates

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MSE 24-hr 3 2-Year Rainfall=2.64"

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Summary for Subcatchment 24S: OFFSITE NORTH

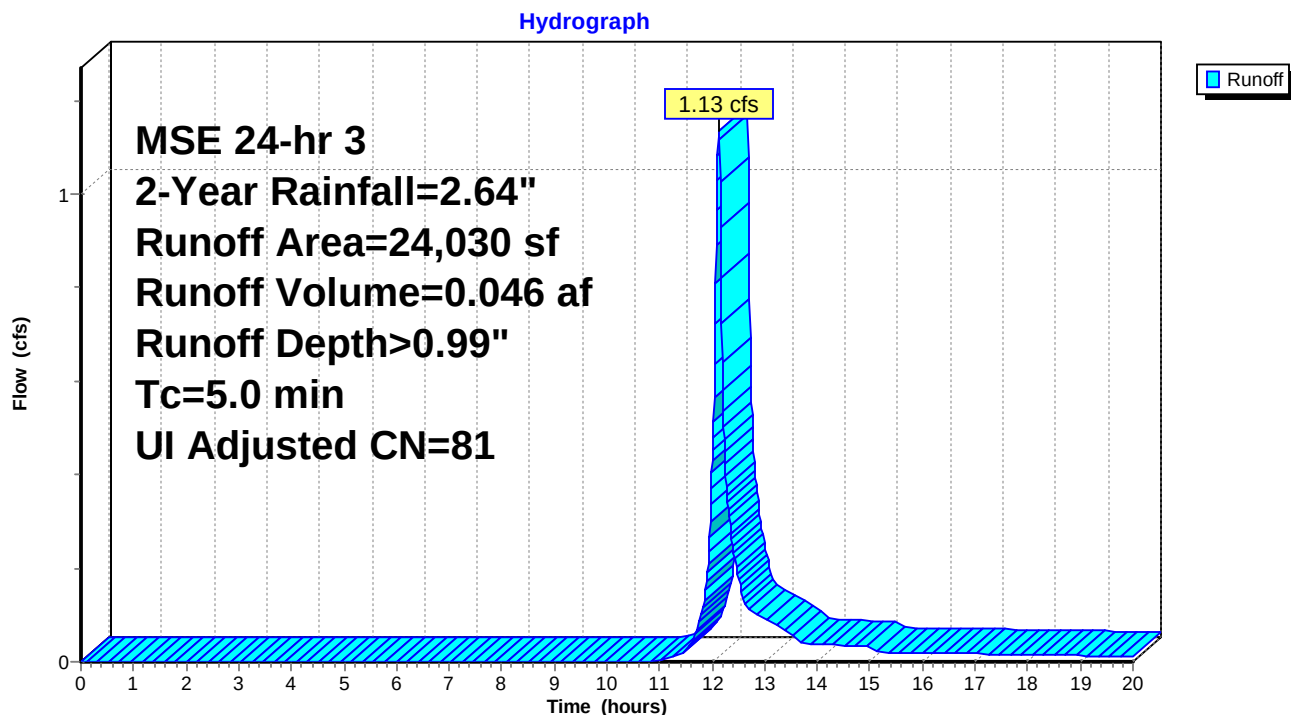
Runoff = 1.13 cfs @ 12.13 hrs, Volume= 0.046 af, Depth> 0.99"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-20.00 hrs, dt= 0.01 hrs
MSE 24-hr 3 2-Year Rainfall=2.64"

Area (sf)	CN	Adj	Description
19,345	79		50-75% Grass cover, Fair, HSG C
4,685	98		Unconnected roofs, HSG C
24,030	83	81	Weighted Average, UI Adjusted
19,345			80.50% Pervious Area
4,685			19.50% Impervious Area
4,685			100.00% Unconnected

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

Subcatchment 24S: OFFSITE NORTH



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MSE 24-hr 3 2-Year Rainfall=2.64"

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Hydrograph for Subcatchment 24S: OFFSITE NORTH

Time (hours)	Precip. (inches)	Excess (inches)	Runoff (cfs)	Time (hours)	Precip. (inches)	Excess (inches)	Runoff (cfs)
0.00	0.00	0.00	0.00	10.80	0.46	0.00	0.00
0.20	0.00	0.00	0.00	11.00	0.51	0.00	0.00
0.40	0.00	0.00	0.00	11.20	0.56	0.00	0.01
0.60	0.01	0.00	0.00	11.40	0.62	0.01	0.02
0.80	0.01	0.00	0.00	11.60	0.70	0.02	0.04
1.00	0.01	0.00	0.00	11.80	0.86	0.05	0.11
1.20	0.01	0.00	0.00	12.00	1.22	0.18	0.43
1.40	0.01	0.00	0.00	12.20	1.78	0.47	0.58
1.60	0.02	0.00	0.00	12.40	1.94	0.56	0.24
1.80	0.02	0.00	0.00	12.60	2.02	0.62	0.13
2.00	0.02	0.00	0.00	12.80	2.08	0.66	0.11
2.20	0.03	0.00	0.00	13.00	2.13	0.69	0.09
2.40	0.03	0.00	0.00	13.20	2.18	0.72	0.08
2.60	0.04	0.00	0.00	13.40	2.21	0.74	0.07
2.80	0.04	0.00	0.00	13.60	2.24	0.76	0.04
3.00	0.04	0.00	0.00	13.80	2.26	0.77	0.04
3.20	0.05	0.00	0.00	14.00	2.28	0.79	0.04
3.40	0.05	0.00	0.00	14.20	2.30	0.80	0.04
3.60	0.06	0.00	0.00	14.40	2.31	0.81	0.04
3.80	0.06	0.00	0.00	14.60	2.33	0.83	0.03
4.00	0.07	0.00	0.00	14.80	2.35	0.84	0.03
4.20	0.07	0.00	0.00	15.00	2.37	0.85	0.03
4.40	0.08	0.00	0.00	15.20	2.38	0.86	0.02
4.60	0.09	0.00	0.00	15.40	2.39	0.86	0.02
4.80	0.09	0.00	0.00	15.60	2.40	0.87	0.02
5.00	0.10	0.00	0.00	15.80	2.41	0.88	0.02
5.20	0.11	0.00	0.00	16.00	2.42	0.89	0.02
5.40	0.11	0.00	0.00	16.20	2.43	0.89	0.02
5.60	0.12	0.00	0.00	16.40	2.44	0.90	0.02
5.80	0.13	0.00	0.00	16.60	2.45	0.90	0.02
6.00	0.13	0.00	0.00	16.80	2.46	0.91	0.02
6.20	0.14	0.00	0.00	17.00	2.46	0.92	0.02
6.40	0.15	0.00	0.00	17.20	2.47	0.92	0.02
6.60	0.16	0.00	0.00	17.40	2.48	0.93	0.02
6.80	0.17	0.00	0.00	17.60	2.49	0.94	0.02
7.00	0.18	0.00	0.00	17.80	2.50	0.94	0.02
7.20	0.18	0.00	0.00	18.00	2.51	0.95	0.02
7.40	0.19	0.00	0.00	18.20	2.51	0.95	0.01
7.60	0.20	0.00	0.00	18.40	2.52	0.96	0.01
7.80	0.21	0.00	0.00	18.60	2.53	0.96	0.01
8.00	0.22	0.00	0.00	18.80	2.53	0.97	0.01
8.20	0.23	0.00	0.00	19.00	2.54	0.97	0.01
8.40	0.24	0.00	0.00	19.20	2.55	0.98	0.01
8.60	0.25	0.00	0.00	19.40	2.55	0.98	0.01
8.80	0.26	0.00	0.00	19.60	2.56	0.99	0.01
9.00	0.27	0.00	0.00	19.80	2.57	0.99	0.01
9.20	0.29	0.00	0.00	20.00	2.57	0.99	0.01
9.40	0.31	0.00	0.00				
9.60	0.33	0.00	0.00				
9.80	0.34	0.00	0.00				
10.00	0.36	0.00	0.00				
10.20	0.38	0.00	0.00				
10.40	0.40	0.00	0.00				
10.60	0.43	0.00	0.00				

Summary for Subcatchment 25S: OFFSITE SOUTH (OFS)

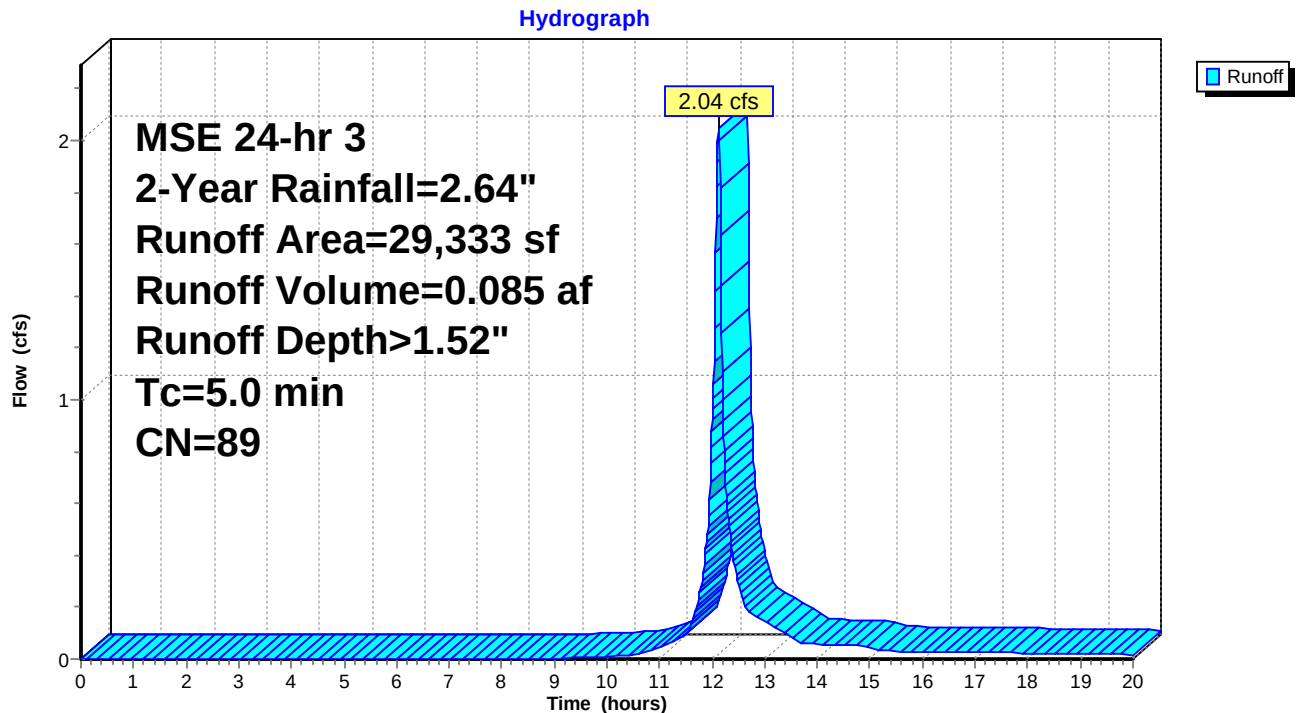
Runoff = 2.04 cfs @ 12.12 hrs, Volume= 0.085 af, Depth> 1.52"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-20.00 hrs, dt= 0.01 hrs
MSE 24-hr 3 2-Year Rainfall=2.64"

Area (sf)	CN	Description
13,422	79	50-75% Grass cover, Fair, HSG C
6,500	98	Unconnected roofs, HSG C
9,411	98	Paved parking, HSG C
29,333	89	Weighted Average
13,422		45.76% Pervious Area
15,911		54.24% Impervious Area
6,500		40.85% Unconnected

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

Subcatchment 25S: OFFSITE SOUTH (OFS)



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MSE 24-hr 3 2-Year Rainfall=2.64"

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Hydrograph for Subcatchment 25S: OFFSITE SOUTH (OFS)

Time (hours)	Precip. (inches)	Excess (inches)	Runoff (cfs)	Time (hours)	Precip. (inches)	Excess (inches)	Runoff (cfs)
0.00	0.00	0.00	0.00	10.80	0.46	0.03	0.03
0.20	0.00	0.00	0.00	11.00	0.51	0.05	0.05
0.40	0.00	0.00	0.00	11.20	0.56	0.06	0.06
0.60	0.01	0.00	0.00	11.40	0.62	0.09	0.08
0.80	0.01	0.00	0.00	11.60	0.70	0.12	0.14
1.00	0.01	0.00	0.00	11.80	0.86	0.20	0.29
1.20	0.01	0.00	0.00	12.00	1.22	0.43	0.92
1.40	0.01	0.00	0.00	12.20	1.78	0.85	1.00
1.60	0.02	0.00	0.00	12.40	1.94	0.98	0.39
1.80	0.02	0.00	0.00	12.60	2.02	1.04	0.21
2.00	0.02	0.00	0.00	12.80	2.08	1.09	0.17
2.20	0.03	0.00	0.00	13.00	2.13	1.14	0.15
2.40	0.03	0.00	0.00	13.20	2.18	1.18	0.12
2.60	0.04	0.00	0.00	13.40	2.21	1.21	0.10
2.80	0.04	0.00	0.00	13.60	2.24	1.23	0.07
3.00	0.04	0.00	0.00	13.80	2.26	1.24	0.06
3.20	0.05	0.00	0.00	14.00	2.28	1.26	0.06
3.40	0.05	0.00	0.00	14.20	2.30	1.28	0.06
3.60	0.06	0.00	0.00	14.40	2.31	1.29	0.05
3.80	0.06	0.00	0.00	14.60	2.33	1.31	0.05
4.00	0.07	0.00	0.00	14.80	2.35	1.33	0.05
4.20	0.07	0.00	0.00	15.00	2.37	1.34	0.05
4.40	0.08	0.00	0.00	15.20	2.38	1.35	0.03
4.60	0.09	0.00	0.00	15.40	2.39	1.36	0.03
4.80	0.09	0.00	0.00	15.60	2.40	1.37	0.03
5.00	0.10	0.00	0.00	15.80	2.41	1.38	0.03
5.20	0.11	0.00	0.00	16.00	2.42	1.38	0.03
5.40	0.11	0.00	0.00	16.20	2.43	1.39	0.03
5.60	0.12	0.00	0.00	16.40	2.44	1.40	0.03
5.80	0.13	0.00	0.00	16.60	2.45	1.41	0.03
6.00	0.13	0.00	0.00	16.80	2.46	1.42	0.03
6.20	0.14	0.00	0.00	17.00	2.46	1.42	0.03
6.40	0.15	0.00	0.00	17.20	2.47	1.43	0.03
6.60	0.16	0.00	0.00	17.40	2.48	1.44	0.02
6.80	0.17	0.00	0.00	17.60	2.49	1.45	0.02
7.00	0.18	0.00	0.00	17.80	2.50	1.45	0.02
7.20	0.18	0.00	0.00	18.00	2.51	1.46	0.02
7.40	0.19	0.00	0.00	18.20	2.51	1.47	0.02
7.60	0.20	0.00	0.00	18.40	2.52	1.47	0.02
7.80	0.21	0.00	0.00	18.60	2.53	1.48	0.02
8.00	0.22	0.00	0.00	18.80	2.53	1.48	0.02
8.20	0.23	0.00	0.00	19.00	2.54	1.49	0.02
8.40	0.24	0.00	0.00	19.20	2.55	1.50	0.02
8.60	0.25	0.00	0.00	19.40	2.55	1.50	0.02
8.80	0.26	0.00	0.00	19.60	2.56	1.51	0.02
9.00	0.27	0.00	0.00	19.80	2.57	1.51	0.02
9.20	0.29	0.00	0.00	20.00	2.57	1.52	0.02
9.40	0.31	0.00	0.00				
9.60	0.33	0.00	0.01				
9.80	0.34	0.01	0.01				
10.00	0.36	0.01	0.01				
10.20	0.38	0.01	0.01				
10.40	0.40	0.02	0.01				
10.60	0.43	0.02	0.02				

Glendale Daycare REV1

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MSE 24-hr 3 2-Year Rainfall=2.64"

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Summary for Pond 18P: EXISITING OUTFALL

Inflow Area = 2.518 ac, 53.03% Impervious, Inflow Depth > 1.52" for 2-Year event
 Inflow = 7.59 cfs @ 12.12 hrs, Volume= 0.320 af
 Outflow = 3.79 cfs @ 12.20 hrs, Volume= 0.320 af, Atten= 50%, Lag= 4.4 min
 Primary = 3.79 cfs @ 12.20 hrs, Volume= 0.320 af

Routing by Stor-Ind method, Time Span= 0.00-20.00 hrs, dt= 0.01 hrs
 Peak Elev= 638.40' @ 12.20 hrs Surf.Area= 5,115 sf Storage= 2,040 cf

Plug-Flow detention time= 3.8 min calculated for 0.320 af (100% of inflow)
 Center-of-Mass det. time= 3.6 min (777.1 - 773.5)

Volume	Invert	Avail.Storage	Storage Description
#1	636.29'	34,985 cf	Custom Stage Data (Prismatic) Listed below (Recalc)

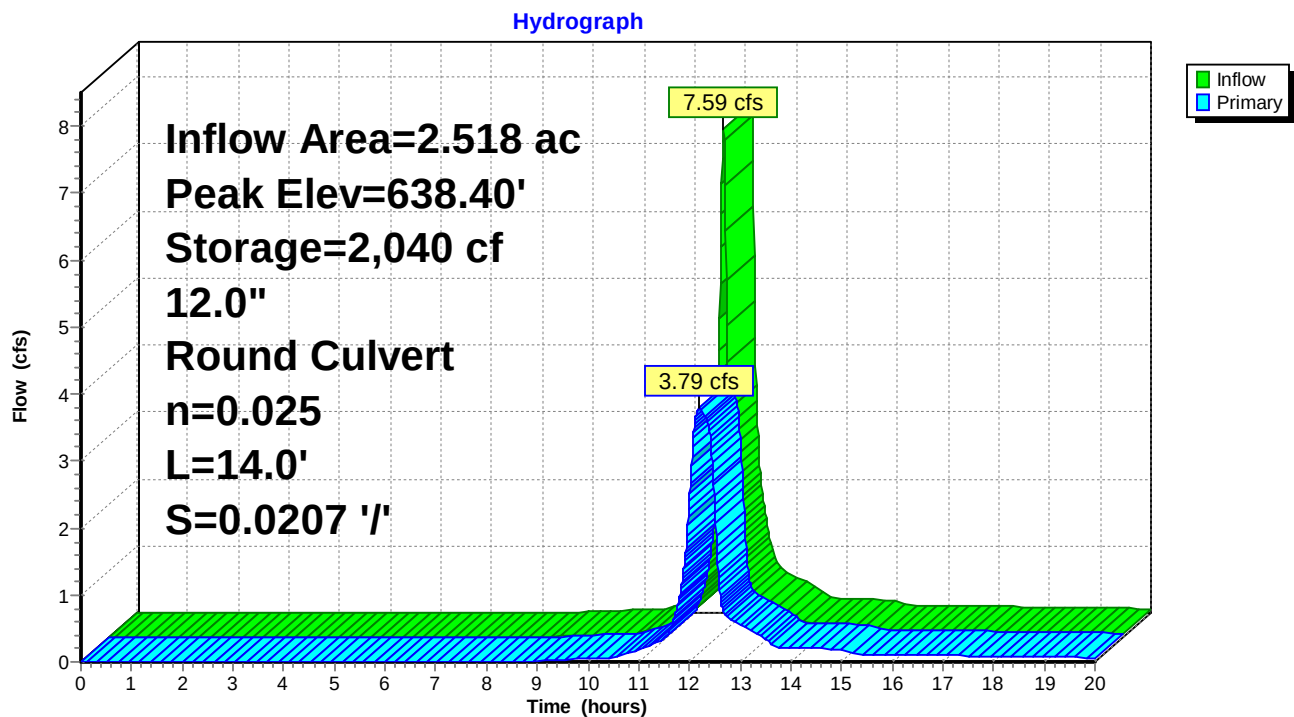
Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
636.29	2	0	0
637.00	450	160	160
638.00	905	678	838
639.00	11,448	6,177	7,014
640.00	44,493	27,971	34,985

Device	Routing	Invert	Outlet Devices
#1	Primary	636.29'	12.0" Round CMP_Round 12" L= 14.0' CMP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 636.29' / 636.00' S= 0.0207 ' S= 0.0207 ' Cc= 0.900 n= 0.025 Corrugated metal, Flow Area= 0.79 sf

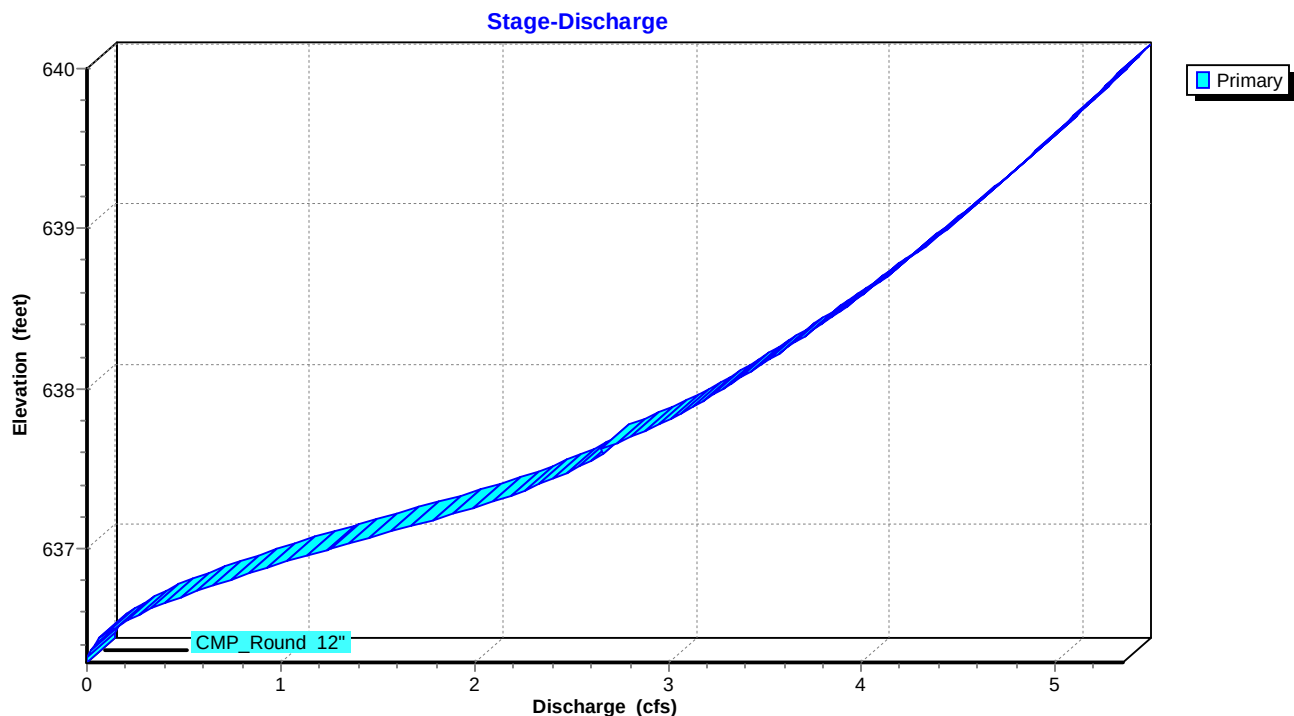
Primary OutFlow Max=3.79 cfs @ 12.20 hrs HW=638.40' (Free Discharge)

↑ **1=CMP_Round 12"** (Inlet Controls 3.79 cfs @ 4.82 fps)

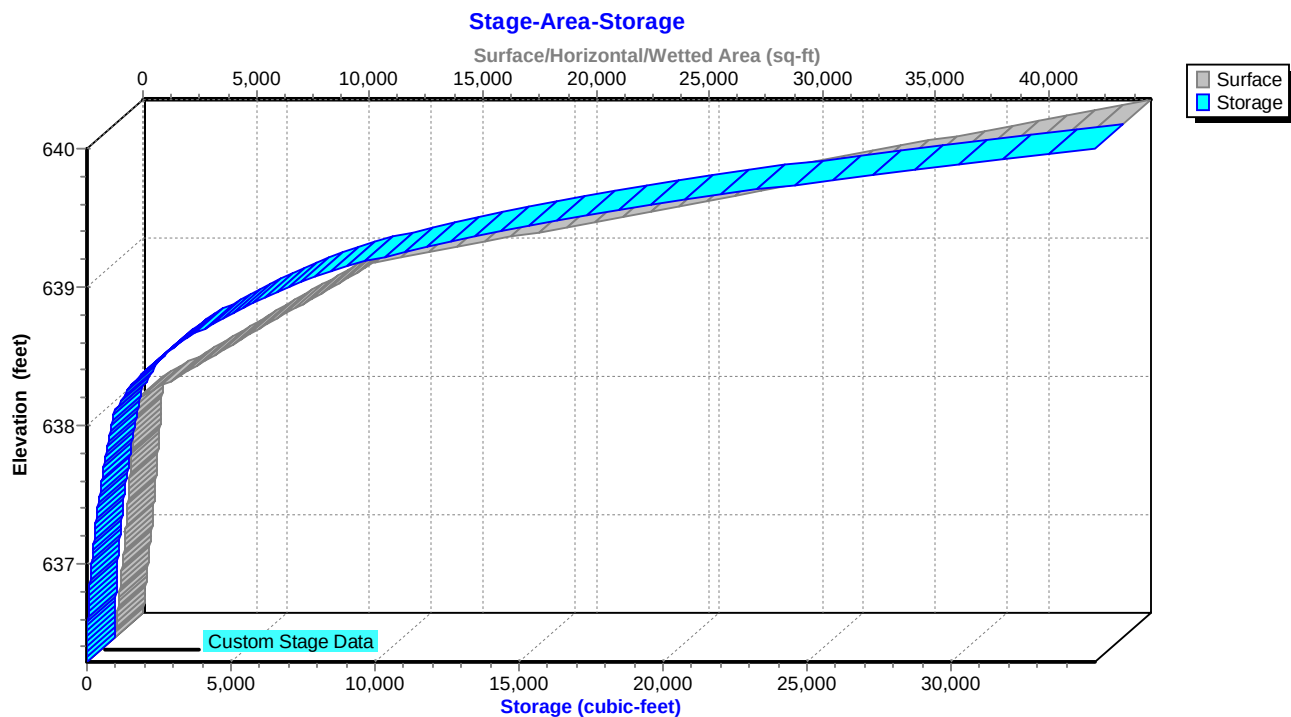
Pond 18P: EXISITING OUTFALL



Pond 18P: EXISITING OUTFALL



Pond 18P: EXISITING OUTFALL



Hydrograph for Pond 18P: EXISITING OUTFALL

Time (hours)	Inflow (cfs)	Storage (cubic-feet)	Elevation (feet)	Primary (cfs)
0.00	0.00	0	636.29	0.00
0.50	0.00	0	636.29	0.00
1.00	0.00	0	636.29	0.00
1.50	0.00	0	636.29	0.00
2.00	0.00	0	636.29	0.00
2.50	0.00	0	636.29	0.00
3.00	0.00	0	636.29	0.00
3.50	0.00	0	636.29	0.00
4.00	0.00	0	636.29	0.00
4.50	0.00	0	636.29	0.00
5.00	0.00	0	636.29	0.00
5.50	0.00	0	636.29	0.00
6.00	0.00	0	636.29	0.00
6.50	0.00	0	636.29	0.00
7.00	0.00	0	636.29	0.00
7.50	0.00	0	636.31	0.00
8.00	0.01	1	636.33	0.01
8.50	0.01	1	636.34	0.01
9.00	0.01	2	636.36	0.01
9.50	0.04	4	636.40	0.03
10.00	0.05	5	636.42	0.05
10.50	0.06	7	636.43	0.06
11.00	0.19	19	636.53	0.18
11.50	0.36	37	636.63	0.35
12.00	3.46	399	637.43	2.40
12.50	1.07	387	637.42	2.36
13.00	0.54	63	636.73	0.56
13.50	0.33	38	636.63	0.35
14.00	0.21	23	636.55	0.21
14.50	0.20	21	636.55	0.20
15.00	0.19	20	636.54	0.19
15.50	0.11	12	636.48	0.11
16.00	0.11	11	636.48	0.11
16.50	0.10	11	636.47	0.10
17.00	0.10	10	636.47	0.10
17.50	0.09	10	636.46	0.09
18.00	0.08	9	636.46	0.08
18.50	0.08	9	636.45	0.08
19.00	0.07	8	636.44	0.07
19.50	0.07	7	636.44	0.07
20.00	0.06	7	636.43	0.06

Stage-Discharge for Pond 18P: EXISITING OUTFALL

Elevation (feet)	Primary (cfs)	Elevation (feet)	Primary (cfs)	Elevation (feet)	Primary (cfs)	Elevation (feet)	Primary (cfs)
636.29	0.00	637.37	2.27	638.45	3.85	639.53	4.94
636.31	0.00	637.39	2.31	638.47	3.87	639.55	4.96
636.33	0.00	637.41	2.35	638.49	3.89	639.57	4.98
636.35	0.01	637.43	2.39	638.51	3.92	639.59	5.00
636.37	0.02	637.45	2.43	638.53	3.94	639.61	5.01
636.39	0.03	637.47	2.46	638.55	3.96	639.63	5.03
636.41	0.04	637.49	2.50	638.57	3.98	639.65	5.05
636.43	0.06	637.51	2.53	638.59	4.01	639.67	5.07
636.45	0.08	637.53	2.57	638.61	4.03	639.69	5.08
636.47	0.10	637.55	2.60	638.63	4.05	639.71	5.10
636.49	0.12	637.57	2.64	638.65	4.07	639.73	5.12
636.51	0.15	637.59	2.67	638.67	4.09	639.75	5.14
636.53	0.18	637.61	2.69	638.69	4.12	639.77	5.15
636.55	0.20	637.63	2.66	638.71	4.14	639.79	5.17
636.57	0.24	637.65	2.71	638.73	4.16	639.81	5.19
636.59	0.27	637.67	2.75	638.75	4.18	639.83	5.21
636.61	0.31	637.69	2.79	638.77	4.20	639.85	5.22
636.63	0.34	637.71	2.83	638.79	4.22	639.87	5.24
636.65	0.38	637.73	2.87	638.81	4.24	639.89	5.26
636.67	0.42	637.75	2.91	638.83	4.26	639.91	5.27
636.69	0.46	637.77	2.95	638.85	4.29	639.93	5.29
636.71	0.51	637.79	2.98	638.87	4.31	639.95	5.31
636.73	0.55	637.81	3.02	638.89	4.33	639.97	5.32
636.75	0.60	637.83	3.04	638.91	4.35	639.99	5.34
636.77	0.64	637.85	3.07	638.93	4.37		
636.79	0.69	637.87	3.10	638.95	4.39		
636.81	0.74	637.89	3.13	638.97	4.41		
636.83	0.79	637.91	3.16	638.99	4.43		
636.85	0.84	637.93	3.19	639.01	4.45		
636.87	0.90	637.95	3.22	639.03	4.47		
636.89	0.95	637.97	3.24	639.05	4.49		
636.91	1.00	637.99	3.27	639.07	4.51		
636.93	1.06	638.01	3.30	639.09	4.53		
636.95	1.12	638.03	3.32	639.11	4.55		
636.97	1.17	638.05	3.35	639.13	4.57		
636.99	1.23	638.07	3.38	639.15	4.59		
637.01	1.29	638.09	3.40	639.17	4.61		
637.03	1.34	638.11	3.43	639.19	4.63		
637.05	1.40	638.13	3.46	639.21	4.64		
637.07	1.46	638.15	3.48	639.23	4.66		
637.09	1.52	638.17	3.51	639.25	4.68		
637.11	1.58	638.19	3.53	639.27	4.70		
637.13	1.64	638.21	3.56	639.29	4.72		
637.15	1.69	638.23	3.58	639.31	4.74		
637.17	1.75	638.25	3.61	639.33	4.76		
637.19	1.81	638.27	3.63	639.35	4.78		
637.21	1.87	638.29	3.66	639.37	4.80		
637.23	1.93	638.31	3.68	639.39	4.81		
637.25	1.98	638.33	3.70	639.41	4.83		
637.27	2.04	638.35	3.73	639.43	4.85		
637.29	2.09	638.37	3.75	639.45	4.87		
637.31	2.15	638.39	3.78	639.47	4.89		
637.33	2.19	638.41	3.80	639.49	4.91		
637.35	2.23	638.43	3.82	639.51	4.92		

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MSE 24-hr 3 2-Year Rainfall=2.64"

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Stage-Area-Storage for Pond 18P: EXISITING OUTFALL

Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)	Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)
636.29	2	0	638.99	11,343	6,901
636.34	34	1	639.04	12,770	7,499
636.39	65	3	639.09	14,422	8,179
636.44	97	7	639.14	16,074	8,941
636.49	128	13	639.19	17,727	9,786
636.54	160	20	639.24	19,379	10,714
636.59	191	29	639.29	21,031	11,724
636.64	223	39	639.34	22,683	12,817
636.69	254	51	639.39	24,336	13,992
636.74	286	65	639.44	25,988	15,250
636.79	317	80	639.49	27,640	16,591
636.84	349	97	639.54	29,292	18,014
636.89	381	115	639.59	30,945	19,520
636.94	412	135	639.64	32,597	21,109
636.99	444	156	639.69	34,249	22,780
637.04	468	179	639.74	35,901	24,534
637.09	491	203	639.79	37,554	26,370
637.14	514	228	639.84	39,206	28,289
637.19	536	254	639.89	40,858	30,291
637.24	559	282	639.94	42,510	32,375
637.29	582	310	639.99	44,163	34,542
637.34	605	340			
637.39	627	371			
637.44	650	403			
637.49	673	436			
637.54	696	470			
637.59	718	505			
637.64	741	542			
637.69	764	579			
637.74	787	618			
637.79	809	658			
637.84	832	699			
637.89	855	741			
637.94	878	784			
637.99	900	829			
638.04	1,327	883			
638.09	1,854	962			
638.14	2,381	1,068			
638.19	2,908	1,200			
638.24	3,435	1,359			
638.29	3,962	1,544			
638.34	4,490	1,755			
638.39	5,017	1,993			
638.44	5,544	2,257			
638.49	6,071	2,547			
638.54	6,598	2,864			
638.59	7,125	3,207			
638.64	7,653	3,576			
638.69	8,180	3,972			
638.74	8,707	4,394			
638.79	9,234	4,843			
638.84	9,761	5,318			
638.89	10,288	5,819			
638.94	10,815	6,347			

Summary for Pond 19P: PROPOSED OUTFALL

Inflow Area = 2.596 ac, 61.88% Impervious, Inflow Depth > 1.68" for 2-Year event
 Inflow = 8.34 cfs @ 12.12 hrs, Volume= 0.363 af
 Outflow = 3.58 cfs @ 12.21 hrs, Volume= 0.341 af, Atten= 57%, Lag= 5.5 min
 Primary = 3.58 cfs @ 12.21 hrs, Volume= 0.341 af

Routing by Stor-Ind method, Time Span= 0.00-20.00 hrs, dt= 0.01 hrs
 Peak Elev= 638.23' @ 12.21 hrs Surf.Area= 4,678 sf Storage= 3,670 cf

Plug-Flow detention time= 36.1 min calculated for 0.341 af (94% of inflow)
 Center-of-Mass det. time= 15.0 min (780.5 - 765.6)

Volume	Invert	Avail.Storage	Storage Description
#1	636.29'	38,270 cf	Custom Stage Data (Prismatic) Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
636.29	2	0	0
637.00	1,307	465	465
638.00	3,298	2,303	2,767
638.60	6,955	3,076	5,843
639.00	16,745	4,740	10,583
640.00	38,628	27,687	38,270

Device	Routing	Invert	Outlet Devices
#1	Primary	636.29'	12.0" Round CMP_Round 12" L= 14.0' CMP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 636.29' / 636.00' S= 0.0207 ' / Cc= 0.900 n= 0.025 Corrugated metal, Flow Area= 0.79 sf
#2	Device 1	636.29'	1.0" Vert. Orifice/Grate C= 0.600 Limited to weir flow at low heads
#3	Device 1	637.29'	24.0" x 36.0" Horiz. Orifice/Grate C= 0.600 Limited to weir flow at low heads

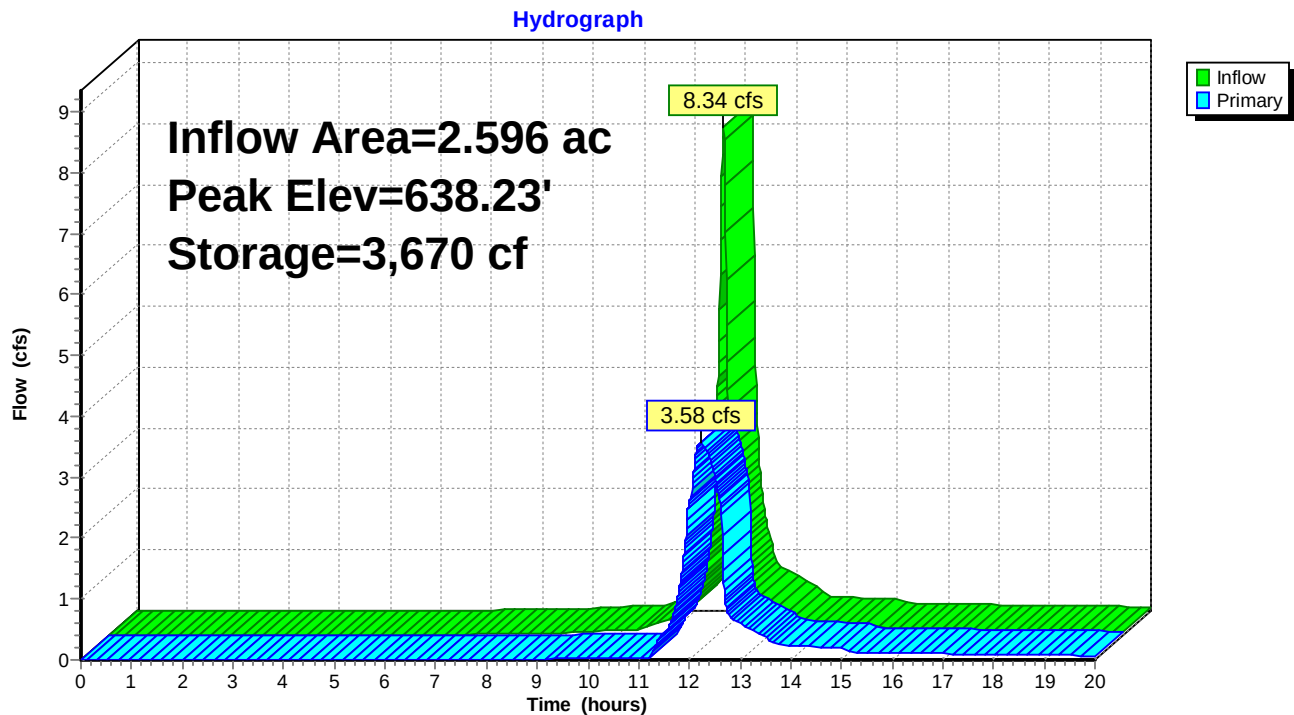
Primary OutFlow Max=3.58 cfs @ 12.21 hrs HW=638.23' (Free Discharge)

↑ **1=CMP_Round 12"** (Inlet Controls 3.58 cfs @ 4.56 fps)

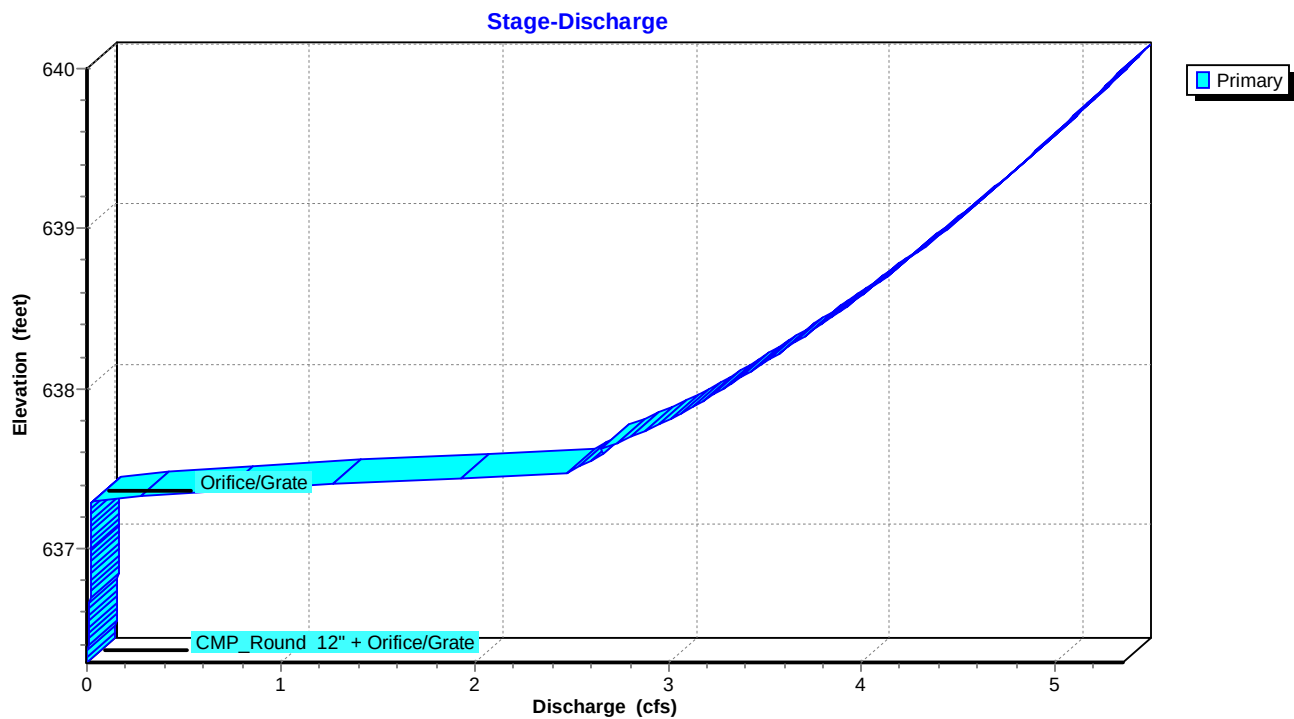
↑ **2=Orifice/Grate** (Passes < 0.04 cfs potential flow)

↑ **3=Orifice/Grate** (Passes < 27.95 cfs potential flow)

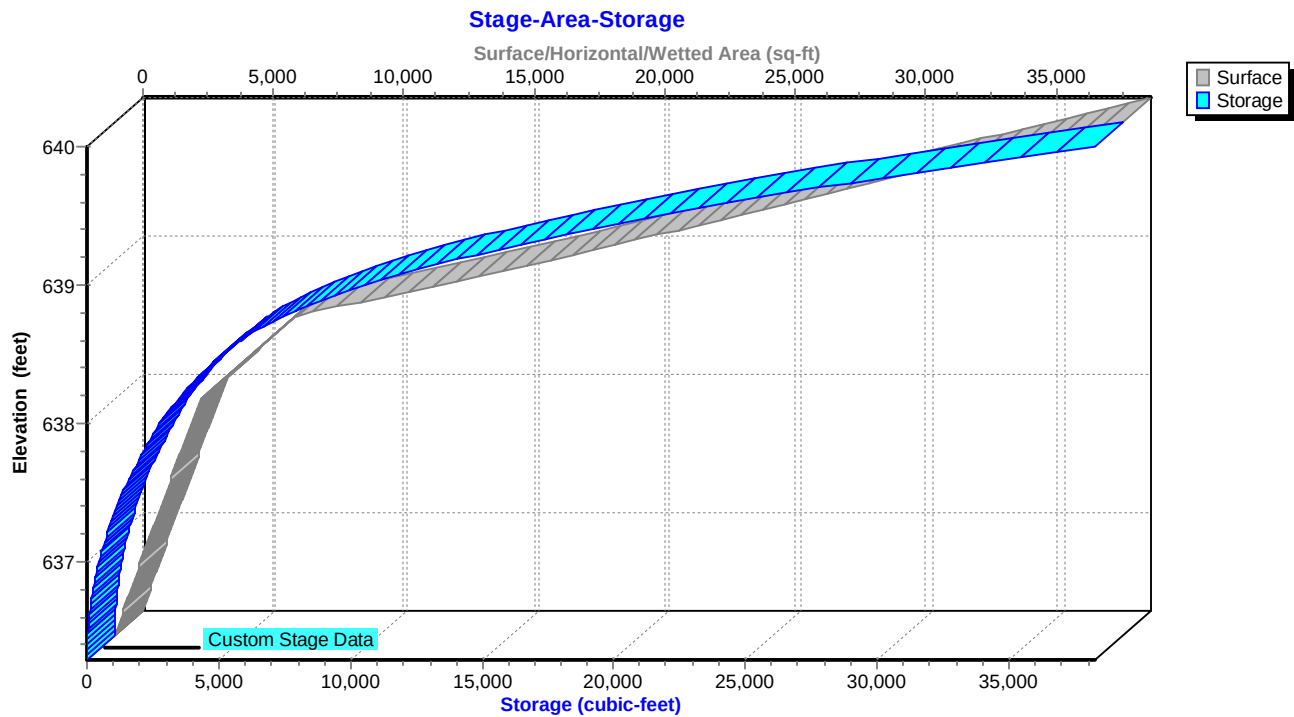
Pond 19P: PROPOSED OUTFALL



Pond 19P: PROPOSED OUTFALL



Pond 19P: PROPOSED OUTFALL



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MSE 24-hr 3 2-Year Rainfall=2.64"

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Hydrograph for Pond 19P: PROPOSED OUTFALL

Time (hours)	Inflow (cfs)	Storage (cubic-feet)	Elevation (feet)	Primary (cfs)
0.00	0.00	0	636.29	0.00
0.50	0.00	0	636.29	0.00
1.00	0.00	0	636.29	0.00
1.50	0.00	0	636.29	0.00
2.00	0.00	0	636.29	0.00
2.50	0.00	0	636.29	0.00
3.00	0.00	0	636.29	0.00
3.50	0.00	0	636.29	0.00
4.00	0.00	0	636.29	0.00
4.50	0.00	0	636.29	0.00
5.00	0.00	0	636.29	0.00
5.50	0.00	0	636.30	0.00
6.00	0.00	3	636.34	0.00
6.50	0.01	7	636.38	0.01
7.00	0.01	14	636.41	0.01
7.50	0.02	26	636.46	0.01
8.00	0.02	42	636.50	0.01
8.50	0.03	64	636.55	0.01
9.00	0.03	92	636.60	0.01
9.50	0.07	163	636.71	0.02
10.00	0.08	264	636.82	0.02
10.50	0.10	391	636.94	0.02
11.00	0.26	678	637.15	0.02
11.50	0.45	1,028	637.34	0.43
12.00	3.94	1,433	637.53	2.56
12.50	1.15	2,209	637.82	3.03
13.00	0.58	1,058	637.36	0.60
13.50	0.36	1,020	637.34	0.38
14.00	0.22	988	637.32	0.23
14.50	0.21	984	637.32	0.21
15.00	0.20	980	637.32	0.20
15.50	0.12	957	637.31	0.12
16.00	0.11	955	637.30	0.11
16.50	0.11	954	637.30	0.11
17.00	0.10	952	637.30	0.10
17.50	0.10	950	637.30	0.10
18.00	0.09	949	637.30	0.09
18.50	0.08	947	637.30	0.08
19.00	0.08	945	637.30	0.08
19.50	0.07	943	637.30	0.07
20.00	0.07	942	637.30	0.07

Stage-Discharge for Pond 19P: PROPOSED OUTFALL

Elevation (feet)	Primary (cfs)	Elevation (feet)	Primary (cfs)	Elevation (feet)	Primary (cfs)	Elevation (feet)	Primary (cfs)
636.29	0.00	637.37	0.77	638.45	3.85	639.53	4.94
636.31	0.00	637.39	1.06	638.47	3.87	639.55	4.96
636.33	0.00	637.41	1.39	638.49	3.89	639.57	4.98
636.35	0.00	637.43	1.74	638.51	3.92	639.59	5.00
636.37	0.01	637.45	2.12	638.53	3.94	639.61	5.01
636.39	0.01	637.47	2.46	638.55	3.96	639.63	5.03
636.41	0.01	637.49	2.50	638.57	3.98	639.65	5.05
636.43	0.01	637.51	2.53	638.59	4.01	639.67	5.07
636.45	0.01	637.53	2.57	638.61	4.03	639.69	5.08
636.47	0.01	637.55	2.60	638.63	4.05	639.71	5.10
636.49	0.01	637.57	2.64	638.65	4.07	639.73	5.12
636.51	0.01	637.59	2.67	638.67	4.09	639.75	5.14
636.53	0.01	637.61	2.69	638.69	4.12	639.77	5.15
636.55	0.01	637.63	2.66	638.71	4.14	639.79	5.17
636.57	0.01	637.65	2.71	638.73	4.16	639.81	5.19
636.59	0.01	637.67	2.75	638.75	4.18	639.83	5.21
636.61	0.01	637.69	2.79	638.77	4.20	639.85	5.22
636.63	0.01	637.71	2.83	638.79	4.22	639.87	5.24
636.65	0.01	637.73	2.87	638.81	4.24	639.89	5.26
636.67	0.02	637.75	2.91	638.83	4.26	639.91	5.27
636.69	0.02	637.77	2.95	638.85	4.29	639.93	5.29
636.71	0.02	637.79	2.98	638.87	4.31	639.95	5.31
636.73	0.02	637.81	3.02	638.89	4.33	639.97	5.32
636.75	0.02	637.83	3.04	638.91	4.35	639.99	5.34
636.77	0.02	637.85	3.07	638.93	4.37		
636.79	0.02	637.87	3.10	638.95	4.39		
636.81	0.02	637.89	3.13	638.97	4.41		
636.83	0.02	637.91	3.16	638.99	4.43		
636.85	0.02	637.93	3.19	639.01	4.45		
636.87	0.02	637.95	3.22	639.03	4.47		
636.89	0.02	637.97	3.24	639.05	4.49		
636.91	0.02	637.99	3.27	639.07	4.51		
636.93	0.02	638.01	3.30	639.09	4.53		
636.95	0.02	638.03	3.32	639.11	4.55		
636.97	0.02	638.05	3.35	639.13	4.57		
636.99	0.02	638.07	3.38	639.15	4.59		
637.01	0.02	638.09	3.40	639.17	4.61		
637.03	0.02	638.11	3.43	639.19	4.63		
637.05	0.02	638.13	3.46	639.21	4.64		
637.07	0.02	638.15	3.48	639.23	4.66		
637.09	0.02	638.17	3.51	639.25	4.68		
637.11	0.02	638.19	3.53	639.27	4.70		
637.13	0.02	638.21	3.56	639.29	4.72		
637.15	0.02	638.23	3.58	639.31	4.74		
637.17	0.02	638.25	3.61	639.33	4.76		
637.19	0.02	638.27	3.63	639.35	4.78		
637.21	0.02	638.29	3.66	639.37	4.80		
637.23	0.02	638.31	3.68	639.39	4.81		
637.25	0.03	638.33	3.70	639.41	4.83		
637.27	0.03	638.35	3.73	639.43	4.85		
637.29	0.03	638.37	3.75	639.45	4.87		
637.31	0.12	638.39	3.78	639.47	4.89		
637.33	0.29	638.41	3.80	639.49	4.91		
637.35	0.51	638.43	3.82	639.51	4.92		

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MSE 24-hr 3 2-Year Rainfall=2.64"

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Stage-Area-Storage for Pond 19P: PROPOSED OUTFALL

Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)	Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)
636.29	2	0	638.99	16,500	10,417
636.34	94	2	639.04	17,620	11,270
636.39	186	9	639.09	18,714	12,179
636.44	278	21	639.14	19,809	13,142
636.49	370	37	639.19	20,903	14,160
636.54	462	58	639.24	21,997	15,232
636.59	553	83	639.29	23,091	16,359
636.64	645	113	639.34	24,185	17,541
636.69	737	148	639.39	25,279	18,778
636.74	829	187	639.44	26,374	20,069
636.79	921	231	639.49	27,468	21,415
636.84	1,013	279	639.54	28,562	22,816
636.89	1,105	332	639.59	29,656	24,271
636.94	1,197	390	639.64	30,750	25,782
636.99	1,289	452	639.69	31,844	27,346
637.04	1,387	519	639.74	32,938	28,966
637.09	1,486	590	639.79	34,033	30,640
637.14	1,586	667	639.84	35,127	32,369
637.19	1,685	749	639.89	36,221	34,153
637.24	1,785	836	639.94	37,315	35,991
637.29	1,884	927	639.99	38,409	37,884
637.34	1,984	1,024			
637.39	2,083	1,126			
637.44	2,183	1,233			
637.49	2,283	1,344			
637.54	2,382	1,461			
637.59	2,482	1,582			
637.64	2,581	1,709			
637.69	2,681	1,840			
637.74	2,780	1,977			
637.79	2,880	2,119			
637.84	2,979	2,265			
637.89	3,079	2,416			
637.94	3,179	2,573			
637.99	3,278	2,734			
638.04	3,542	2,904			
638.09	3,847	3,089			
638.14	4,151	3,289			
638.19	4,456	3,504			
638.24	4,761	3,734			
638.29	5,066	3,980			
638.34	5,370	4,241			
638.39	5,675	4,517			
638.44	5,980	4,808			
638.49	6,285	5,115			
638.54	6,589	5,437			
638.59	6,894	5,774			
638.64	7,934	6,141			
638.69	9,158	6,568			
638.74	10,381	7,057			
638.79	11,605	7,606			
638.84	12,829	8,217			
638.89	14,053	8,889			
638.94	15,276	9,622			

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MSE 24-hr 3 10-Year Rainfall=3.73"

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Time span=0.00-20.00 hrs, dt=0.01 hrs, 2001 points
 Runoff by SCS TR-20 method, UH=SCS, Weighted-CN
 Reach routing by Stor-Ind+Trans method - Pond routing by Stor-Ind method

Subcatchment 14S: E2	Runoff Area=10,320 sf 31.16% Impervious Runoff Depth>2.13" Tc=5.0 min CN=85 Runoff=1.01 cfs 0.042 af
Subcatchment 15S: P2	Runoff Area=6,079 sf 53.04% Impervious Runoff Depth>2.48" Tc=5.0 min CN=89 Runoff=0.67 cfs 0.029 af
Subcatchment 16S: P1	Runoff Area=59,729 sf 82.69% Impervious Runoff Depth>3.07" Tc=5.0 min CN=95 Runoff=7.59 cfs 0.350 af
Subcatchment 17S: E1	Runoff Area=56,330 sf 66.71% Impervious Runoff Depth>2.76" Tc=5.0 min CN=92 Runoff=6.73 cfs 0.298 af
Subcatchment 20S: OFFSITE NORTH (OFN)	Runoff Area=24,030 sf 19.50% Impervious Runoff Depth>1.81" Tc=5.0 min UI Adjusted CN=81 Runoff=2.05 cfs 0.083 af
Subcatchment 21S: Northern Swale	Runoff Area=26,513 sf 79.55% Impervious Runoff Depth>2.96" Tc=5.0 min CN=94 Runoff=3.31 cfs 0.150 af
Subcatchment 22S: OFFSITE SOUTH (OFS)	Runoff Area=29,333 sf 54.24% Impervious Runoff Depth>2.48" Tc=5.0 min CN=89 Runoff=3.25 cfs 0.139 af
Subcatchment 24S: OFFSITE NORTH	Runoff Area=24,030 sf 19.50% Impervious Runoff Depth>1.81" Tc=5.0 min UI Adjusted CN=81 Runoff=2.05 cfs 0.083 af
Subcatchment 25S: OFFSITE SOUTH (OFS)	Runoff Area=29,333 sf 54.24% Impervious Runoff Depth>2.48" Tc=5.0 min CN=89 Runoff=3.25 cfs 0.139 af
Pond 18P: EXISTING OUTFALL	Peak Elev=638.77' Storage=4,655 cf Inflow=12.02 cfs 0.520 af 12.0" Round Culvert n=0.025 L=14.0' S=0.0207 ' Outflow=4.20 cfs 0.520 af
Pond 19P: PROPOSED OUTFALL	Peak Elev=638.69' Storage=6,559 cf Inflow=12.87 cfs 0.573 af Outflow=4.11 cfs 0.551 af

Total Runoff Area = 6.100 ac Runoff Volume = 1.314 af Average Runoff Depth = 2.58"
41.40% Pervious = 2.525 ac 58.60% Impervious = 3.574 ac

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MSE 24-hr 3 10-Year Rainfall=3.73"

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Summary for Subcatchment 14S: E2

Runoff = 1.01 cfs @ 12.12 hrs, Volume= 0.042 af, Depth> 2.13"

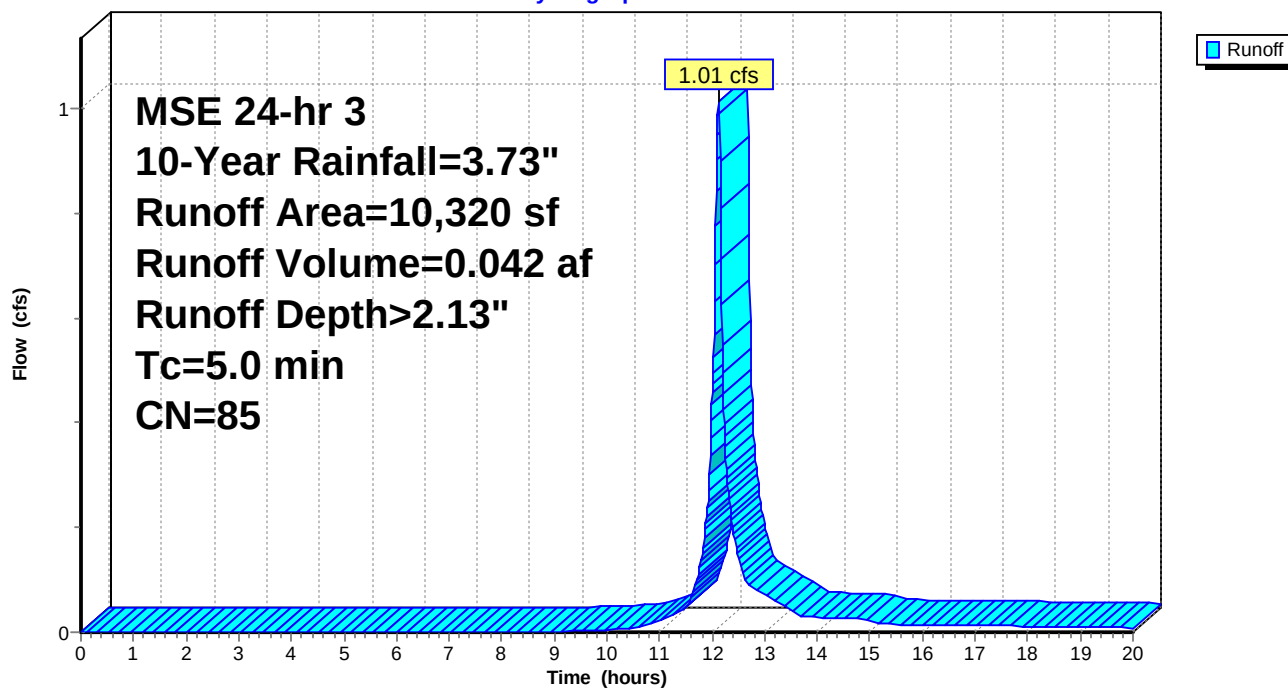
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-20.00 hrs, dt= 0.01 hrs
MSE 24-hr 3 10-Year Rainfall=3.73"

Area (sf)	CN	Description
7,104	79	50-75% Grass cover, Fair, HSG C
3,216	98	Paved parking, HSG C
10,320	85	Weighted Average
7,104		68.84% Pervious Area
3,216		31.16% Impervious Area

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

Subcatchment 14S: E2

Hydrograph



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MSE 24-hr 3 10-Year Rainfall=3.73"

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Hydrograph for Subcatchment 14S: E2

Time (hours)	Precip. (inches)	Excess (inches)	Runoff (cfs)	Time (hours)	Precip. (inches)	Excess (inches)	Runoff (cfs)
0.00	0.00	0.00	0.00	10.80	0.66	0.04	0.02
0.20	0.00	0.00	0.00	11.00	0.72	0.06	0.02
0.40	0.00	0.00	0.00	11.20	0.79	0.09	0.03
0.60	0.01	0.00	0.00	11.40	0.88	0.12	0.04
0.80	0.01	0.00	0.00	11.60	0.99	0.17	0.07
1.00	0.01	0.00	0.00	11.80	1.21	0.28	0.15
1.20	0.02	0.00	0.00	12.00	1.73	0.60	0.46
1.40	0.02	0.00	0.00	12.20	2.52	1.19	0.49
1.60	0.02	0.00	0.00	12.40	2.74	1.37	0.19
1.80	0.03	0.00	0.00	12.60	2.85	1.46	0.10
2.00	0.03	0.00	0.00	12.80	2.94	1.54	0.08
2.20	0.04	0.00	0.00	13.00	3.01	1.60	0.07
2.40	0.04	0.00	0.00	13.20	3.07	1.65	0.06
2.60	0.05	0.00	0.00	13.40	3.13	1.69	0.05
2.80	0.06	0.00	0.00	13.60	3.16	1.72	0.03
3.00	0.06	0.00	0.00	13.80	3.19	1.75	0.03
3.20	0.07	0.00	0.00	14.00	3.22	1.77	0.03
3.40	0.08	0.00	0.00	14.20	3.24	1.80	0.03
3.60	0.08	0.00	0.00	14.40	3.27	1.82	0.03
3.80	0.09	0.00	0.00	14.60	3.30	1.84	0.03
4.00	0.10	0.00	0.00	14.80	3.32	1.86	0.03
4.20	0.11	0.00	0.00	15.00	3.35	1.88	0.02
4.40	0.11	0.00	0.00	15.20	3.36	1.90	0.02
4.60	0.12	0.00	0.00	15.40	3.38	1.91	0.02
4.80	0.13	0.00	0.00	15.60	3.39	1.92	0.01
5.00	0.14	0.00	0.00	15.80	3.40	1.93	0.01
5.20	0.15	0.00	0.00	16.00	3.42	1.94	0.01
5.40	0.16	0.00	0.00	16.20	3.43	1.96	0.01
5.60	0.17	0.00	0.00	16.40	3.44	1.97	0.01
5.80	0.18	0.00	0.00	16.60	3.46	1.98	0.01
6.00	0.19	0.00	0.00	16.80	3.47	1.99	0.01
6.20	0.20	0.00	0.00	17.00	3.48	2.00	0.01
6.40	0.21	0.00	0.00	17.20	3.49	2.01	0.01
6.60	0.22	0.00	0.00	17.40	3.51	2.02	0.01
6.80	0.24	0.00	0.00	17.60	3.52	2.03	0.01
7.00	0.25	0.00	0.00	17.80	3.53	2.04	0.01
7.20	0.26	0.00	0.00	18.00	3.54	2.05	0.01
7.40	0.27	0.00	0.00	18.20	3.55	2.06	0.01
7.60	0.29	0.00	0.00	18.40	3.56	2.07	0.01
7.80	0.30	0.00	0.00	18.60	3.57	2.08	0.01
8.00	0.31	0.00	0.00	18.80	3.58	2.09	0.01
8.20	0.33	0.00	0.00	19.00	3.59	2.09	0.01
8.40	0.34	0.00	0.00	19.20	3.60	2.10	0.01
8.60	0.35	0.00	0.00	19.40	3.61	2.11	0.01
8.80	0.37	0.00	0.00	19.60	3.62	2.12	0.01
9.00	0.38	0.00	0.00	19.80	3.62	2.13	0.01
9.20	0.41	0.00	0.00	20.00	3.63	2.13	0.01
9.40	0.43	0.00	0.00				
9.60	0.46	0.01	0.00				
9.80	0.49	0.01	0.00				
10.00	0.51	0.01	0.00				
10.20	0.54	0.02	0.01				
10.40	0.57	0.02	0.01				
10.60	0.60	0.03	0.01				

Glendale Daycare REV1

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MSE 24-hr 3 10-Year Rainfall=3.73"

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Summary for Subcatchment 15S: P2

Runoff = 0.67 cfs @ 12.12 hrs, Volume= 0.029 af, Depth> 2.48"

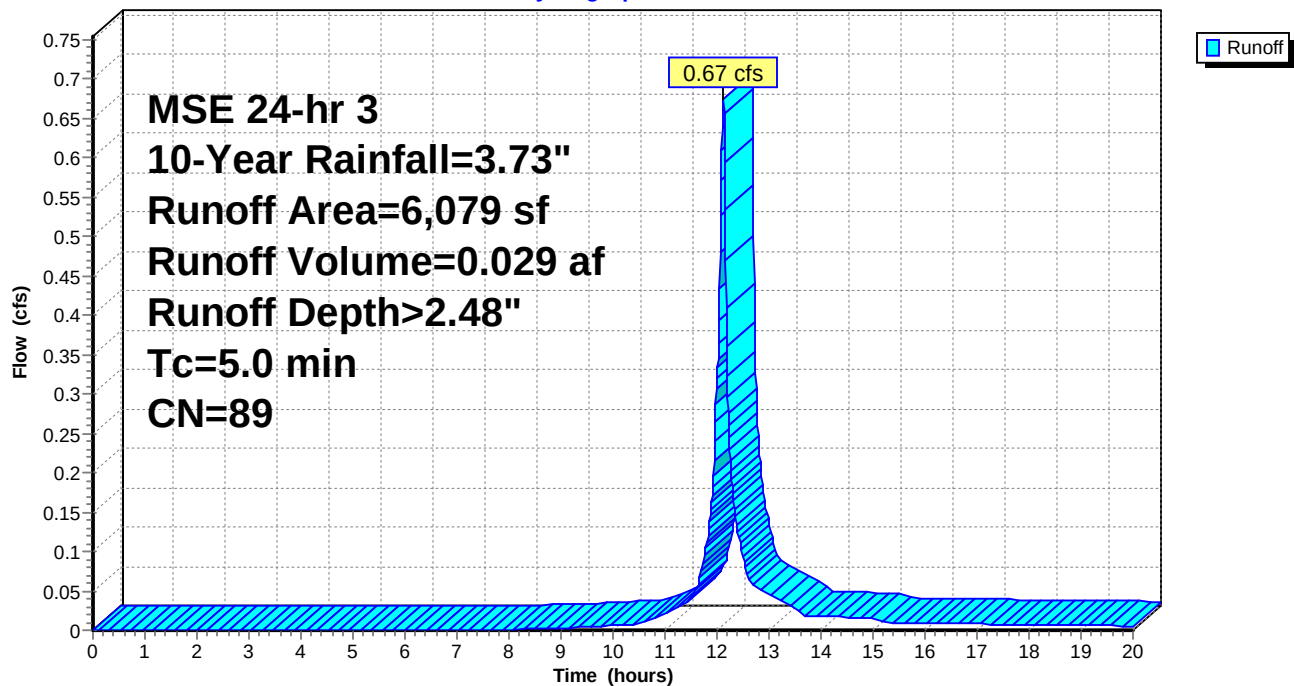
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-20.00 hrs, dt= 0.01 hrs
MSE 24-hr 3 10-Year Rainfall=3.73"

Area (sf)	CN	Description
2,855	79	50-75% Grass cover, Fair, HSG C
3,224	98	Paved parking, HSG C
6,079	89	Weighted Average
2,855		46.96% Pervious Area
3,224		53.04% Impervious Area

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

Subcatchment 15S: P2

Hydrograph



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MSE 24-hr 3 10-Year Rainfall=3.73"

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Hydrograph for Subcatchment 15S: P2

Time (hours)	Precip. (inches)	Excess (inches)	Runoff (cfs)	Time (hours)	Precip. (inches)	Excess (inches)	Runoff (cfs)
0.00	0.00	0.00	0.00	10.80	0.66	0.10	0.02
0.20	0.00	0.00	0.00	11.00	0.72	0.13	0.02
0.40	0.00	0.00	0.00	11.20	0.79	0.17	0.03
0.60	0.01	0.00	0.00	11.40	0.88	0.21	0.03
0.80	0.01	0.00	0.00	11.60	0.99	0.28	0.05
1.00	0.01	0.00	0.00	11.80	1.21	0.42	0.11
1.20	0.02	0.00	0.00	12.00	1.73	0.81	0.32
1.40	0.02	0.00	0.00	12.20	2.52	1.47	0.32
1.60	0.02	0.00	0.00	12.40	2.74	1.66	0.12
1.80	0.03	0.00	0.00	12.60	2.85	1.77	0.06
2.00	0.03	0.00	0.00	12.80	2.94	1.84	0.05
2.20	0.04	0.00	0.00	13.00	3.01	1.91	0.05
2.40	0.04	0.00	0.00	13.20	3.07	1.97	0.04
2.60	0.05	0.00	0.00	13.40	3.13	2.01	0.03
2.80	0.06	0.00	0.00	13.60	3.16	2.05	0.02
3.00	0.06	0.00	0.00	13.80	3.19	2.07	0.02
3.20	0.07	0.00	0.00	14.00	3.22	2.10	0.02
3.40	0.08	0.00	0.00	14.20	3.24	2.12	0.02
3.60	0.08	0.00	0.00	14.40	3.27	2.15	0.02
3.80	0.09	0.00	0.00	14.60	3.30	2.17	0.02
4.00	0.10	0.00	0.00	14.80	3.32	2.19	0.02
4.20	0.11	0.00	0.00	15.00	3.35	2.21	0.02
4.40	0.11	0.00	0.00	15.20	3.36	2.23	0.01
4.60	0.12	0.00	0.00	15.40	3.38	2.24	0.01
4.80	0.13	0.00	0.00	15.60	3.39	2.26	0.01
5.00	0.14	0.00	0.00	15.80	3.40	2.27	0.01
5.20	0.15	0.00	0.00	16.00	3.42	2.28	0.01
5.40	0.16	0.00	0.00	16.20	3.43	2.29	0.01
5.60	0.17	0.00	0.00	16.40	3.44	2.31	0.01
5.80	0.18	0.00	0.00	16.60	3.46	2.32	0.01
6.00	0.19	0.00	0.00	16.80	3.47	2.33	0.01
6.20	0.20	0.00	0.00	17.00	3.48	2.34	0.01
6.40	0.21	0.00	0.00	17.20	3.49	2.35	0.01
6.60	0.22	0.00	0.00	17.40	3.51	2.36	0.01
6.80	0.24	0.00	0.00	17.60	3.52	2.37	0.01
7.00	0.25	0.00	0.00	17.80	3.53	2.38	0.01
7.20	0.26	0.00	0.00	18.00	3.54	2.39	0.01
7.40	0.27	0.00	0.00	18.20	3.55	2.40	0.01
7.60	0.29	0.00	0.00	18.40	3.56	2.41	0.01
7.80	0.30	0.00	0.00	18.60	3.57	2.42	0.01
8.00	0.31	0.00	0.00	18.80	3.58	2.43	0.01
8.20	0.33	0.00	0.00	19.00	3.59	2.44	0.01
8.40	0.34	0.01	0.00	19.20	3.60	2.45	0.01
8.60	0.35	0.01	0.00	19.40	3.61	2.46	0.01
8.80	0.37	0.01	0.00	19.60	3.62	2.47	0.01
9.00	0.38	0.01	0.00	19.80	3.62	2.47	0.01
9.20	0.41	0.02	0.00	20.00	3.63	2.48	0.01
9.40	0.43	0.02	0.00				
9.60	0.46	0.03	0.00				
9.80	0.49	0.04	0.01				
10.00	0.51	0.05	0.01				
10.20	0.54	0.06	0.01				
10.40	0.57	0.07	0.01				
10.60	0.60	0.08	0.01				

Glendale Daycare REV1

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MSE 24-hr 3 10-Year Rainfall=3.73"

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Summary for Subcatchment 16S: P1

Runoff = 7.59 cfs @ 12.12 hrs, Volume= 0.350 af, Depth> 3.07"

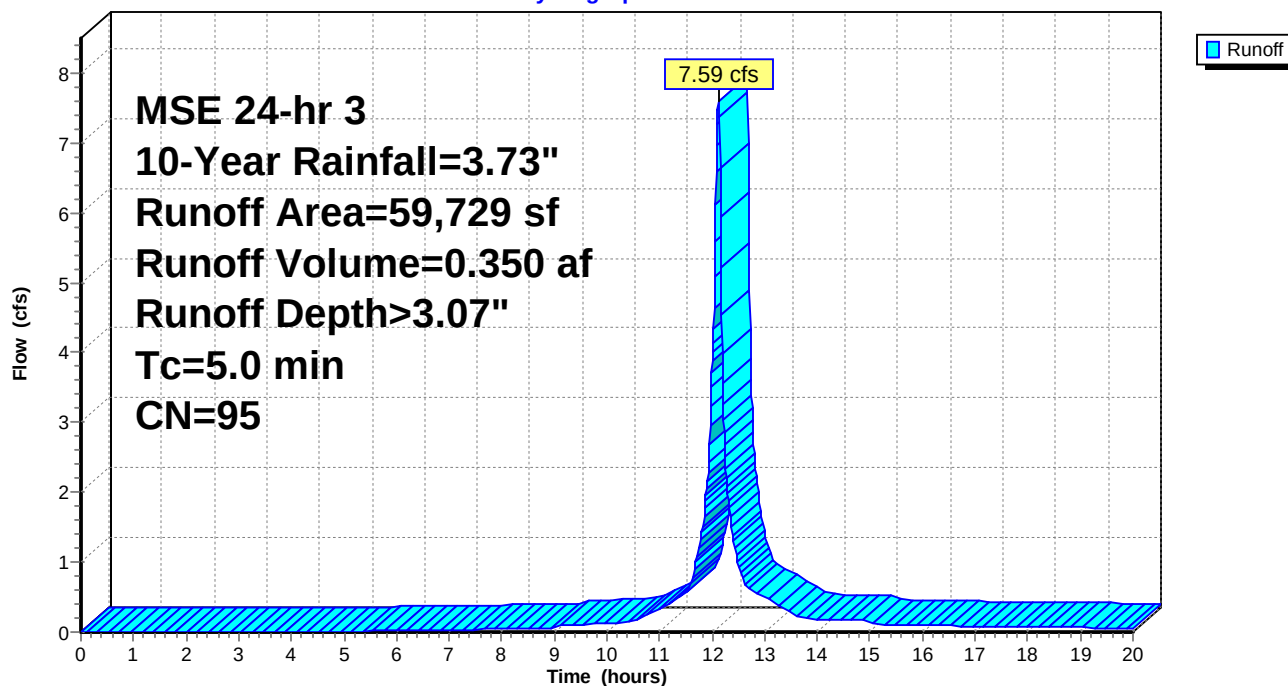
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-20.00 hrs, dt= 0.01 hrs
MSE 24-hr 3 10-Year Rainfall=3.73"

Area (sf)	CN	Description
10,339	79	50-75% Grass cover, Fair, HSG C
30,849	98	Paved parking, HSG C
18,541	98	Unconnected roofs, HSG C
59,729	95	Weighted Average
10,339		17.31% Pervious Area
49,390		82.69% Impervious Area
18,541		37.54% Unconnected

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

Subcatchment 16S: P1

Hydrograph



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MSE 24-hr 3 10-Year Rainfall=3.73"

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Hydrograph for Subcatchment 16S: P1

Time (hours)	Precip. (inches)	Excess (inches)	Runoff (cfs)	Time (hours)	Precip. (inches)	Excess (inches)	Runoff (cfs)
0.00	0.00	0.00	0.00	10.80	0.66	0.28	0.28
0.20	0.00	0.00	0.00	11.00	0.72	0.33	0.35
0.40	0.00	0.00	0.00	11.20	0.79	0.39	0.42
0.60	0.01	0.00	0.00	11.40	0.88	0.46	0.50
0.80	0.01	0.00	0.00	11.60	0.99	0.56	0.75
1.00	0.01	0.00	0.00	11.80	1.21	0.75	1.45
1.20	0.02	0.00	0.00	12.00	1.73	1.22	3.88
1.40	0.02	0.00	0.00	12.20	2.52	1.98	3.56
1.60	0.02	0.00	0.00	12.40	2.74	2.19	1.33
1.80	0.03	0.00	0.00	12.60	2.85	2.30	0.69
2.00	0.03	0.00	0.00	12.80	2.94	2.39	0.56
2.20	0.04	0.00	0.00	13.00	3.01	2.46	0.49
2.40	0.04	0.00	0.00	13.20	3.07	2.52	0.41
2.60	0.05	0.00	0.00	13.40	3.13	2.57	0.34
2.80	0.06	0.00	0.00	13.60	3.16	2.61	0.22
3.00	0.06	0.00	0.00	13.80	3.19	2.63	0.19
3.20	0.07	0.00	0.00	14.00	3.22	2.66	0.19
3.40	0.08	0.00	0.00	14.20	3.24	2.69	0.18
3.60	0.08	0.00	0.00	14.40	3.27	2.71	0.18
3.80	0.09	0.00	0.00	14.60	3.30	2.74	0.17
4.00	0.10	0.00	0.00	14.80	3.32	2.76	0.17
4.20	0.11	0.00	0.00	15.00	3.35	2.79	0.16
4.40	0.11	0.00	0.00	15.20	3.36	2.80	0.10
4.60	0.12	0.00	0.00	15.40	3.38	2.82	0.10
4.80	0.13	0.00	0.00	15.60	3.39	2.83	0.10
5.00	0.14	0.00	0.01	15.80	3.40	2.84	0.10
5.20	0.15	0.00	0.01	16.00	3.42	2.86	0.09
5.40	0.16	0.00	0.01	16.20	3.43	2.87	0.09
5.60	0.17	0.01	0.01	16.40	3.44	2.88	0.09
5.80	0.18	0.01	0.02	16.60	3.46	2.90	0.09
6.00	0.19	0.01	0.02	16.80	3.47	2.91	0.09
6.20	0.20	0.01	0.02	17.00	3.48	2.92	0.08
6.40	0.21	0.02	0.02	17.20	3.49	2.93	0.08
6.60	0.22	0.02	0.03	17.40	3.51	2.95	0.08
6.80	0.24	0.03	0.03	17.60	3.52	2.96	0.08
7.00	0.25	0.03	0.03	17.80	3.53	2.97	0.08
7.20	0.26	0.04	0.03	18.00	3.54	2.98	0.07
7.40	0.27	0.04	0.04	18.20	3.55	2.99	0.07
7.60	0.29	0.05	0.04	18.40	3.56	3.00	0.07
7.80	0.30	0.05	0.04	18.60	3.57	3.01	0.07
8.00	0.31	0.06	0.04	18.80	3.58	3.02	0.07
8.20	0.33	0.07	0.05	19.00	3.59	3.03	0.06
8.40	0.34	0.07	0.05	19.20	3.60	3.04	0.06
8.60	0.35	0.08	0.05	19.40	3.61	3.05	0.06
8.80	0.37	0.09	0.06	19.60	3.62	3.05	0.06
9.00	0.38	0.10	0.06	19.80	3.62	3.06	0.06
9.20	0.41	0.11	0.10	20.00	3.63	3.07	0.05
9.40	0.43	0.13	0.11				
9.60	0.46	0.14	0.11				
9.80	0.49	0.16	0.12				
10.00	0.51	0.18	0.13				
10.20	0.54	0.20	0.13				
10.40	0.57	0.22	0.14				
10.60	0.60	0.24	0.20				

Glendale Daycare REV1

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MSE 24-hr 3 10-Year Rainfall=3.73"

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Summary for Subcatchment 17S: E1

Runoff = 6.73 cfs @ 12.12 hrs, Volume= 0.298 af, Depth> 2.76"

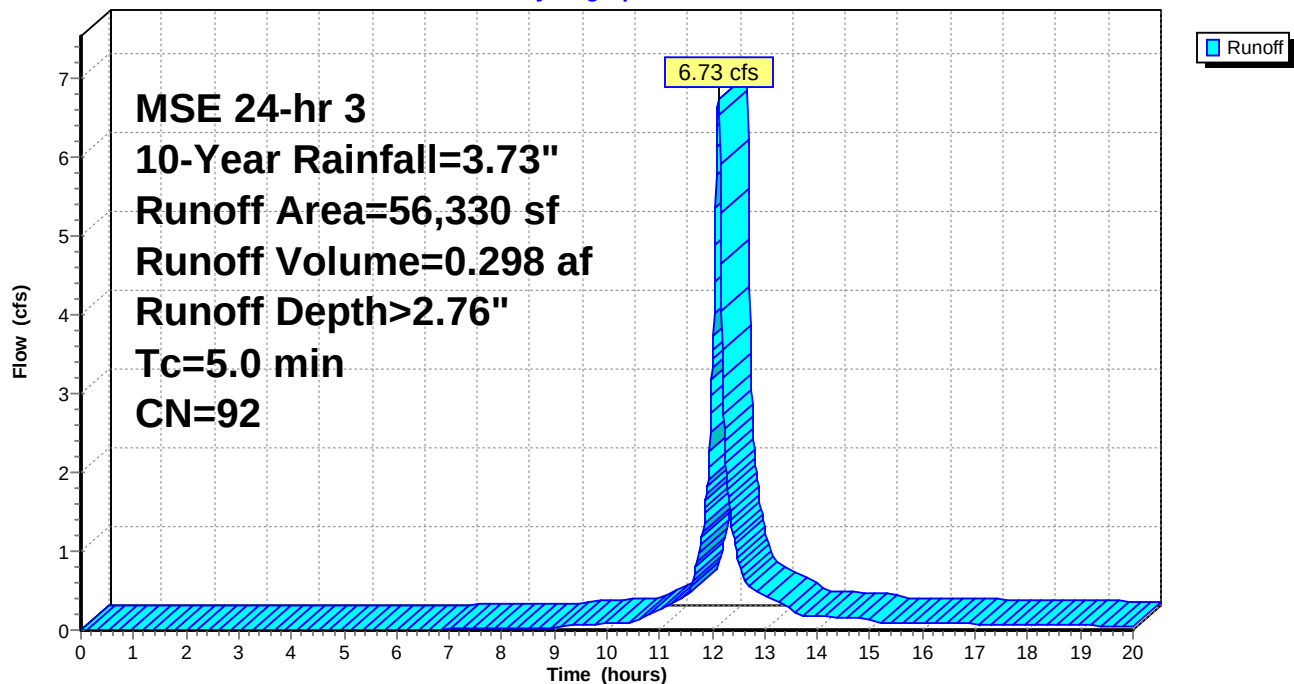
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-20.00 hrs, dt= 0.01 hrs
MSE 24-hr 3 10-Year Rainfall=3.73"

Area (sf)	CN	Description
18,753	79	50-75% Grass cover, Fair, HSG C
22,758	98	Paved parking, HSG C
14,819	98	Unconnected roofs, HSG C
56,330	92	Weighted Average
18,753		33.29% Pervious Area
37,577		66.71% Impervious Area
14,819		39.44% Unconnected

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

Subcatchment 17S: E1

Hydrograph



Hydrograph for Subcatchment 17S: E1

Time (hours)	Precip. (inches)	Excess (inches)	Runoff (cfs)	Time (hours)	Precip. (inches)	Excess (inches)	Runoff (cfs)
0.00	0.00	0.00	0.00	10.80	0.66	0.17	0.20
0.20	0.00	0.00	0.00	11.00	0.72	0.21	0.25
0.40	0.00	0.00	0.00	11.20	0.79	0.26	0.32
0.60	0.01	0.00	0.00	11.40	0.88	0.32	0.39
0.80	0.01	0.00	0.00	11.60	0.99	0.40	0.60
1.00	0.01	0.00	0.00	11.80	1.21	0.56	1.19
1.20	0.02	0.00	0.00	12.00	1.73	1.00	3.33
1.40	0.02	0.00	0.00	12.20	2.52	1.71	3.19
1.60	0.02	0.00	0.00	12.40	2.74	1.91	1.20
1.80	0.03	0.00	0.00	12.60	2.85	2.02	0.63
2.00	0.03	0.00	0.00	12.80	2.94	2.10	0.51
2.20	0.04	0.00	0.00	13.00	3.01	2.17	0.45
2.40	0.04	0.00	0.00	13.20	3.07	2.23	0.38
2.60	0.05	0.00	0.00	13.40	3.13	2.28	0.31
2.80	0.06	0.00	0.00	13.60	3.16	2.31	0.20
3.00	0.06	0.00	0.00	13.80	3.19	2.34	0.18
3.20	0.07	0.00	0.00	14.00	3.22	2.37	0.17
3.40	0.08	0.00	0.00	14.20	3.24	2.39	0.17
3.60	0.08	0.00	0.00	14.40	3.27	2.42	0.16
3.80	0.09	0.00	0.00	14.60	3.30	2.44	0.16
4.00	0.10	0.00	0.00	14.80	3.32	2.47	0.15
4.20	0.11	0.00	0.00	15.00	3.35	2.49	0.15
4.40	0.11	0.00	0.00	15.20	3.36	2.50	0.09
4.60	0.12	0.00	0.00	15.40	3.38	2.52	0.09
4.80	0.13	0.00	0.00	15.60	3.39	2.53	0.09
5.00	0.14	0.00	0.00	15.80	3.40	2.54	0.09
5.20	0.15	0.00	0.00	16.00	3.42	2.56	0.09
5.40	0.16	0.00	0.00	16.20	3.43	2.57	0.08
5.60	0.17	0.00	0.00	16.40	3.44	2.58	0.08
5.80	0.18	0.00	0.00	16.60	3.46	2.60	0.08
6.00	0.19	0.00	0.00	16.80	3.47	2.61	0.08
6.20	0.20	0.00	0.00	17.00	3.48	2.62	0.08
6.40	0.21	0.00	0.01	17.20	3.49	2.63	0.08
6.60	0.22	0.00	0.01	17.40	3.51	2.64	0.07
6.80	0.24	0.00	0.01	17.60	3.52	2.65	0.07
7.00	0.25	0.01	0.01	17.80	3.53	2.66	0.07
7.20	0.26	0.01	0.01	18.00	3.54	2.67	0.07
7.40	0.27	0.01	0.02	18.20	3.55	2.69	0.07
7.60	0.29	0.01	0.02	18.40	3.56	2.70	0.06
7.80	0.30	0.02	0.02	18.60	3.57	2.70	0.06
8.00	0.31	0.02	0.02	18.80	3.58	2.71	0.06
8.20	0.33	0.02	0.02	19.00	3.59	2.72	0.06
8.40	0.34	0.03	0.03	19.20	3.60	2.73	0.06
8.60	0.35	0.03	0.03	19.40	3.61	2.74	0.06
8.80	0.37	0.04	0.03	19.60	3.62	2.75	0.05
9.00	0.38	0.04	0.03	19.80	3.62	2.76	0.05
9.20	0.41	0.05	0.06	20.00	3.63	2.76	0.05
9.40	0.43	0.06	0.06				
9.60	0.46	0.07	0.07				
9.80	0.49	0.08	0.08				
10.00	0.51	0.09	0.08				
10.20	0.54	0.11	0.09				
10.40	0.57	0.12	0.10				
10.60	0.60	0.14	0.14				

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MSE 24-hr 3 10-Year Rainfall=3.73"

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Summary for Subcatchment 20S: OFFSITE NORTH (OFN)

Runoff = 2.05 cfs @ 12.13 hrs, Volume= 0.083 af, Depth> 1.81"

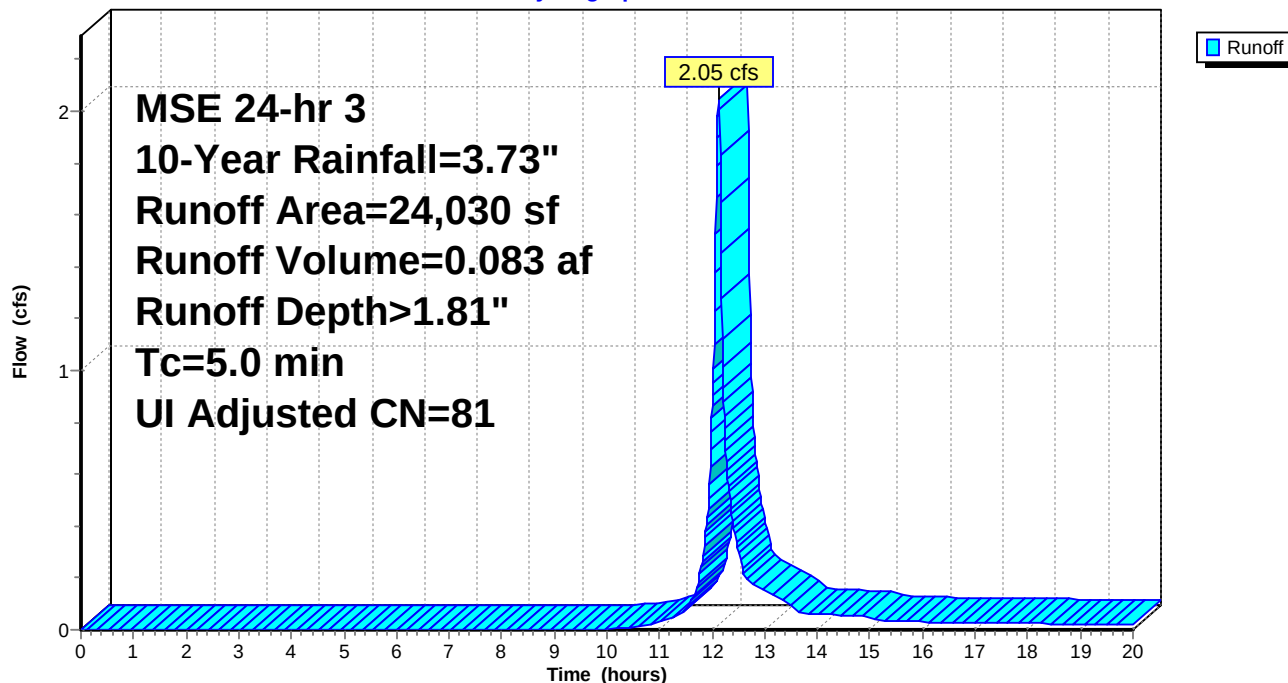
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-20.00 hrs, dt= 0.01 hrs
MSE 24-hr 3 10-Year Rainfall=3.73"

Area (sf)	CN	Adj	Description
19,345	79		50-75% Grass cover, Fair, HSG C
4,685	98		Unconnected roofs, HSG C
24,030	83	81	Weighted Average, UI Adjusted
19,345			80.50% Pervious Area
4,685			19.50% Impervious Area
4,685			100.00% Unconnected

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

Subcatchment 20S: OFFSITE NORTH (OFN)

Hydrograph



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MSE 24-hr 3 10-Year Rainfall=3.73"

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Hydrograph for Subcatchment 20S: OFFSITE NORTH (OFN)

Time (hours)	Precip. (inches)	Excess (inches)	Runoff (cfs)	Time (hours)	Precip. (inches)	Excess (inches)	Runoff (cfs)
0.00	0.00	0.00	0.00	10.80	0.66	0.01	0.02
0.20	0.00	0.00	0.00	11.00	0.72	0.02	0.03
0.40	0.00	0.00	0.00	11.20	0.79	0.04	0.04
0.60	0.01	0.00	0.00	11.40	0.88	0.06	0.06
0.80	0.01	0.00	0.00	11.60	0.99	0.10	0.11
1.00	0.01	0.00	0.00	11.80	1.21	0.18	0.25
1.20	0.02	0.00	0.00	12.00	1.73	0.44	0.87
1.40	0.02	0.00	0.00	12.20	2.52	0.96	1.01
1.60	0.02	0.00	0.00	12.40	2.74	1.11	0.40
1.80	0.03	0.00	0.00	12.60	2.85	1.20	0.22
2.00	0.03	0.00	0.00	12.80	2.94	1.27	0.18
2.20	0.04	0.00	0.00	13.00	3.01	1.32	0.15
2.40	0.04	0.00	0.00	13.20	3.07	1.37	0.13
2.60	0.05	0.00	0.00	13.40	3.13	1.41	0.11
2.80	0.06	0.00	0.00	13.60	3.16	1.44	0.07
3.00	0.06	0.00	0.00	13.80	3.19	1.46	0.06
3.20	0.07	0.00	0.00	14.00	3.22	1.48	0.06
3.40	0.08	0.00	0.00	14.20	3.24	1.50	0.06
3.60	0.08	0.00	0.00	14.40	3.27	1.52	0.06
3.80	0.09	0.00	0.00	14.60	3.30	1.55	0.06
4.00	0.10	0.00	0.00	14.80	3.32	1.57	0.06
4.20	0.11	0.00	0.00	15.00	3.35	1.58	0.05
4.40	0.11	0.00	0.00	15.20	3.36	1.60	0.03
4.60	0.12	0.00	0.00	15.40	3.38	1.61	0.03
4.80	0.13	0.00	0.00	15.60	3.39	1.62	0.03
5.00	0.14	0.00	0.00	15.80	3.40	1.63	0.03
5.20	0.15	0.00	0.00	16.00	3.42	1.64	0.03
5.40	0.16	0.00	0.00	16.20	3.43	1.65	0.03
5.60	0.17	0.00	0.00	16.40	3.44	1.66	0.03
5.80	0.18	0.00	0.00	16.60	3.46	1.67	0.03
6.00	0.19	0.00	0.00	16.80	3.47	1.68	0.03
6.20	0.20	0.00	0.00	17.00	3.48	1.69	0.03
6.40	0.21	0.00	0.00	17.20	3.49	1.70	0.03
6.60	0.22	0.00	0.00	17.40	3.51	1.71	0.03
6.80	0.24	0.00	0.00	17.60	3.52	1.72	0.03
7.00	0.25	0.00	0.00	17.80	3.53	1.73	0.03
7.20	0.26	0.00	0.00	18.00	3.54	1.74	0.02
7.40	0.27	0.00	0.00	18.20	3.55	1.75	0.02
7.60	0.29	0.00	0.00	18.40	3.56	1.76	0.02
7.80	0.30	0.00	0.00	18.60	3.57	1.77	0.02
8.00	0.31	0.00	0.00	18.80	3.58	1.77	0.02
8.20	0.33	0.00	0.00	19.00	3.59	1.78	0.02
8.40	0.34	0.00	0.00	19.20	3.60	1.79	0.02
8.60	0.35	0.00	0.00	19.40	3.61	1.80	0.02
8.80	0.37	0.00	0.00	19.60	3.62	1.80	0.02
9.00	0.38	0.00	0.00	19.80	3.62	1.81	0.02
9.20	0.41	0.00	0.00	20.00	3.63	1.82	0.02
9.40	0.43	0.00	0.00				
9.60	0.46	0.00	0.00				
9.80	0.49	0.00	0.00				
10.00	0.51	0.00	0.00				
10.20	0.54	0.00	0.00				
10.40	0.57	0.00	0.01				
10.60	0.60	0.01	0.01				

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MSE 24-hr 3 10-Year Rainfall=3.73"

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Summary for Subcatchment 21S: Northern Swale

Runoff = 3.31 cfs @ 12.12 hrs, Volume= 0.150 af, Depth> 2.96"

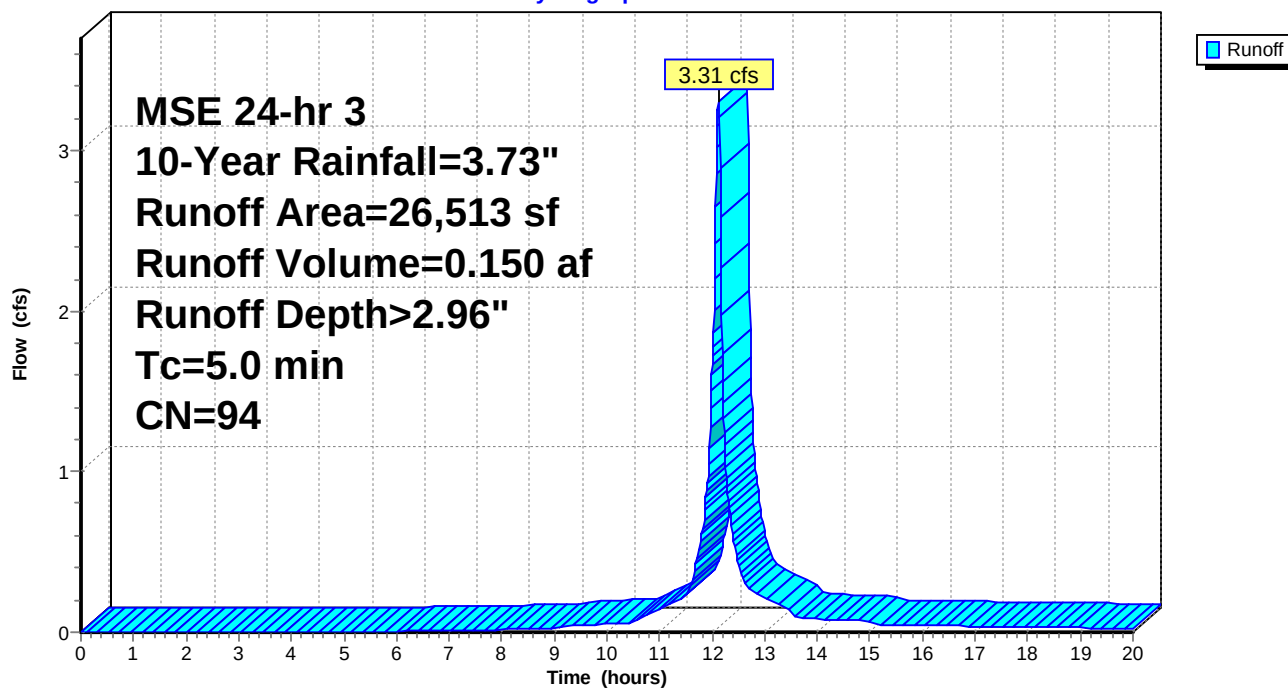
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-20.00 hrs, dt= 0.01 hrs
MSE 24-hr 3 10-Year Rainfall=3.73"

Area (sf)	CN	Description
5,422	79	50-75% Grass cover, Fair, HSG C
* 21,091	98	Roof
26,513	94	Weighted Average
5,422		20.45% Pervious Area
21,091		79.55% Impervious Area

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

Subcatchment 21S: Northern Swale

Hydrograph



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MSE 24-hr 3 10-Year Rainfall=3.73"

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Hydrograph for Subcatchment 21S: Northern Swale

Time (hours)	Precip. (inches)	Excess (inches)	Runoff (cfs)	Time (hours)	Precip. (inches)	Excess (inches)	Runoff (cfs)
0.00	0.00	0.00	0.00	10.80	0.66	0.24	0.11
0.20	0.00	0.00	0.00	11.00	0.72	0.28	0.14
0.40	0.00	0.00	0.00	11.20	0.79	0.34	0.17
0.60	0.01	0.00	0.00	11.40	0.88	0.41	0.21
0.80	0.01	0.00	0.00	11.60	0.99	0.50	0.32
1.00	0.01	0.00	0.00	11.80	1.21	0.68	0.62
1.20	0.02	0.00	0.00	12.00	1.73	1.14	1.67
1.40	0.02	0.00	0.00	12.20	2.52	1.89	1.56
1.60	0.02	0.00	0.00	12.40	2.74	2.10	0.58
1.80	0.03	0.00	0.00	12.60	2.85	2.21	0.31
2.00	0.03	0.00	0.00	12.80	2.94	2.29	0.25
2.20	0.04	0.00	0.00	13.00	3.01	2.36	0.21
2.40	0.04	0.00	0.00	13.20	3.07	2.42	0.18
2.60	0.05	0.00	0.00	13.40	3.13	2.47	0.15
2.80	0.06	0.00	0.00	13.60	3.16	2.51	0.10
3.00	0.06	0.00	0.00	13.80	3.19	2.53	0.08
3.20	0.07	0.00	0.00	14.00	3.22	2.56	0.08
3.40	0.08	0.00	0.00	14.20	3.24	2.59	0.08
3.60	0.08	0.00	0.00	14.40	3.27	2.61	0.08
3.80	0.09	0.00	0.00	14.60	3.30	2.64	0.08
4.00	0.10	0.00	0.00	14.80	3.32	2.66	0.07
4.20	0.11	0.00	0.00	15.00	3.35	2.69	0.07
4.40	0.11	0.00	0.00	15.20	3.36	2.70	0.04
4.60	0.12	0.00	0.00	15.40	3.38	2.71	0.04
4.80	0.13	0.00	0.00	15.60	3.39	2.73	0.04
5.00	0.14	0.00	0.00	15.80	3.40	2.74	0.04
5.20	0.15	0.00	0.00	16.00	3.42	2.76	0.04
5.40	0.16	0.00	0.00	16.20	3.43	2.77	0.04
5.60	0.17	0.00	0.00	16.40	3.44	2.78	0.04
5.80	0.18	0.00	0.00	16.60	3.46	2.79	0.04
6.00	0.19	0.01	0.01	16.80	3.47	2.81	0.04
6.20	0.20	0.01	0.01	17.00	3.48	2.82	0.04
6.40	0.21	0.01	0.01	17.20	3.49	2.83	0.04
6.60	0.22	0.01	0.01	17.40	3.51	2.84	0.04
6.80	0.24	0.02	0.01	17.60	3.52	2.85	0.03
7.00	0.25	0.02	0.01	17.80	3.53	2.86	0.03
7.20	0.26	0.02	0.01	18.00	3.54	2.87	0.03
7.40	0.27	0.03	0.01	18.20	3.55	2.88	0.03
7.60	0.29	0.03	0.01	18.40	3.56	2.89	0.03
7.80	0.30	0.04	0.02	18.60	3.57	2.90	0.03
8.00	0.31	0.04	0.02	18.80	3.58	2.91	0.03
8.20	0.33	0.05	0.02	19.00	3.59	2.92	0.03
8.40	0.34	0.05	0.02	19.20	3.60	2.93	0.03
8.60	0.35	0.06	0.02	19.40	3.61	2.94	0.03
8.80	0.37	0.07	0.02	19.60	3.62	2.95	0.03
9.00	0.38	0.07	0.02	19.80	3.62	2.96	0.02
9.20	0.41	0.09	0.04	20.00	3.63	2.97	0.02
9.40	0.43	0.10	0.04				
9.60	0.46	0.11	0.04				
9.80	0.49	0.13	0.05				
10.00	0.51	0.14	0.05				
10.20	0.54	0.16	0.05				
10.40	0.57	0.18	0.06				
10.60	0.60	0.20	0.08				

Summary for Subcatchment 22S: OFFSITE SOUTH (OFS)

Runoff = 3.25 cfs @ 12.12 hrs, Volume= 0.139 af, Depth> 2.48"

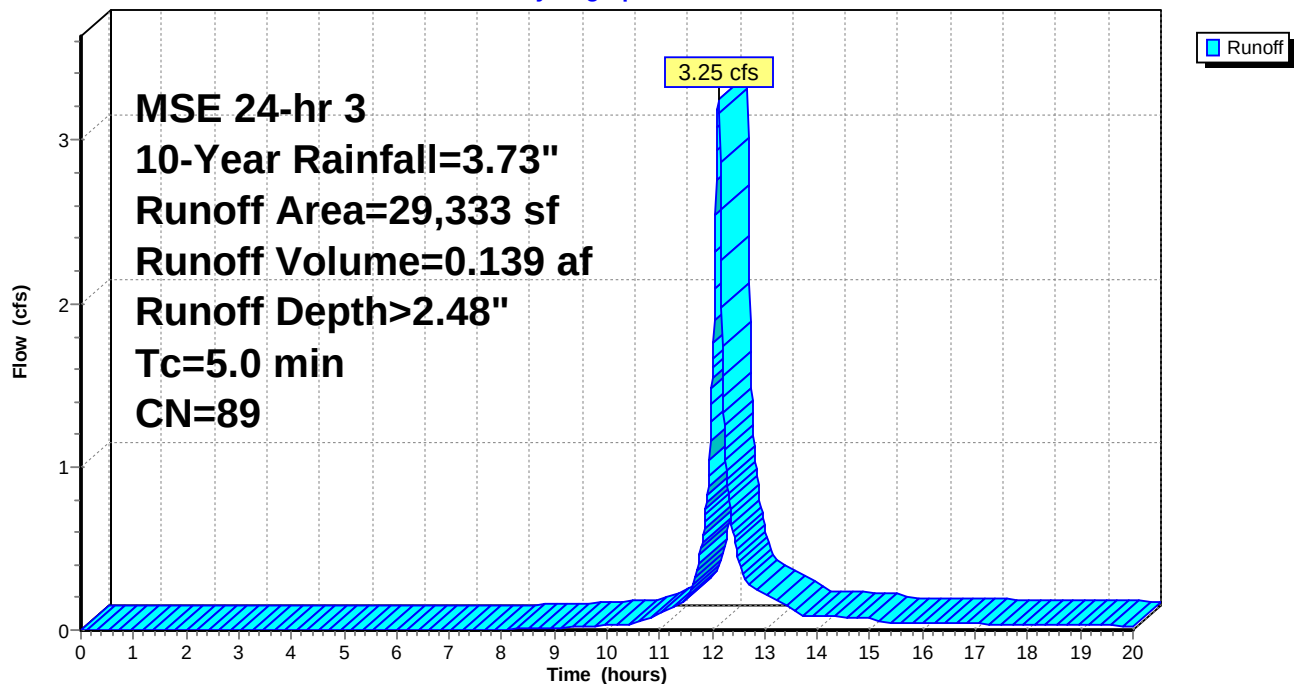
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-20.00 hrs, dt= 0.01 hrs
MSE 24-hr 3 10-Year Rainfall=3.73"

Area (sf)	CN	Description
13,422	79	50-75% Grass cover, Fair, HSG C
6,500	98	Unconnected roofs, HSG C
9,411	98	Paved parking, HSG C
29,333	89	Weighted Average
13,422		45.76% Pervious Area
15,911		54.24% Impervious Area
6,500		40.85% Unconnected

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

Subcatchment 22S: OFFSITE SOUTH (OFS)

Hydrograph



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MSE 24-hr 3 10-Year Rainfall=3.73"

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Hydrograph for Subcatchment 22S: OFFSITE SOUTH (OFS)

Time (hours)	Precip. (inches)	Excess (inches)	Runoff (cfs)	Time (hours)	Precip. (inches)	Excess (inches)	Runoff (cfs)
0.00	0.00	0.00	0.00	10.80	0.66	0.10	0.08
0.20	0.00	0.00	0.00	11.00	0.72	0.13	0.10
0.40	0.00	0.00	0.00	11.20	0.79	0.17	0.13
0.60	0.01	0.00	0.00	11.40	0.88	0.21	0.16
0.80	0.01	0.00	0.00	11.60	0.99	0.28	0.26
1.00	0.01	0.00	0.00	11.80	1.21	0.42	0.53
1.20	0.02	0.00	0.00	12.00	1.73	0.81	1.55
1.40	0.02	0.00	0.00	12.20	2.52	1.47	1.56
1.60	0.02	0.00	0.00	12.40	2.74	1.66	0.59
1.80	0.03	0.00	0.00	12.60	2.85	1.77	0.31
2.00	0.03	0.00	0.00	12.80	2.94	1.84	0.26
2.20	0.04	0.00	0.00	13.00	3.01	1.91	0.22
2.40	0.04	0.00	0.00	13.20	3.07	1.97	0.19
2.60	0.05	0.00	0.00	13.40	3.13	2.01	0.15
2.80	0.06	0.00	0.00	13.60	3.16	2.05	0.10
3.00	0.06	0.00	0.00	13.80	3.19	2.07	0.09
3.20	0.07	0.00	0.00	14.00	3.22	2.10	0.09
3.40	0.08	0.00	0.00	14.20	3.24	2.12	0.08
3.60	0.08	0.00	0.00	14.40	3.27	2.15	0.08
3.80	0.09	0.00	0.00	14.60	3.30	2.17	0.08
4.00	0.10	0.00	0.00	14.80	3.32	2.19	0.08
4.20	0.11	0.00	0.00	15.00	3.35	2.21	0.08
4.40	0.11	0.00	0.00	15.20	3.36	2.23	0.05
4.60	0.12	0.00	0.00	15.40	3.38	2.24	0.05
4.80	0.13	0.00	0.00	15.60	3.39	2.26	0.05
5.00	0.14	0.00	0.00	15.80	3.40	2.27	0.04
5.20	0.15	0.00	0.00	16.00	3.42	2.28	0.04
5.40	0.16	0.00	0.00	16.20	3.43	2.29	0.04
5.60	0.17	0.00	0.00	16.40	3.44	2.31	0.04
5.80	0.18	0.00	0.00	16.60	3.46	2.32	0.04
6.00	0.19	0.00	0.00	16.80	3.47	2.33	0.04
6.20	0.20	0.00	0.00	17.00	3.48	2.34	0.04
6.40	0.21	0.00	0.00	17.20	3.49	2.35	0.04
6.60	0.22	0.00	0.00	17.40	3.51	2.36	0.04
6.80	0.24	0.00	0.00	17.60	3.52	2.37	0.04
7.00	0.25	0.00	0.00	17.80	3.53	2.38	0.04
7.20	0.26	0.00	0.00	18.00	3.54	2.39	0.03
7.40	0.27	0.00	0.00	18.20	3.55	2.40	0.03
7.60	0.29	0.00	0.00	18.40	3.56	2.41	0.03
7.80	0.30	0.00	0.00	18.60	3.57	2.42	0.03
8.00	0.31	0.00	0.00	18.80	3.58	2.43	0.03
8.20	0.33	0.00	0.01	19.00	3.59	2.44	0.03
8.40	0.34	0.01	0.01	19.20	3.60	2.45	0.03
8.60	0.35	0.01	0.01	19.40	3.61	2.46	0.03
8.80	0.37	0.01	0.01	19.60	3.62	2.47	0.03
9.00	0.38	0.01	0.01	19.80	3.62	2.47	0.03
9.20	0.41	0.02	0.02	20.00	3.63	2.48	0.02
9.40	0.43	0.02	0.02				
9.60	0.46	0.03	0.02				
9.80	0.49	0.04	0.03				
10.00	0.51	0.05	0.03				
10.20	0.54	0.06	0.03				
10.40	0.57	0.07	0.03				
10.60	0.60	0.08	0.05				

Summary for Subcatchment 24S: OFFSITE NORTH

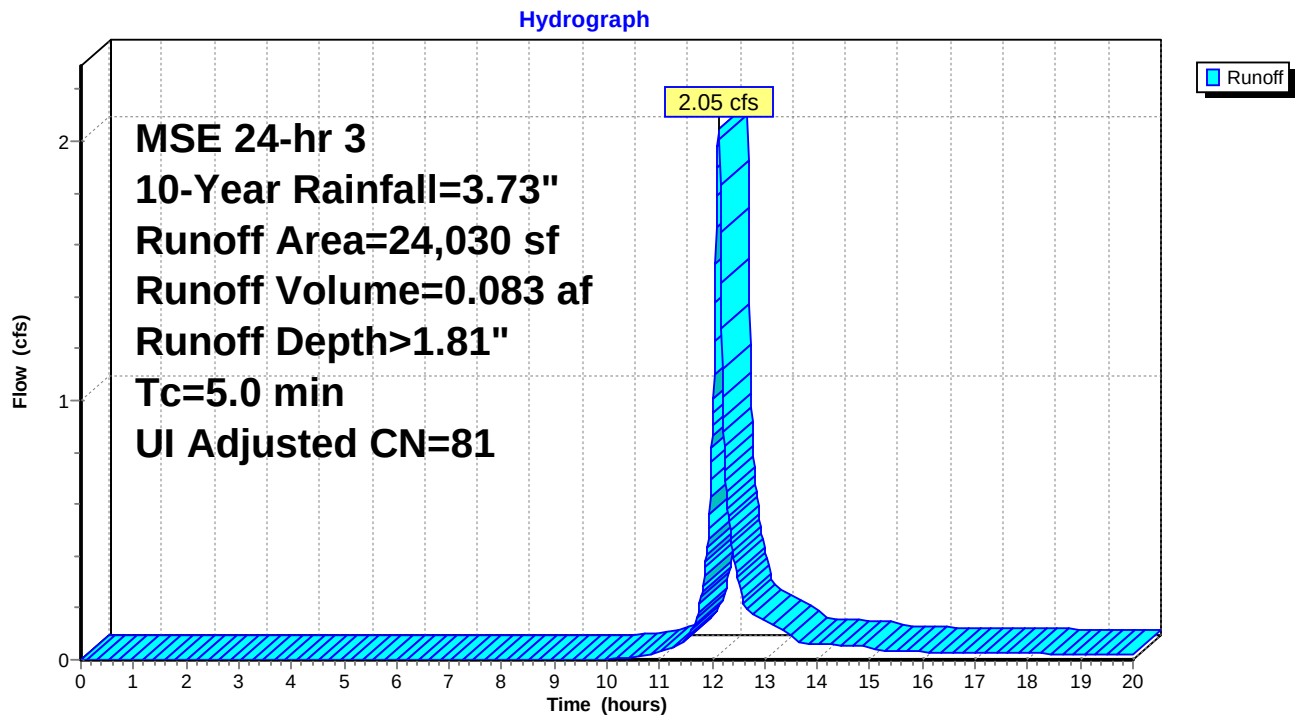
Runoff = 2.05 cfs @ 12.13 hrs, Volume= 0.083 af, Depth> 1.81"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-20.00 hrs, dt= 0.01 hrs
MSE 24-hr 3 10-Year Rainfall=3.73"

Area (sf)	CN	Adj	Description
19,345	79		50-75% Grass cover, Fair, HSG C
4,685	98		Unconnected roofs, HSG C
24,030	83	81	Weighted Average, UI Adjusted
19,345			80.50% Pervious Area
4,685			19.50% Impervious Area
4,685			100.00% Unconnected

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

Subcatchment 24S: OFFSITE NORTH



Glendale Daycare REV1

Prepared by Ayres Associates

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MSE 24-hr 3 10-Year Rainfall=3.73"

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Hydrograph for Subcatchment 24S: OFFSITE NORTH

Time (hours)	Precip. (inches)	Excess (inches)	Runoff (cfs)	Time (hours)	Precip. (inches)	Excess (inches)	Runoff (cfs)
0.00	0.00	0.00	0.00	10.80	0.66	0.01	0.02
0.20	0.00	0.00	0.00	11.00	0.72	0.02	0.03
0.40	0.00	0.00	0.00	11.20	0.79	0.04	0.04
0.60	0.01	0.00	0.00	11.40	0.88	0.06	0.06
0.80	0.01	0.00	0.00	11.60	0.99	0.10	0.11
1.00	0.01	0.00	0.00	11.80	1.21	0.18	0.25
1.20	0.02	0.00	0.00	12.00	1.73	0.44	0.87
1.40	0.02	0.00	0.00	12.20	2.52	0.96	1.01
1.60	0.02	0.00	0.00	12.40	2.74	1.11	0.40
1.80	0.03	0.00	0.00	12.60	2.85	1.20	0.22
2.00	0.03	0.00	0.00	12.80	2.94	1.27	0.18
2.20	0.04	0.00	0.00	13.00	3.01	1.32	0.15
2.40	0.04	0.00	0.00	13.20	3.07	1.37	0.13
2.60	0.05	0.00	0.00	13.40	3.13	1.41	0.11
2.80	0.06	0.00	0.00	13.60	3.16	1.44	0.07
3.00	0.06	0.00	0.00	13.80	3.19	1.46	0.06
3.20	0.07	0.00	0.00	14.00	3.22	1.48	0.06
3.40	0.08	0.00	0.00	14.20	3.24	1.50	0.06
3.60	0.08	0.00	0.00	14.40	3.27	1.52	0.06
3.80	0.09	0.00	0.00	14.60	3.30	1.55	0.06
4.00	0.10	0.00	0.00	14.80	3.32	1.57	0.06
4.20	0.11	0.00	0.00	15.00	3.35	1.58	0.05
4.40	0.11	0.00	0.00	15.20	3.36	1.60	0.03
4.60	0.12	0.00	0.00	15.40	3.38	1.61	0.03
4.80	0.13	0.00	0.00	15.60	3.39	1.62	0.03
5.00	0.14	0.00	0.00	15.80	3.40	1.63	0.03
5.20	0.15	0.00	0.00	16.00	3.42	1.64	0.03
5.40	0.16	0.00	0.00	16.20	3.43	1.65	0.03
5.60	0.17	0.00	0.00	16.40	3.44	1.66	0.03
5.80	0.18	0.00	0.00	16.60	3.46	1.67	0.03
6.00	0.19	0.00	0.00	16.80	3.47	1.68	0.03
6.20	0.20	0.00	0.00	17.00	3.48	1.69	0.03
6.40	0.21	0.00	0.00	17.20	3.49	1.70	0.03
6.60	0.22	0.00	0.00	17.40	3.51	1.71	0.03
6.80	0.24	0.00	0.00	17.60	3.52	1.72	0.03
7.00	0.25	0.00	0.00	17.80	3.53	1.73	0.03
7.20	0.26	0.00	0.00	18.00	3.54	1.74	0.02
7.40	0.27	0.00	0.00	18.20	3.55	1.75	0.02
7.60	0.29	0.00	0.00	18.40	3.56	1.76	0.02
7.80	0.30	0.00	0.00	18.60	3.57	1.77	0.02
8.00	0.31	0.00	0.00	18.80	3.58	1.77	0.02
8.20	0.33	0.00	0.00	19.00	3.59	1.78	0.02
8.40	0.34	0.00	0.00	19.20	3.60	1.79	0.02
8.60	0.35	0.00	0.00	19.40	3.61	1.80	0.02
8.80	0.37	0.00	0.00	19.60	3.62	1.80	0.02
9.00	0.38	0.00	0.00	19.80	3.62	1.81	0.02
9.20	0.41	0.00	0.00	20.00	3.63	1.82	0.02
9.40	0.43	0.00	0.00				
9.60	0.46	0.00	0.00				
9.80	0.49	0.00	0.00				
10.00	0.51	0.00	0.00				
10.20	0.54	0.00	0.00				
10.40	0.57	0.00	0.01				
10.60	0.60	0.01	0.01				

Summary for Subcatchment 25S: OFFSITE SOUTH (OFS)

Runoff = 3.25 cfs @ 12.12 hrs, Volume= 0.139 af, Depth> 2.48"

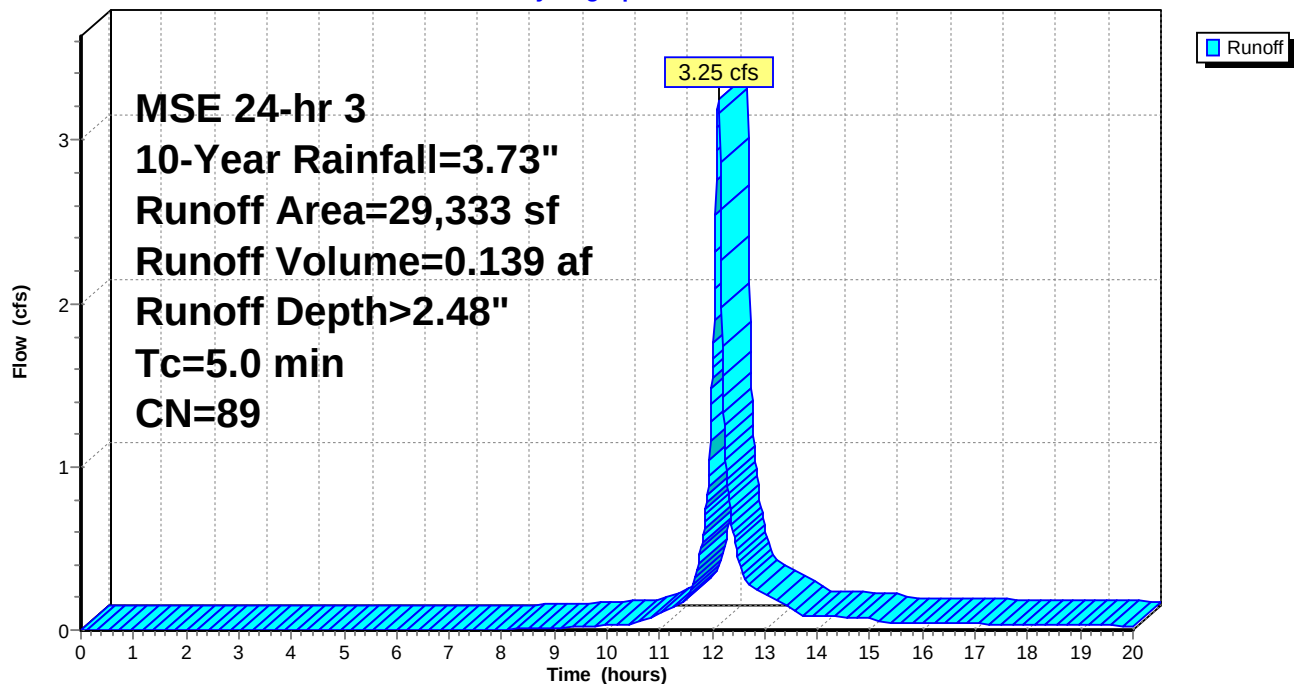
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-20.00 hrs, dt= 0.01 hrs
MSE 24-hr 3 10-Year Rainfall=3.73"

Area (sf)	CN	Description
13,422	79	50-75% Grass cover, Fair, HSG C
6,500	98	Unconnected roofs, HSG C
9,411	98	Paved parking, HSG C
29,333	89	Weighted Average
13,422		45.76% Pervious Area
15,911		54.24% Impervious Area
6,500		40.85% Unconnected

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

Subcatchment 25S: OFFSITE SOUTH (OFS)

Hydrograph



Hydrograph for Subcatchment 25S: OFFSITE SOUTH (OFS)

Time (hours)	Precip. (inches)	Excess (inches)	Runoff (cfs)	Time (hours)	Precip. (inches)	Excess (inches)	Runoff (cfs)
0.00	0.00	0.00	0.00	10.80	0.66	0.10	0.08
0.20	0.00	0.00	0.00	11.00	0.72	0.13	0.10
0.40	0.00	0.00	0.00	11.20	0.79	0.17	0.13
0.60	0.01	0.00	0.00	11.40	0.88	0.21	0.16
0.80	0.01	0.00	0.00	11.60	0.99	0.28	0.26
1.00	0.01	0.00	0.00	11.80	1.21	0.42	0.53
1.20	0.02	0.00	0.00	12.00	1.73	0.81	1.55
1.40	0.02	0.00	0.00	12.20	2.52	1.47	1.56
1.60	0.02	0.00	0.00	12.40	2.74	1.66	0.59
1.80	0.03	0.00	0.00	12.60	2.85	1.77	0.31
2.00	0.03	0.00	0.00	12.80	2.94	1.84	0.26
2.20	0.04	0.00	0.00	13.00	3.01	1.91	0.22
2.40	0.04	0.00	0.00	13.20	3.07	1.97	0.19
2.60	0.05	0.00	0.00	13.40	3.13	2.01	0.15
2.80	0.06	0.00	0.00	13.60	3.16	2.05	0.10
3.00	0.06	0.00	0.00	13.80	3.19	2.07	0.09
3.20	0.07	0.00	0.00	14.00	3.22	2.10	0.09
3.40	0.08	0.00	0.00	14.20	3.24	2.12	0.08
3.60	0.08	0.00	0.00	14.40	3.27	2.15	0.08
3.80	0.09	0.00	0.00	14.60	3.30	2.17	0.08
4.00	0.10	0.00	0.00	14.80	3.32	2.19	0.08
4.20	0.11	0.00	0.00	15.00	3.35	2.21	0.08
4.40	0.11	0.00	0.00	15.20	3.36	2.23	0.05
4.60	0.12	0.00	0.00	15.40	3.38	2.24	0.05
4.80	0.13	0.00	0.00	15.60	3.39	2.26	0.05
5.00	0.14	0.00	0.00	15.80	3.40	2.27	0.04
5.20	0.15	0.00	0.00	16.00	3.42	2.28	0.04
5.40	0.16	0.00	0.00	16.20	3.43	2.29	0.04
5.60	0.17	0.00	0.00	16.40	3.44	2.31	0.04
5.80	0.18	0.00	0.00	16.60	3.46	2.32	0.04
6.00	0.19	0.00	0.00	16.80	3.47	2.33	0.04
6.20	0.20	0.00	0.00	17.00	3.48	2.34	0.04
6.40	0.21	0.00	0.00	17.20	3.49	2.35	0.04
6.60	0.22	0.00	0.00	17.40	3.51	2.36	0.04
6.80	0.24	0.00	0.00	17.60	3.52	2.37	0.04
7.00	0.25	0.00	0.00	17.80	3.53	2.38	0.04
7.20	0.26	0.00	0.00	18.00	3.54	2.39	0.03
7.40	0.27	0.00	0.00	18.20	3.55	2.40	0.03
7.60	0.29	0.00	0.00	18.40	3.56	2.41	0.03
7.80	0.30	0.00	0.00	18.60	3.57	2.42	0.03
8.00	0.31	0.00	0.00	18.80	3.58	2.43	0.03
8.20	0.33	0.00	0.01	19.00	3.59	2.44	0.03
8.40	0.34	0.01	0.01	19.20	3.60	2.45	0.03
8.60	0.35	0.01	0.01	19.40	3.61	2.46	0.03
8.80	0.37	0.01	0.01	19.60	3.62	2.47	0.03
9.00	0.38	0.01	0.01	19.80	3.62	2.47	0.03
9.20	0.41	0.02	0.02	20.00	3.63	2.48	0.02
9.40	0.43	0.02	0.02				
9.60	0.46	0.03	0.02				
9.80	0.49	0.04	0.03				
10.00	0.51	0.05	0.03				
10.20	0.54	0.06	0.03				
10.40	0.57	0.07	0.03				
10.60	0.60	0.08	0.05				

Summary for Pond 18P: EXISITING OUTFALL

Inflow Area = 2.518 ac, 53.03% Impervious, Inflow Depth > 2.48" for 10-Year event
 Inflow = 12.02 cfs @ 12.12 hrs, Volume= 0.520 af
 Outflow = 4.20 cfs @ 12.25 hrs, Volume= 0.520 af, Atten= 65%, Lag= 7.4 min
 Primary = 4.20 cfs @ 12.25 hrs, Volume= 0.520 af

Routing by Stor-Ind method, Time Span= 0.00-20.00 hrs, dt= 0.01 hrs
 Peak Elev= 638.77' @ 12.25 hrs Surf.Area= 9,017 sf Storage= 4,655 cf

Plug-Flow detention time= 7.2 min calculated for 0.519 af (100% of inflow)
 Center-of-Mass det. time= 7.0 min (772.7 - 765.6)

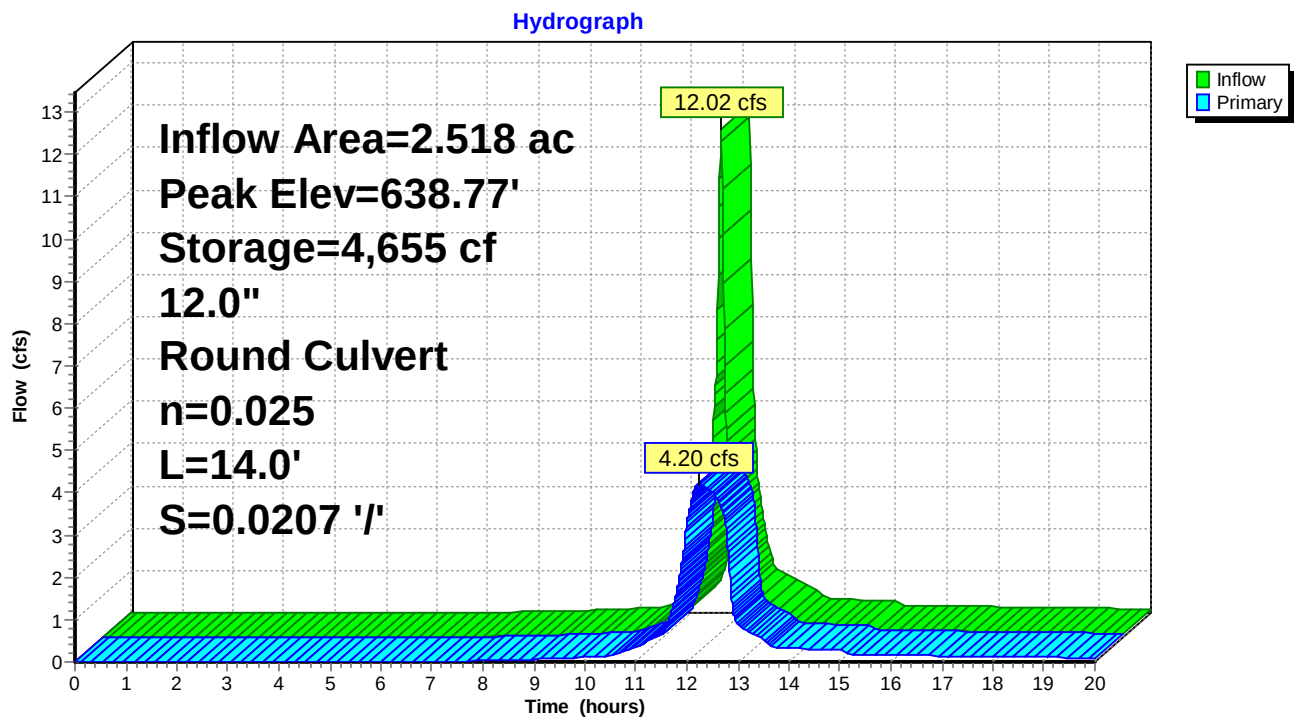
Volume	Invert	Avail.Storage	Storage Description
#1	636.29'	34,985 cf	Custom Stage Data (Prismatic) Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
636.29	2	0	0
637.00	450	160	160
638.00	905	678	838
639.00	11,448	6,177	7,014
640.00	44,493	27,971	34,985

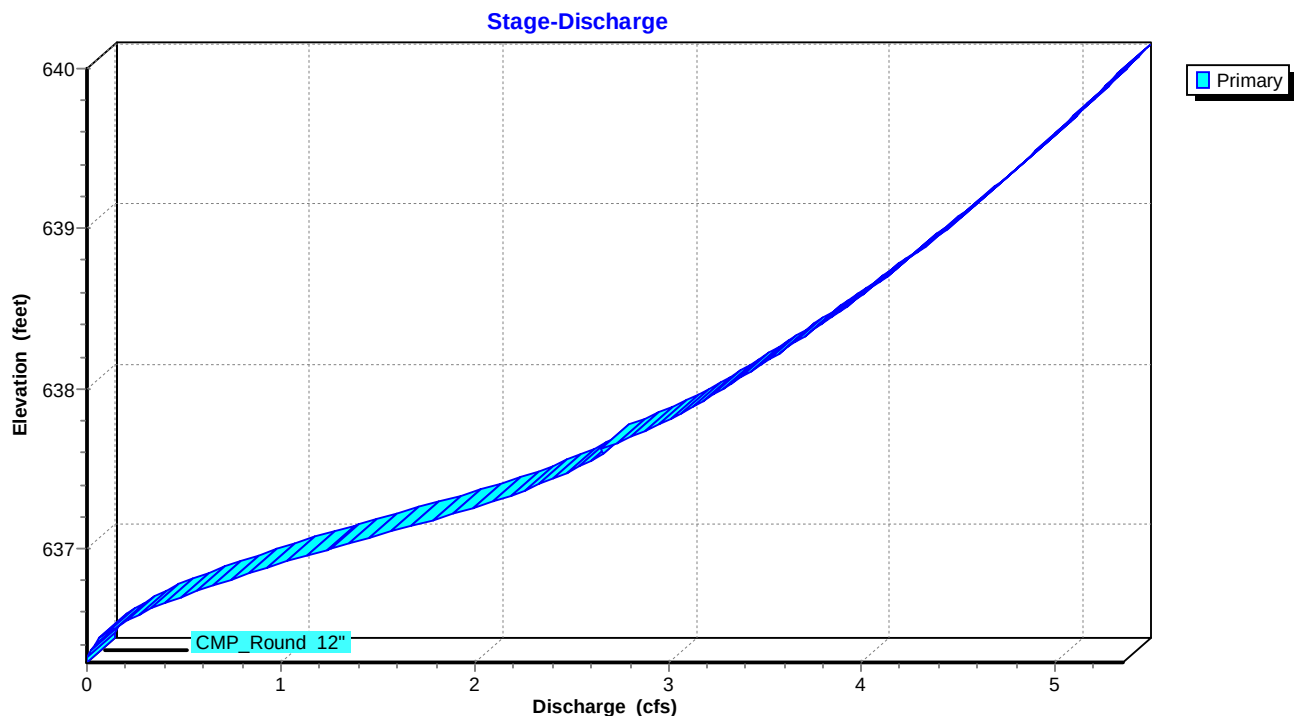
Device	Routing	Invert	Outlet Devices
#1	Primary	636.29'	12.0" Round CMP_Round 12" L= 14.0' CMP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 636.29' / 636.00' S= 0.0207 ' S= 0.0207 ' Cc= 0.900 n= 0.025 Corrugated metal, Flow Area= 0.79 sf

Primary OutFlow Max=4.20 cfs @ 12.25 hrs HW=638.77' (Free Discharge)
 ↑ **1=CMP_Round 12"** (Inlet Controls 4.20 cfs @ 5.35 fps)

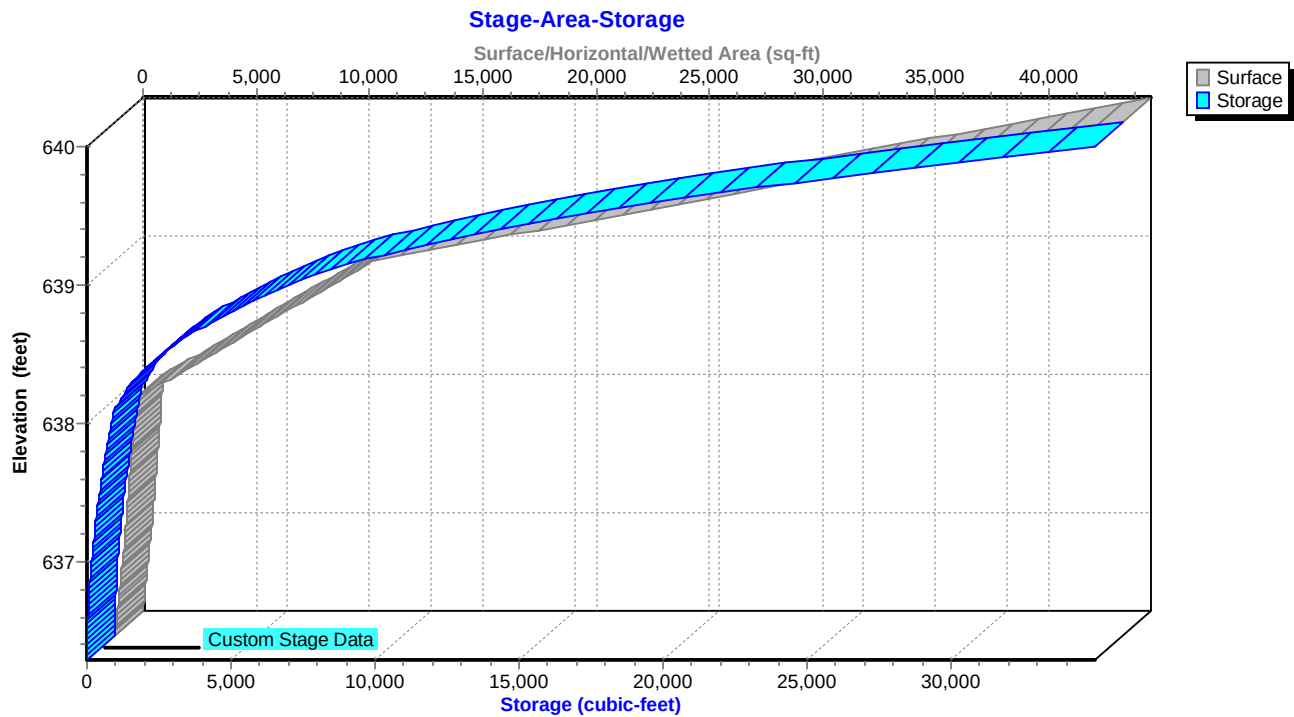
Pond 18P: EXISITING OUTFALL



Pond 18P: EXISITING OUTFALL



Pond 18P: EXISITING OUTFALL



Hydrograph for Pond 18P: EXISITING OUTFALL

Time (hours)	Inflow (cfs)	Storage (cubic-feet)	Elevation (feet)	Primary (cfs)
0.00	0.00	0	636.29	0.00
0.50	0.00	0	636.29	0.00
1.00	0.00	0	636.29	0.00
1.50	0.00	0	636.29	0.00
2.00	0.00	0	636.29	0.00
2.50	0.00	0	636.29	0.00
3.00	0.00	0	636.29	0.00
3.50	0.00	0	636.29	0.00
4.00	0.00	0	636.29	0.00
4.50	0.00	0	636.29	0.00
5.00	0.00	0	636.29	0.00
5.50	0.00	0	636.29	0.00
6.00	0.00	0	636.31	0.00
6.50	0.01	1	636.33	0.01
7.00	0.01	1	636.35	0.01
7.50	0.02	2	636.37	0.02
8.00	0.03	3	636.38	0.03
8.50	0.03	4	636.40	0.03
9.00	0.04	5	636.41	0.04
9.50	0.09	9	636.46	0.09
10.00	0.11	12	636.48	0.11
10.50	0.14	15	636.50	0.14
11.00	0.39	40	636.64	0.37
11.50	0.67	74	636.77	0.65
12.00	5.74	861	638.02	3.31
12.50	1.64	3,230	638.59	4.01
13.00	0.82	105	636.86	0.88
13.50	0.51	59	636.72	0.53
14.00	0.32	34	636.62	0.32
14.50	0.30	32	636.61	0.30
15.00	0.28	30	636.60	0.28
15.50	0.17	18	636.52	0.17
16.00	0.16	17	636.52	0.16
16.50	0.15	16	636.51	0.15
17.00	0.14	15	636.51	0.14
17.50	0.13	14	636.50	0.14
18.00	0.13	14	636.49	0.13
18.50	0.12	13	636.49	0.12
19.00	0.11	12	636.48	0.11
19.50	0.10	11	636.47	0.10
20.00	0.09	10	636.46	0.09

Stage-Discharge for Pond 18P: EXISITING OUTFALL

Elevation (feet)	Primary (cfs)	Elevation (feet)	Primary (cfs)	Elevation (feet)	Primary (cfs)	Elevation (feet)	Primary (cfs)
636.29	0.00	637.37	2.27	638.45	3.85	639.53	4.94
636.31	0.00	637.39	2.31	638.47	3.87	639.55	4.96
636.33	0.00	637.41	2.35	638.49	3.89	639.57	4.98
636.35	0.01	637.43	2.39	638.51	3.92	639.59	5.00
636.37	0.02	637.45	2.43	638.53	3.94	639.61	5.01
636.39	0.03	637.47	2.46	638.55	3.96	639.63	5.03
636.41	0.04	637.49	2.50	638.57	3.98	639.65	5.05
636.43	0.06	637.51	2.53	638.59	4.01	639.67	5.07
636.45	0.08	637.53	2.57	638.61	4.03	639.69	5.08
636.47	0.10	637.55	2.60	638.63	4.05	639.71	5.10
636.49	0.12	637.57	2.64	638.65	4.07	639.73	5.12
636.51	0.15	637.59	2.67	638.67	4.09	639.75	5.14
636.53	0.18	637.61	2.69	638.69	4.12	639.77	5.15
636.55	0.20	637.63	2.66	638.71	4.14	639.79	5.17
636.57	0.24	637.65	2.71	638.73	4.16	639.81	5.19
636.59	0.27	637.67	2.75	638.75	4.18	639.83	5.21
636.61	0.31	637.69	2.79	638.77	4.20	639.85	5.22
636.63	0.34	637.71	2.83	638.79	4.22	639.87	5.24
636.65	0.38	637.73	2.87	638.81	4.24	639.89	5.26
636.67	0.42	637.75	2.91	638.83	4.26	639.91	5.27
636.69	0.46	637.77	2.95	638.85	4.29	639.93	5.29
636.71	0.51	637.79	2.98	638.87	4.31	639.95	5.31
636.73	0.55	637.81	3.02	638.89	4.33	639.97	5.32
636.75	0.60	637.83	3.04	638.91	4.35	639.99	5.34
636.77	0.64	637.85	3.07	638.93	4.37		
636.79	0.69	637.87	3.10	638.95	4.39		
636.81	0.74	637.89	3.13	638.97	4.41		
636.83	0.79	637.91	3.16	638.99	4.43		
636.85	0.84	637.93	3.19	639.01	4.45		
636.87	0.90	637.95	3.22	639.03	4.47		
636.89	0.95	637.97	3.24	639.05	4.49		
636.91	1.00	637.99	3.27	639.07	4.51		
636.93	1.06	638.01	3.30	639.09	4.53		
636.95	1.12	638.03	3.32	639.11	4.55		
636.97	1.17	638.05	3.35	639.13	4.57		
636.99	1.23	638.07	3.38	639.15	4.59		
637.01	1.29	638.09	3.40	639.17	4.61		
637.03	1.34	638.11	3.43	639.19	4.63		
637.05	1.40	638.13	3.46	639.21	4.64		
637.07	1.46	638.15	3.48	639.23	4.66		
637.09	1.52	638.17	3.51	639.25	4.68		
637.11	1.58	638.19	3.53	639.27	4.70		
637.13	1.64	638.21	3.56	639.29	4.72		
637.15	1.69	638.23	3.58	639.31	4.74		
637.17	1.75	638.25	3.61	639.33	4.76		
637.19	1.81	638.27	3.63	639.35	4.78		
637.21	1.87	638.29	3.66	639.37	4.80		
637.23	1.93	638.31	3.68	639.39	4.81		
637.25	1.98	638.33	3.70	639.41	4.83		
637.27	2.04	638.35	3.73	639.43	4.85		
637.29	2.09	638.37	3.75	639.45	4.87		
637.31	2.15	638.39	3.78	639.47	4.89		
637.33	2.19	638.41	3.80	639.49	4.91		
637.35	2.23	638.43	3.82	639.51	4.92		

Glendale Daycare REV1

Prepared by Ayres Associates

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MSE 24-hr 3 10-Year Rainfall=3.73"

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Stage-Area-Storage for Pond 18P: EXISITING OUTFALL

Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)	Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)
636.29	2	0	638.99	11,343	6,901
636.34	34	1	639.04	12,770	7,499
636.39	65	3	639.09	14,422	8,179
636.44	97	7	639.14	16,074	8,941
636.49	128	13	639.19	17,727	9,786
636.54	160	20	639.24	19,379	10,714
636.59	191	29	639.29	21,031	11,724
636.64	223	39	639.34	22,683	12,817
636.69	254	51	639.39	24,336	13,992
636.74	286	65	639.44	25,988	15,250
636.79	317	80	639.49	27,640	16,591
636.84	349	97	639.54	29,292	18,014
636.89	381	115	639.59	30,945	19,520
636.94	412	135	639.64	32,597	21,109
636.99	444	156	639.69	34,249	22,780
637.04	468	179	639.74	35,901	24,534
637.09	491	203	639.79	37,554	26,370
637.14	514	228	639.84	39,206	28,289
637.19	536	254	639.89	40,858	30,291
637.24	559	282	639.94	42,510	32,375
637.29	582	310	639.99	44,163	34,542
637.34	605	340			
637.39	627	371			
637.44	650	403			
637.49	673	436			
637.54	696	470			
637.59	718	505			
637.64	741	542			
637.69	764	579			
637.74	787	618			
637.79	809	658			
637.84	832	699			
637.89	855	741			
637.94	878	784			
637.99	900	829			
638.04	1,327	883			
638.09	1,854	962			
638.14	2,381	1,068			
638.19	2,908	1,200			
638.24	3,435	1,359			
638.29	3,962	1,544			
638.34	4,490	1,755			
638.39	5,017	1,993			
638.44	5,544	2,257			
638.49	6,071	2,547			
638.54	6,598	2,864			
638.59	7,125	3,207			
638.64	7,653	3,576			
638.69	8,180	3,972			
638.74	8,707	4,394			
638.79	9,234	4,843			
638.84	9,761	5,318			
638.89	10,288	5,819			
638.94	10,815	6,347			

Summary for Pond 19P: PROPOSED OUTFALL

Inflow Area = 2.596 ac, 61.88% Impervious, Inflow Depth > 2.65" for 10-Year event
 Inflow = 12.87 cfs @ 12.12 hrs, Volume= 0.573 af
 Outflow = 4.11 cfs @ 12.26 hrs, Volume= 0.551 af, Atten= 68%, Lag= 8.2 min
 Primary = 4.11 cfs @ 12.26 hrs, Volume= 0.551 af

Routing by Stor-Ind method, Time Span= 0.00-20.00 hrs, dt= 0.01 hrs
 Peak Elev= 638.69' @ 12.26 hrs Surf.Area= 9,134 sf Storage= 6,559 cf

Plug-Flow detention time= 32.5 min calculated for 0.551 af (96% of inflow)
 Center-of-Mass det. time= 17.9 min (776.5 - 758.6)

Volume	Invert	Avail.Storage	Storage Description
#1	636.29'	38,270 cf	Custom Stage Data (Prismatic) Listed below (Recalc)
Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
636.29	2	0	0
637.00	1,307	465	465
638.00	3,298	2,303	2,767
638.60	6,955	3,076	5,843
639.00	16,745	4,740	10,583
640.00	38,628	27,687	38,270

Device	Routing	Invert	Outlet Devices
#1	Primary	636.29'	12.0" Round CMP_Round 12" L= 14.0' CMP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 636.29' / 636.00' S= 0.0207 ' / Cc= 0.900 n= 0.025 Corrugated metal, Flow Area= 0.79 sf
#2	Device 1	636.29'	1.0" Vert. Orifice/Grate C= 0.600 Limited to weir flow at low heads
#3	Device 1	637.29'	24.0" x 36.0" Horiz. Orifice/Grate C= 0.600 Limited to weir flow at low heads

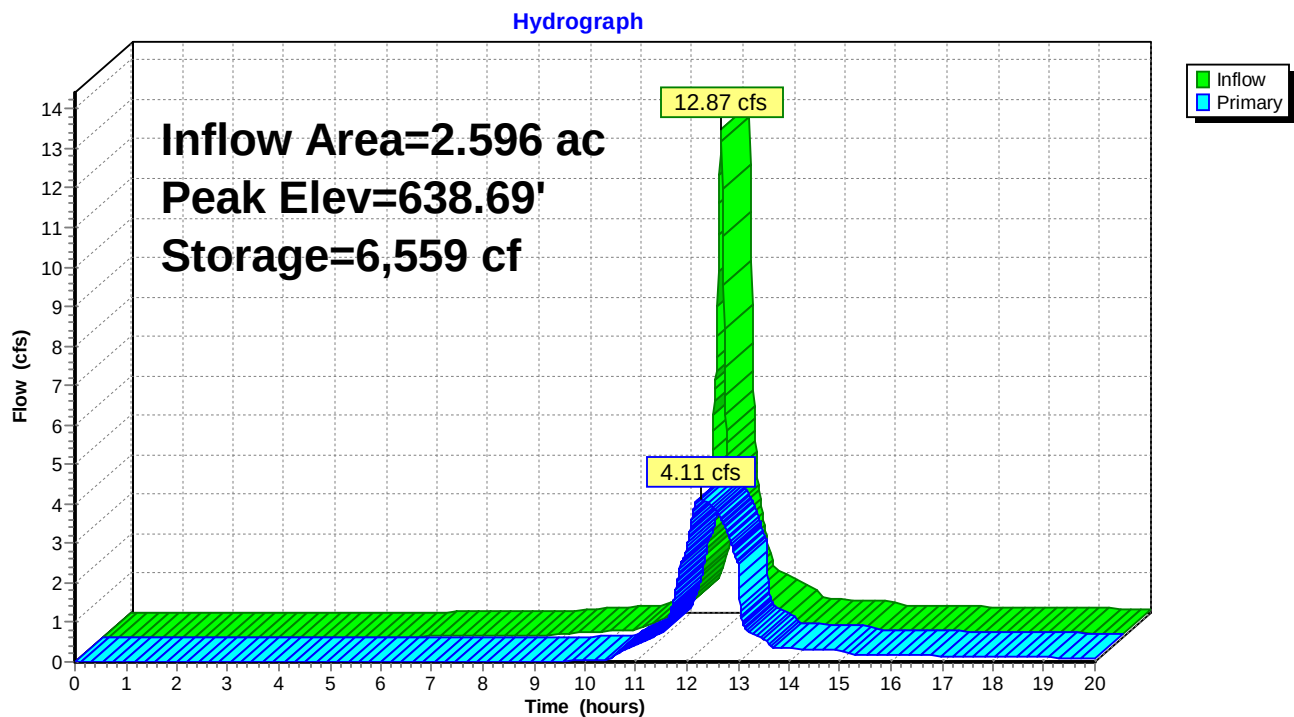
Primary OutFlow Max=4.11 cfs @ 12.26 hrs HW=638.69' (Free Discharge)

↑ **1=CMP_Round 12"** (Inlet Controls 4.11 cfs @ 5.24 fps)

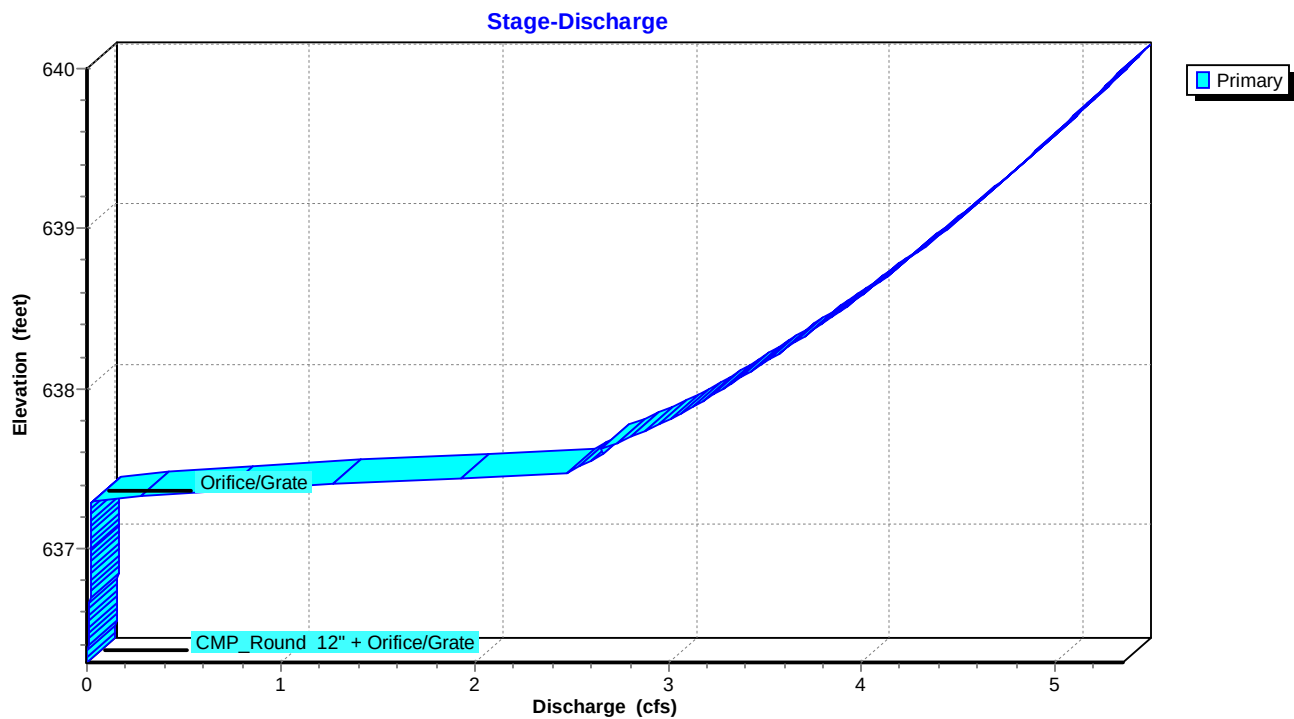
↑ **2=Orifice/Grate** (Passes < 0.04 cfs potential flow)

↑ **3=Orifice/Grate** (Passes < 34.17 cfs potential flow)

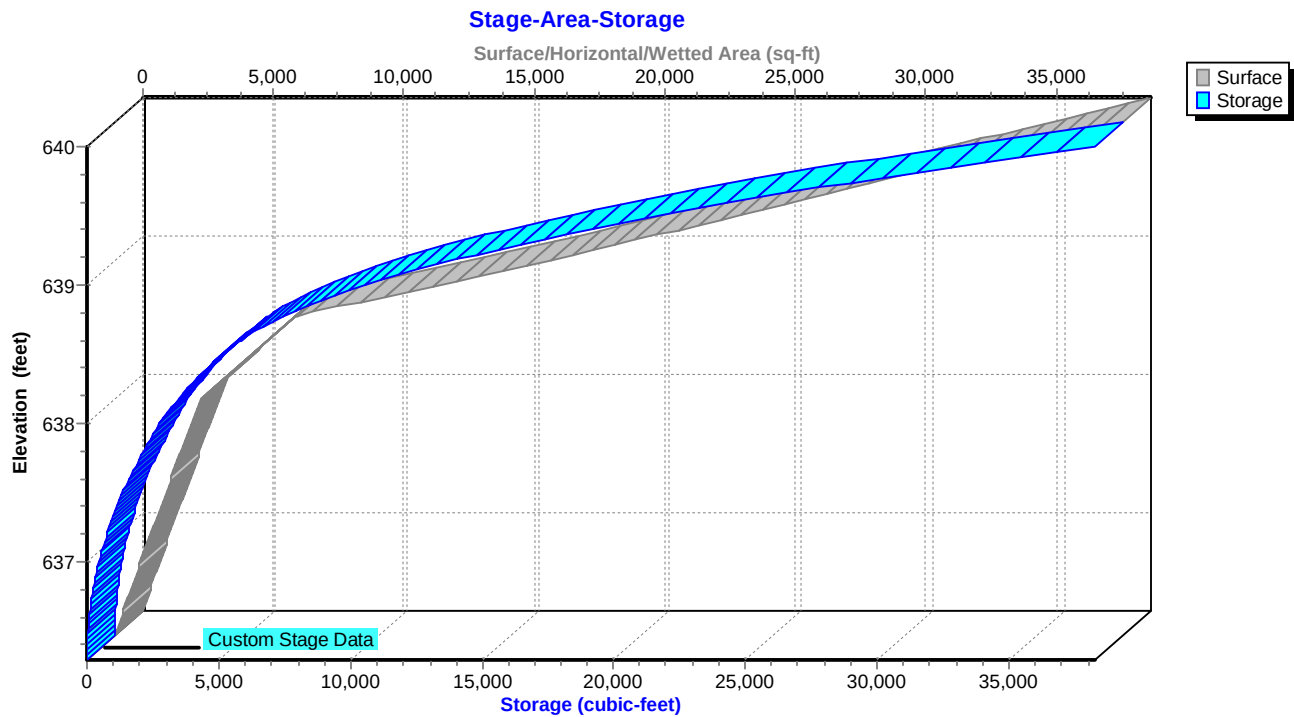
Pond 19P: PROPOSED OUTFALL



Pond 19P: PROPOSED OUTFALL



Pond 19P: PROPOSED OUTFALL



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MSE 24-hr 3 10-Year Rainfall=3.73"

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Hydrograph for Pond 19P: PROPOSED OUTFALL

Time (hours)	Inflow (cfs)	Storage (cubic-feet)	Elevation (feet)	Primary (cfs)
0.00	0.00	0	636.29	0.00
0.50	0.00	0	636.29	0.00
1.00	0.00	0	636.29	0.00
1.50	0.00	0	636.29	0.00
2.00	0.00	0	636.29	0.00
2.50	0.00	0	636.29	0.00
3.00	0.00	0	636.29	0.00
3.50	0.00	0	636.29	0.00
4.00	0.00	0	636.29	0.00
4.50	0.00	1	636.31	0.00
5.00	0.01	4	636.36	0.00
5.50	0.01	12	636.40	0.01
6.00	0.02	25	636.45	0.01
6.50	0.02	45	636.51	0.01
7.00	0.03	73	636.57	0.01
7.50	0.04	112	636.64	0.01
8.00	0.05	164	636.71	0.02
8.50	0.06	230	636.79	0.02
9.00	0.07	311	636.87	0.02
9.50	0.13	477	637.01	0.02
10.00	0.16	695	637.16	0.02
10.50	0.19	952	637.30	0.10
11.00	0.48	1,032	637.34	0.45
11.50	0.79	1,083	637.37	0.76
12.00	6.29	2,043	637.76	2.93
12.50	1.73	5,336	638.52	3.93
13.00	0.87	1,321	637.48	2.48
13.50	0.53	1,051	637.35	0.57
14.00	0.33	1,012	637.33	0.34
14.50	0.31	1,009	637.33	0.32
15.00	0.29	1,005	637.33	0.30
15.50	0.18	974	637.31	0.18
16.00	0.17	971	637.31	0.17
16.50	0.16	969	637.31	0.16
17.00	0.15	966	637.31	0.15
17.50	0.14	964	637.31	0.14
18.00	0.13	961	637.31	0.13
18.50	0.12	959	637.31	0.13
19.00	0.11	956	637.30	0.12
19.50	0.11	953	637.30	0.11
20.00	0.10	951	637.30	0.10

Stage-Discharge for Pond 19P: PROPOSED OUTFALL

Elevation (feet)	Primary (cfs)	Elevation (feet)	Primary (cfs)	Elevation (feet)	Primary (cfs)	Elevation (feet)	Primary (cfs)
636.29	0.00	637.37	0.77	638.45	3.85	639.53	4.94
636.31	0.00	637.39	1.06	638.47	3.87	639.55	4.96
636.33	0.00	637.41	1.39	638.49	3.89	639.57	4.98
636.35	0.00	637.43	1.74	638.51	3.92	639.59	5.00
636.37	0.01	637.45	2.12	638.53	3.94	639.61	5.01
636.39	0.01	637.47	2.46	638.55	3.96	639.63	5.03
636.41	0.01	637.49	2.50	638.57	3.98	639.65	5.05
636.43	0.01	637.51	2.53	638.59	4.01	639.67	5.07
636.45	0.01	637.53	2.57	638.61	4.03	639.69	5.08
636.47	0.01	637.55	2.60	638.63	4.05	639.71	5.10
636.49	0.01	637.57	2.64	638.65	4.07	639.73	5.12
636.51	0.01	637.59	2.67	638.67	4.09	639.75	5.14
636.53	0.01	637.61	2.69	638.69	4.12	639.77	5.15
636.55	0.01	637.63	2.66	638.71	4.14	639.79	5.17
636.57	0.01	637.65	2.71	638.73	4.16	639.81	5.19
636.59	0.01	637.67	2.75	638.75	4.18	639.83	5.21
636.61	0.01	637.69	2.79	638.77	4.20	639.85	5.22
636.63	0.01	637.71	2.83	638.79	4.22	639.87	5.24
636.65	0.01	637.73	2.87	638.81	4.24	639.89	5.26
636.67	0.02	637.75	2.91	638.83	4.26	639.91	5.27
636.69	0.02	637.77	2.95	638.85	4.29	639.93	5.29
636.71	0.02	637.79	2.98	638.87	4.31	639.95	5.31
636.73	0.02	637.81	3.02	638.89	4.33	639.97	5.32
636.75	0.02	637.83	3.04	638.91	4.35	639.99	5.34
636.77	0.02	637.85	3.07	638.93	4.37		
636.79	0.02	637.87	3.10	638.95	4.39		
636.81	0.02	637.89	3.13	638.97	4.41		
636.83	0.02	637.91	3.16	638.99	4.43		
636.85	0.02	637.93	3.19	639.01	4.45		
636.87	0.02	637.95	3.22	639.03	4.47		
636.89	0.02	637.97	3.24	639.05	4.49		
636.91	0.02	637.99	3.27	639.07	4.51		
636.93	0.02	638.01	3.30	639.09	4.53		
636.95	0.02	638.03	3.32	639.11	4.55		
636.97	0.02	638.05	3.35	639.13	4.57		
636.99	0.02	638.07	3.38	639.15	4.59		
637.01	0.02	638.09	3.40	639.17	4.61		
637.03	0.02	638.11	3.43	639.19	4.63		
637.05	0.02	638.13	3.46	639.21	4.64		
637.07	0.02	638.15	3.48	639.23	4.66		
637.09	0.02	638.17	3.51	639.25	4.68		
637.11	0.02	638.19	3.53	639.27	4.70		
637.13	0.02	638.21	3.56	639.29	4.72		
637.15	0.02	638.23	3.58	639.31	4.74		
637.17	0.02	638.25	3.61	639.33	4.76		
637.19	0.02	638.27	3.63	639.35	4.78		
637.21	0.02	638.29	3.66	639.37	4.80		
637.23	0.02	638.31	3.68	639.39	4.81		
637.25	0.03	638.33	3.70	639.41	4.83		
637.27	0.03	638.35	3.73	639.43	4.85		
637.29	0.03	638.37	3.75	639.45	4.87		
637.31	0.12	638.39	3.78	639.47	4.89		
637.33	0.29	638.41	3.80	639.49	4.91		
637.35	0.51	638.43	3.82	639.51	4.92		

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MSE 24-hr 3 10-Year Rainfall=3.73"

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Stage-Area-Storage for Pond 19P: PROPOSED OUTFALL

Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)	Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)
636.29	2	0	638.99	16,500	10,417
636.34	94	2	639.04	17,620	11,270
636.39	186	9	639.09	18,714	12,179
636.44	278	21	639.14	19,809	13,142
636.49	370	37	639.19	20,903	14,160
636.54	462	58	639.24	21,997	15,232
636.59	553	83	639.29	23,091	16,359
636.64	645	113	639.34	24,185	17,541
636.69	737	148	639.39	25,279	18,778
636.74	829	187	639.44	26,374	20,069
636.79	921	231	639.49	27,468	21,415
636.84	1,013	279	639.54	28,562	22,816
636.89	1,105	332	639.59	29,656	24,271
636.94	1,197	390	639.64	30,750	25,782
636.99	1,289	452	639.69	31,844	27,346
637.04	1,387	519	639.74	32,938	28,966
637.09	1,486	590	639.79	34,033	30,640
637.14	1,586	667	639.84	35,127	32,369
637.19	1,685	749	639.89	36,221	34,153
637.24	1,785	836	639.94	37,315	35,991
637.29	1,884	927	639.99	38,409	37,884
637.34	1,984	1,024			
637.39	2,083	1,126			
637.44	2,183	1,233			
637.49	2,283	1,344			
637.54	2,382	1,461			
637.59	2,482	1,582			
637.64	2,581	1,709			
637.69	2,681	1,840			
637.74	2,780	1,977			
637.79	2,880	2,119			
637.84	2,979	2,265			
637.89	3,079	2,416			
637.94	3,179	2,573			
637.99	3,278	2,734			
638.04	3,542	2,904			
638.09	3,847	3,089			
638.14	4,151	3,289			
638.19	4,456	3,504			
638.24	4,761	3,734			
638.29	5,066	3,980			
638.34	5,370	4,241			
638.39	5,675	4,517			
638.44	5,980	4,808			
638.49	6,285	5,115			
638.54	6,589	5,437			
638.59	6,894	5,774			
638.64	7,934	6,141			
638.69	9,158	6,568			
638.74	10,381	7,057			
638.79	11,605	7,606			
638.84	12,829	8,217			
638.89	14,053	8,889			
638.94	15,276	9,622			

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MSE 24-hr 3 100-Year Rainfall=6.06"

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Time span=0.00-20.00 hrs, dt=0.01 hrs, 2001 points
 Runoff by SCS TR-20 method, UH=SCS, Weighted-CN
 Reach routing by Stor-Ind+Trans method - Pond routing by Stor-Ind method

Subcatchment 14S: E2	Runoff Area=10,320 sf 31.16% Impervious Runoff Depth>4.21" Tc=5.0 min CN=85 Runoff=1.92 cfs 0.083 af
Subcatchment 15S: P2	Runoff Area=6,079 sf 53.04% Impervious Runoff Depth>4.64" Tc=5.0 min CN=89 Runoff=1.20 cfs 0.054 af
Subcatchment 16S: P1	Runoff Area=59,729 sf 82.69% Impervious Runoff Depth>5.31" Tc=5.0 min CN=95 Runoff=12.67 cfs 0.607 af
Subcatchment 17S: E1	Runoff Area=56,330 sf 66.71% Impervious Runoff Depth>4.97" Tc=5.0 min CN=92 Runoff=11.61 cfs 0.535 af
Subcatchment 20S: OFFSITE NORTH (OFN)	Runoff Area=24,030 sf 19.50% Impervious Runoff Depth>3.79" Tc=5.0 min UI Adjusted CN=81 Runoff=4.12 cfs 0.174 af
Subcatchment 21S: Northern Swale	Runoff Area=26,513 sf 79.55% Impervious Runoff Depth>5.19" Tc=5.0 min CN=94 Runoff=5.58 cfs 0.263 af
Subcatchment 22S: OFFSITE SOUTH (OFS)	Runoff Area=29,333 sf 54.24% Impervious Runoff Depth>4.64" Tc=5.0 min CN=89 Runoff=5.81 cfs 0.260 af
Subcatchment 24S: OFFSITE NORTH	Runoff Area=24,030 sf 19.50% Impervious Runoff Depth>3.79" Tc=5.0 min UI Adjusted CN=81 Runoff=4.12 cfs 0.174 af
Subcatchment 25S: OFFSITE SOUTH (OFS)	Runoff Area=29,333 sf 54.24% Impervious Runoff Depth>4.64" Tc=5.0 min CN=89 Runoff=5.81 cfs 0.260 af
Pond 18P: EXISTING OUTFALL	Peak Elev=639.31' Storage=12,119 cf Inflow=21.54 cfs 0.970 af 12.0" Round Culvert n=0.025 L=14.0' S=0.0207 ' Outflow=4.74 cfs 0.969 af
Pond 19P: PROPOSED OUTFALL	Peak Elev=639.21' Storage=14,608 cf Inflow=22.60 cfs 1.041 af Outflow=4.65 cfs 1.019 af

Total Runoff Area = 6.100 ac Runoff Volume = 2.411 af Average Runoff Depth = 4.74"
41.40% Pervious = 2.525 ac 58.60% Impervious = 3.574 ac

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MSE 24-hr 3 100-Year Rainfall=6.06"

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Summary for Subcatchment 14S: E2

Runoff = 1.92 cfs @ 12.12 hrs, Volume= 0.083 af, Depth> 4.21"

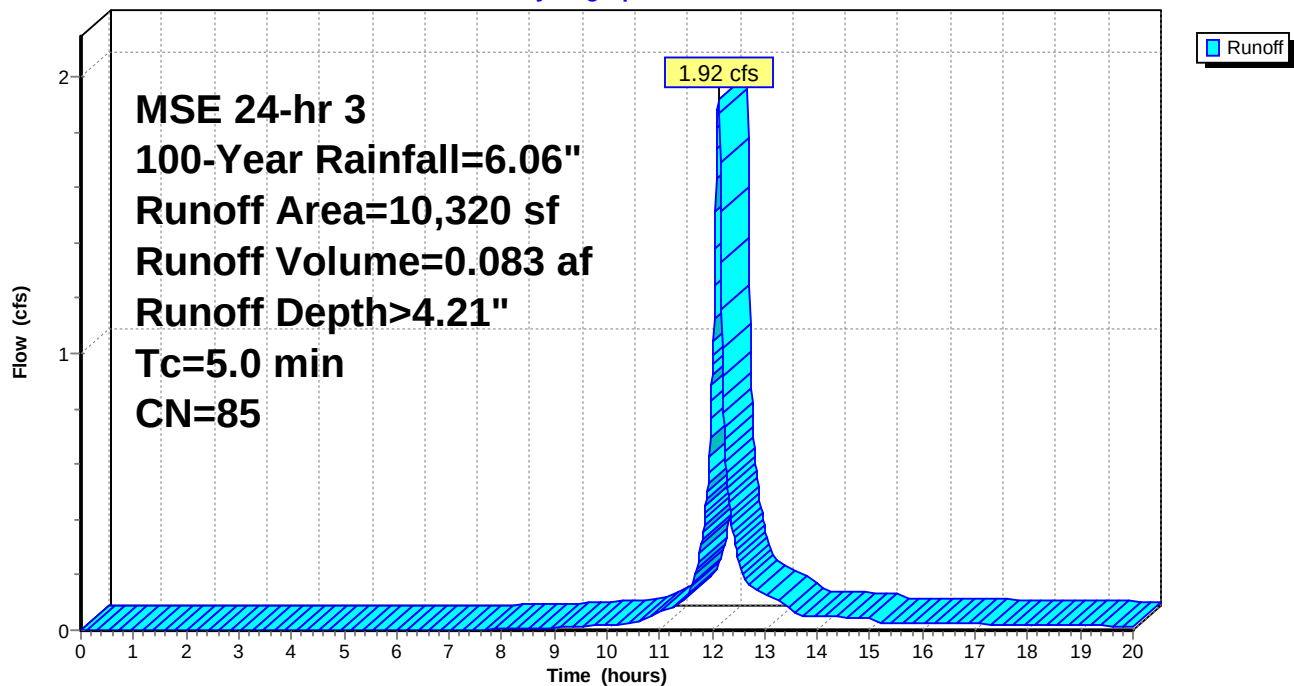
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-20.00 hrs, dt= 0.01 hrs
MSE 24-hr 3 100-Year Rainfall=6.06"

Area (sf)	CN	Description
7,104	79	50-75% Grass cover, Fair, HSG C
3,216	98	Paved parking, HSG C
10,320	85	Weighted Average
7,104		68.84% Pervious Area
3,216		31.16% Impervious Area

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

Subcatchment 14S: E2

Hydrograph



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MSE 24-hr 3 100-Year Rainfall=6.06"

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Hydrograph for Subcatchment 14S: E2

Time (hours)	Precip. (inches)	Excess (inches)	Runoff (cfs)	Time (hours)	Precip. (inches)	Excess (inches)	Runoff (cfs)
0.00	0.00	0.00	0.00	10.80	1.07	0.21	0.05
0.20	0.00	0.00	0.00	11.00	1.17	0.26	0.06
0.40	0.01	0.00	0.00	11.20	1.29	0.32	0.08
0.60	0.01	0.00	0.00	11.40	1.43	0.41	0.10
0.80	0.02	0.00	0.00	11.60	1.61	0.53	0.16
1.00	0.02	0.00	0.00	11.80	1.97	0.77	0.32
1.20	0.03	0.00	0.00	12.00	2.81	1.43	0.93
1.40	0.03	0.00	0.00	12.20	4.09	2.54	0.92
1.60	0.04	0.00	0.00	12.40	4.45	2.86	0.35
1.80	0.05	0.00	0.00	12.60	4.63	3.03	0.18
2.00	0.06	0.00	0.00	12.80	4.77	3.16	0.15
2.20	0.06	0.00	0.00	13.00	4.89	3.27	0.13
2.40	0.07	0.00	0.00	13.20	4.99	3.36	0.11
2.60	0.08	0.00	0.00	13.40	5.08	3.44	0.09
2.80	0.09	0.00	0.00	13.60	5.14	3.49	0.06
3.00	0.10	0.00	0.00	13.80	5.18	3.54	0.05
3.20	0.11	0.00	0.00	14.00	5.23	3.58	0.05
3.40	0.12	0.00	0.00	14.20	5.27	3.62	0.05
3.60	0.13	0.00	0.00	14.40	5.31	3.66	0.05
3.80	0.15	0.00	0.00	14.60	5.36	3.70	0.05
4.00	0.16	0.00	0.00	14.80	5.40	3.74	0.05
4.20	0.17	0.00	0.00	15.00	5.44	3.77	0.04
4.40	0.18	0.00	0.00	15.20	5.46	3.80	0.03
4.60	0.20	0.00	0.00	15.40	5.48	3.82	0.03
4.80	0.21	0.00	0.00	15.60	5.51	3.84	0.03
5.00	0.23	0.00	0.00	15.80	5.53	3.86	0.03
5.20	0.24	0.00	0.00	16.00	5.55	3.88	0.03
5.40	0.26	0.00	0.00	16.20	5.57	3.90	0.02
5.60	0.27	0.00	0.00	16.40	5.60	3.92	0.02
5.80	0.29	0.00	0.00	16.60	5.62	3.94	0.02
6.00	0.31	0.00	0.00	16.80	5.64	3.96	0.02
6.20	0.33	0.00	0.00	17.00	5.66	3.98	0.02
6.40	0.34	0.00	0.00	17.20	5.68	4.00	0.02
6.60	0.36	0.00	0.00	17.40	5.70	4.02	0.02
6.80	0.38	0.00	0.00	17.60	5.72	4.03	0.02
7.00	0.40	0.00	0.00	17.80	5.73	4.05	0.02
7.20	0.42	0.00	0.00	18.00	5.75	4.07	0.02
7.40	0.44	0.00	0.00	18.20	5.77	4.08	0.02
7.60	0.46	0.01	0.00	18.40	5.79	4.10	0.02
7.80	0.49	0.01	0.00	18.60	5.80	4.12	0.02
8.00	0.51	0.01	0.00	18.80	5.82	4.13	0.02
8.20	0.53	0.02	0.00	19.00	5.83	4.14	0.02
8.40	0.55	0.02	0.01	19.20	5.85	4.16	0.02
8.60	0.58	0.03	0.01	19.40	5.86	4.17	0.02
8.80	0.60	0.03	0.01	19.60	5.88	4.19	0.02
9.00	0.62	0.04	0.01	19.80	5.89	4.20	0.02
9.20	0.66	0.05	0.01	20.00	5.90	4.21	0.01
9.40	0.70	0.06	0.01				
9.60	0.75	0.07	0.02				
9.80	0.79	0.09	0.02				
10.00	0.83	0.10	0.02				
10.20	0.88	0.12	0.02				
10.40	0.92	0.14	0.02				
10.60	0.98	0.17	0.03				

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MSE 24-hr 3 100-Year Rainfall=6.06"

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Summary for Subcatchment 15S: P2

Runoff = 1.20 cfs @ 12.12 hrs, Volume= 0.054 af, Depth> 4.64"

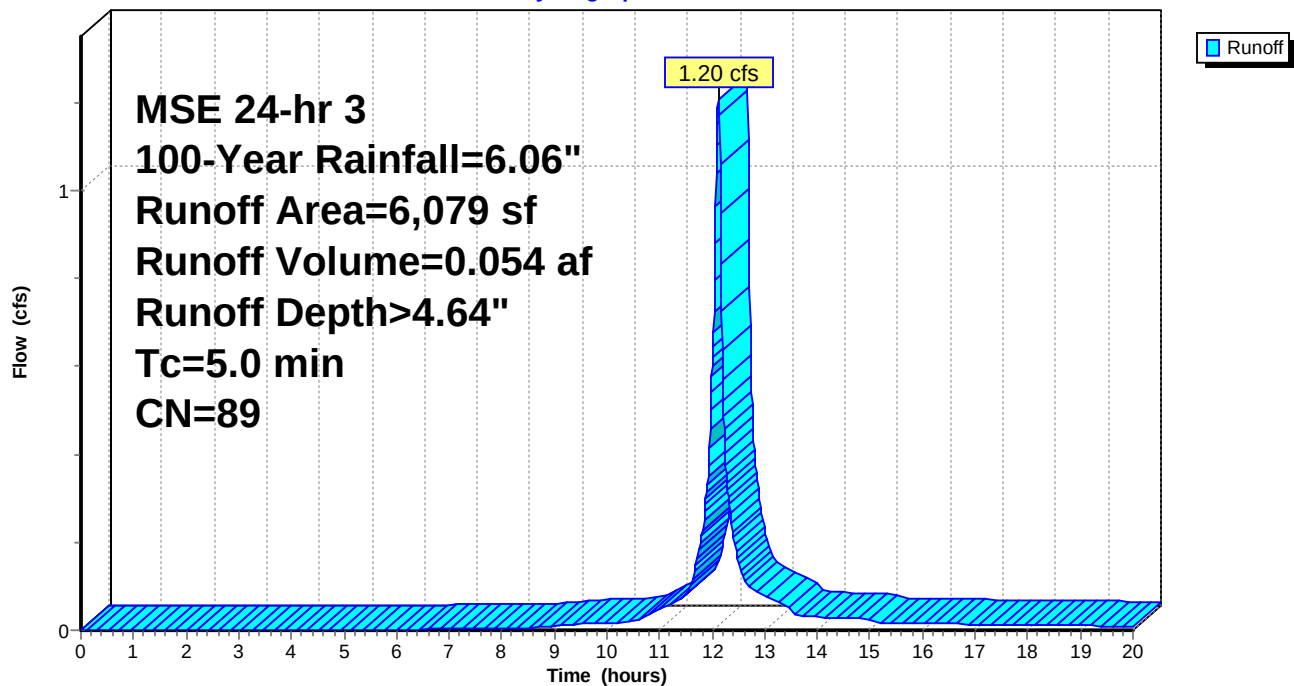
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-20.00 hrs, dt= 0.01 hrs
MSE 24-hr 3 100-Year Rainfall=6.06"

Area (sf)	CN	Description
2,855	79	50-75% Grass cover, Fair, HSG C
3,224	98	Paved parking, HSG C
6,079	89	Weighted Average
2,855		46.96% Pervious Area
3,224		53.04% Impervious Area

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

Subcatchment 15S: P2

Hydrograph



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MSE 24-hr 3 100-Year Rainfall=6.06"

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Hydrograph for Subcatchment 15S: P2

Time (hours)	Precip. (inches)	Excess (inches)	Runoff (cfs)	Time (hours)	Precip. (inches)	Excess (inches)	Runoff (cfs)
0.00	0.00	0.00	0.00	10.80	1.07	0.33	0.04
0.20	0.00	0.00	0.00	11.00	1.17	0.39	0.05
0.40	0.01	0.00	0.00	11.20	1.29	0.48	0.06
0.60	0.01	0.00	0.00	11.40	1.43	0.58	0.07
0.80	0.02	0.00	0.00	11.60	1.61	0.72	0.11
1.00	0.02	0.00	0.00	11.80	1.97	1.00	0.22
1.20	0.03	0.00	0.00	12.00	2.81	1.72	0.60
1.40	0.03	0.00	0.00	12.20	4.09	2.91	0.57
1.60	0.04	0.00	0.00	12.40	4.45	3.24	0.21
1.80	0.05	0.00	0.00	12.60	4.63	3.42	0.11
2.00	0.06	0.00	0.00	12.80	4.77	3.55	0.09
2.20	0.06	0.00	0.00	13.00	4.89	3.67	0.08
2.40	0.07	0.00	0.00	13.20	4.99	3.77	0.07
2.60	0.08	0.00	0.00	13.40	5.08	3.85	0.05
2.80	0.09	0.00	0.00	13.60	5.14	3.90	0.04
3.00	0.10	0.00	0.00	13.80	5.18	3.95	0.03
3.20	0.11	0.00	0.00	14.00	5.23	3.99	0.03
3.40	0.12	0.00	0.00	14.20	5.27	4.03	0.03
3.60	0.13	0.00	0.00	14.40	5.31	4.07	0.03
3.80	0.15	0.00	0.00	14.60	5.36	4.11	0.03
4.00	0.16	0.00	0.00	14.80	5.40	4.15	0.03
4.20	0.17	0.00	0.00	15.00	5.44	4.19	0.03
4.40	0.18	0.00	0.00	15.20	5.46	4.21	0.02
4.60	0.20	0.00	0.00	15.40	5.48	4.24	0.02
4.80	0.21	0.00	0.00	15.60	5.51	4.26	0.02
5.00	0.23	0.00	0.00	15.80	5.53	4.28	0.02
5.20	0.24	0.00	0.00	16.00	5.55	4.30	0.02
5.40	0.26	0.00	0.00	16.20	5.57	4.32	0.01
5.60	0.27	0.00	0.00	16.40	5.60	4.35	0.01
5.80	0.29	0.00	0.00	16.60	5.62	4.37	0.01
6.00	0.31	0.00	0.00	16.80	5.64	4.39	0.01
6.20	0.33	0.00	0.00	17.00	5.66	4.40	0.01
6.40	0.34	0.01	0.00	17.20	5.68	4.42	0.01
6.60	0.36	0.01	0.00	17.40	5.70	4.44	0.01
6.80	0.38	0.01	0.00	17.60	5.72	4.46	0.01
7.00	0.40	0.02	0.00	17.80	5.73	4.48	0.01
7.20	0.42	0.02	0.00	18.00	5.75	4.49	0.01
7.40	0.44	0.03	0.00	18.20	5.77	4.51	0.01
7.60	0.46	0.03	0.00	18.40	5.79	4.53	0.01
7.80	0.49	0.04	0.00	18.60	5.80	4.54	0.01
8.00	0.51	0.05	0.00	18.80	5.82	4.56	0.01
8.20	0.53	0.05	0.01	19.00	5.83	4.57	0.01
8.40	0.55	0.06	0.01	19.20	5.85	4.59	0.01
8.60	0.58	0.07	0.01	19.40	5.86	4.60	0.01
8.80	0.60	0.08	0.01	19.60	5.88	4.62	0.01
9.00	0.62	0.09	0.01	19.80	5.89	4.63	0.01
9.20	0.66	0.11	0.01	20.00	5.90	4.64	0.01
9.40	0.70	0.12	0.01				
9.60	0.75	0.14	0.01				
9.80	0.79	0.17	0.02				
10.00	0.83	0.19	0.02				
10.20	0.88	0.21	0.02				
10.40	0.92	0.24	0.02				
10.60	0.98	0.27	0.03				

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MSE 24-hr 3 100-Year Rainfall=6.06"

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Summary for Subcatchment 16S: P1

Runoff = 12.67 cfs @ 12.12 hrs, Volume= 0.607 af, Depth> 5.31"

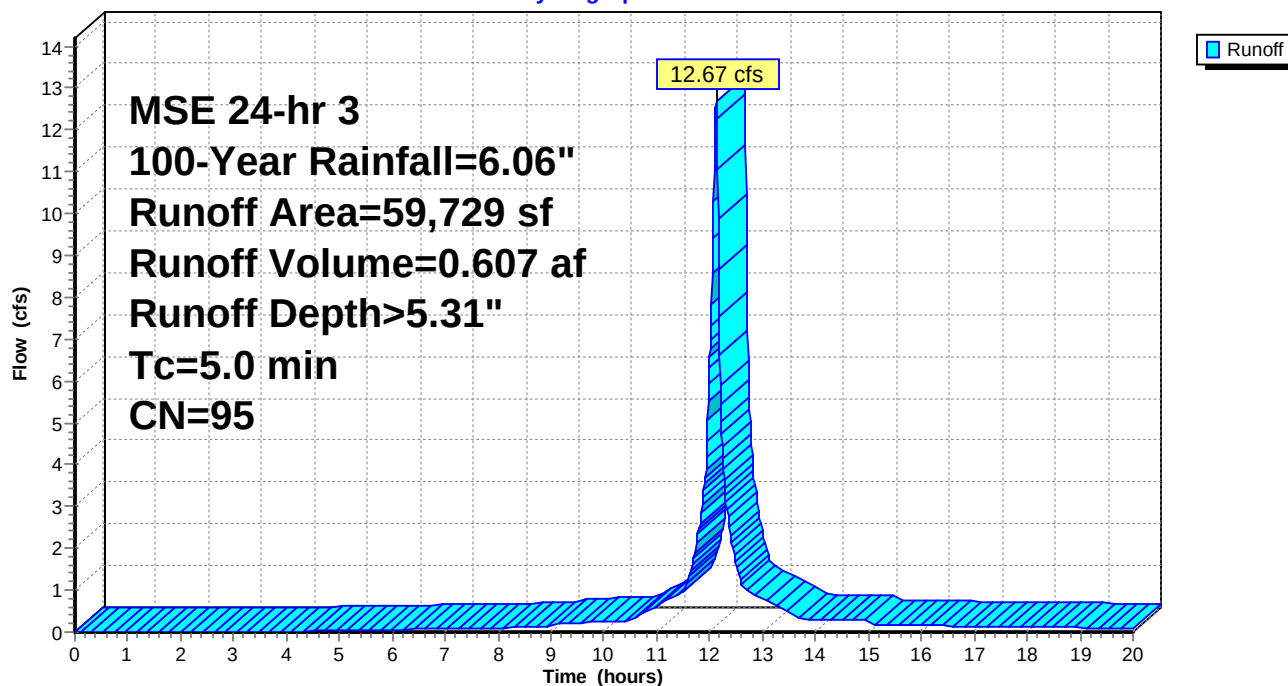
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-20.00 hrs, dt= 0.01 hrs
MSE 24-hr 3 100-Year Rainfall=6.06"

Area (sf)	CN	Description
10,339	79	50-75% Grass cover, Fair, HSG C
30,849	98	Paved parking, HSG C
18,541	98	Unconnected roofs, HSG C
59,729	95	Weighted Average
10,339		17.31% Pervious Area
49,390		82.69% Impervious Area
18,541		37.54% Unconnected

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

Subcatchment 16S: P1

Hydrograph



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MSE 24-hr 3 100-Year Rainfall=6.06"

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Hydrograph for Subcatchment 16S: P1

Time (hours)	Precip. (inches)	Excess (inches)	Runoff (cfs)	Time (hours)	Precip. (inches)	Excess (inches)	Runoff (cfs)
0.00	0.00	0.00	0.00	10.80	1.07	0.62	0.52
0.20	0.00	0.00	0.00	11.00	1.17	0.71	0.64
0.40	0.01	0.00	0.00	11.20	1.29	0.82	0.76
0.60	0.01	0.00	0.00	11.40	1.43	0.95	0.89
0.80	0.02	0.00	0.00	11.60	1.61	1.12	1.33
1.00	0.02	0.00	0.00	11.80	1.97	1.45	2.51
1.20	0.03	0.00	0.00	12.00	2.81	2.26	6.58
1.40	0.03	0.00	0.00	12.20	4.09	3.52	5.92
1.60	0.04	0.00	0.00	12.40	4.45	3.87	2.19
1.80	0.05	0.00	0.00	12.60	4.63	4.06	1.15
2.00	0.06	0.00	0.00	12.80	4.77	4.19	0.93
2.20	0.06	0.00	0.00	13.00	4.89	4.31	0.81
2.40	0.07	0.00	0.00	13.20	4.99	4.41	0.68
2.60	0.08	0.00	0.00	13.40	5.08	4.50	0.55
2.80	0.09	0.00	0.00	13.60	5.14	4.55	0.36
3.00	0.10	0.00	0.00	13.80	5.18	4.60	0.32
3.20	0.11	0.00	0.00	14.00	5.23	4.64	0.31
3.40	0.12	0.00	0.00	14.20	5.27	4.69	0.30
3.60	0.13	0.00	0.01	14.40	5.31	4.73	0.29
3.80	0.15	0.00	0.01	14.60	5.36	4.77	0.28
4.00	0.16	0.00	0.01	14.80	5.40	4.81	0.28
4.20	0.17	0.01	0.02	15.00	5.44	4.85	0.27
4.40	0.18	0.01	0.02	15.20	5.46	4.88	0.17
4.60	0.20	0.01	0.03	15.40	5.48	4.90	0.16
4.80	0.21	0.02	0.03	15.60	5.51	4.92	0.16
5.00	0.23	0.02	0.03	15.80	5.53	4.95	0.16
5.20	0.24	0.03	0.04	16.00	5.55	4.97	0.15
5.40	0.26	0.03	0.04	16.20	5.57	4.99	0.15
5.60	0.27	0.04	0.05	16.40	5.60	5.01	0.15
5.80	0.29	0.05	0.05	16.60	5.62	5.03	0.14
6.00	0.31	0.06	0.06	16.80	5.64	5.05	0.14
6.20	0.33	0.07	0.06	17.00	5.66	5.07	0.14
6.40	0.34	0.07	0.07	17.20	5.68	5.09	0.13
6.60	0.36	0.08	0.07	17.40	5.70	5.11	0.13
6.80	0.38	0.10	0.07	17.60	5.72	5.13	0.13
7.00	0.40	0.11	0.08	17.80	5.73	5.15	0.12
7.20	0.42	0.12	0.08	18.00	5.75	5.16	0.12
7.40	0.44	0.13	0.09	18.20	5.77	5.18	0.12
7.60	0.46	0.15	0.09	18.40	5.79	5.20	0.11
7.80	0.49	0.16	0.10	18.60	5.80	5.21	0.11
8.00	0.51	0.17	0.10	18.80	5.82	5.23	0.11
8.20	0.53	0.19	0.11	19.00	5.83	5.25	0.10
8.40	0.55	0.21	0.11	19.20	5.85	5.26	0.10
8.60	0.58	0.22	0.12	19.40	5.86	5.27	0.10
8.80	0.60	0.24	0.12	19.60	5.88	5.29	0.10
9.00	0.62	0.26	0.13	19.80	5.89	5.30	0.09
9.20	0.66	0.29	0.21	20.00	5.90	5.31	0.09
9.40	0.70	0.32	0.22				
9.60	0.75	0.35	0.23				
9.80	0.79	0.39	0.24				
10.00	0.83	0.42	0.25				
10.20	0.88	0.46	0.26				
10.40	0.92	0.50	0.27				
10.60	0.98	0.55	0.38				

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MSE 24-hr 3 100-Year Rainfall=6.06"

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Summary for Subcatchment 17S: E1

Runoff = 11.61 cfs @ 12.12 hrs, Volume= 0.535 af, Depth> 4.97"

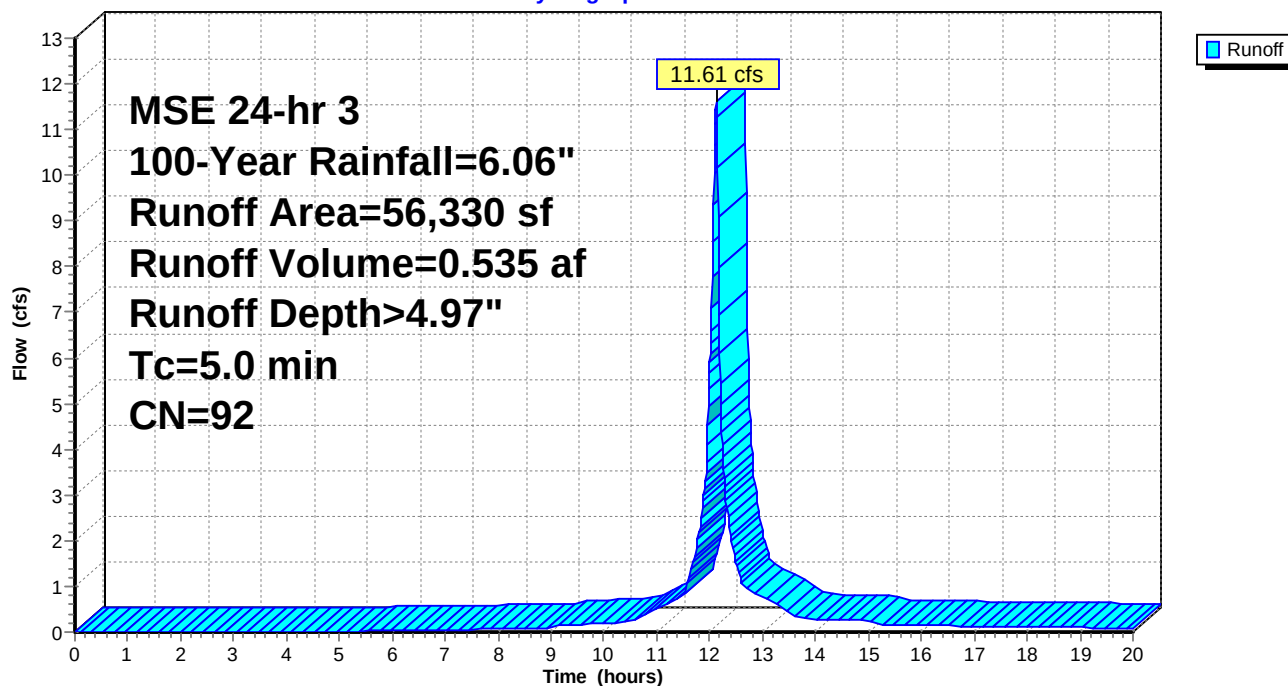
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-20.00 hrs, dt= 0.01 hrs
MSE 24-hr 3 100-Year Rainfall=6.06"

Area (sf)	CN	Description
18,753	79	50-75% Grass cover, Fair, HSG C
22,758	98	Paved parking, HSG C
14,819	98	Unconnected roofs, HSG C
56,330	92	Weighted Average
18,753		33.29% Pervious Area
37,577		66.71% Impervious Area
14,819		39.44% Unconnected

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

Subcatchment 17S: E1

Hydrograph



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MSE 24-hr 3 100-Year Rainfall=6.06"

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Hydrograph for Subcatchment 17S: E1

Time (hours)	Precip. (inches)	Excess (inches)	Runoff (cfs)	Time (hours)	Precip. (inches)	Excess (inches)	Runoff (cfs)
0.00	0.00	0.00	0.00	10.80	1.07	0.45	0.42
0.20	0.00	0.00	0.00	11.00	1.17	0.53	0.53
0.40	0.01	0.00	0.00	11.20	1.29	0.63	0.64
0.60	0.01	0.00	0.00	11.40	1.43	0.74	0.76
0.80	0.02	0.00	0.00	11.60	1.61	0.90	1.14
1.00	0.02	0.00	0.00	11.80	1.97	1.21	2.21
1.20	0.03	0.00	0.00	12.00	2.81	1.98	5.93
1.40	0.03	0.00	0.00	12.20	4.09	3.21	5.45
1.60	0.04	0.00	0.00	12.40	4.45	3.55	2.03
1.80	0.05	0.00	0.00	12.60	4.63	3.73	1.06
2.00	0.06	0.00	0.00	12.80	4.77	3.87	0.86
2.20	0.06	0.00	0.00	13.00	4.89	3.98	0.75
2.40	0.07	0.00	0.00	13.20	4.99	4.08	0.63
2.60	0.08	0.00	0.00	13.40	5.08	4.17	0.52
2.80	0.09	0.00	0.00	13.60	5.14	4.22	0.33
3.00	0.10	0.00	0.00	13.80	5.18	4.27	0.29
3.20	0.11	0.00	0.00	14.00	5.23	4.31	0.29
3.40	0.12	0.00	0.00	14.20	5.27	4.35	0.28
3.60	0.13	0.00	0.00	14.40	5.31	4.40	0.27
3.80	0.15	0.00	0.00	14.60	5.36	4.44	0.26
4.00	0.16	0.00	0.00	14.80	5.40	4.48	0.26
4.20	0.17	0.00	0.00	15.00	5.44	4.52	0.25
4.40	0.18	0.00	0.00	15.20	5.46	4.54	0.16
4.60	0.20	0.00	0.00	15.40	5.48	4.56	0.15
4.80	0.21	0.00	0.01	15.60	5.51	4.59	0.15
5.00	0.23	0.00	0.01	15.80	5.53	4.61	0.15
5.20	0.24	0.01	0.01	16.00	5.55	4.63	0.14
5.40	0.26	0.01	0.02	16.20	5.57	4.65	0.14
5.60	0.27	0.01	0.02	16.40	5.60	4.67	0.14
5.80	0.29	0.01	0.02	16.60	5.62	4.69	0.13
6.00	0.31	0.02	0.03	16.80	5.64	4.71	0.13
6.20	0.33	0.02	0.03	17.00	5.66	4.73	0.13
6.40	0.34	0.03	0.03	17.20	5.68	4.75	0.13
6.60	0.36	0.03	0.04	17.40	5.70	4.77	0.12
6.80	0.38	0.04	0.04	17.60	5.72	4.79	0.12
7.00	0.40	0.05	0.05	17.80	5.73	4.81	0.12
7.20	0.42	0.06	0.05	18.00	5.75	4.83	0.11
7.40	0.44	0.06	0.06	18.20	5.77	4.84	0.11
7.60	0.46	0.07	0.06	18.40	5.79	4.86	0.11
7.80	0.49	0.08	0.06	18.60	5.80	4.87	0.10
8.00	0.51	0.09	0.07	18.80	5.82	4.89	0.10
8.20	0.53	0.10	0.07	19.00	5.83	4.90	0.10
8.40	0.55	0.11	0.08	19.20	5.85	4.92	0.09
8.60	0.58	0.13	0.08	19.40	5.86	4.93	0.09
8.80	0.60	0.14	0.09	19.60	5.88	4.95	0.09
9.00	0.62	0.15	0.09	19.80	5.89	4.96	0.09
9.20	0.66	0.18	0.15	20.00	5.90	4.97	0.08
9.40	0.70	0.20	0.16				
9.60	0.75	0.23	0.17				
9.80	0.79	0.25	0.18				
10.00	0.83	0.28	0.19				
10.20	0.88	0.31	0.20				
10.40	0.92	0.35	0.21				
10.60	0.98	0.39	0.31				

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MSE 24-hr 3 100-Year Rainfall=6.06"

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Summary for Subcatchment 20S: OFFSITE NORTH (OFN)

Runoff = 4.12 cfs @ 12.12 hrs, Volume= 0.174 af, Depth> 3.79"

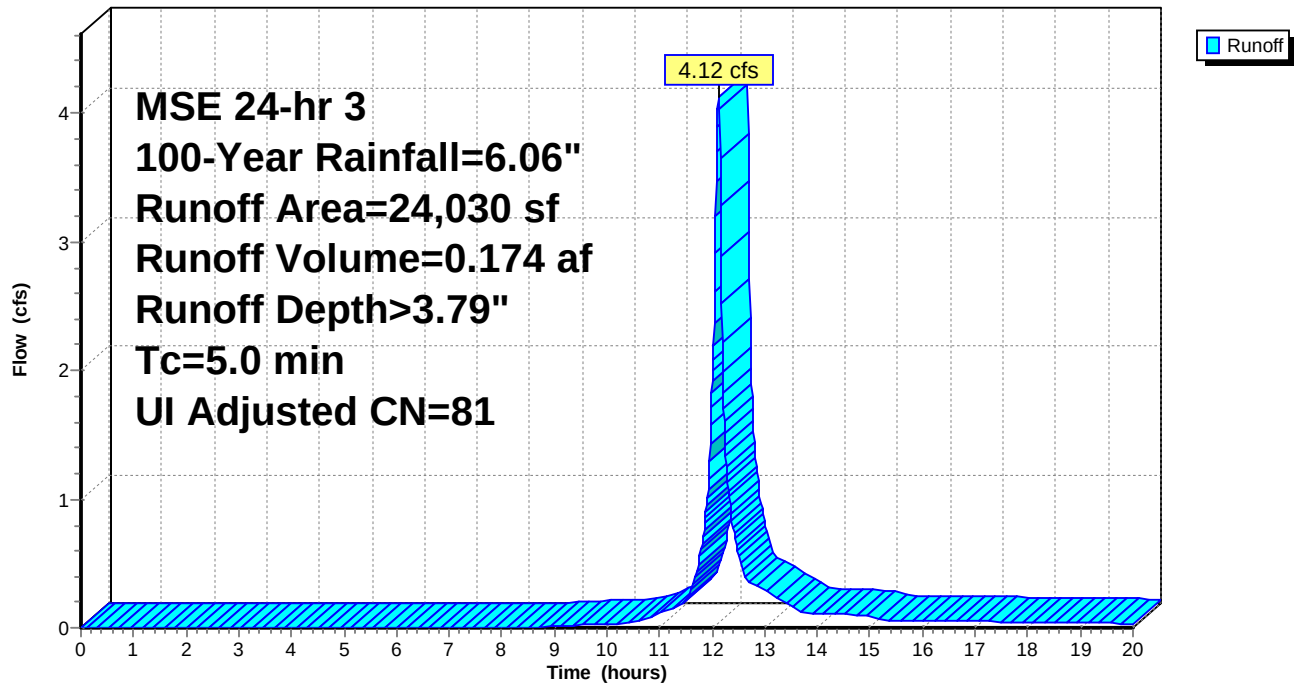
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-20.00 hrs, dt= 0.01 hrs
MSE 24-hr 3 100-Year Rainfall=6.06"

Area (sf)	CN	Adj	Description
19,345	79		50-75% Grass cover, Fair, HSG C
4,685	98		Unconnected roofs, HSG C
24,030	83	81	Weighted Average, UI Adjusted
19,345			80.50% Pervious Area
4,685			19.50% Impervious Area
4,685			100.00% Unconnected

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

Subcatchment 20S: OFFSITE NORTH (OFN)

Hydrograph



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Hydrograph for Subcatchment 20S: OFFSITE NORTH (OFN)

Time (hours)	Precip. (inches)	Excess (inches)	Runoff (cfs)	Time (hours)	Precip. (inches)	Excess (inches)	Runoff (cfs)
0.00	0.00	0.00	0.00	10.80	1.07	0.12	0.08
0.20	0.00	0.00	0.00	11.00	1.17	0.16	0.11
0.40	0.01	0.00	0.00	11.20	1.29	0.21	0.15
0.60	0.01	0.00	0.00	11.40	1.43	0.28	0.19
0.80	0.02	0.00	0.00	11.60	1.61	0.38	0.30
1.00	0.02	0.00	0.00	11.80	1.97	0.58	0.64
1.20	0.03	0.00	0.00	12.00	2.81	1.17	1.92
1.40	0.03	0.00	0.00	12.20	4.09	2.20	1.99
1.60	0.04	0.00	0.00	12.40	4.45	2.50	0.76
1.80	0.05	0.00	0.00	12.60	4.63	2.66	0.40
2.00	0.06	0.00	0.00	12.80	4.77	2.78	0.33
2.20	0.06	0.00	0.00	13.00	4.89	2.89	0.29
2.40	0.07	0.00	0.00	13.20	4.99	2.98	0.24
2.60	0.08	0.00	0.00	13.40	5.08	3.05	0.20
2.80	0.09	0.00	0.00	13.60	5.14	3.11	0.13
3.00	0.10	0.00	0.00	13.80	5.18	3.15	0.11
3.20	0.11	0.00	0.00	14.00	5.23	3.19	0.11
3.40	0.12	0.00	0.00	14.20	5.27	3.23	0.11
3.60	0.13	0.00	0.00	14.40	5.31	3.26	0.11
3.80	0.15	0.00	0.00	14.60	5.36	3.30	0.10
4.00	0.16	0.00	0.00	14.80	5.40	3.34	0.10
4.20	0.17	0.00	0.00	15.00	5.44	3.37	0.10
4.40	0.18	0.00	0.00	15.20	5.46	3.40	0.06
4.60	0.20	0.00	0.00	15.40	5.48	3.42	0.06
4.80	0.21	0.00	0.00	15.60	5.51	3.44	0.06
5.00	0.23	0.00	0.00	15.80	5.53	3.46	0.06
5.20	0.24	0.00	0.00	16.00	5.55	3.48	0.06
5.40	0.26	0.00	0.00	16.20	5.57	3.50	0.06
5.60	0.27	0.00	0.00	16.40	5.60	3.52	0.05
5.80	0.29	0.00	0.00	16.60	5.62	3.54	0.05
6.00	0.31	0.00	0.00	16.80	5.64	3.56	0.05
6.20	0.33	0.00	0.00	17.00	5.66	3.57	0.05
6.40	0.34	0.00	0.00	17.20	5.68	3.59	0.05
6.60	0.36	0.00	0.00	17.40	5.70	3.61	0.05
6.80	0.38	0.00	0.00	17.60	5.72	3.63	0.05
7.00	0.40	0.00	0.00	17.80	5.73	3.64	0.05
7.20	0.42	0.00	0.00	18.00	5.75	3.66	0.04
7.40	0.44	0.00	0.00	18.20	5.77	3.67	0.04
7.60	0.46	0.00	0.00	18.40	5.79	3.69	0.04
7.80	0.49	0.00	0.00	18.60	5.80	3.70	0.04
8.00	0.51	0.00	0.00	18.80	5.82	3.72	0.04
8.20	0.53	0.00	0.00	19.00	5.83	3.73	0.04
8.40	0.55	0.00	0.00	19.20	5.85	3.74	0.04
8.60	0.58	0.00	0.01	19.40	5.86	3.76	0.04
8.80	0.60	0.01	0.01	19.60	5.88	3.77	0.03
9.00	0.62	0.01	0.01	19.80	5.89	3.78	0.03
9.20	0.66	0.01	0.02	20.00	5.90	3.79	0.03
9.40	0.70	0.02	0.02				
9.60	0.75	0.03	0.02				
9.80	0.79	0.04	0.03				
10.00	0.83	0.05	0.03				
10.20	0.88	0.06	0.03				
10.40	0.92	0.07	0.04				
10.60	0.98	0.09	0.06				

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MSE 24-hr 3 100-Year Rainfall=6.06"

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Summary for Subcatchment 21S: Northern Swale

Runoff = 5.58 cfs @ 12.12 hrs, Volume= 0.263 af, Depth> 5.19"

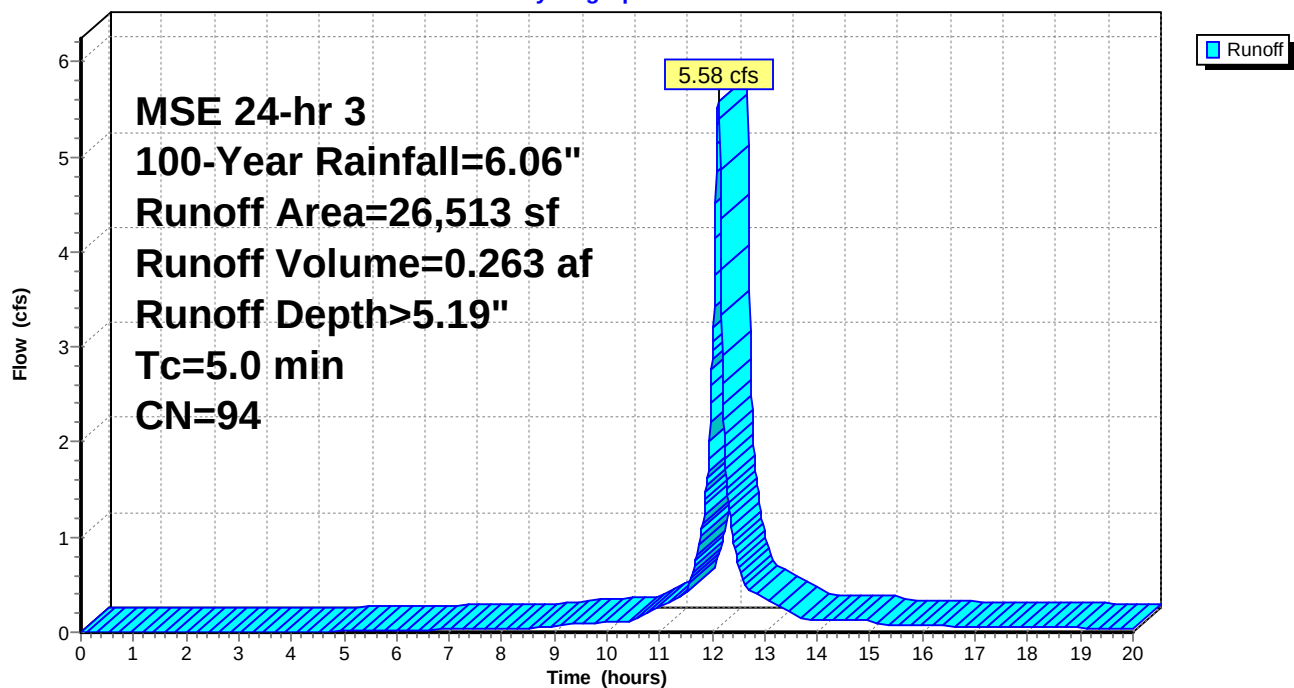
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-20.00 hrs, dt= 0.01 hrs
MSE 24-hr 3 100-Year Rainfall=6.06"

Area (sf)	CN	Description
5,422	79	50-75% Grass cover, Fair, HSG C
* 21,091	98	Roof
26,513	94	Weighted Average
5,422		20.45% Pervious Area
21,091		79.55% Impervious Area

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

Subcatchment 21S: Northern Swale

Hydrograph



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MSE 24-hr 3 100-Year Rainfall=6.06"

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Hydrograph for Subcatchment 21S: Northern Swale

Time (hours)	Precip. (inches)	Excess (inches)	Runoff (cfs)	Time (hours)	Precip. (inches)	Excess (inches)	Runoff (cfs)
0.00	0.00	0.00	0.00	10.80	1.07	0.56	0.22
0.20	0.00	0.00	0.00	11.00	1.17	0.64	0.27
0.40	0.01	0.00	0.00	11.20	1.29	0.75	0.33
0.60	0.01	0.00	0.00	11.40	1.43	0.87	0.38
0.80	0.02	0.00	0.00	11.60	1.61	1.04	0.57
1.00	0.02	0.00	0.00	11.80	1.97	1.36	1.09
1.20	0.03	0.00	0.00	12.00	2.81	2.16	2.88
1.40	0.03	0.00	0.00	12.20	4.09	3.42	2.61
1.60	0.04	0.00	0.00	12.40	4.45	3.76	0.97
1.80	0.05	0.00	0.00	12.60	4.63	3.95	0.51
2.00	0.06	0.00	0.00	12.80	4.77	4.08	0.41
2.20	0.06	0.00	0.00	13.00	4.89	4.20	0.36
2.40	0.07	0.00	0.00	13.20	4.99	4.30	0.30
2.60	0.08	0.00	0.00	13.40	5.08	4.38	0.25
2.80	0.09	0.00	0.00	13.60	5.14	4.44	0.16
3.00	0.10	0.00	0.00	13.80	5.18	4.49	0.14
3.20	0.11	0.00	0.00	14.00	5.23	4.53	0.14
3.40	0.12	0.00	0.00	14.20	5.27	4.58	0.13
3.60	0.13	0.00	0.00	14.40	5.31	4.62	0.13
3.80	0.15	0.00	0.00	14.60	5.36	4.66	0.13
4.00	0.16	0.00	0.00	14.80	5.40	4.70	0.12
4.20	0.17	0.00	0.00	15.00	5.44	4.74	0.12
4.40	0.18	0.00	0.01	15.20	5.46	4.76	0.07
4.60	0.20	0.01	0.01	15.40	5.48	4.79	0.07
4.80	0.21	0.01	0.01	15.60	5.51	4.81	0.07
5.00	0.23	0.01	0.01	15.80	5.53	4.83	0.07
5.20	0.24	0.02	0.01	16.00	5.55	4.85	0.07
5.40	0.26	0.02	0.01	16.20	5.57	4.88	0.07
5.60	0.27	0.03	0.02	16.40	5.60	4.90	0.07
5.80	0.29	0.03	0.02	16.60	5.62	4.92	0.06
6.00	0.31	0.04	0.02	16.80	5.64	4.94	0.06
6.20	0.33	0.05	0.02	17.00	5.66	4.96	0.06
6.40	0.34	0.06	0.02	17.20	5.68	4.98	0.06
6.60	0.36	0.06	0.03	17.40	5.70	5.00	0.06
6.80	0.38	0.07	0.03	17.60	5.72	5.01	0.06
7.00	0.40	0.08	0.03	17.80	5.73	5.03	0.05
7.20	0.42	0.09	0.03	18.00	5.75	5.05	0.05
7.40	0.44	0.10	0.03	18.20	5.77	5.07	0.05
7.60	0.46	0.12	0.04	18.40	5.79	5.08	0.05
7.80	0.49	0.13	0.04	18.60	5.80	5.10	0.05
8.00	0.51	0.14	0.04	18.80	5.82	5.12	0.05
8.20	0.53	0.16	0.04	19.00	5.83	5.13	0.05
8.40	0.55	0.17	0.04	19.20	5.85	5.15	0.04
8.60	0.58	0.19	0.05	19.40	5.86	5.16	0.04
8.80	0.60	0.20	0.05	19.60	5.88	5.17	0.04
9.00	0.62	0.22	0.05	19.80	5.89	5.19	0.04
9.20	0.66	0.24	0.08	20.00	5.90	5.20	0.04
9.40	0.70	0.27	0.09				
9.60	0.75	0.30	0.09				
9.80	0.79	0.34	0.10				
10.00	0.83	0.37	0.10				
10.20	0.88	0.41	0.11				
10.40	0.92	0.44	0.11				
10.60	0.98	0.49	0.16				

Summary for Subcatchment 22S: OFFSITE SOUTH (OFS)

Runoff = 5.81 cfs @ 12.12 hrs, Volume= 0.260 af, Depth> 4.64"

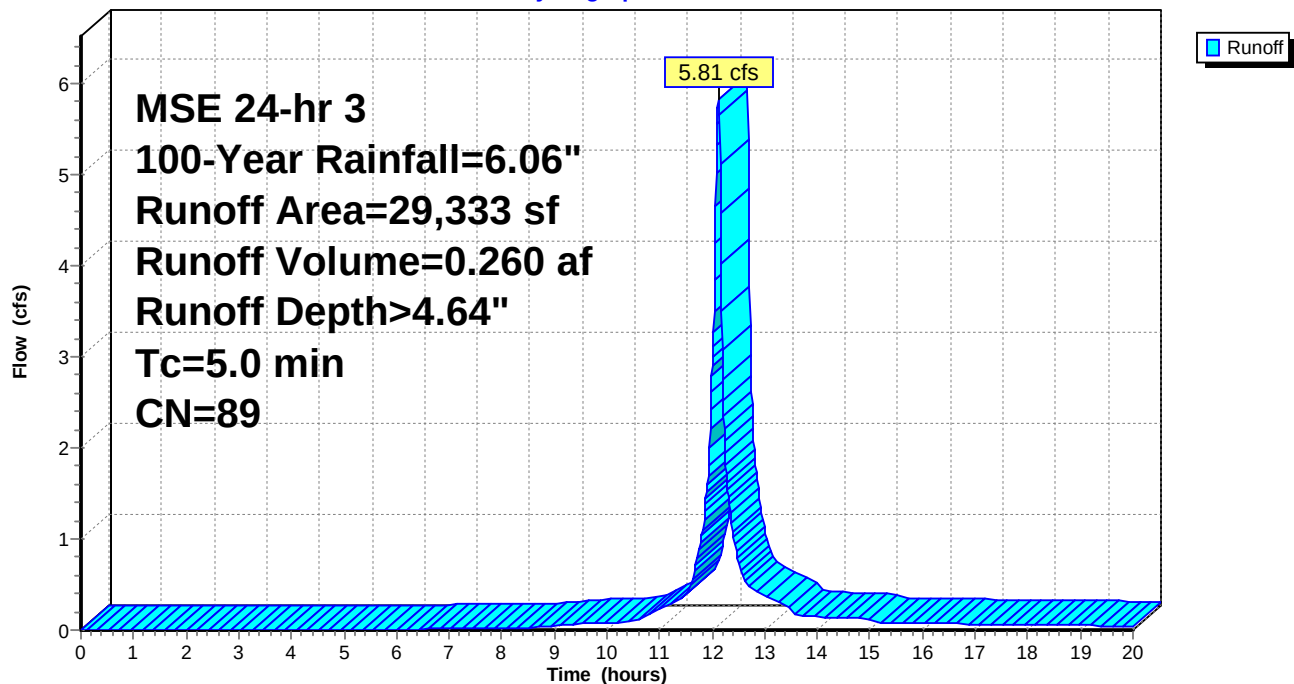
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-20.00 hrs, dt= 0.01 hrs
MSE 24-hr 3 100-Year Rainfall=6.06"

Area (sf)	CN	Description
13,422	79	50-75% Grass cover, Fair, HSG C
6,500	98	Unconnected roofs, HSG C
9,411	98	Paved parking, HSG C
29,333	89	Weighted Average
13,422		45.76% Pervious Area
15,911		54.24% Impervious Area
6,500		40.85% Unconnected

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

Subcatchment 22S: OFFSITE SOUTH (OFS)

Hydrograph



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MSE 24-hr 3 100-Year Rainfall=6.06"

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Hydrograph for Subcatchment 22S: OFFSITE SOUTH (OFS)

Time (hours)	Precip. (inches)	Excess (inches)	Runoff (cfs)	Time (hours)	Precip. (inches)	Excess (inches)	Runoff (cfs)
0.00	0.00	0.00	0.00	10.80	1.07	0.33	0.18
0.20	0.00	0.00	0.00	11.00	1.17	0.39	0.23
0.40	0.01	0.00	0.00	11.20	1.29	0.48	0.29
0.60	0.01	0.00	0.00	11.40	1.43	0.58	0.35
0.80	0.02	0.00	0.00	11.60	1.61	0.72	0.53
1.00	0.02	0.00	0.00	11.80	1.97	1.00	1.05
1.20	0.03	0.00	0.00	12.00	2.81	1.72	2.91
1.40	0.03	0.00	0.00	12.20	4.09	2.91	2.75
1.60	0.04	0.00	0.00	12.40	4.45	3.24	1.03
1.80	0.05	0.00	0.00	12.60	4.63	3.42	0.54
2.00	0.06	0.00	0.00	12.80	4.77	3.55	0.44
2.20	0.06	0.00	0.00	13.00	4.89	3.67	0.38
2.40	0.07	0.00	0.00	13.20	4.99	3.77	0.32
2.60	0.08	0.00	0.00	13.40	5.08	3.85	0.26
2.80	0.09	0.00	0.00	13.60	5.14	3.90	0.17
3.00	0.10	0.00	0.00	13.80	5.18	3.95	0.15
3.20	0.11	0.00	0.00	14.00	5.23	3.99	0.15
3.40	0.12	0.00	0.00	14.20	5.27	4.03	0.14
3.60	0.13	0.00	0.00	14.40	5.31	4.07	0.14
3.80	0.15	0.00	0.00	14.60	5.36	4.11	0.14
4.00	0.16	0.00	0.00	14.80	5.40	4.15	0.13
4.20	0.17	0.00	0.00	15.00	5.44	4.19	0.13
4.40	0.18	0.00	0.00	15.20	5.46	4.21	0.08
4.60	0.20	0.00	0.00	15.40	5.48	4.24	0.08
4.80	0.21	0.00	0.00	15.60	5.51	4.26	0.08
5.00	0.23	0.00	0.00	15.80	5.53	4.28	0.08
5.20	0.24	0.00	0.00	16.00	5.55	4.30	0.07
5.40	0.26	0.00	0.00	16.20	5.57	4.32	0.07
5.60	0.27	0.00	0.00	16.40	5.60	4.35	0.07
5.80	0.29	0.00	0.00	16.60	5.62	4.37	0.07
6.00	0.31	0.00	0.00	16.80	5.64	4.39	0.07
6.20	0.33	0.00	0.01	17.00	5.66	4.40	0.07
6.40	0.34	0.01	0.01	17.20	5.68	4.42	0.06
6.60	0.36	0.01	0.01	17.40	5.70	4.44	0.06
6.80	0.38	0.01	0.01	17.60	5.72	4.46	0.06
7.00	0.40	0.02	0.01	17.80	5.73	4.48	0.06
7.20	0.42	0.02	0.02	18.00	5.75	4.49	0.06
7.40	0.44	0.03	0.02	18.20	5.77	4.51	0.06
7.60	0.46	0.03	0.02	18.40	5.79	4.53	0.05
7.80	0.49	0.04	0.02	18.60	5.80	4.54	0.05
8.00	0.51	0.05	0.02	18.80	5.82	4.56	0.05
8.20	0.53	0.05	0.03	19.00	5.83	4.57	0.05
8.40	0.55	0.06	0.03	19.20	5.85	4.59	0.05
8.60	0.58	0.07	0.03	19.40	5.86	4.60	0.05
8.80	0.60	0.08	0.03	19.60	5.88	4.62	0.05
9.00	0.62	0.09	0.03	19.80	5.89	4.63	0.04
9.20	0.66	0.11	0.06	20.00	5.90	4.64	0.04
9.40	0.70	0.12	0.06				
9.60	0.75	0.14	0.07				
9.80	0.79	0.17	0.07				
10.00	0.83	0.19	0.08				
10.20	0.88	0.21	0.08				
10.40	0.92	0.24	0.09				
10.60	0.98	0.27	0.13				

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MSE 24-hr 3 100-Year Rainfall=6.06"

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Summary for Subcatchment 24S: OFFSITE NORTH

Runoff = 4.12 cfs @ 12.12 hrs, Volume= 0.174 af, Depth> 3.79"

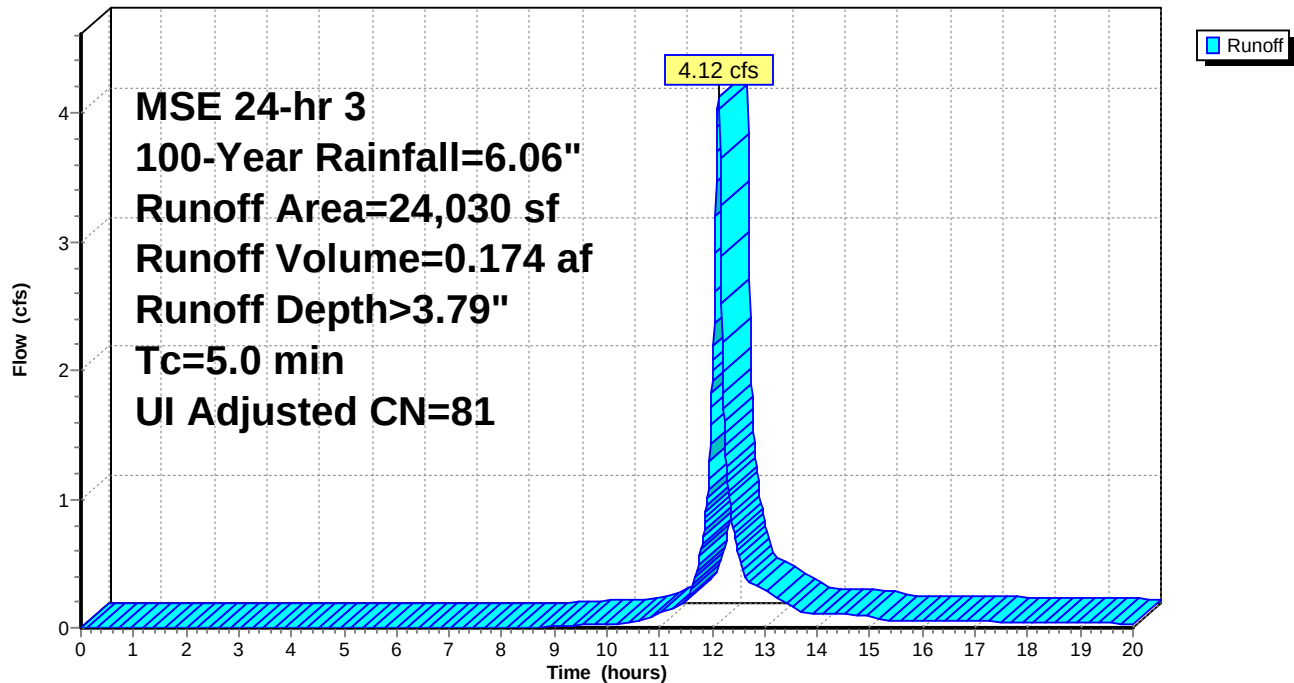
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-20.00 hrs, dt= 0.01 hrs
MSE 24-hr 3 100-Year Rainfall=6.06"

Area (sf)	CN	Adj	Description
19,345	79		50-75% Grass cover, Fair, HSG C
4,685	98		Unconnected roofs, HSG C
24,030	83	81	Weighted Average, UI Adjusted
19,345			80.50% Pervious Area
4,685			19.50% Impervious Area
4,685			100.00% Unconnected

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

Subcatchment 24S: OFFSITE NORTH

Hydrograph



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MSE 24-hr 3 100-Year Rainfall=6.06"

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Hydrograph for Subcatchment 24S: OFFSITE NORTH

Time (hours)	Precip. (inches)	Excess (inches)	Runoff (cfs)	Time (hours)	Precip. (inches)	Excess (inches)	Runoff (cfs)
0.00	0.00	0.00	0.00	10.80	1.07	0.12	0.08
0.20	0.00	0.00	0.00	11.00	1.17	0.16	0.11
0.40	0.01	0.00	0.00	11.20	1.29	0.21	0.15
0.60	0.01	0.00	0.00	11.40	1.43	0.28	0.19
0.80	0.02	0.00	0.00	11.60	1.61	0.38	0.30
1.00	0.02	0.00	0.00	11.80	1.97	0.58	0.64
1.20	0.03	0.00	0.00	12.00	2.81	1.17	1.92
1.40	0.03	0.00	0.00	12.20	4.09	2.20	1.99
1.60	0.04	0.00	0.00	12.40	4.45	2.50	0.76
1.80	0.05	0.00	0.00	12.60	4.63	2.66	0.40
2.00	0.06	0.00	0.00	12.80	4.77	2.78	0.33
2.20	0.06	0.00	0.00	13.00	4.89	2.89	0.29
2.40	0.07	0.00	0.00	13.20	4.99	2.98	0.24
2.60	0.08	0.00	0.00	13.40	5.08	3.05	0.20
2.80	0.09	0.00	0.00	13.60	5.14	3.11	0.13
3.00	0.10	0.00	0.00	13.80	5.18	3.15	0.11
3.20	0.11	0.00	0.00	14.00	5.23	3.19	0.11
3.40	0.12	0.00	0.00	14.20	5.27	3.23	0.11
3.60	0.13	0.00	0.00	14.40	5.31	3.26	0.11
3.80	0.15	0.00	0.00	14.60	5.36	3.30	0.10
4.00	0.16	0.00	0.00	14.80	5.40	3.34	0.10
4.20	0.17	0.00	0.00	15.00	5.44	3.37	0.10
4.40	0.18	0.00	0.00	15.20	5.46	3.40	0.06
4.60	0.20	0.00	0.00	15.40	5.48	3.42	0.06
4.80	0.21	0.00	0.00	15.60	5.51	3.44	0.06
5.00	0.23	0.00	0.00	15.80	5.53	3.46	0.06
5.20	0.24	0.00	0.00	16.00	5.55	3.48	0.06
5.40	0.26	0.00	0.00	16.20	5.57	3.50	0.06
5.60	0.27	0.00	0.00	16.40	5.60	3.52	0.05
5.80	0.29	0.00	0.00	16.60	5.62	3.54	0.05
6.00	0.31	0.00	0.00	16.80	5.64	3.56	0.05
6.20	0.33	0.00	0.00	17.00	5.66	3.57	0.05
6.40	0.34	0.00	0.00	17.20	5.68	3.59	0.05
6.60	0.36	0.00	0.00	17.40	5.70	3.61	0.05
6.80	0.38	0.00	0.00	17.60	5.72	3.63	0.05
7.00	0.40	0.00	0.00	17.80	5.73	3.64	0.05
7.20	0.42	0.00	0.00	18.00	5.75	3.66	0.04
7.40	0.44	0.00	0.00	18.20	5.77	3.67	0.04
7.60	0.46	0.00	0.00	18.40	5.79	3.69	0.04
7.80	0.49	0.00	0.00	18.60	5.80	3.70	0.04
8.00	0.51	0.00	0.00	18.80	5.82	3.72	0.04
8.20	0.53	0.00	0.00	19.00	5.83	3.73	0.04
8.40	0.55	0.00	0.00	19.20	5.85	3.74	0.04
8.60	0.58	0.00	0.01	19.40	5.86	3.76	0.04
8.80	0.60	0.01	0.01	19.60	5.88	3.77	0.03
9.00	0.62	0.01	0.01	19.80	5.89	3.78	0.03
9.20	0.66	0.01	0.02	20.00	5.90	3.79	0.03
9.40	0.70	0.02	0.02				
9.60	0.75	0.03	0.02				
9.80	0.79	0.04	0.03				
10.00	0.83	0.05	0.03				
10.20	0.88	0.06	0.03				
10.40	0.92	0.07	0.04				
10.60	0.98	0.09	0.06				

Summary for Subcatchment 25S: OFFSITE SOUTH (OFS)

Runoff = 5.81 cfs @ 12.12 hrs, Volume= 0.260 af, Depth> 4.64"

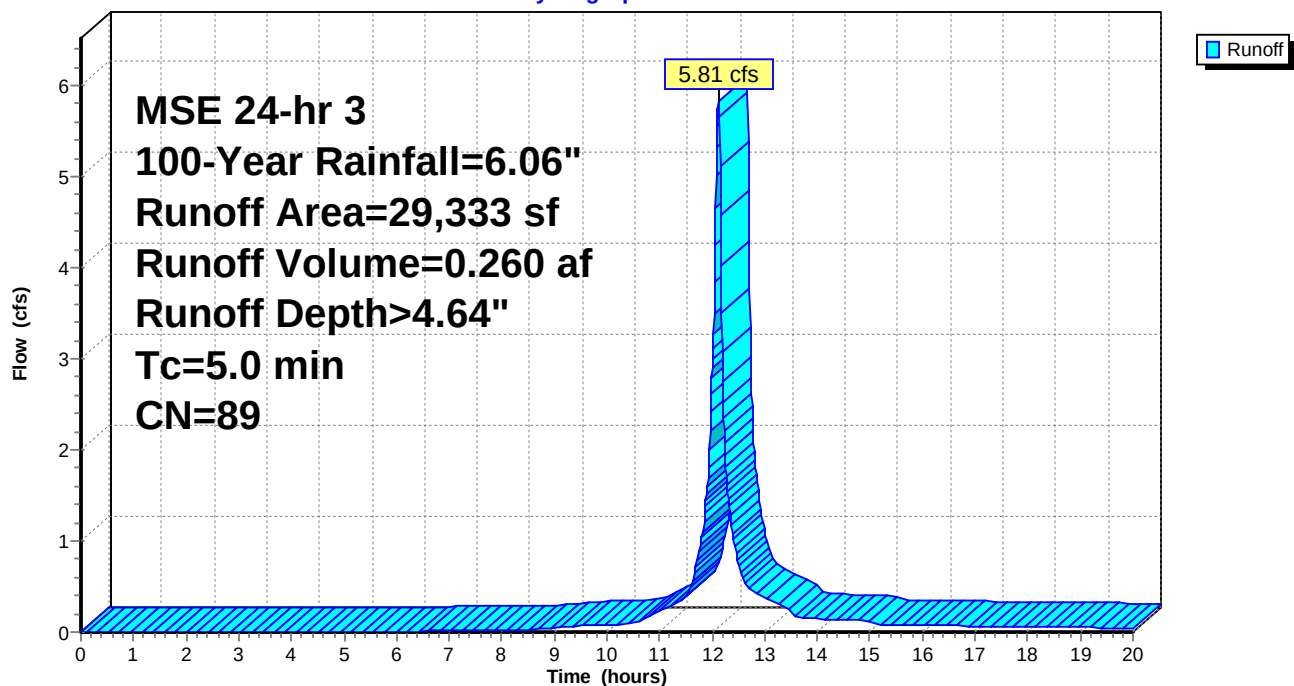
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-20.00 hrs, dt= 0.01 hrs
MSE 24-hr 3 100-Year Rainfall=6.06"

Area (sf)	CN	Description
13,422	79	50-75% Grass cover, Fair, HSG C
6,500	98	Unconnected roofs, HSG C
9,411	98	Paved parking, HSG C
29,333	89	Weighted Average
13,422		45.76% Pervious Area
15,911		54.24% Impervious Area
6,500		40.85% Unconnected

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

Subcatchment 25S: OFFSITE SOUTH (OFS)

Hydrograph



Glendale Daycare REV1

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MSE 24-hr 3 100-Year Rainfall=6.06"

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Hydrograph for Subcatchment 25S: OFFSITE SOUTH (OFS)

Time (hours)	Precip. (inches)	Excess (inches)	Runoff (cfs)	Time (hours)	Precip. (inches)	Excess (inches)	Runoff (cfs)
0.00	0.00	0.00	0.00	10.80	1.07	0.33	0.18
0.20	0.00	0.00	0.00	11.00	1.17	0.39	0.23
0.40	0.01	0.00	0.00	11.20	1.29	0.48	0.29
0.60	0.01	0.00	0.00	11.40	1.43	0.58	0.35
0.80	0.02	0.00	0.00	11.60	1.61	0.72	0.53
1.00	0.02	0.00	0.00	11.80	1.97	1.00	1.05
1.20	0.03	0.00	0.00	12.00	2.81	1.72	2.91
1.40	0.03	0.00	0.00	12.20	4.09	2.91	2.75
1.60	0.04	0.00	0.00	12.40	4.45	3.24	1.03
1.80	0.05	0.00	0.00	12.60	4.63	3.42	0.54
2.00	0.06	0.00	0.00	12.80	4.77	3.55	0.44
2.20	0.06	0.00	0.00	13.00	4.89	3.67	0.38
2.40	0.07	0.00	0.00	13.20	4.99	3.77	0.32
2.60	0.08	0.00	0.00	13.40	5.08	3.85	0.26
2.80	0.09	0.00	0.00	13.60	5.14	3.90	0.17
3.00	0.10	0.00	0.00	13.80	5.18	3.95	0.15
3.20	0.11	0.00	0.00	14.00	5.23	3.99	0.15
3.40	0.12	0.00	0.00	14.20	5.27	4.03	0.14
3.60	0.13	0.00	0.00	14.40	5.31	4.07	0.14
3.80	0.15	0.00	0.00	14.60	5.36	4.11	0.14
4.00	0.16	0.00	0.00	14.80	5.40	4.15	0.13
4.20	0.17	0.00	0.00	15.00	5.44	4.19	0.13
4.40	0.18	0.00	0.00	15.20	5.46	4.21	0.08
4.60	0.20	0.00	0.00	15.40	5.48	4.24	0.08
4.80	0.21	0.00	0.00	15.60	5.51	4.26	0.08
5.00	0.23	0.00	0.00	15.80	5.53	4.28	0.08
5.20	0.24	0.00	0.00	16.00	5.55	4.30	0.07
5.40	0.26	0.00	0.00	16.20	5.57	4.32	0.07
5.60	0.27	0.00	0.00	16.40	5.60	4.35	0.07
5.80	0.29	0.00	0.00	16.60	5.62	4.37	0.07
6.00	0.31	0.00	0.00	16.80	5.64	4.39	0.07
6.20	0.33	0.00	0.01	17.00	5.66	4.40	0.07
6.40	0.34	0.01	0.01	17.20	5.68	4.42	0.06
6.60	0.36	0.01	0.01	17.40	5.70	4.44	0.06
6.80	0.38	0.01	0.01	17.60	5.72	4.46	0.06
7.00	0.40	0.02	0.01	17.80	5.73	4.48	0.06
7.20	0.42	0.02	0.02	18.00	5.75	4.49	0.06
7.40	0.44	0.03	0.02	18.20	5.77	4.51	0.06
7.60	0.46	0.03	0.02	18.40	5.79	4.53	0.05
7.80	0.49	0.04	0.02	18.60	5.80	4.54	0.05
8.00	0.51	0.05	0.02	18.80	5.82	4.56	0.05
8.20	0.53	0.05	0.03	19.00	5.83	4.57	0.05
8.40	0.55	0.06	0.03	19.20	5.85	4.59	0.05
8.60	0.58	0.07	0.03	19.40	5.86	4.60	0.05
8.80	0.60	0.08	0.03	19.60	5.88	4.62	0.05
9.00	0.62	0.09	0.03	19.80	5.89	4.63	0.04
9.20	0.66	0.11	0.06	20.00	5.90	4.64	0.04
9.40	0.70	0.12	0.06				
9.60	0.75	0.14	0.07				
9.80	0.79	0.17	0.07				
10.00	0.83	0.19	0.08				
10.20	0.88	0.21	0.08				
10.40	0.92	0.24	0.09				
10.60	0.98	0.27	0.13				

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MSE 24-hr 3 100-Year Rainfall=6.06"

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Summary for Pond 18P: EXISITING OUTFALL

Inflow Area = 2.518 ac, 53.03% Impervious, Inflow Depth > 4.62" for 100-Year event
 Inflow = 21.54 cfs @ 12.12 hrs, Volume= 0.970 af
 Outflow = 4.74 cfs @ 12.35 hrs, Volume= 0.969 af, Atten= 78%, Lag= 13.5 min
 Primary = 4.74 cfs @ 12.35 hrs, Volume= 0.969 af

Routing by Stor-Ind method, Time Span= 0.00-20.00 hrs, dt= 0.01 hrs
 Peak Elev= 639.31' @ 12.35 hrs Surf.Area= 21,642 sf Storage= 12,119 cf

Plug-Flow detention time= 17.4 min calculated for 0.969 af (100% of inflow)
 Center-of-Mass det. time= 17.2 min (772.6 - 755.3)

Volume	Invert	Avail.Storage	Storage Description
#1	636.29'	34,985 cf	Custom Stage Data (Prismatic) Listed below (Recalc)

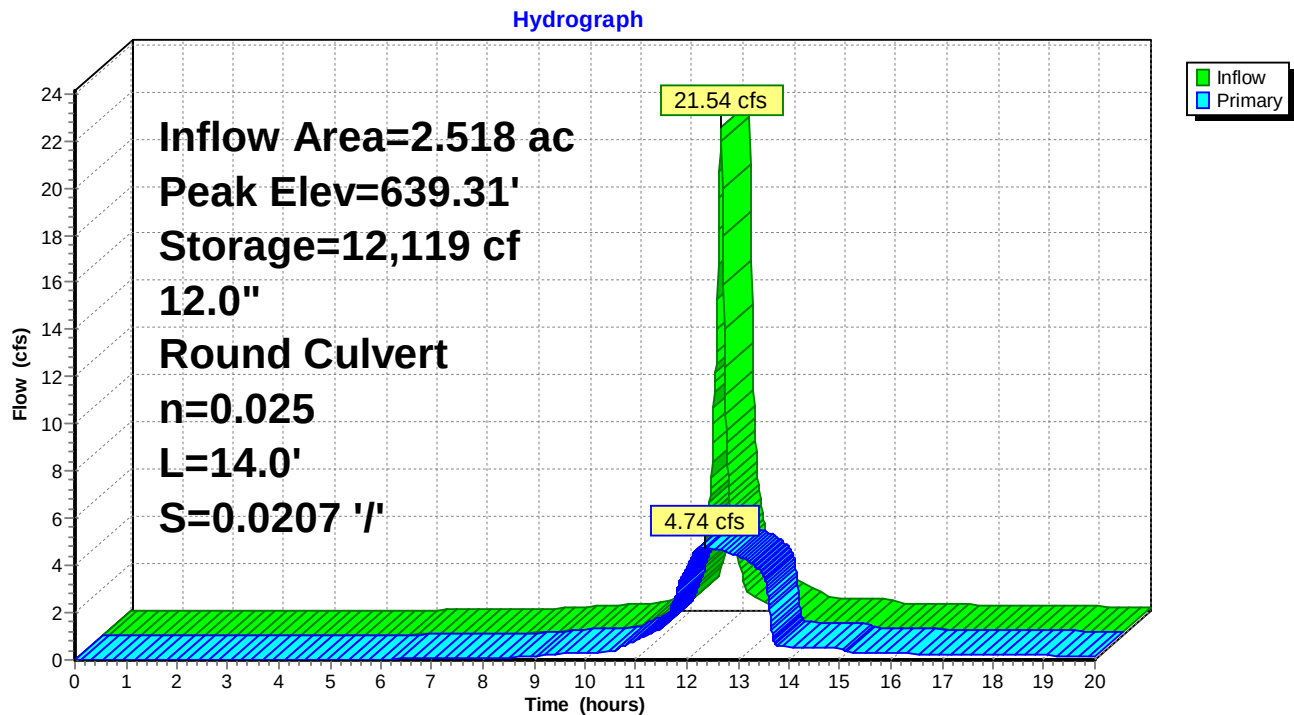
Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
636.29	2	0	0
637.00	450	160	160
638.00	905	678	838
639.00	11,448	6,177	7,014
640.00	44,493	27,971	34,985

Device	Routing	Invert	Outlet Devices
#1	Primary	636.29'	12.0" Round CMP_Round 12" L= 14.0' CMP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 636.29' / 636.00' S= 0.0207 ' S= 0.0207 ' Cc= 0.900 n= 0.025 Corrugated metal, Flow Area= 0.79 sf

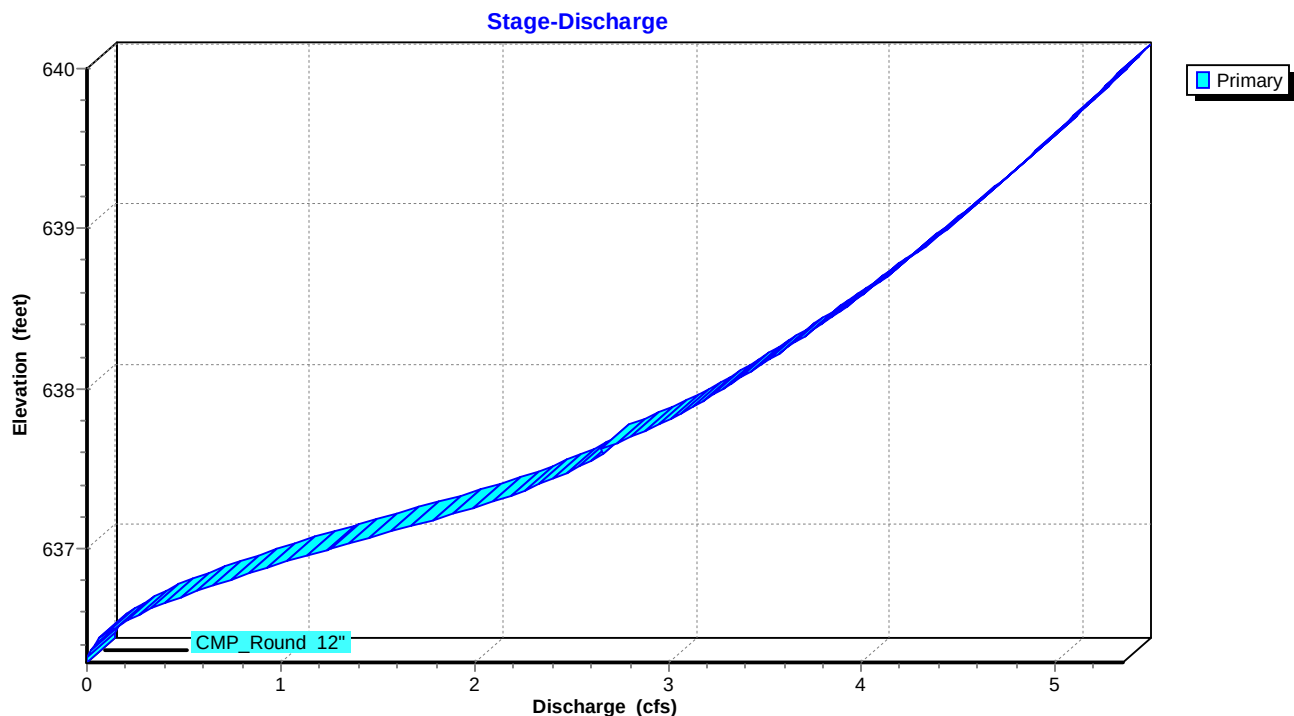
Primary OutFlow Max=4.74 cfs @ 12.35 hrs HW=639.31' (Free Discharge)

↑ **1=CMP_Round 12"** (Inlet Controls 4.74 cfs @ 6.03 fps)

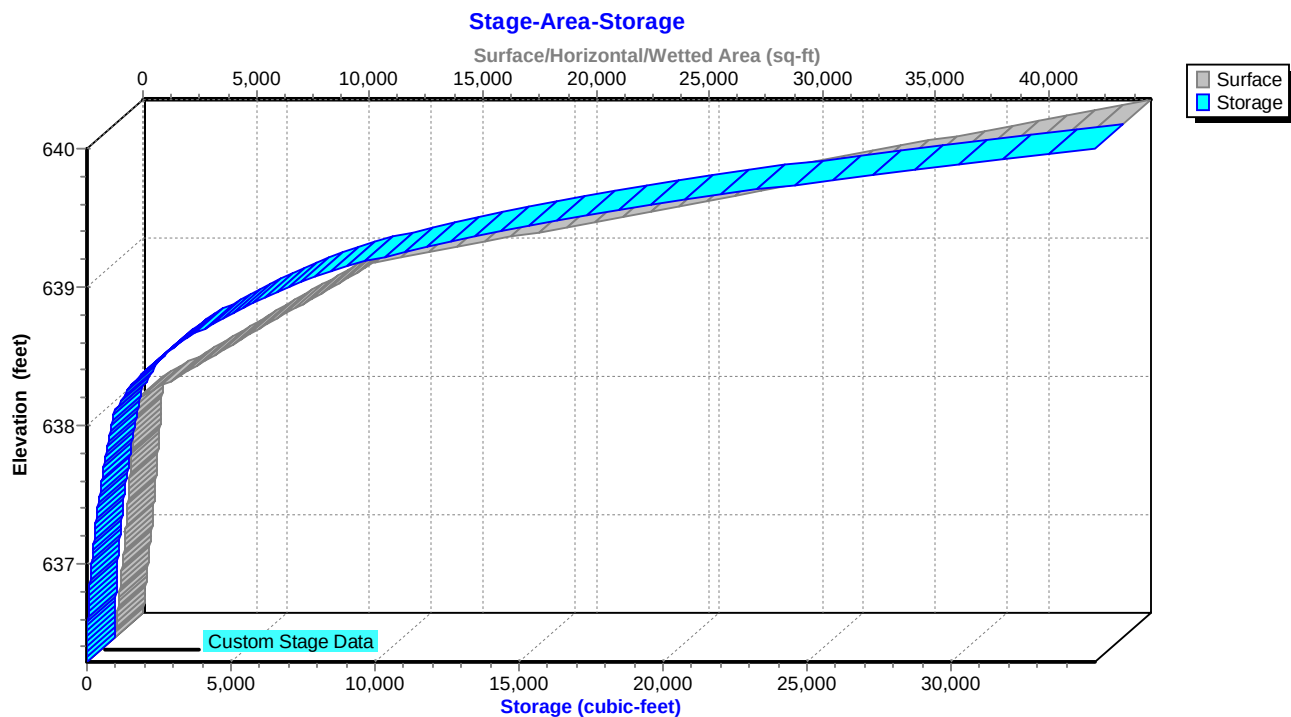
Pond 18P: EXISITING OUTFALL



Pond 18P: EXISITING OUTFALL



Pond 18P: EXISITING OUTFALL



Hydrograph for Pond 18P: EXISITING OUTFALL

Time (hours)	Inflow (cfs)	Storage (cubic-feet)	Elevation (feet)	Primary (cfs)
0.00	0.00	0	636.29	0.00
0.50	0.00	0	636.29	0.00
1.00	0.00	0	636.29	0.00
1.50	0.00	0	636.29	0.00
2.00	0.00	0	636.29	0.00
2.50	0.00	0	636.29	0.00
3.00	0.00	0	636.29	0.00
3.50	0.00	0	636.29	0.00
4.00	0.00	0	636.29	0.00
4.50	0.00	0	636.31	0.00
5.00	0.01	1	636.34	0.01
5.50	0.02	2	636.37	0.02
6.00	0.03	4	636.39	0.03
6.50	0.05	5	636.41	0.04
7.00	0.06	6	636.43	0.06
7.50	0.08	8	636.45	0.07
8.00	0.09	10	636.46	0.09
8.50	0.11	12	636.48	0.11
9.00	0.13	14	636.49	0.13
9.50	0.25	27	636.58	0.25
10.00	0.30	32	636.61	0.30
10.50	0.35	38	636.63	0.35
11.00	0.87	99	636.85	0.84
11.50	1.41	176	637.03	1.35
12.00	10.76	2,593	638.50	3.90
12.50	2.85	11,535	639.28	4.71
13.00	1.42	6,559	638.96	4.40
13.50	0.87	1,303	638.22	3.57
14.00	0.54	61	636.73	0.55
14.50	0.51	57	636.71	0.51
15.00	0.48	53	636.70	0.48
15.50	0.29	31	636.60	0.29
16.00	0.27	29	636.59	0.27
16.50	0.26	28	636.58	0.26
17.00	0.24	26	636.57	0.24
17.50	0.23	25	636.57	0.23
18.00	0.22	23	636.56	0.22
18.50	0.20	22	636.55	0.20
19.00	0.19	20	636.54	0.19
19.50	0.17	18	636.53	0.17
20.00	0.16	17	636.52	0.16

Stage-Discharge for Pond 18P: EXISITING OUTFALL

Elevation (feet)	Primary (cfs)	Elevation (feet)	Primary (cfs)	Elevation (feet)	Primary (cfs)	Elevation (feet)	Primary (cfs)
636.29	0.00	637.37	2.27	638.45	3.85	639.53	4.94
636.31	0.00	637.39	2.31	638.47	3.87	639.55	4.96
636.33	0.00	637.41	2.35	638.49	3.89	639.57	4.98
636.35	0.01	637.43	2.39	638.51	3.92	639.59	5.00
636.37	0.02	637.45	2.43	638.53	3.94	639.61	5.01
636.39	0.03	637.47	2.46	638.55	3.96	639.63	5.03
636.41	0.04	637.49	2.50	638.57	3.98	639.65	5.05
636.43	0.06	637.51	2.53	638.59	4.01	639.67	5.07
636.45	0.08	637.53	2.57	638.61	4.03	639.69	5.08
636.47	0.10	637.55	2.60	638.63	4.05	639.71	5.10
636.49	0.12	637.57	2.64	638.65	4.07	639.73	5.12
636.51	0.15	637.59	2.67	638.67	4.09	639.75	5.14
636.53	0.18	637.61	2.69	638.69	4.12	639.77	5.15
636.55	0.20	637.63	2.66	638.71	4.14	639.79	5.17
636.57	0.24	637.65	2.71	638.73	4.16	639.81	5.19
636.59	0.27	637.67	2.75	638.75	4.18	639.83	5.21
636.61	0.31	637.69	2.79	638.77	4.20	639.85	5.22
636.63	0.34	637.71	2.83	638.79	4.22	639.87	5.24
636.65	0.38	637.73	2.87	638.81	4.24	639.89	5.26
636.67	0.42	637.75	2.91	638.83	4.26	639.91	5.27
636.69	0.46	637.77	2.95	638.85	4.29	639.93	5.29
636.71	0.51	637.79	2.98	638.87	4.31	639.95	5.31
636.73	0.55	637.81	3.02	638.89	4.33	639.97	5.32
636.75	0.60	637.83	3.04	638.91	4.35	639.99	5.34
636.77	0.64	637.85	3.07	638.93	4.37		
636.79	0.69	637.87	3.10	638.95	4.39		
636.81	0.74	637.89	3.13	638.97	4.41		
636.83	0.79	637.91	3.16	638.99	4.43		
636.85	0.84	637.93	3.19	639.01	4.45		
636.87	0.90	637.95	3.22	639.03	4.47		
636.89	0.95	637.97	3.24	639.05	4.49		
636.91	1.00	637.99	3.27	639.07	4.51		
636.93	1.06	638.01	3.30	639.09	4.53		
636.95	1.12	638.03	3.32	639.11	4.55		
636.97	1.17	638.05	3.35	639.13	4.57		
636.99	1.23	638.07	3.38	639.15	4.59		
637.01	1.29	638.09	3.40	639.17	4.61		
637.03	1.34	638.11	3.43	639.19	4.63		
637.05	1.40	638.13	3.46	639.21	4.64		
637.07	1.46	638.15	3.48	639.23	4.66		
637.09	1.52	638.17	3.51	639.25	4.68		
637.11	1.58	638.19	3.53	639.27	4.70		
637.13	1.64	638.21	3.56	639.29	4.72		
637.15	1.69	638.23	3.58	639.31	4.74		
637.17	1.75	638.25	3.61	639.33	4.76		
637.19	1.81	638.27	3.63	639.35	4.78		
637.21	1.87	638.29	3.66	639.37	4.80		
637.23	1.93	638.31	3.68	639.39	4.81		
637.25	1.98	638.33	3.70	639.41	4.83		
637.27	2.04	638.35	3.73	639.43	4.85		
637.29	2.09	638.37	3.75	639.45	4.87		
637.31	2.15	638.39	3.78	639.47	4.89		
637.33	2.19	638.41	3.80	639.49	4.91		
637.35	2.23	638.43	3.82	639.51	4.92		

Glendale Daycare REV1

Prepared by Ayres Associates

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MSE 24-hr 3 100-Year Rainfall=6.06"

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Stage-Area-Storage for Pond 18P: EXISITING OUTFALL

Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)	Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)
636.29	2	0	638.99	11,343	6,901
636.34	34	1	639.04	12,770	7,499
636.39	65	3	639.09	14,422	8,179
636.44	97	7	639.14	16,074	8,941
636.49	128	13	639.19	17,727	9,786
636.54	160	20	639.24	19,379	10,714
636.59	191	29	639.29	21,031	11,724
636.64	223	39	639.34	22,683	12,817
636.69	254	51	639.39	24,336	13,992
636.74	286	65	639.44	25,988	15,250
636.79	317	80	639.49	27,640	16,591
636.84	349	97	639.54	29,292	18,014
636.89	381	115	639.59	30,945	19,520
636.94	412	135	639.64	32,597	21,109
636.99	444	156	639.69	34,249	22,780
637.04	468	179	639.74	35,901	24,534
637.09	491	203	639.79	37,554	26,370
637.14	514	228	639.84	39,206	28,289
637.19	536	254	639.89	40,858	30,291
637.24	559	282	639.94	42,510	32,375
637.29	582	310	639.99	44,163	34,542
637.34	605	340			
637.39	627	371			
637.44	650	403			
637.49	673	436			
637.54	696	470			
637.59	718	505			
637.64	741	542			
637.69	764	579			
637.74	787	618			
637.79	809	658			
637.84	832	699			
637.89	855	741			
637.94	878	784			
637.99	900	829			
638.04	1,327	883			
638.09	1,854	962			
638.14	2,381	1,068			
638.19	2,908	1,200			
638.24	3,435	1,359			
638.29	3,962	1,544			
638.34	4,490	1,755			
638.39	5,017	1,993			
638.44	5,544	2,257			
638.49	6,071	2,547			
638.54	6,598	2,864			
638.59	7,125	3,207			
638.64	7,653	3,576			
638.69	8,180	3,972			
638.74	8,707	4,394			
638.79	9,234	4,843			
638.84	9,761	5,318			
638.89	10,288	5,819			
638.94	10,815	6,347			

Summary for Pond 19P: PROPOSED OUTFALL

Inflow Area = 2.596 ac, 61.88% Impervious, Inflow Depth > 4.81" for 100-Year event
 Inflow = 22.60 cfs @ 12.12 hrs, Volume= 1.041 af
 Outflow = 4.65 cfs @ 12.36 hrs, Volume= 1.019 af, Atten= 79%, Lag= 14.4 min
 Primary = 4.65 cfs @ 12.36 hrs, Volume= 1.019 af

Routing by Stor-Ind method, Time Span= 0.00-20.00 hrs, dt= 0.01 hrs
 Peak Elev= 639.21' @ 12.36 hrs Surf.Area= 21,367 sf Storage= 14,608 cf

Plug-Flow detention time= 36.6 min calculated for 1.018 af (98% of inflow)
 Center-of-Mass det. time= 27.8 min (777.1 - 749.3)

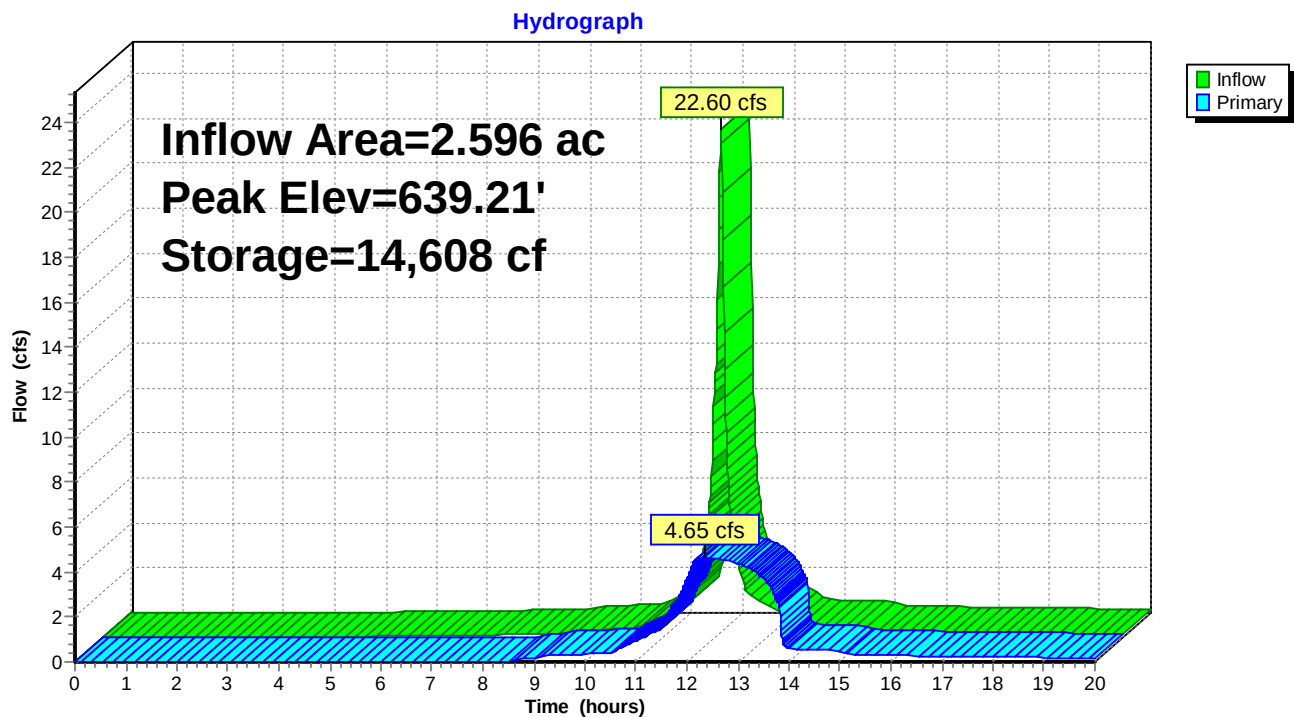
Volume	Invert	Avail.Storage	Storage Description
#1	636.29'	38,270 cf	Custom Stage Data (Prismatic) Listed below (Recalc)
Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
636.29	2	0	0
637.00	1,307	465	465
638.00	3,298	2,303	2,767
638.60	6,955	3,076	5,843
639.00	16,745	4,740	10,583
640.00	38,628	27,687	38,270

Device	Routing	Invert	Outlet Devices
#1	Primary	636.29'	12.0" Round CMP_Round 12" L= 14.0' CMP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 636.29' / 636.00' S= 0.0207 ' /' Cc= 0.900 n= 0.025 Corrugated metal, Flow Area= 0.79 sf
#2	Device 1	636.29'	1.0" Vert. Orifice/Grate C= 0.600 Limited to weir flow at low heads
#3	Device 1	637.29'	24.0" x 36.0" Horiz. Orifice/Grate C= 0.600 Limited to weir flow at low heads

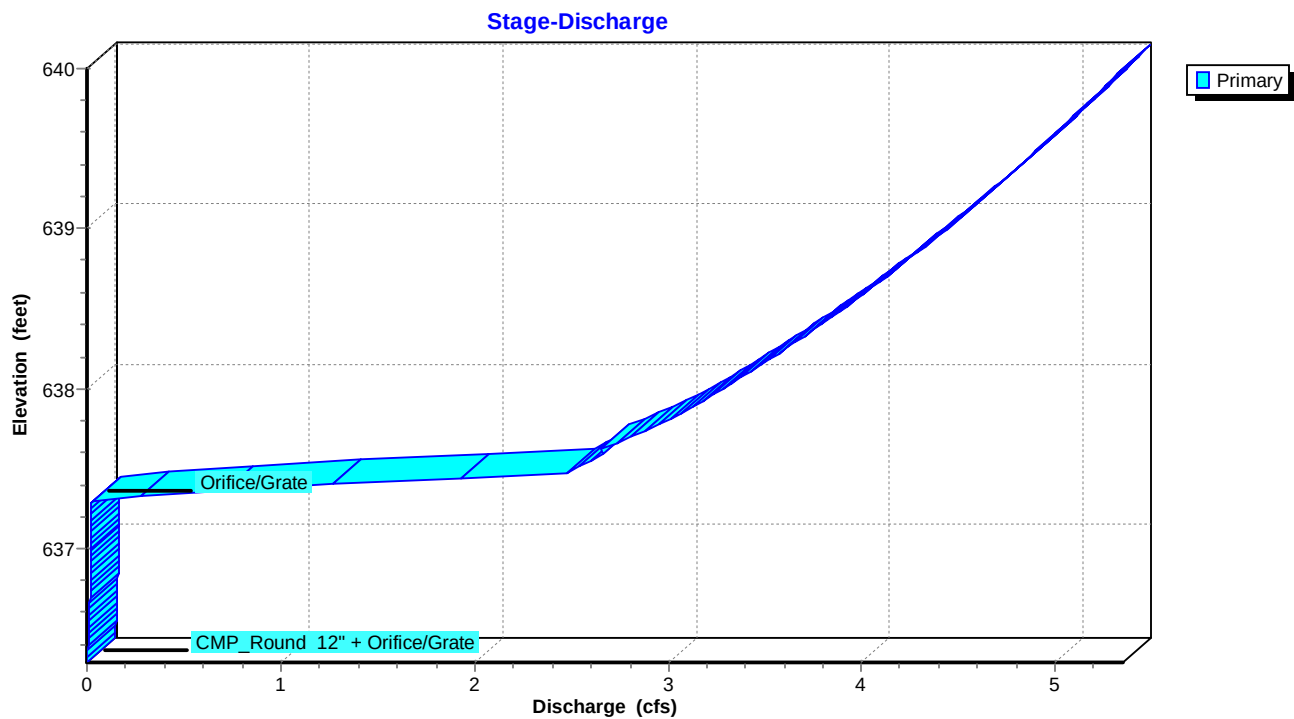
Primary OutFlow Max=4.65 cfs @ 12.36 hrs HW=639.21' (Free Discharge)

↑ **1=CMP_Round 12"** (Inlet Controls 4.65 cfs @ 5.91 fps)
 ↑ **2=Orifice/Grate** (Passes < 0.04 cfs potential flow)
 ↑ **3=Orifice/Grate** (Passes < 40.04 cfs potential flow)

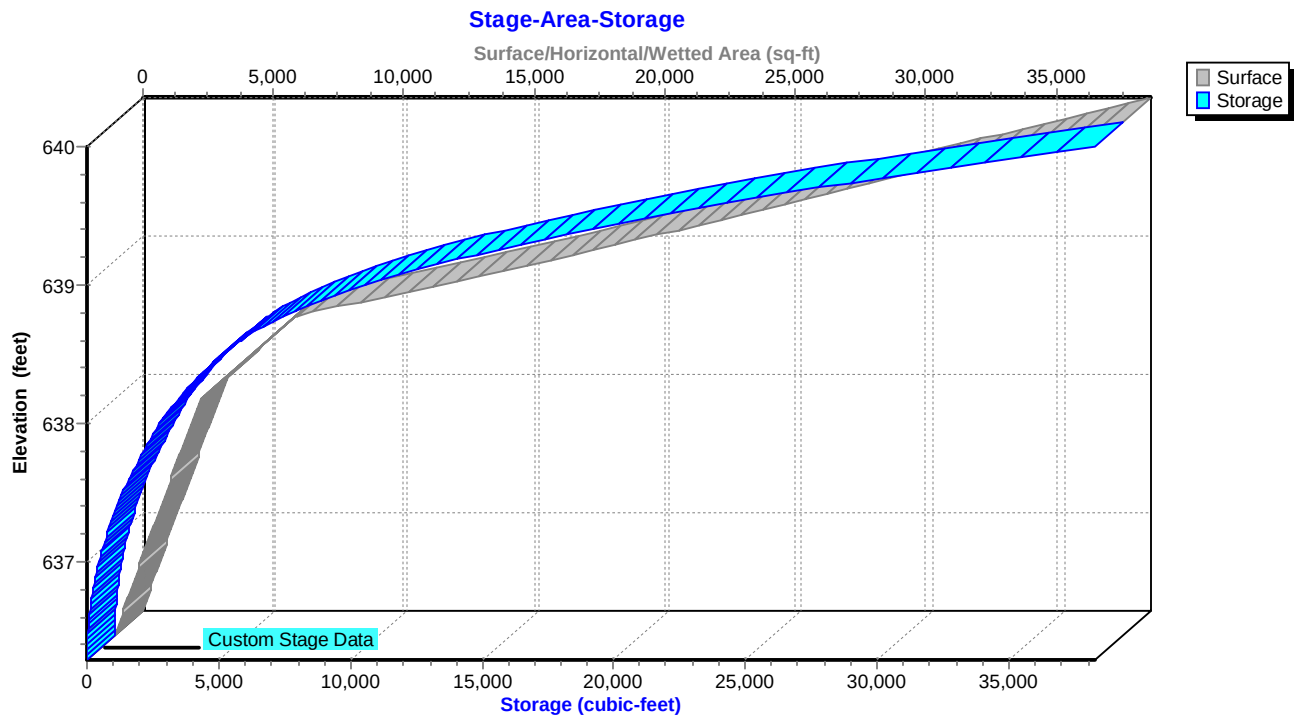
Pond 19P: PROPOSED OUTFALL



Pond 19P: PROPOSED OUTFALL



Pond 19P: PROPOSED OUTFALL



Hydrograph for Pond 19P: PROPOSED OUTFALL

Time (hours)	Inflow (cfs)	Storage (cubic-feet)	Elevation (feet)	Primary (cfs)
0.00	0.00	0	636.29	0.00
0.50	0.00	0	636.29	0.00
1.00	0.00	0	636.29	0.00
1.50	0.00	0	636.29	0.00
2.00	0.00	0	636.29	0.00
2.50	0.00	0	636.29	0.00
3.00	0.00	0	636.29	0.00
3.50	0.01	2	636.33	0.00
4.00	0.01	11	636.40	0.01
4.50	0.02	29	636.47	0.01
5.00	0.03	61	636.55	0.01
5.50	0.05	108	636.63	0.01
6.00	0.06	177	636.73	0.02
6.50	0.08	269	636.83	0.02
7.00	0.09	387	636.94	0.02
7.50	0.11	530	637.05	0.02
8.00	0.13	701	637.16	0.02
8.50	0.15	903	637.28	0.03
9.00	0.17	970	637.31	0.16
9.50	0.31	1,007	637.33	0.30
10.00	0.36	1,015	637.34	0.35
10.50	0.41	1,024	637.34	0.40
11.00	0.99	1,108	637.38	0.94
11.50	1.54	1,181	637.42	1.50
12.00	11.41	4,181	638.33	3.70
12.50	2.97	14,149	639.19	4.62
13.00	1.47	9,434	638.93	4.36
13.50	0.90	4,197	638.33	3.71
14.00	0.56	1,056	637.36	0.59
14.50	0.53	1,046	637.35	0.53
15.00	0.50	1,040	637.35	0.50
15.50	0.30	1,006	637.33	0.30
16.00	0.28	1,004	637.33	0.28
16.50	0.27	1,001	637.33	0.27
17.00	0.25	996	637.33	0.26
17.50	0.24	992	637.32	0.24
18.00	0.22	988	637.32	0.23
18.50	0.21	983	637.32	0.21
19.00	0.19	979	637.32	0.20
19.50	0.18	975	637.31	0.18
20.00	0.16	970	637.31	0.17

Stage-Discharge for Pond 19P: PROPOSED OUTFALL

Elevation (feet)	Primary (cfs)	Elevation (feet)	Primary (cfs)	Elevation (feet)	Primary (cfs)	Elevation (feet)	Primary (cfs)
636.29	0.00	637.37	0.77	638.45	3.85	639.53	4.94
636.31	0.00	637.39	1.06	638.47	3.87	639.55	4.96
636.33	0.00	637.41	1.39	638.49	3.89	639.57	4.98
636.35	0.00	637.43	1.74	638.51	3.92	639.59	5.00
636.37	0.01	637.45	2.12	638.53	3.94	639.61	5.01
636.39	0.01	637.47	2.46	638.55	3.96	639.63	5.03
636.41	0.01	637.49	2.50	638.57	3.98	639.65	5.05
636.43	0.01	637.51	2.53	638.59	4.01	639.67	5.07
636.45	0.01	637.53	2.57	638.61	4.03	639.69	5.08
636.47	0.01	637.55	2.60	638.63	4.05	639.71	5.10
636.49	0.01	637.57	2.64	638.65	4.07	639.73	5.12
636.51	0.01	637.59	2.67	638.67	4.09	639.75	5.14
636.53	0.01	637.61	2.69	638.69	4.12	639.77	5.15
636.55	0.01	637.63	2.66	638.71	4.14	639.79	5.17
636.57	0.01	637.65	2.71	638.73	4.16	639.81	5.19
636.59	0.01	637.67	2.75	638.75	4.18	639.83	5.21
636.61	0.01	637.69	2.79	638.77	4.20	639.85	5.22
636.63	0.01	637.71	2.83	638.79	4.22	639.87	5.24
636.65	0.01	637.73	2.87	638.81	4.24	639.89	5.26
636.67	0.02	637.75	2.91	638.83	4.26	639.91	5.27
636.69	0.02	637.77	2.95	638.85	4.29	639.93	5.29
636.71	0.02	637.79	2.98	638.87	4.31	639.95	5.31
636.73	0.02	637.81	3.02	638.89	4.33	639.97	5.32
636.75	0.02	637.83	3.04	638.91	4.35	639.99	5.34
636.77	0.02	637.85	3.07	638.93	4.37		
636.79	0.02	637.87	3.10	638.95	4.39		
636.81	0.02	637.89	3.13	638.97	4.41		
636.83	0.02	637.91	3.16	638.99	4.43		
636.85	0.02	637.93	3.19	639.01	4.45		
636.87	0.02	637.95	3.22	639.03	4.47		
636.89	0.02	637.97	3.24	639.05	4.49		
636.91	0.02	637.99	3.27	639.07	4.51		
636.93	0.02	638.01	3.30	639.09	4.53		
636.95	0.02	638.03	3.32	639.11	4.55		
636.97	0.02	638.05	3.35	639.13	4.57		
636.99	0.02	638.07	3.38	639.15	4.59		
637.01	0.02	638.09	3.40	639.17	4.61		
637.03	0.02	638.11	3.43	639.19	4.63		
637.05	0.02	638.13	3.46	639.21	4.64		
637.07	0.02	638.15	3.48	639.23	4.66		
637.09	0.02	638.17	3.51	639.25	4.68		
637.11	0.02	638.19	3.53	639.27	4.70		
637.13	0.02	638.21	3.56	639.29	4.72		
637.15	0.02	638.23	3.58	639.31	4.74		
637.17	0.02	638.25	3.61	639.33	4.76		
637.19	0.02	638.27	3.63	639.35	4.78		
637.21	0.02	638.29	3.66	639.37	4.80		
637.23	0.02	638.31	3.68	639.39	4.81		
637.25	0.03	638.33	3.70	639.41	4.83		
637.27	0.03	638.35	3.73	639.43	4.85		
637.29	0.03	638.37	3.75	639.45	4.87		
637.31	0.12	638.39	3.78	639.47	4.89		
637.33	0.29	638.41	3.80	639.49	4.91		
637.35	0.51	638.43	3.82	639.51	4.92		

Glendale Daycare REV1

Prepared by Ayres Associates

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MSE 24-hr 3 100-Year Rainfall=6.06"

Printed 6/18/2025

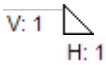
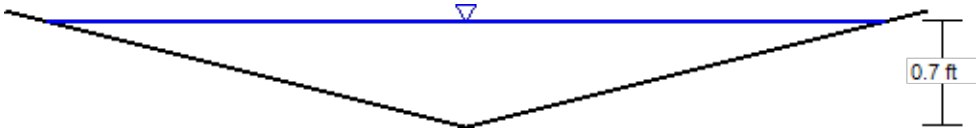
Page 130

Stage-Area-Storage for Pond 19P: PROPOSED OUTFALL

Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)	Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)
636.29	2	0	638.99	16,500	10,417
636.34	94	2	639.04	17,620	11,270
636.39	186	9	639.09	18,714	12,179
636.44	278	21	639.14	19,809	13,142
636.49	370	37	639.19	20,903	14,160
636.54	462	58	639.24	21,997	15,232
636.59	553	83	639.29	23,091	16,359
636.64	645	113	639.34	24,185	17,541
636.69	737	148	639.39	25,279	18,778
636.74	829	187	639.44	26,374	20,069
636.79	921	231	639.49	27,468	21,415
636.84	1,013	279	639.54	28,562	22,816
636.89	1,105	332	639.59	29,656	24,271
636.94	1,197	390	639.64	30,750	25,782
636.99	1,289	452	639.69	31,844	27,346
637.04	1,387	519	639.74	32,938	28,966
637.09	1,486	590	639.79	34,033	30,640
637.14	1,586	667	639.84	35,127	32,369
637.19	1,685	749	639.89	36,221	34,153
637.24	1,785	836	639.94	37,315	35,991
637.29	1,884	927	639.99	38,409	37,884
637.34	1,984	1,024			
637.39	2,083	1,126			
637.44	2,183	1,233			
637.49	2,283	1,344			
637.54	2,382	1,461			
637.59	2,482	1,582			
637.64	2,581	1,709			
637.69	2,681	1,840			
637.74	2,780	1,977			
637.79	2,880	2,119			
637.84	2,979	2,265			
637.89	3,079	2,416			
637.94	3,179	2,573			
637.99	3,278	2,734			
638.04	3,542	2,904			
638.09	3,847	3,089			
638.14	4,151	3,289			
638.19	4,456	3,504			
638.24	4,761	3,734			
638.29	5,066	3,980			
638.34	5,370	4,241			
638.39	5,675	4,517			
638.44	5,980	4,808			
638.49	6,285	5,115			
638.54	6,589	5,437			
638.59	6,894	5,774			
638.64	7,934	6,141			
638.69	9,158	6,568			
638.74	10,381	7,057			
638.79	11,605	7,606			
638.84	12,829	8,217			
638.89	14,053	8,889			
638.94	15,276	9,622			

North Swale Capacity

Project Description	
Friction Method	Manning Formula
Solve For	Normal Depth
Input Data	
Roughness Coefficient	0.030
Channel Slope	1.000 %
Normal Depth	0.7 ft
Left Side Slope	4.000 H:V
Right Side Slope	4.000 H:V
Discharge	5.58 cfs

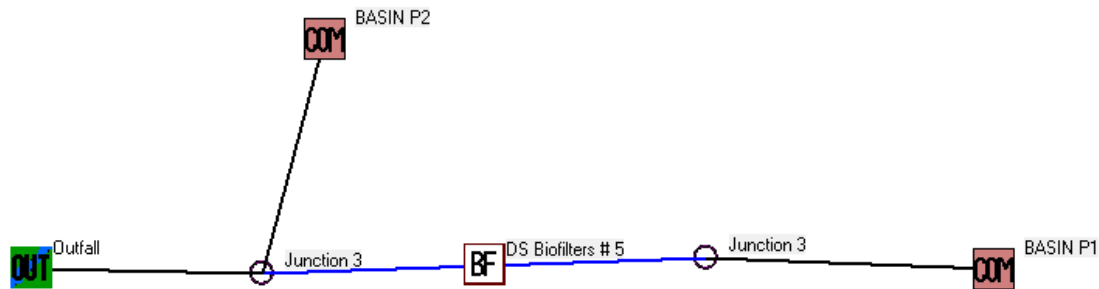


Appendix G

WinSLAMM Output Files

WINSLAM

PREDEVELOPMENT MODEL



File Name:
I:\24\24-0486_Glendale Daycare\3.Supporting Design Documents\Storm Water\WinSlamm\Glendale Daycare -POST-DEVELOPED Infiltration.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	61345		0.34	113.0	432.7	
Outfall Total with Controls	29956	51.17 %	0.17	126.2	235.9	45.48 %
Current File Output: Annualized Total After Outfall Controls	30372		Years in Model Run: 0.99		239.2	

Pollutant	Concen- tration - No Controls	Concen- tration - With Controls	Concen- tration Units	Pollutant Yield - No Controls	Pollutant Yield - With Controls	Pollutant Yield Units	Percent Yield Reduction
Particulate Solids	113.0	126.2	mg/L	432.7	235.9	lbs	45.48 %
Filterable Solids	89.36	91.30	mg/L	342.2	170.7	lbs	50.12 %
Total Solids	202.3	217.5	mg/L	774.9	406.7	lbs	47.52 %

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)
1.511

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

Receiving Water Impacts Due To Stormwater Runoff (CWP Impervious Cover Model)

Perform Outfall
Flow Duration
Curve Calculations

	Calculated Rv	Approximate Urban Stream Classification
Without Controls	0.34	Poor
With Controls	0.17	Fair

WINSLAM INPUT FILE:

Data file name: I:\24\24-0486_Glendale Daycare\3.Supporting Design Documents\Storm Water\WinSlamm\Glendale Daycare -POST-DEVELOPED Infiltration.mdb

WinSLAMM Version 10.5.0

Rain file name: C:\WinSLAMM Files\Rain Files\WI Milwaukee 69.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_Res and Other Urban Dec06.std

Commercial Street Delivery file name: C:\WinSLAMM Files\WI_Res and Other Urban Dec06.std

Industrial Street Delivery file name: C:\WinSLAMM Files\WI_Res and Other Urban 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\WI_Res and Other Urban 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.ppx

Source Area PSD and Peak to Average Flow Ratio File: C:\WinSLAMM Files\NURP Source Area PSD Files.csv

Cost Data file name:

Seed for random number generator: -42

Study period starting date: 01/05/69 Study period ending date: 12/31/69

Start of Winter Season: 12/07 End of Winter Season: 03/27

Date: 05-07-2025 Time: 11:07:17

Site information:

LU# 1 - Commercial: BASIN P1 Total area (ac): 1.371

1 - Roofs 1: 0.426 ac. Flat Disconnected Moderately Compacted Silty Source Area PSD File: C:\WinSLAMM Files\NURP.cpz

13 - Paved Parking 1: 0.708 ac. Disconnected Normal Silty Source Area PSD File: C:\WinSLAMM Files\NURP.cpz

51 - Small Landscaped Areas 1: 0.237 ac. Moderately Compacted Silty Source Area PSD File: C:\WinSLAMM Files\NURP.cpz

LU# 2 - Commercial: BASIN P2 Total area (ac): 0.140

13 - Paved Parking 1: 0.074 ac. Disconnected Normal Silty Source Area PSD File: C:\WinSLAMM Files\NURP.cpz

51 - Small Landscaped Areas 1: 0.066 ac. Moderately Compacted Silty Source Area PSD File: C:\WinSLAMM Files\NURP.cpz

Control Practice 1: Biofilter CP# 1 (DS) - DS Biofilters # 5

1. Top area (square feet) = 2247
2. Bottom area (square feet) = 655
3. Depth (ft): 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): 0.001
8. Infiltration rate fraction (bottom): 1
9. Depth of biofilter that is rock filled (ft) 0
10. Porosity of rock filled volume = 0
11. Engineered soil infiltration rate: 3.6
12. Engineered soil depth (ft) = 3
13. Engineered soil porosity = 0.27
14. Percent solids reduction due to flow through engineered soil = 0
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
Sand	0.800
Compost	0.200

Biofilter Outlet/Discharge Characteristics:

Outlet type: Broad Crested Weir

1. Weir crest length (ft): 37

2. Weir crest width (ft): 5
3. Height of datum to bottom of weir opening: 4

Outlet type: Surface Discharge Pipe

1. Surface discharge pipe outlet diameter (ft): 0.08
2. Pipe invert elevation above datum (ft): 3
3. Number of surface pipe outlets: 1

Outlet type: Evaporation\Evapotranspiration

Month Number	Month	Evapotranspiration (in/day)	Evaporation (in/day)
1	January	.	.
2	February	.	.
3	March	.	.
4	April	.	.
5	May	.	.
6	June	.	.
7	July	.	.
8	August	.	.
9	September	.	.
10	October	.	.
11	November	.	.
12	December	.	.238.7

WINSLAM INPUT FILE:

SLAMM for Windows Version 10.5.0

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Data file name: I:\24\24-0486_Glendale Daycare\3.Supporting Design Documents\Storm Water\WinSlamm\Glendale Daycare -POST-DEVELOPED Infiltration.mdb

Data file description:

Rain file name: C:\WinSLAMM Files\Rain Files\WI Milwaukee 69.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

Pollutant Relative Concentration file name: C:\WinSLAMM Files\WI_GEO03.ppx

Residential Street Delivery file name: C:\WinSLAMM Files\WI_Res and Other Urban Dec06.std

Institutional Street Delivery file name: C:\WinSLAMM Files\WI_Res and Other Urban Dec06.std

Commercial Street Delivery file name: C:\WinSLAMM Files\WI_Res and Other Urban Dec06.std

Industrial Street Delivery file name: C:\WinSLAMM Files\WI_Res and Other Urban 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\WI_Res and Other Urban Dec06.std

Apply Street Delivery Files to Adjust the After Event Load Street Dirt Mass Balance: False

Source Area PSD and Peak to Average Flow Ratio File: C:\WinSLAMM Files\NURP Source Area PSD Files.csv

Cost Data file name:

Seed for random number generator: -42

Start of Winter Season: 12/07 End of Winter Season: 03/27

Model Run Start Date: 01/05/69 Model Run End Date: 12/31/69

Date of run: 05-07-2025 Time of run: 11:09:08

Total Area Modeled (acres): 1.511

Years in Model Run: 0.99

Runoff	Percent	Particulate	Particulate	Percent
Volume	Runoff	Solids	Solids	Particulate
(cu ft)	Volume	Conc.	Yield	Solids
	Reduction	(mg/L)	(lbs)	Reduction

Total of all Land Uses without Controls:	61345	-	113.0	432.7	-
Outfall Total with Controls:	29956	51.17%	126.2	235.9	45.48%
Annualized Total After Outfall Controls:	30372			239.2	

Pollutant Percent	Concentration - No Controls	Concentration - With Controls	Conc. Units	Pollutant Yield No Controls	Pollutant Yield With Controls	Pol. Yield Units
Reduction						
Particulate Solids	113.0	126.2	mg/L	432.7	235.9	lbs 45.48 %
Filterable Solids	89.36	91.30	mg/L	342.2	170.7	lbs 50.12 %
Total Solids	202.3	217.5	mg/L	774.9	406.7	lbs 47.52 %
Particulate Phosphorus	0.5019	0.5508	mg/L	1.922	1.030	lbs 46.41 %
Filterable Phosphorus	0.2495	0.7271	mg/L	0.9556	1.360	lbs -42.32 %
Total Phosphorus	0.7515	1.278	mg/L	2.878	2.390	lbs 16.96 %

Biofilter # 1 is expected to clog in 8.16 years.. Percent Solids Reduction due to Engineered Media Not Used

Appendix H

Endangered Species and Wetland Review



Endangered Resources Preliminary Assessment

Created on 4/28/2025. This report is good for one year after the created date.

DNR staff will be reviewing the ER Preliminary Assessments to verify the results provided by the Public Portal. ER Preliminary Assessments are only valid if the project habitat and waterway-related questions are answered accurately based on current site conditions. If an assessment is deemed invalid, a full ER review may be required even if the assessment indicated otherwise.

Results

A search was conducted of the NHI Portal within a 1-mile buffer (for terrestrial and wetland species) and a 2-mile buffer (for aquatic species) of the project area. Based on these search results, below are your follow-up actions.

Further actions are required to ensure compliance with Wisconsin's Endangered Species Law (s. 29.604 Wis. Stats.) and the Federal Endangered Species Act (16 USC ss 1531-43).

At least one of the following situations apply (likely not all):

- The species recorded are state or federal threatened or endangered animals or the project is within a range or zone.
- The species recorded are state threatened or endangered plants on public land.
- The species recorded are federal threatened or endangered plants on federal land or involve federal funds or a federal permit.

Therefore you should request an Endangered Resources Review <https://dnr.wi.gov/topic/ERReview/Review.html>. An ER Review is the mechanism to ensure compliance with Wisconsin's Endangered Species Law (s. 29.604 Wis. Stats.) and the Federal Endangered Species Act (16 USC ss 1531-43). The ER Review will list the endangered resources that have been recorded within the vicinity of the project area and follow-up actions may be necessary.

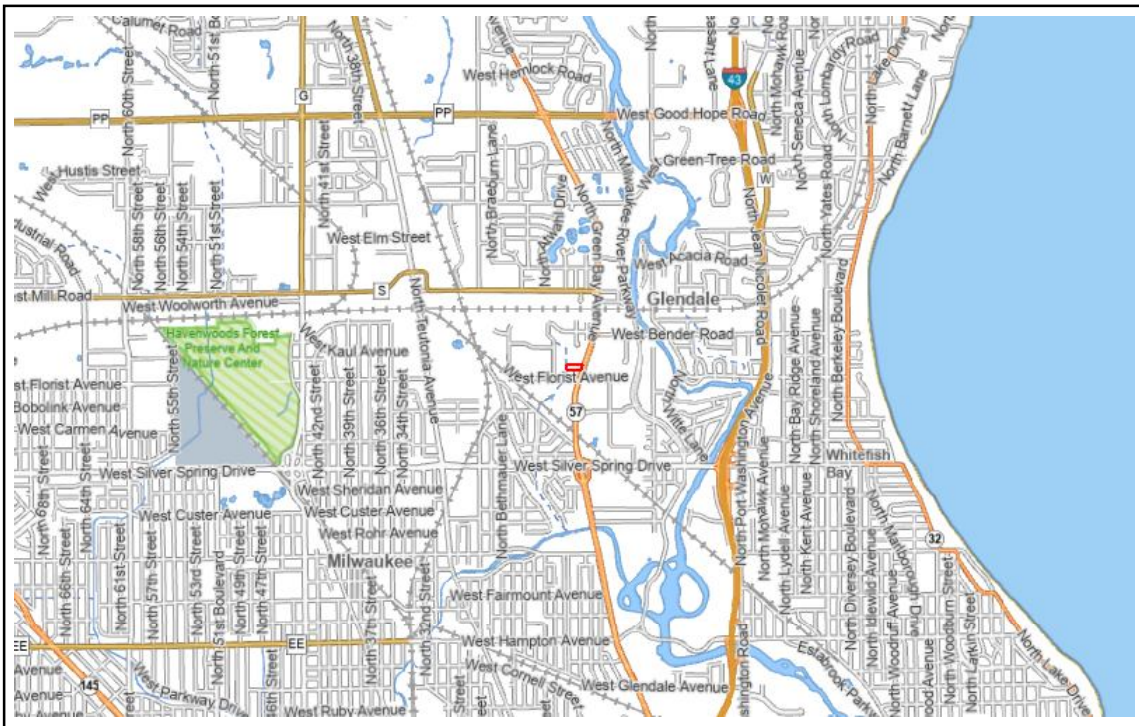
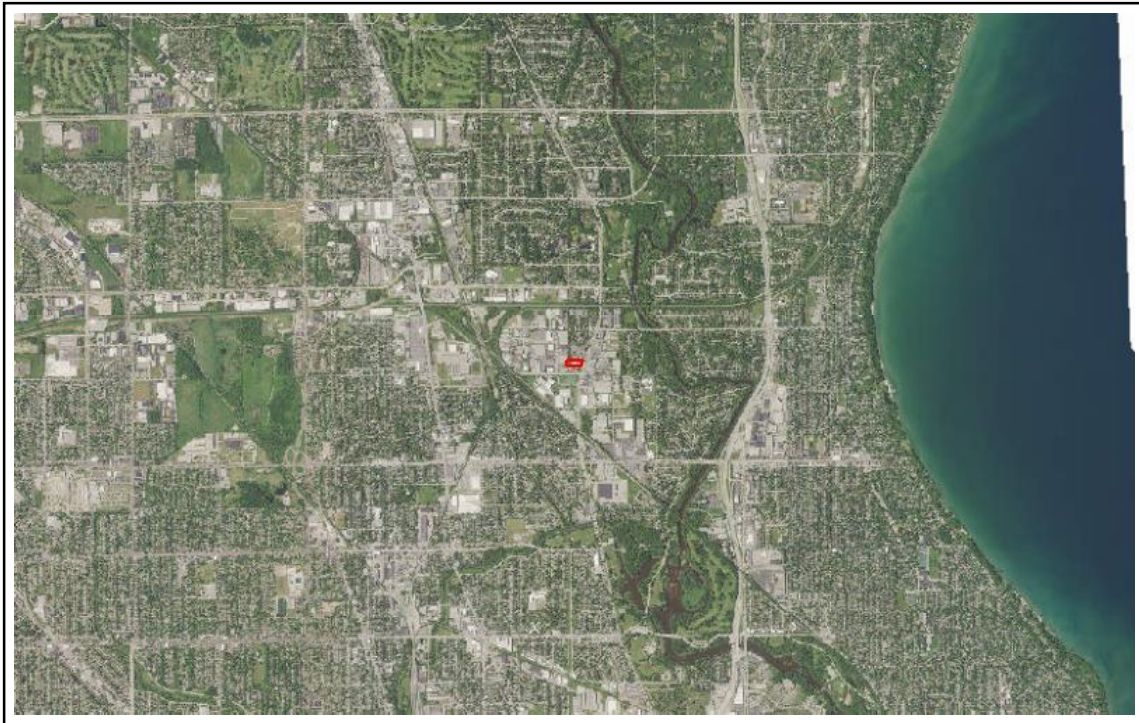
A copy of this document can be kept on file and submitted with any other necessary DNR permit applications to show that the need for an ER Review has been met. This notice only addresses endangered resources issues. This notice does not constitute DNR authorization of the proposed project and does not exempt the project from securing necessary permits and approvals from the DNR and/or other permitting authorities.

Project Information

Landowner name	Glendale Daycare
Project address	6045 N Green Bay Ave, Glendale, WI 53209
Project description	Daycare

Project Questions

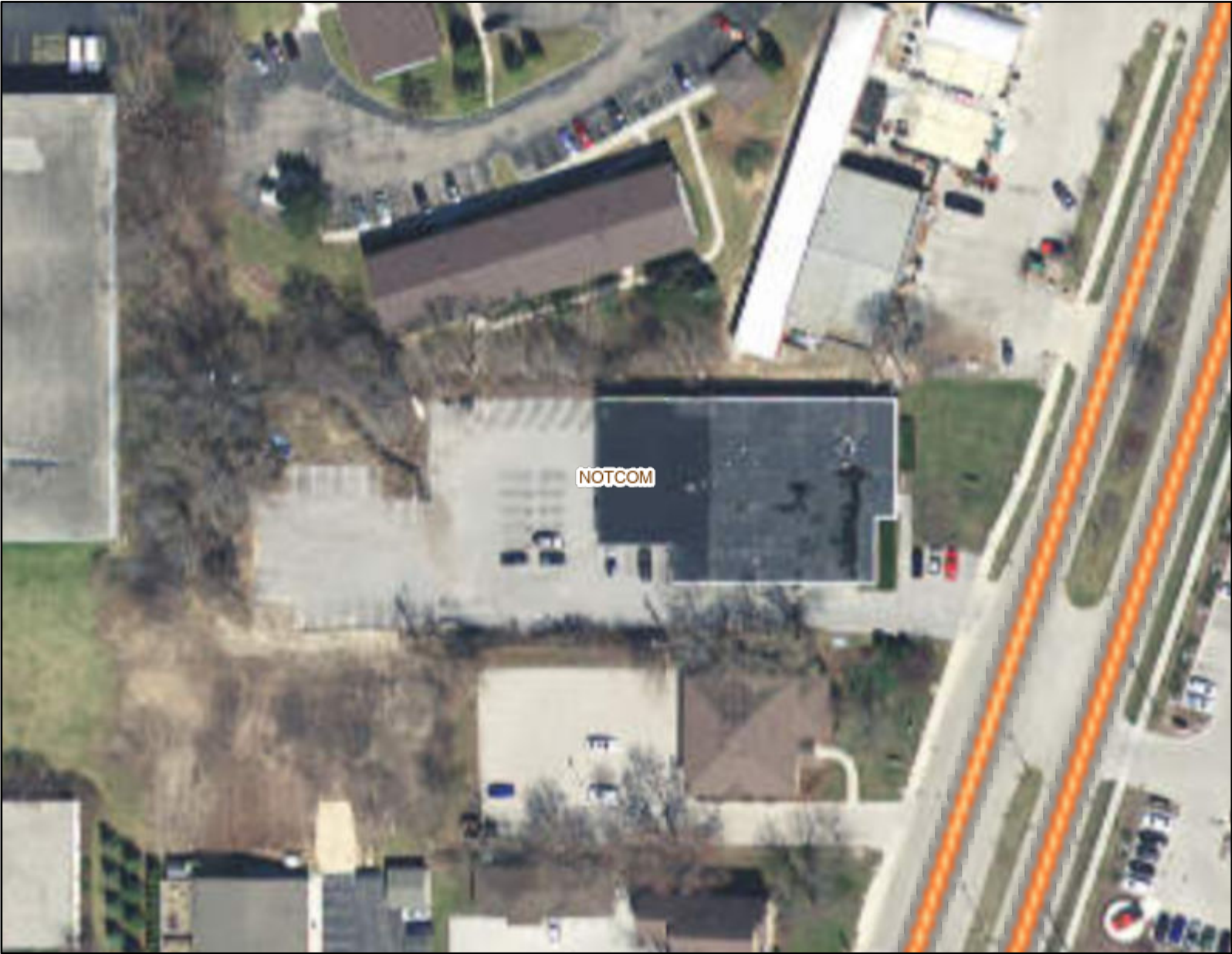
Does the project involve a public property?	No
Is there any federal involvement with the project?	No
Is the project a utility, agricultural, forestry or bulk sampling (associated with mining) project?	No
Is the project property in Managed Forest Law or Managed Forest Tax Law?	No
Project involves tree or shrub removal?	Yes
Is project near (within 300 ft) a waterbody or a shoreline?	No



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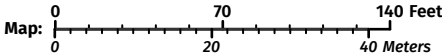
<https://dnrx.wisconsin.gov/nhiportal/public>

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- Legend:** (some map layers may not be displayed)
- NRCS Wisconsin Soils
- Soil Mapping Unit
- Cities, Towns & Villages
- City
 - City or Village
- County Boundaries
- Major Roads
- State Highway
- Latest Leaf Off Imagery

Notes:
Wetland



Service Layer Credits:
Latest Leaf Off: , Wetland Indicators & Soils: Surface Water Data Viewer Team, Monitoring Sites & Data: WI Dept. of Natural Resources, Water Division, Priority Navigable Waterways: Waterway Protection, WDNR, Permits & Determinations: WI DNR Bureau of Watershed Management, Cities, Roads & Boundaries:

Map projection: NAD 1983 HARN Wisconsin TM

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Date Printed: 4/28/2025 10:35 AM



**Duffek Construction
Glendale Daycare Development
Traffic Impact Analysis Study**

Prepared for:

**Duffek Construction
W229 N1870 Westwood Dr.
Waukesha, WI 53186
Contact Person: Andrew Roensch,
Preconstruction Manager
Phone: (262) 323-6883**

October 24, 2024

Duffek Construction – Glendale Daycare Development

Traffic Impact Analysis Study

Prepared By:

Ayres Associates
20975 Swenson Drive, Suite 200
Waukesha, WI 53186
262.523.4488 • Fax: 262.523.4477
www.AyresAssociates.com

"I certify that this Traffic Impact Analysis has been prepared by me or under my immediate supervision and that I have experience and training in the field of traffic and transportation engineering."

Alexander Cowan, PE, PTOE
WisDOT TIA Certification #SE12-804-215
Ayres Associates

TO BE SIGNED/SEALED AT
FINAL AFTER CITY REVIEW



20975 Swenson Drive, Suite 200
Waukesha, WI 53186
262.523.4488 • Fax: 262.523.4477
www.AyresAssociates.com

Ayres Project No. 49-0747.00

File: i:\24\24-0473_glendale day care\3.supporting design documents\traffic\reports\2024_1002_glendale tia.docx

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Appendix C: ITE Trip Generation Outputs

Chapter 1: Introduction & Executive Summary

Part A: Purpose of Report and Study Objectives

The City of Glendale requested a traffic impact analysis (TIA) study be conducted for the proposed Duffek Construction development located along the west side of N. Green Bay Avenue (STH 57), just north of W. Florist Avenue in the City of Glendale, WI. The proposed development is expected to operate as a daycare facility by remodeling the existing Tabak Law and Beglan Academy of Irish Dance building located at 6045 N. Green Bay Avenue, Glendale, WI. The following report summarizes the development study area, the existing and build traffic volumes, the development driveway access point, and the expected traffic operations at the study intersections.

Part B: Executive Summary

The executive summary includes a description of the proposed site, the surrounding study area and operations, and the study findings.

B1. Study Area

The primary influence area for the proposed development includes traffic to/from the north and south along N. Green Bay Avenue and at the following intersections:

- N. Green Bay Avenue and W. Florist Avenue: Traffic Signal Control
- N. Green Bay Avenue and Site Driveway: Minor Stop Control

B2. On-Site Development

Duffek Construction proposes to remodel the existing Tabak Law and Beglan Academy of Irish Dance building into a daycare facility. The building is located along the west side of N. Green Bay Avenue, approximately 250 feet north of W. Florist Avenue in the City of Glendale, WI. The site plan for the proposed development is shown in **Exhibit 1-1**.

B3. Trip Generation

Data published in the Institute of Transportation Engineers (ITE) *Trip Generation Manual* – 11th Edition was used to estimate the number of total weekday and weekday AM and PM peak hour trips expected to be generated by the proposed daycare development. No off-site developments impacting the study area were identified.

The approximate 16,000 sf daycare facility is expected to generate 175 new trips (95 in, 80 out) during the weekday AM peak hour and 180 trips (85 in, 95 out) during the weekday PM peak hour.

B4. Traffic Operations

Under the 2024 existing scenario, all weekday peak hour traffic operations at the study intersections under the existing geometry and intersection control parameters operate at LOS 'D' or better. Maximum queues at each of the study intersections are not expected to exceed 125 feet, with the exception of the southbound through movement at the N. Green Bay Avenue and W. Florist Avenue intersection, which indicates maximum queues of 250 feet during the AM peak hour and 175 feet during the PM peak hour.

Under the 2025 build scenario, all weekday peak hour traffic operations at the study intersections under the existing geometry and intersection control parameters are expected to operate at LOS 'D' or better during the peak hours, with the exception of the shared eastbound left-turn/through/right-turn at the

N. Green Bay Avenue and site driveway intersection, which operates at LOS 'F' and LOS 'E' during the AM and PM peak hours, respectively.

The LOS 'F' condition during the weekday AM peak hour correlates with an average delay per vehicle of approximately 55 seconds. The queue is expected to be 125 feet, or five vehicles. This means that the average vehicle will wait a total of 55 seconds from the back of the queue until the time at which it is able to complete its turning maneuver onto N. Green Bay Avenue.

Maximum queues at each of the study intersections under the 2025 build scenario are not expected to exceed 125 feet, with the exception of the southbound through movement at the N. Green Bay Avenue and W. Florist Avenue intersection, which indicates maximum queues of 250 feet during the AM peak hour and 200 feet during the PM peak hour.

B5. Site Circulation

For drop-off/pick-up operations, it is recommended that guardians form a single line within the parking lot and drop off or pick up children from the passenger side of the vehicle in the loading zone. The estimated storage length from the end of the loading zone to N. Green Bay Avenue is approximately 450 feet. Given that vehicles in queue typically utilize 25 feet of space, an estimated 18 vehicle queue can be accommodated from the end of the zone to N. Green Bay Avenue. It is recommended that traffic circulate in a counterclockwise manner around the parking stalls to avoid the crossing of traffic within the site. Exiting traffic will be able to make a right-turn or left-turn out of the site driveway onto N. Green Bay Avenue. Left turning vehicles will be able to pull into the median storage area as part of a two-stage crossing.

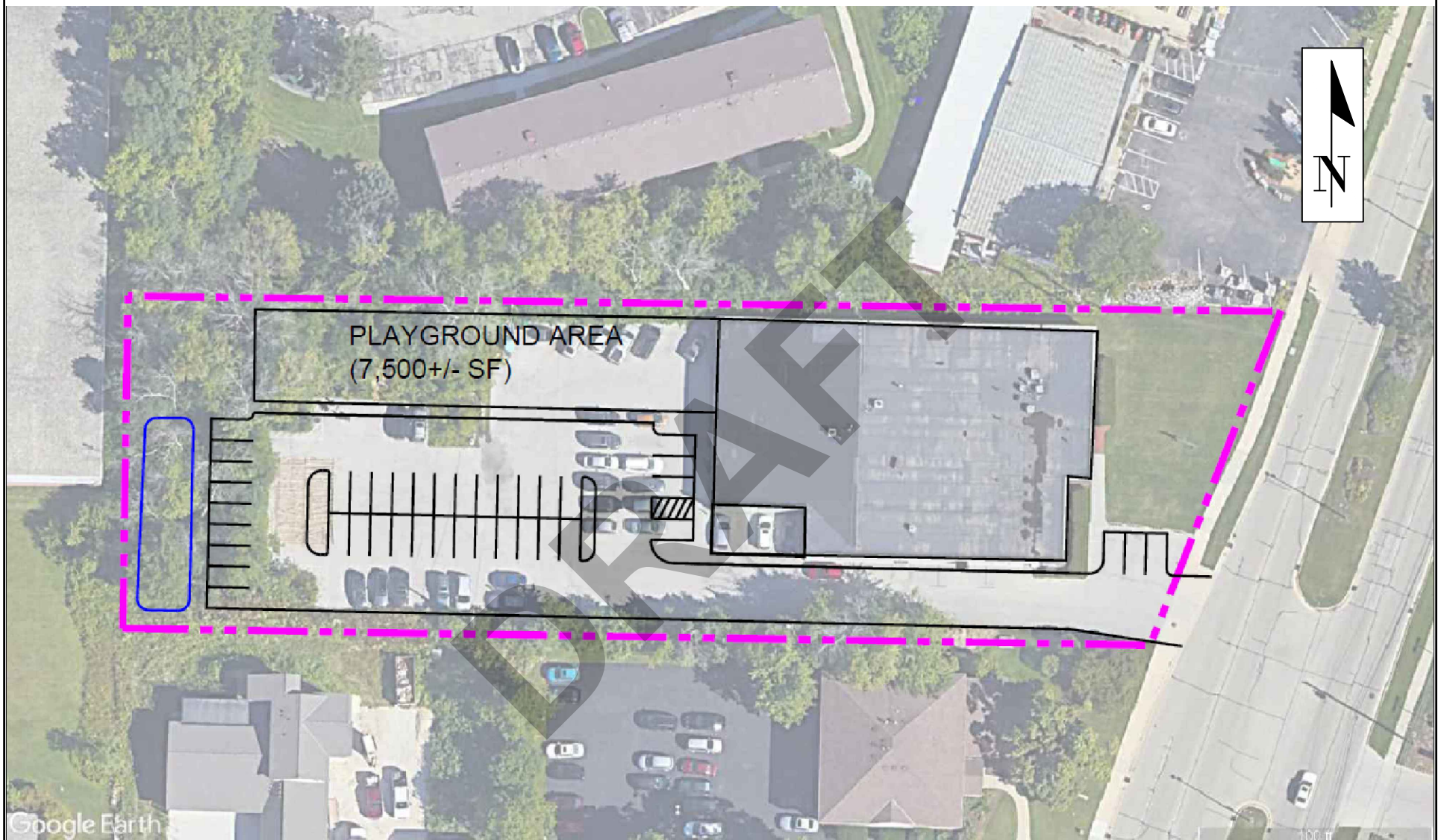
B6. Conclusion

Given the urban nature of the N. Green Bay Avenue corridor, intersection expansion or a change in intersection control type to address the LOS at the N. Green Bay Avenue and site driveway intersection is not recommended. Changes in intersection control are not feasible given the proximity of the W. Florist Avenue intersection. The development driveway may continue to operate as a single exiting and single entering lane.

Although poor LOS operations for the site driveway are anticipated, it is expected to be limited to only the peak hours, specifically within a 15-minute peak period. Additionally, some level of queueing and delay is typically expected by motorists during these type of drop-off/pick-up operations at schools and daycares. As traffic operations for all other movements at the study intersections are acceptable, no proposed improvements are recommended. No signal timing adjustments are needed at the N. Green Bay Avenue intersection with W. Florist Avenue.

The operation of the driveway should be monitored for safety to determine if crashes increase and if so, consideration could be given to restricting access to a combination of right-in, right-out and/or left-in operation.

Site circulation during drop-off and pick-up periods are recommended to operate in a counterclockwise manner in a single file line. Use of the three parking stalls on the east side of the property, adjacent to N. Green Bay Avenue, should be restricted to avoid use during peak drop-off and pick-up times.



Chapter 2: Proposed Development

Part A: On-Site Development

A1. Development Description and Site Location

Duffek Construction proposes to remodel the existing Tabak Law and Beglan Academy of Irish Dance building into a daycare facility. The building is located along the west side of N. Green Bay Avenue, approximately 250 feet north of W. Florist Avenue in the City of Glendale, WI. A site location map can be seen in **Exhibit 2-1**.

A2. Land Use and Intensity

Nearby developments include service developments located to the south and east (dentist office, car dealerships), residential developments to the north (apartments), and industrial/manufacturer developments to the west and southwest (Brady Corporation and Johnson Controls).

The proposed development is expected to consist of approximately 16,000 square feet (sf) of daycare space and a 7,500 sf outside playground area in the northwest corner of the parcel. The daycare facility will consist of multiple rooms for supervising children of various age groups. The City of Glendale's existing and proposed land use within the study area are included in **Exhibit 2-2** and **Exhibit 2-3**.

A3. Proposed Site Plan

A site plan of the proposed development can be seen in **Exhibit 1-1**. Access to the proposed site is anticipated to use the existing building's driveway off of N. Green Bay Avenue to the east of the building/parking lot.

A4. Development Phasing and Timing

The proposed development is expected to be constructed under a single phase with completion in 2025. For the purposes of this study, the TIA analyzes the existing and build scenarios under a 2024 existing year and 2025 build year when school is in session. As an abbreviated TIA, no analysis of a future horizon year is included.

Part B: Study Area

B1. Influence Area

The primary influence area for the proposed development includes traffic to/from the north and south along N. Green Bay Avenue.

B2. Area of Significant Impact

The following existing locations are included as study intersections within the report and are shown in the **Exhibit 2-1** site location map.

- N. Green Bay Avenue and W. Florist Avenue: Traffic Signal Control
- N. Green Bay Avenue and Site Driveway: Minor Stop Control

Part C: Off-Site Land Use and Development

No off-site developments impacting traffic within the study area were identified, therefore, no off-site trip generation was conducted for this study.

Part D: Site Accessibility

D1. Study Area Roadways

Within the study area, N. Green Bay Avenue is a four-lane divided roadway with a posted speed limit of 35 mph. W. Florist Avenue is a two-lane undivided roadway with a posted speed limit of 25 mph. The N. Green Bay Avenue and W. Florist Avenue intersection operates under traffic signal control and is located approximately 250 feet south of the proposed development. The existing lane configuration at this intersection is as follows:

- Northbound
 - o Exclusive left-turn lane
 - o Exclusive through lane
 - o Shared through/right-turn lane
- Southbound
 - o Exclusive left-turn lane
 - o Exclusive through lane (2)
 - o Exclusive right-turn lane
- Eastbound
 - o Shared left-turn/through lane
 - o Exclusive right-turn lane
- Westbound
 - o Shared left-turn/through lane
 - o Exclusive right-turn lane

Although it is not formally marked, the westbound approach provides adequate width to allow for two lanes of operation as described above. This operation was observed in the video footage captured during the data collection efforts.

A 24-foot-wide median at the N. Green Bay Avenue and site driveway intersection allows left-turning vehicles to/from the site driveway and Kia dealership driveway to enter the intersection without disrupting free flow traffic along N. Green Bay Avenue.

D2. Study Area Pedestrian and Bicycle Accommodations

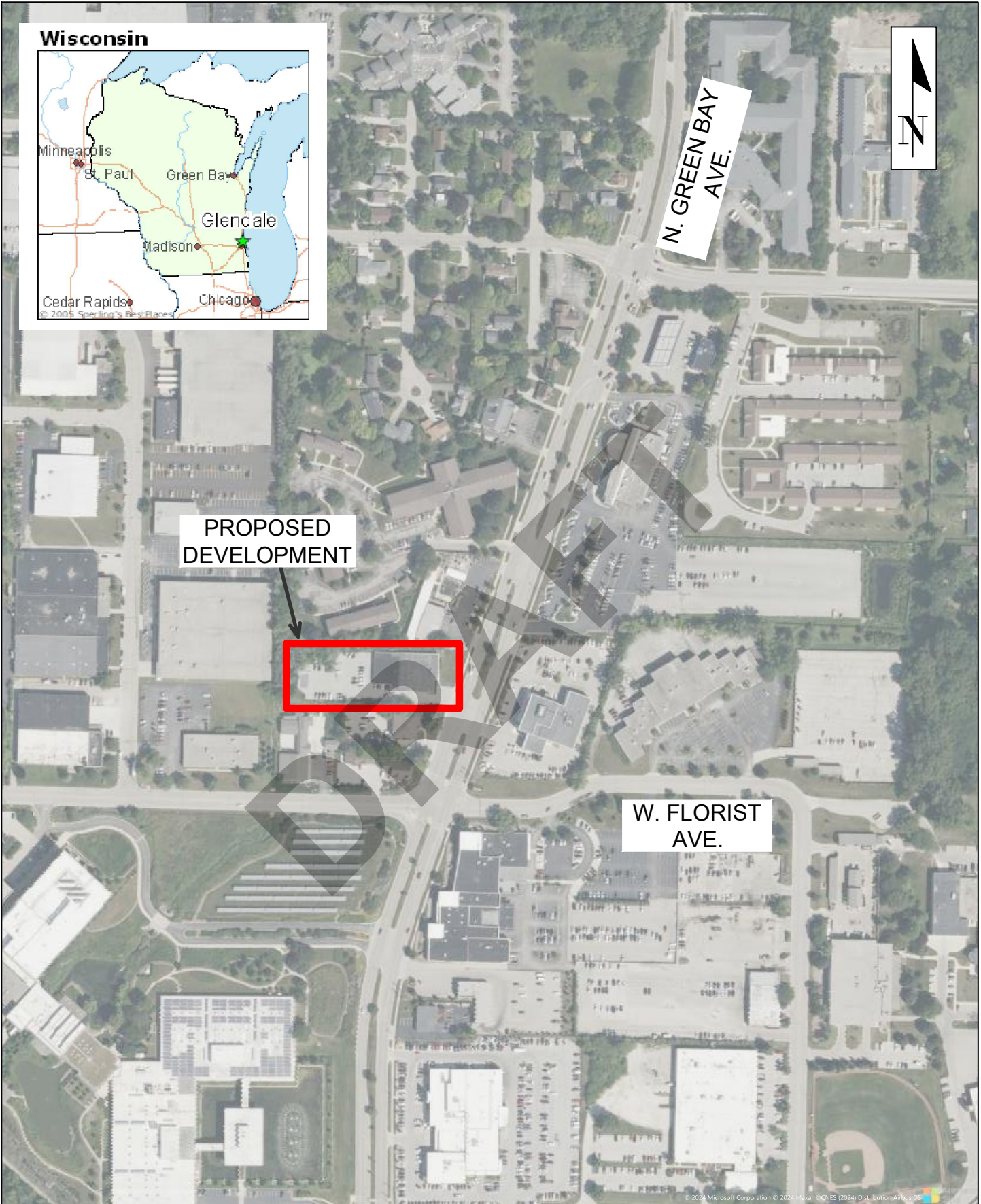
Within the study area, sidewalk is provided for pedestrian use along both sides of the N. Green Bay Avenue corridor. It should be noted that no sidewalk is present along W. Florist Avenue or along the west side of N. Green Bay Avenue south of W. Florist Avenue. No dedicated bicycle accommodations exist within the study area.

D3. Transit Accommodations

Milwaukee County Transit System routes along N. Green Bay Avenue and within the study area include the following:

- Route 80 (HF) - 6th Street (Frequency: approximately every 15-30 minutes)

The route features bus stops in the northwest and southeast quadrants of the N. Green Bay Avenue and W. Florist Avenue intersection. The bus stop locations are placed near the intersection approaches which may intermittently disrupt traffic in the curbside lane.



Wisconsin



**PROPOSED
DEVELOPMENT**

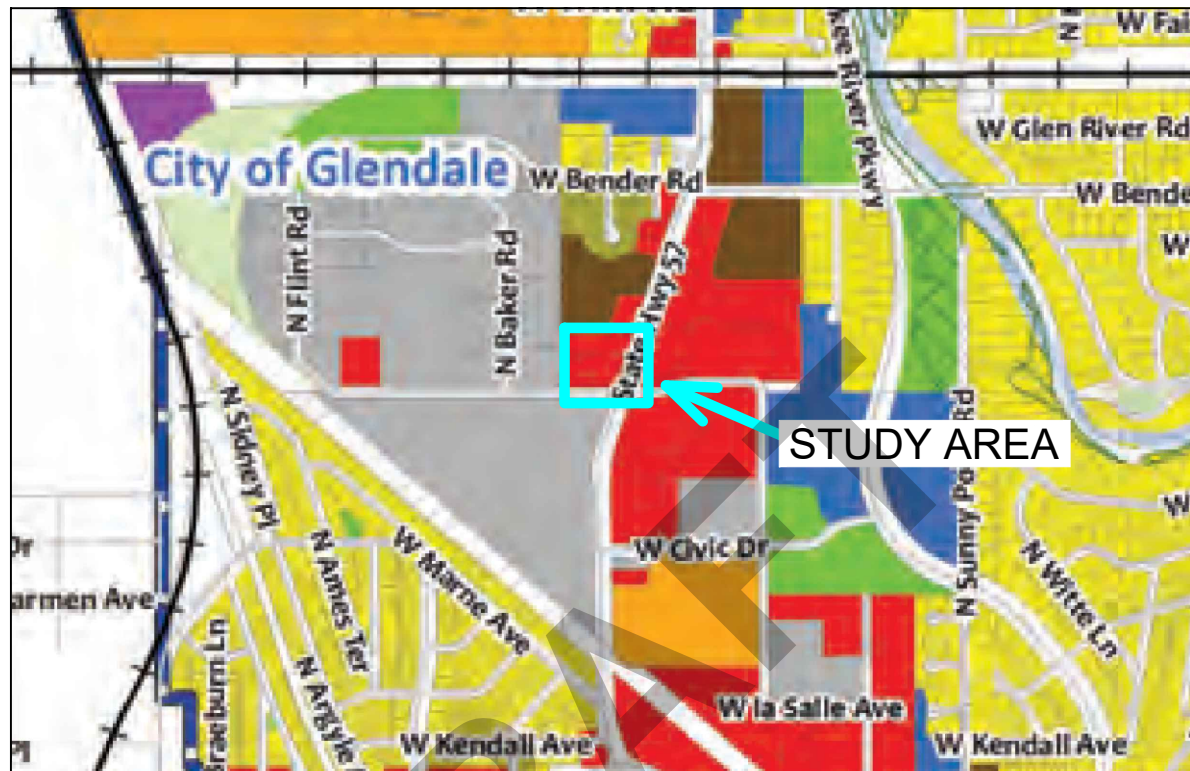
**N. GREEN BAY
AVE.**

**W. FLORIST
AVE.**



DUFFEK DAYCARE
TRAFFIC IMPACT ANALYSIS
GLENDALE, WISCONSIN

EXHIBIT 2-1
SITE LOCATION MAP



Future Land Use **City of Glendale Comprehensive Plan**

0 0.25 0.5 1 Miles

Adopted Aug. 3, 2020
Sources: Milwaukee Co., SEWRPC
US Census Bureau, Clark Dietz Inc.,
City of Glendale, WisDOT



- City of Glendale
- Other Municipalities
- SEWRPC Environmental Corridor
- Future Land Use**
- Agricultural and Open Lands
- Single-Family Residential
- Two-Family Residential
- Multi-Family Residential

- Planned Commercial
- Neighborhood Commercial
- Planned Mixed Use
- Industrial
- Transportation, Communication, and Utilities
- Governmental and Institutional
- Recreational
- Surface Water



AYRES

DUFFEK DAYCARE
TRAFFIC IMPACT ANALYSIS
GLENDALE, WISCONSIN

EXHIBIT 2-3
FUTURE LAND USE MAP

Chapter 3: Analysis of Existing/Background Conditions

Part A: Physical Characteristics

Exhibit 3-1 displays the existing transportation system of the study area which includes the following:

- Intersection traffic control type
- Posted speed limit
- Distance between intersections
- Intersection lane configuration
- Storage lengths
- Location of divided medians

Part B: Traffic Volumes

B1. Existing Traffic Volumes

Intersection turning movement counts were collected at the N. Green Bay Avenue intersections at W. Florist Avenue and the site driveway from 3:00 PM – 6:00 PM on Wednesday, September 4, 2024, and from 6:00 AM – 9:00 AM on Thursday, September 5, 2024, when school was in session.

Based on the existing traffic volumes, the weekday AM peak hour occurs from 7:30 AM to 8:30 AM and the weekday PM peak hour occurs from 4:30 PM to 5:30 PM for the study area. The existing, balanced peak hour intersection turning movement volumes are shown in **Exhibit 3-2**. Detailed count data for each intersection is included in **Appendix A**.

Part C: Capacity/Level of Service

C1. Level of Service Definitions

For the purpose of this study, LOS 'D' as defined in the Highway Capacity Manual (HCM) 7th Edition, is used as the threshold for acceptable peak hour intersection operating conditions. In cases where the existing LOS is worse than LOS 'D', the existing LOS is considered the threshold for acceptable peak hour intersection operating conditions. Intersection operation is typically quantified based on its LOS during peak traffic volume periods. The LOS is determined based on the average amount of delay experienced by each vehicle entering an intersection during the study period and is categorized by grades of 'A' through 'F'. **Table 1** provides a brief summary of the different intersection LOS.

The 95th percentile queue is also included in the operations summary as an additional performance measure. The 95th percentile queue (sometimes referred to as the "maximum probable queue") represents the distance from the stop bar at which 95% of all queues for a given movement within the analysis time period are expected to be contained. In other words, there is only a 5% probability that the 95th percentile queue length will be exceeded during the analysis period.

Intersection operations for traffic signal control and stop control at the study intersections were analyzed using Synchro 12 software. The results presented within this report are based on HCM 7 equations and methodologies.

Table 1: Intersection Level of Service Description

Alpha LOS	Signalized (sec/veh)	Unsignalized Delay (sec/veh)	Description
A	≤ 10	≤ 10	No Congestion: Very few vehicles experience delay.
B	> 10 - 20	> 10 - 15	Minimal Congestion: Some vehicles experience delay but many travel through intersection without stopping.
C	> 20 - 35	> 15 - 25	Minor Congestion: Many vehicles experience delay but some travel through intersection without stopping.
D	> 35 - 55	> 25 - 35	Moderate Congestion: Most vehicles experience delay.
E	> 55 - 80	> 35 - 50	Severe Congestion: Most vehicles experience significant delay. Volumes nearing capacity.
F	> 80 Or V/C >1.0	> 50 Or V/C >1.0	Extreme Congestion: Nearly all vehicles experience significant delay. Volume may be higher than capacity. Potential gridlock.

The HCM operations analysis output summaries provided by Synchro are included in **Appendix B**.

C2. Existing Analysis

2024 existing scenario weekday AM and PM peak hour traffic operations at the study intersections are summarized in **Table 2**. Under the existing scenario, the eastbound approach at the N. Green Bay Avenue and site driveway intersection represents the traffic operations of the existing trips to and from the Tabak Law firm and the Beglan Academy of Irish Dance school.

Table 2: 2024 Existing - Peak Hour Traffic Operations

Duffek Daycare - 2024 Existing Traffic Operations																
Intersection	Peak Scenario	Control	MOE	Movement											OVERALL	
				EBL	EBT	*EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT		SBR
N. Green Bay Ave. & W. Florist Ave.	AM Peak	Signal	LOS	D	-		D	D	A	A		A	A	A	A	
			Delay (sec)	41.1	-		39.9	40.3	4.0	2.3		4.0	5.4	3.8	5.2	
			V/C	0.23	-		0.11	0.19	0.52	0.25		0.09	0.40	0.07	--	
			Queue (ft)	50'	-		50'	50'	50'	75'		50'	250'	50'	--	
	PM Peak	Signal	LOS	D	-		D	D	A	A		A	A	A	A	
			Delay (sec)	40.8	-		37.0	37.7	3.2	3.2		4.2	5.5	3.9	7.4	
			V/C	0.47	-		0.11	0.26	0.08	0.27		0.06	0.34	0.01	--	
			Queue (ft)	100'	-		50'	50'	25'	125'		25'	175'	25'	--	
				Movement											OVERALL	
				EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR	
N. Green Bay Ave. & Site Drwy.	AM Peak	Minor Stop	LOS	D			C			B	A	A	A	A	A	
			Delay (sec)	25.3			17.9			11.2	0.0	0.0	8.8	0.0	0.0	0.2
			V/C	0.01			0.01			0.01	0.00	0.00	0.01	0.00	0.00	--
			Queue (ft)	25'			25'			25'	0'	0'	25'	0'	0'	--
	PM Peak	Minor Stop	LOS	C			B			A	A	A	A	A	A	
			Delay (sec)	17.3			11.9			9.8	0.0	0.0	9.0	0.0	0.0	0.4
			V/C	0.05			0.03			0.01	0.00	0.00	0.01	0.00	0.00	--
			Queue (ft)	25'			25'			25'	0'	0'	25'	0'	0'	--

*Unsignalized delay, movement omitted for LOS Table

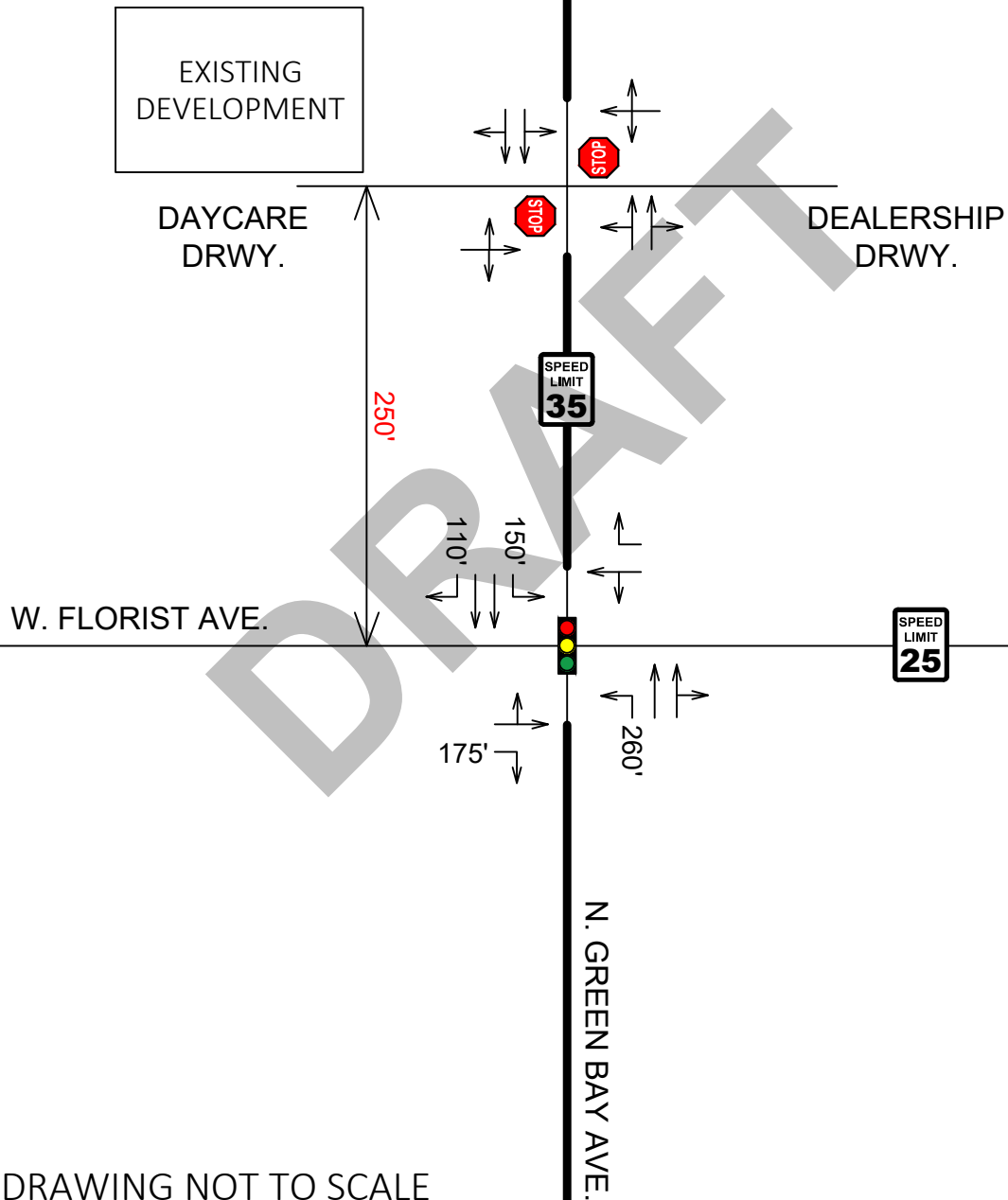
As shown in the table, all peak hour traffic operations at the study intersections under the existing geometry and intersection control parameters are expected to operate at LOS 'D' or better during the peak hours.

Maximum queues at each of the study intersections are not expected to exceed 125 feet, with the exception of the southbound through movement at the N. Green Bay Avenue and W. Florist Avenue intersection, which indicates maximum queues of 250 feet during the AM peak hour and 175 feet during the PM peak hour.

DRAFT

LEGEND

-  TRAFFIC SIGNAL CONTROL
-  STOP CONTROL
-  EXISTING LANE CONFIGURATION
-  EXISTING STORAGE LENGTH (FEET)
-  DISTANCE BETWEEN ROADWAYS (FEET)
-  DIVIDED ROADWAY MEDIAN



NOTE: DRAWING NOT TO SCALE



DUFFEK DAYCARE
TRAFFIC IMPACT ANALYSIS
GLENDALE, WISCONSIN

EXHIBIT 3-1
EXISTING TRANSPORTATION SYSTEM

NOTE: DRAWING NOT TO SCALE



EXISTING
DEVELOPMENT

(845) 1030
(5) 5
(5) 5

0 (10)
0 (0)
0 (5)

DAYCARE
DRWY.

(10) 0
(0) 0
(5) 0

DEALERSHIP
DRWY.

5 (5)
670 (840)
5 (5)

W. FLORIST AVE.

(810) 880
(15) 105
(30) 45

25 (65)
10 (5)
5 (20)

(85) 25
(5) 5
(170) 50

10 (15)
630 (700)
225 (40)

N. GREEN BAY AVE.

LEGEND

AM	7:30AM - 8:30AM
PM	(4:30PM - 5:30PM)



DUFFEK DAYCARE
TRAFFIC IMPACT ANALYSIS
GLENDALE, WISCONSIN

EXHIBIT 3-2
2024 AM/PM PEAK HOUR VOLUMES

Chapter 4: Projected Traffic

Part A: Background Traffic Forecasting

For the purposes of this study, the abbreviated TIA analyzes the 2024 existing year and 2025 build year scenarios. Due to the proximity of the analysis years, it was assumed that any background growth between 2024 and 2025 would be negligible, therefore, no background traffic forecasting is included in this study.

However, since the existing building is being remodeled into the proposed daycare development, existing trips using the site driveway must be removed from the roadway network. Existing trips to be removed from the roadway network were identified through the collected intersection turning movement counts mentioned in Chapter 3, Part B of this report and the number of vehicles entering/exiting the site driveway. The existing trip removal is shown in **Exhibit 4-1**.

Combining the existing intersection volumes in **Exhibit 3-2** with the existing trip removal in **Exhibit 4-1** provides the 2025 background traffic volumes shown in **Exhibit 4-2**. The 2025 background traffic volumes represent the existing roadway volumes without the Tabak Law firm and Beglan Academy of Irish Dance traffic and before the proposed daycare development is added. For the purposes of this study, the 2025 background scenario was not analyzed, but provided as an interim step in determining the 2025 build traffic volumes discussed later in this report.

Part B: On-Site and Off-Site Development Traffic Forecasting

B1. Trip Generation

Data published in the Institute of Transportation Engineers (ITE) *Trip Generation Manual* – 11th Edition was used to estimate the number of total weekday and weekday AM and PM peak hour trips expected to be generated by the proposed daycare development. No off-site developments impacting the study area were identified.

The new trips expected to be generated by the proposed development are shown in **Table 3**. The approximate 16,000 sf daycare facility is expected to generate 175 new trips (95 in, 80 out) during the weekday AM peak hour and 180 trips (85 in, 95 out) during the weekday PM peak hour. The ITE trip generation output sheets are included as **Appendix C**.

Table 3: Trip Generation

Duffek Day Care Trip Generation													
Land Use	ITE Classification	ITE Code	Size	Unit	Weekday Trips			AM Peak Hour Trips			PM Peak Hour Trips		
					In	Out	Total	In	Out	Total	In	Out	Total
Institutional	Day Care Center	565	16	1000 sq ft	50%	50%	47.62	53%	47%	11.0	47%	53%	11.12
Total New Vehicle Trips					380	380	760	95	80	175	85	95	180

B2. Mode Split

The trip generation summary provided above is based on vehicular trips to/from the site. Considering the proposed development's land use type, it was assumed that 100% of the trips generated by the development will be vehicular trips.

B3. Pass-By and Linked-Trip Traffic Estimation

Pass-by trips are trips where vehicles already on the roadway adjacent to the development site make an intermediate stop within the development site before continuing onto their intended destination. Given the proposed development use as a daycare, no pass-by trips were considered for the development.

Linked trips are trips that originate from a single point of origin but have multiple destination points within a proposed development or study area. With only one destination point within the proposed development, the potential for linked trips is not present with this study.

B4. Trip Distribution

The trip distribution used to assign new development trips to the study area was estimated based on roadway AADT volumes and existing traffic patterns throughout the study area. It was determined that new development traffic would be distributed to the roadway network in the following manner:

- 50% to/from the north on N. Green Bay Avenue
- 50% to/from the south on N. Green Bay Avenue

For traffic traveling to/from the south, a small percentage (5%) was assumed to travel east and west along W. Florist Avenue, with the remaining 40% of traffic continuing to the south on N. Green Bay Avenue. The trip distribution is shown in **Exhibit 4-3**.

B5. Trip Assignment

New development trips were assigned to the study area roadway network based on the trip distribution identified in **Exhibit 4-3**. The new development trips are shown in **Exhibit 4-4**.

Part C: Build Traffic

The 2025 build traffic volumes, as shown in **Exhibit 4-5**, are the summation of the 2025 background traffic volumes in **Exhibit 4-2** and the new development trips in **Exhibit 4-4**.

NOTE: DRAWING NOT TO SCALE



EXISTING
DEVELOPMENT

(-5) -5
↙ ↘

DAYCARE
DRWY.

(-10) 0
(-5) 0
↙ ↘

↙ -5 (-5)
↘

DEALERSHIP
DRWY.

(-5) 0
↘

W. FLORIST AVE.

↖ -5 (-5)
↗

N. GREEN BAY AVE.

LEGEND

AM	7:30AM - 8:30AM
PM	(4:30PM - 5:30PM)

AYRES

DUFFEK DAYCARE
TRAFFIC IMPACT ANALYSIS
GLENDALE, WISCONSIN

EXHIBIT 4-1
EXISTING TRIP REMOVAL

NOTE: DRAWING NOT TO SCALE

NOTE: BACKGROUND SCENARIO
ASSUMES TRIPS TO THE EXISTING
DEVELOPMENT ARE REMOVED



EXISTING
DEVELOPMENT

(845) 1030
(5) 5
(0) 0

0 (10)
0 (0)
0 (5)

DAYCARE
DRWY.

(0) 0
(0) 0
(0) 0

DEALERSHIP
DRWY.

5 (5)
670 (840)
0 (0)

W. FLORIST AVE.

(805) 880
(30) 45
(15) 105

25 (65)
10 (5)
5 (20)

(85) 25
(5) 5
(170) 50

10 (15)
625 (695)
225 (40)

N. GREEN BAY AVE.

LEGEND

AM	7:30AM - 8:30AM
PM	(4:30PM - 5:30PM)



DUFFEK DAYCARE
TRAFFIC IMPACT ANALYSIS
GLENDALE, WISCONSIN

EXHIBIT 4-2
2025 AM/PM PEAK HOUR
BACKGROUND VOLUMES

NOTE: DRAWING NOT TO SCALE



REPURPOSED
DAYCARE
DEVELOPMENT

50%
↙ ↘

DAYCARE
DRWY.

50%
↙ ↘

DEALERSHIP
DRWY.

W. FLORIST AVE.

5%
↙ ↘

5%
↙ ↘

40%
↕

N. GREEN BAY AVE.



DUFFEK DAYCARE
TRAFFIC IMPACT ANALYSIS
GLENDALE, WISCONSIN

EXHIBIT 4-3
TRIP DISTRIBUTION

NOTE: DRAWING NOT TO SCALE



REPURPOSED
DAYCARE
DEVELOPMENT

DAYCARE
DRWY.

DEALERSHIP
DRWY.

W. FLORIST AVE.

N. GREEN BAY AVE.

LEGEND

AM	7:30AM - 8:30AM
PM	(4:30PM - 5:30PM)



DUFFEK DAYCARE
TRAFFIC IMPACT ANALYSIS
GLENDALE, WISCONSIN

EXHIBIT 4-4
NEW DEVELOPMENT TRIPS

NOTE: DRAWING NOT TO SCALE



REPURPOSED
DAYCARE
DEVELOPMENT

(845) 1030
(45) 50
(5) 5

0 (10)
0 (0)
0 (5)

DAYCARE
DRWY.

(50) 40
(0) 0
(45) 40

DEALERSHIP
DRWY.

5 (5)
670 (840)
45 (40)

W. FLORIST AVE.

(840) 910
(20) 110
(35) 50

30 (70)
10 (5)
5 (20)

(90) 30
(5) 5
(170) 50

10 (15)
660 (725)
225 (40)

N. GREEN BAY AVE.

LEGEND

AM	7:30AM - 8:30AM
PM	(4:30PM - 5:30PM)



DUFFEK DAYCARE
TRAFFIC IMPACT ANALYSIS
GLENDALE, WISCONSIN

EXHIBIT 4-5
2025 AM/PM PEAK HOUR
BUILD VOLUMES

Chapter 5: Traffic and Improvement Analysis

Part A: Site Access

Access to the proposed development site is anticipated to continue to use the existing building's driveway off of N. Green Bay Avenue.

Part B: Capacity/Level of Service Analysis

B1. 2025 Build Scenario

Under the 2025 build scenario, the eastbound approach at the N. Green Bay Avenue and site driveway intersection represents the traffic operations of the new driveway trips to and from the proposed daycare development.

As a daycare facility, it is anticipated that there will be some peaking of traffic within a 15-minute period when a significant number of guardians arrive/depart at the same time. The remaining parents and guardians, as well as staff, can be expected to commute within the analysis hour but outside of the peak 15-minute period. This condition can be considered in the analysis by adjusting the peak hour factor (PHF). The PHF applied to the analysis has been adjusted to 0.50 for movements to/from the proposed daycare development, which reflects an assumption that half of the peak hour traffic arrives/departs within a 15-minute period and the remaining peak hour traffic is distributed across the remaining 45 minutes within the analysis hour. If the actual operation of the facility results in a more even distribution of traffic over the peak hour, the driveway can be expected to operate with less delay than what is reported in this study.

2025 build scenario weekday AM and PM peak hour traffic operations at the study intersections are summarized in **Table 4**. As shown in the table, all peak hour traffic operations at the study intersections under the existing geometry and intersection control parameters are expected to operate at LOS 'D' or better during the peak hours, with the exception of the shared eastbound left-turn/through/right-turn at the N. Green Bay Avenue and site driveway intersection, which operates at LOS 'F' and LOS 'E' during the AM and PM peak hours, respectively.

The LOS 'F' condition during the weekday AM peak hour correlates with an average delay per vehicle of approximately 55 seconds. The queue is expected to be 125 feet, or five vehicles. This means that the average vehicle will wait a total of 55 seconds from the back of the queue until the time at which it is able to complete its turning maneuver onto N. Green Bay Avenue.

Addressing these LOS issues by implementing a change in intersection control type is not considered a feasible alternative due to the following reasons:

- Signal warrants are not expected to be met due to the low volumes on the site driveway and Kia dealership driveway.
- The proximity of the N. Green Bay Avenue and site driveway intersection to the N. Green Bay Avenue and W. Florist Avenue intersection would make any intersection control that delays N. Green Bay Avenue through vehicles at the site driveway intersection unfavorable.
- The site driveway and Kia dealership driveway approaches are offset by approximately 50 feet at the intersection, posing challenges to implementing a different control type other than a minor stop control.

Although poor LOS operations for the site driveway are anticipated, given the nature of the site driveway's use as a daycare, the poor operations are expected to be limited to only the peak hours, specifically within a 15-minute peak period. As traffic operations for all other movements at the study intersections are acceptable, no proposed improvements in regard to traffic operations are recommended.

An additional consideration could be given to access management changes that restrict the driveway to a combination of right-in, right-out, and/or left-in operations. Given the offset alignment with the opposing driveway on the east side of N. Green Bay Avenue and that poor operations are only expected on the exit of the proposed development, access restrictions are not recommended at this time. The consideration of such changes could be considered in the future if a pattern of safety concerns emerges.

Maximum queues at each of the study intersections are not expected to exceed 125 feet, with the exception of the southbound through movement at the N. Green Bay Avenue and W. Florist Avenue intersection, which indicate maximum queues of 250 feet during the AM peak hour and 200 feet during the PM peak hour.

Table 4: 2025 Build - Peak Hour Traffic Operations

Duffek Daycare - 2025 Build Traffic Operations																
Intersection	Peak Scenario	Control	MOE	Movement											OVERALL	
				EBL	EBT	*EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT		SBR
N. Green Bay Ave. & W. Florist Ave.	AM Peak	Signal	LOS	D	-		D	D	A	A		A	A	A	A	
			Delay (sec)	41.2	-		39.7	40.1	4.4	2.4		4.2	5.6	3.9	5.5	
			V/C	0.27	-		0.10	0.21	0.54	0.26		0.10	0.41	0.07	--	
			Queue (ft)	75'	-		50'	50'	50'	75'		50'	250'	50'	--	
	PM Peak	Signal	LOS	D	-		D	D	A	A		A	A	A	A	
			Delay (sec)	40.6	-		36.6	37.4	3.4	3.4		4.5	5.8	4.1	7.7	
			V/C	0.49	-		0.10	0.27	0.08	0.28		0.07	0.36	0.01	--	
			Queue (ft)	100'	-		50'	75'	25'	125'		25'	200'	25'	--	
				Movement											OVERALL	
				EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR	
N. Green Bay Ave. & Site Drwy.	AM Peak	Minor Stop	LOS	F			D		B	A	A		A	A	A	A
			Delay (sec)	54.7			26.9		12.6	0.0	0.0		8.8	0.0	0.0	5.2
			V/C	0.72			0.01		0.16	0.00	0.00		0.01	0.00	0.00	--
			Queue (ft)	125'			25'		25'	0'	0'		25'	0'	0'	--
	PM Peak	Minor Stop	LOS	E			B		B	A	A		A	A	A	A
			Delay (sec)	37.1			14.3		10.7	0.0	0.0		9.0	0.0	0.0	4.4
			V/C	0.65			0.04		0.11	0.00	0.00		0.01	0.00	0.00	--
			Queue (ft)	125'			25'		25'	0'	0'		25'	0'	0'	--

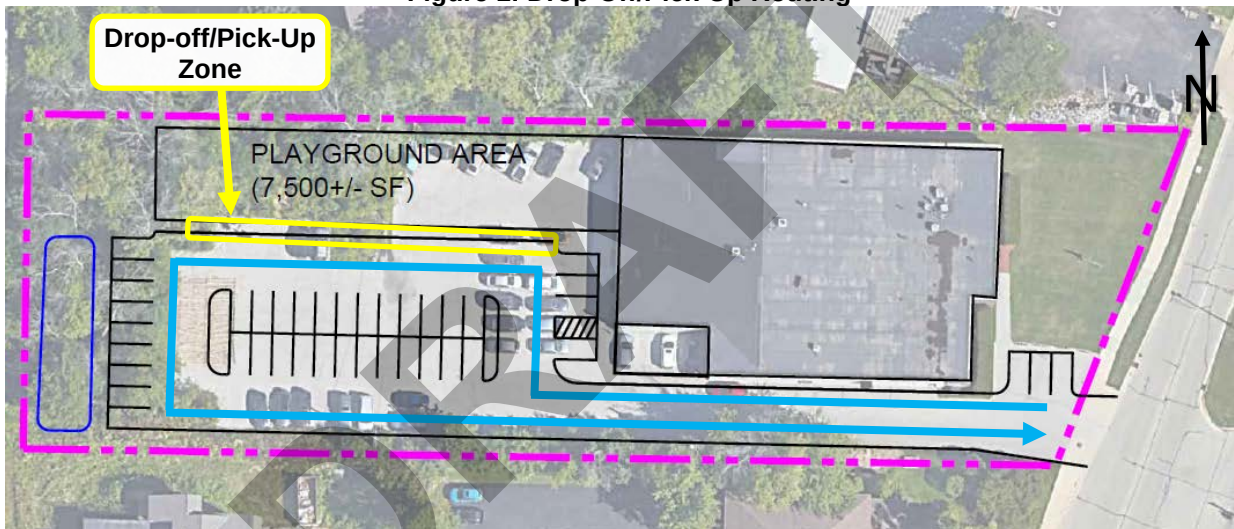
*Unsignalized delay, movement omitted for LOS Table

Part C: Site Circulation and Operations

The ITE estimated 95 entering trips during the morning peak hour will include staff and guardians. It is expected that staff arrive prior to the heavier inflow of guardians within the site parking lot. For drop-off/pick-up operations, it is recommended that guardians form a single line within the parking lot and drop off or pick up children from the passenger side of the vehicle in the zone identified in **Figure 1**. The estimated storage length from the end of the loading zone to N. Green Bay Avenue is approximately 450 feet. Given that vehicles in queue typically utilize 25 feet of space, an estimated 18 vehicle queue can be accommodated from the end of the zone to N. Green Bay Avenue. It is recommended that traffic circulate in a counterclockwise manner around the parking stalls as seen in the figure, to avoid the crossing of traffic within the site. Exiting traffic will be able to make a right-turn or left-turn out of the site driveway onto N. Green Bay Avenue. Left turning vehicles will be able to pull into the median storage area as part of a two-stage crossing.

If guardians will be required to park and walk children into the facility, it would alleviate some of the stacking concern, but the recommendation remains that circulation operate in a counterclockwise direction around the parking lot to improve flow and reduce conflict points.

Figure 1: Drop-Off/Pick-Up Routing



Consideration should also be given to limiting the use of the three parking stalls on the east side of the building during peak periods. The proximity of these stalls to N. Green Bay Avenue presents a safety concern if parked cars maneuver into/out of these stalls and block traffic from entering the site. If maintained, they should be restricted during peak operating conditions when queueing is most likely to be present, perhaps by limiting their use to visitors during off-peak periods or by staff that will operate outside of the peak periods.

Chapter 6: Conclusions and Recommendations

Part A: Summary

Based on the analysis summarized in this report, the only decrease in intersection operations below LOS 'D' is expected for the eastbound approach at the N. Green Bay Avenue and site driveway intersection, where the existing LOS 'D' condition during the weekday AM peak hour is expected to drop to LOS 'F' and the existing LOS 'C' condition during the weekday PM peak hour is expected to drop to LOS 'E'.

Part B: Conclusions

Given the urban nature of the N. Green Bay Avenue corridor, intersection expansion or a change in intersection control type to address the LOS at the N. Green Bay Avenue and site driveway intersection is not recommended. Changes in intersection control are not feasible given the proximity of the W. Florist Avenue intersection. The development driveway may continue to operate as a single exiting and single entering lane.

Although poor LOS operations for the site driveway are anticipated, it is expected to be limited to only the peak hours, specifically within a 15-minute peak period. Additionally, some level of queueing and delay is typically expected by motorists during these type of drop-off/pick-up operations at schools and daycares. As traffic operations for all other movements at the study intersections are acceptable, no proposed improvements are recommended. No signal timing adjustments are needed at the N. Green Bay Avenue intersection with W. Florist Avenue.

The operation of the driveway should be monitored for safety to determine if crashes increase and if so, consideration could be given to restricting access to a combination of right-in, right-out and/or left-in operation.

Site circulation during drop-off and pick-up periods are recommended to operate in a counterclockwise manner in a single file line as described in Chapter 5, Part C. Use of the three parking stalls on the east side of the property, adjacent to N. Green Bay Avenue, should be restricted to avoid use during peak drop-off and pick-up times.

Appendix A:

Traffic Count Data Summary

DRAFT

Intersection Traffic Volume Report

Count Basics		Version 2023.05.03	Page 1 of 13
Start Date:	Wednesday, September 4, 2024	Weekday	Schools in Session
Total Number of Hours Counted:	6	Non-Holiday	No Special Events

Base Information, Observed (6) Hour and Estimated (24) Hour Volume Summaries

Major St: N. Green Bay Ave.

Minor St: W. Florist Ave.

Intersection of: N. Green Bay Ave. & W. Florist Ave.

IX_ID:



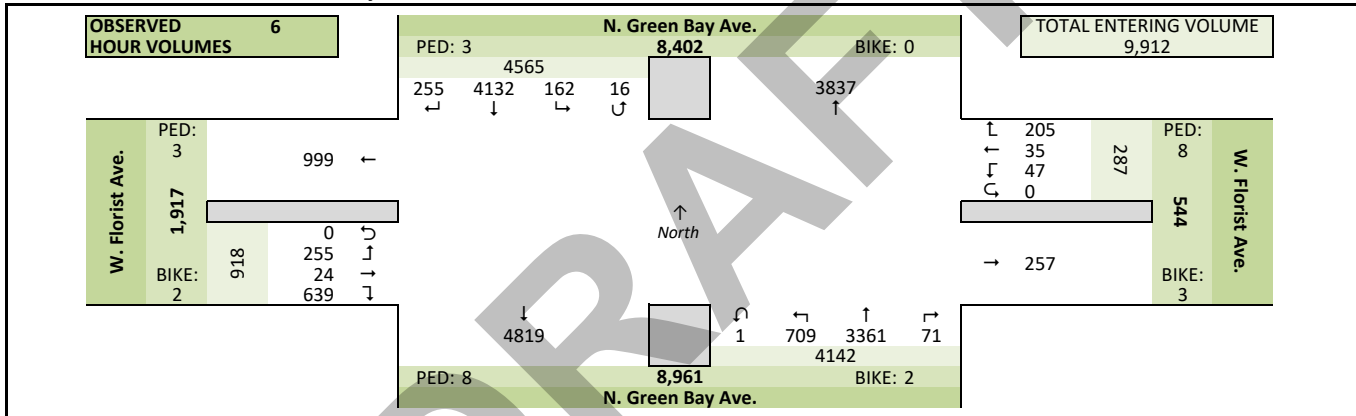
Site Information

Municipality	City of Glendale
County	40 - Milwaukee
WisDOT Region	SE
Traffic Control	Traffic Signal
Roadway Names	North Direction
North Leg	N. Green Bay Ave.
East Leg	W. Florist Ave.
South Leg	N. Green Bay Ave.
West Leg	W. Florist Ave.
Special Considerations	
Schools	In Session
Holidays	None
Special Events	None
Special Pedestrians Observed	
Pre-school children	None
Elementary school age children	None
Visually impaired (white cane/helper dog)	None
Elderly/disabled (except wheelchairs)	None
Wheelchairs/electric scooters	None
Other (describe)	None

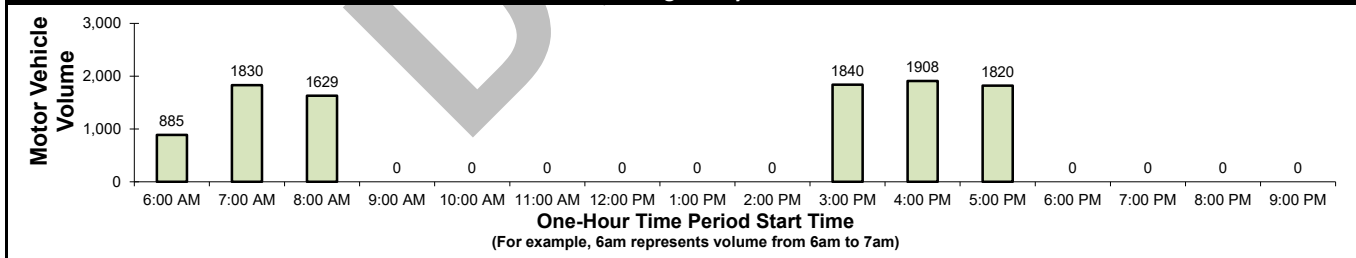
Count Information

Hrs Counted:	06:00 AM-09:00 AM and 03:00 PM-06:00 PM
1st Day of Count	Wednesday, September 4, 2024
AM Peak Period	Thursday, September 5, 2024
Midday Peak Period	Clear & Dry
PM Peak Period	Wednesday, September 4, 2024
Calculated Peak Hours	
AM	7:30-8:30am
MD	
PM	4:30-5:30pm
Peak Hours Selected for Analysis	
AM	7:30-8:30am
MD	
PM	4:30-5:30pm
Daily/Seasonal Adjustment Group	(2) Urban Arterials & Collectors
Count Expansion Group	(2) Urban Arterials & Collectors
Daily/Seasonal Adjustment Factor	0.858
Count Expansion Factor	2.421
Company Name	Ayres Associates
Manual Adj.	1.000
Observers	AM Peak Period: Miovision Video Recording Midday Peak Period: Miovision Video Recording PM Peak Period: Miovision Video Recording
Comments	2021 DOT Daily & Seasonal Factors

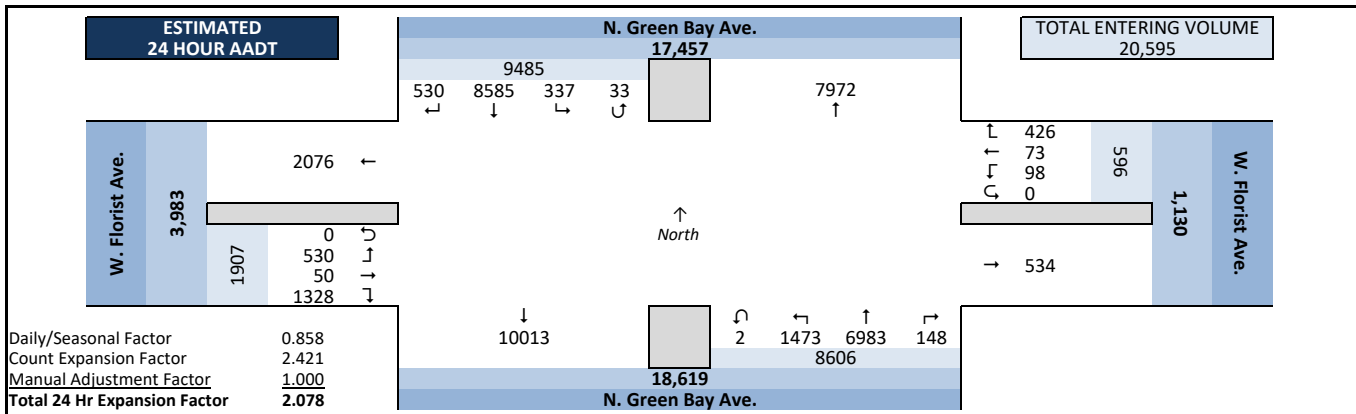
Observed 6 Hour Volume Summary



Total Entering Hourly Volume



Estimated 24 Hour AADT

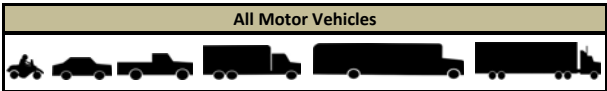


Intersection Traffic Volume Report

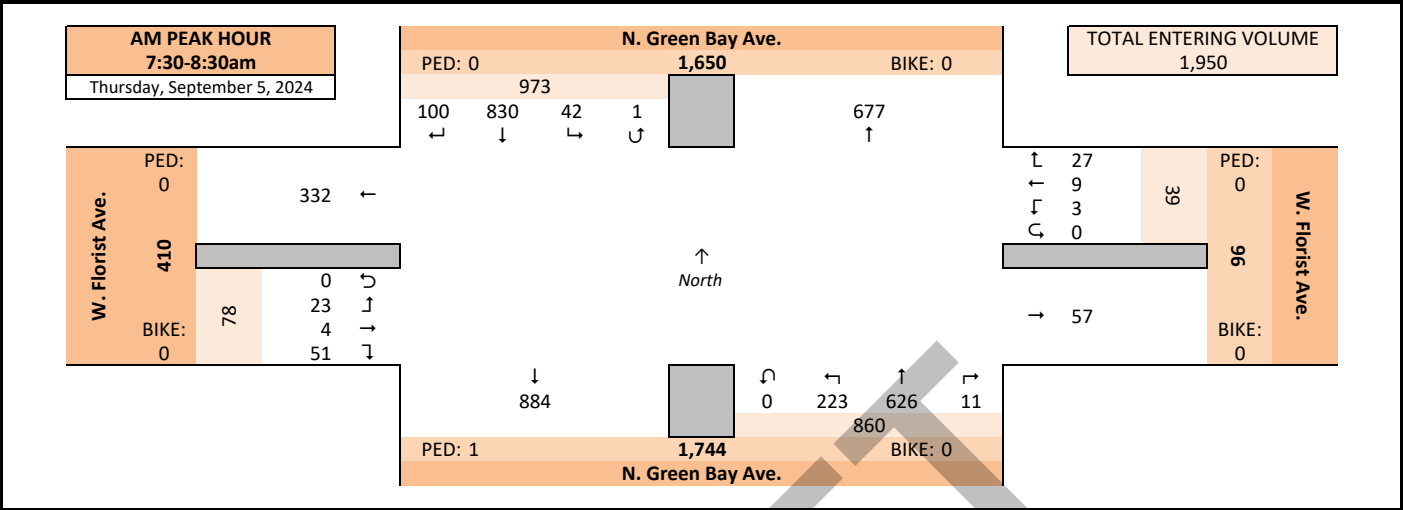
Count Basics		Page 2 of 13	
Start Date:	Wednesday, September 4, 2024	Weekday	Schools in Session
Total Number of Hours Counted: 6		Non-Holiday	No Special Events

Peak Hour Volume Graphical Summary

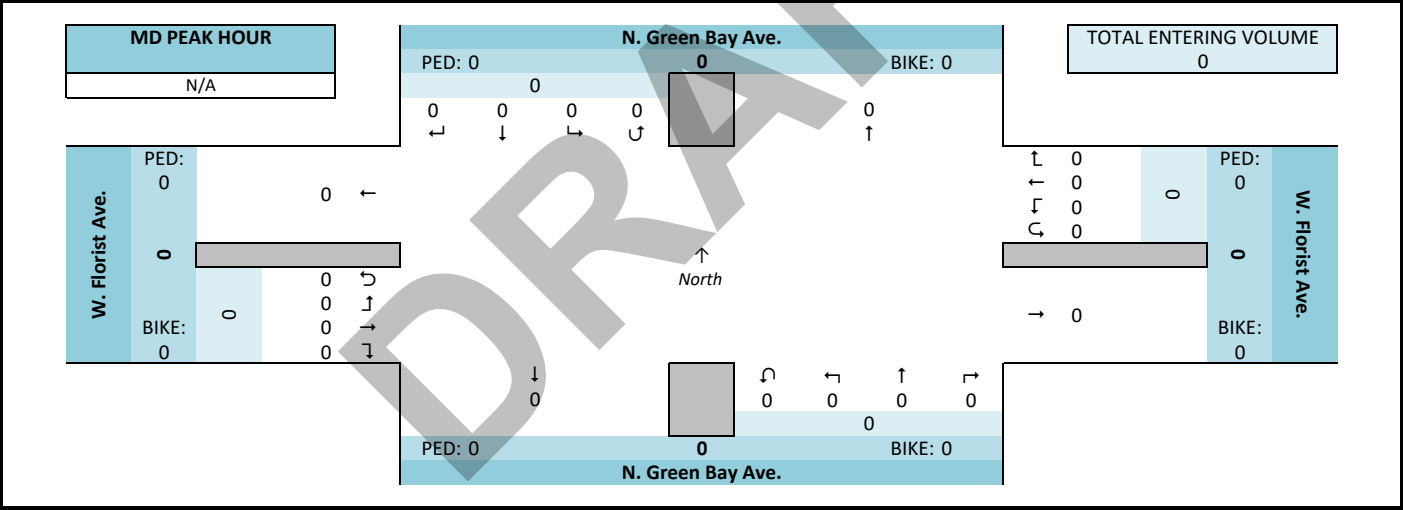
N. Green Bay Ave. & W. Florist Ave.



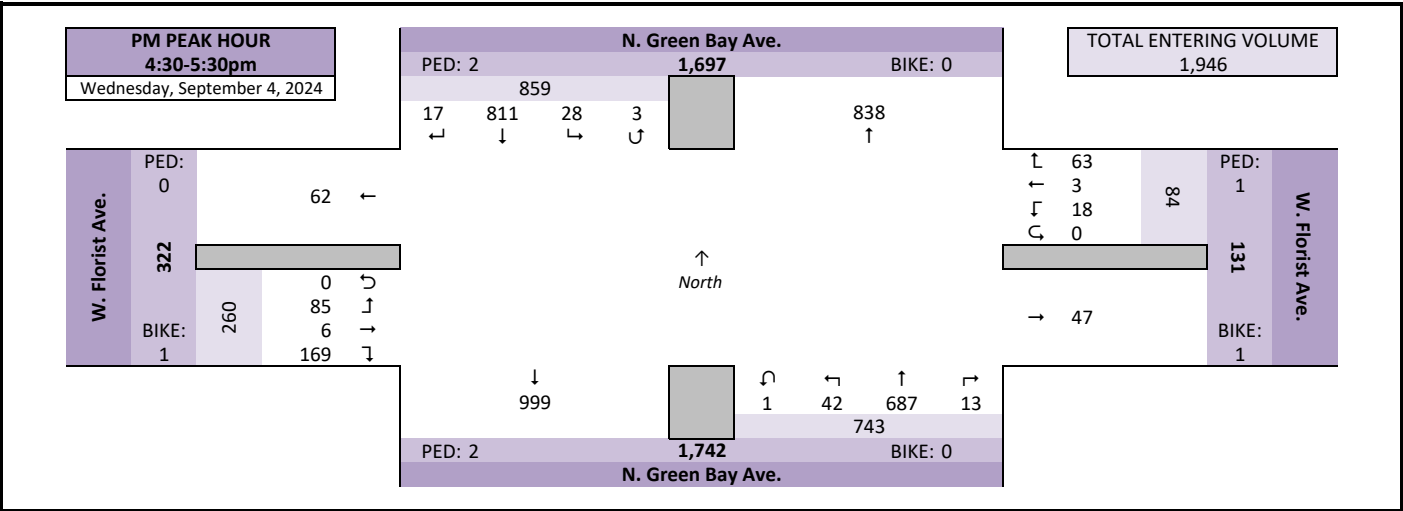
AM Peak Hour Summary



Midday (MD) Peak Hour Summary



PM Peak Hour Summary

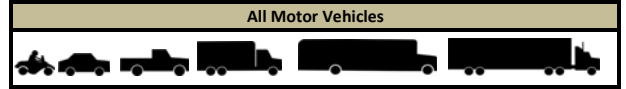


Intersection Traffic Volume Report

Count Basics			Page 3 of 13
Start Date:	Wednesday, September 4, 2024	Weekday	Schools in Session
Total Number of Hours Counted:	6	Non-Holiday	No Special Events

Peak Hour Volume Summary

N. Green Bay Ave. & W. Florist Ave.



Peak Hour Volumes, Truck Percentages, and PHFs

Thursday, September 5, 2024		↓					↶					↑					↷					
		From North					From East					From South					From West					
		N. Green Bay Ave.					W. Florist Ave.					N. Green Bay Ave.					W. Florist Ave.					
AM Peak Hour	AM Peak Hour	Right	Thru	Left	U-Tn	Total	Right	Thru	Left	U-Tn	Total	Right	Thru	Left	U-Tn	Total	Right	Thru	Left	U-Tn	Total	Totals
	Start Time																					
	7:30 AM	23	215	11	0	249	4	0	0	0	4	5	139	63	0	207	13	3	4	0	20	480
	7:45 AM	32	239	11	0	282	15	3	3	0	21	3	164	68	0	235	10	0	6	0	16	554
	8:00 AM	17	204	9	0	230	4	1	0	0	5	0	156	55	0	211	15	1	6	0	22	468
	8:15 AM	28	172	11	1	212	4	5	0	0	9	3	167	37	0	207	13	0	7	0	20	448
	Peak Hour Volume	100	830	42	1	973	27	9	3	0	39	11	626	223	0	860	51	4	23	0	78	1950
	Rounded Hourly Volume	100	830	40	0	970	25	10	5	0	40	10	625	225	0	860	50	5	25	0	80	1950
	% Single Unit Trucks	5.0	4.1	0.0	0.0	4.0	11.1	0.0	0.0	0.0	7.7	9.1	5.4	1.3	0.0	4.4	15.7	50.0	21.7	0.0	19.2	4.9
	% Heavy Trucks	1.0	0.5	0.0	0.0	0.5	0.0	11.1	0.0	0.0	2.6	0.0	0.6	0.9	0.0	0.7	7.8	0.0	0.0	0.0	5.1	0.8
% Trucks (Total)	6.0	4.6	0.0	0.0	4.5	11.1	11.1	0.0	0.0	10.3	9.1	6.1	2.2	0.0	5.1	23.5	50.0	21.7	0.0	24.4	5.7	
Peak Hour Factor (PHF)	0.78	0.87	0.95	0.25	0.86	0.45	0.45	0.25	0.00	0.46	0.55	0.94	0.82	0.00	0.91	0.85	0.33	0.82	0.00	0.89	0.88	

N/A		↓ From North					← From East					↑ From South					→ From West						
Midday (MD) Peak Hour	MD Peak Hour	N. Green Bay Ave.					W. Florist Ave.					N. Green Bay Ave.					W. Florist Ave.						
	Start Time	Right	Thru	Left	U-Tn	Total	Right	Thru	Left	U-Tn	Total	Right	Thru	Left	U-Tn	Total	Right	Thru	Left	U-Tn	Total	Totals	
	12:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	12:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	12:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	12:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Peak Hour Volume	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Rounded Hourly Volume	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	% Single Unit Trucks	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	% Heavy Trucks	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
% Trucks (Total)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Peak Hour Factor (PHF)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	

Wednesday, September 4, 2024		↓					↖					↑					↗					Totals
PM Peak Hour		From North					From East					From South					From West					
Start Time		N. Green Bay Ave.					W. Florist Ave.					N. Green Bay Ave.					W. Florist Ave.					
		Right	Thru	Left	U-Tn	Total	Right	Thru	Left	U-Tn	Total	Right	Thru	Left	U-Tn	Total	Right	Thru	Left	U-Tn	Total	Totals
PM Peak Hour	4:30 PM	2	206	10	1	219	13	0	7	0	20	4	163	12	0	179	53	1	21	0	75	493
	4:45 PM	4	194	8	0	206	4	1	1	0	6	3	178	11	0	192	41	1	23	0	65	469
	5:00 PM	4	188	6	2	200	32	0	7	0	39	4	186	12	0	202	47	2	23	0	72	513
	5:15 PM	7	223	4	0	234	14	2	3	0	19	2	160	7	1	170	28	2	18	0	48	471
	Peak Hour Volume	17	811	28	3	859	63	3	18	0	84	13	687	42	1	743	169	6	85	0	260	1946
	Rounded Hourly Volume	15	810	30	5	860	65	5	20	0	90	15	685	40	0	740	170	5	85	0	260	1950
	% Single Unit Trucks	5.9	1.8	3.6	0.0	2.0	0.0	0.0	0.0	0.0	0.0	7.7	2.6	11.9	0.0	3.2	1.2	0.0	0.0	0.0	0.8	2.2
	% Heavy Trucks	0.0	0.9	14.3	0.0	1.3	0.0	0.0	0.0	0.0	0.0	0.0	0.1	2.4	0.0	0.3	0.0	0.0	0.0	0.0	0.0	0.7
	% Trucks (Total)	5.9	2.7	17.9	0.0	3.3	0.0	0.0	0.0	0.0	0.0	7.7	2.8	14.3	0.0	3.5	1.2	0.0	0.0	0.0	0.8	2.9
Peak Hour Factor (PHF)	0.61	0.91	0.70	0.37	0.92	0.49	0.37	0.64	0.00	0.54	0.81	0.92	0.87	0.25	0.92	0.80	0.75	0.92	0.00	0.87	0.95	

Peak Hour Pedestrian and Bicyclist Volumes

Pedestrians and Bicyclists		Crossing 			Crossing 			Crossing 			Crossing 			Total Ped & Bike Volume
		North Approach			East Approach			South Approach			West Approach			
		N. Green Bay Ave.			W. Florist Ave.			N. Green Bay Ave.			W. Florist Ave.			
15-Minute Start Time		Pedestrian	Bicyclist	Total	Pedestrian	Bicyclist	Total	Pedestrian	Bicyclist	Total	Pedestrian	Bicyclist	Total	
AM	7:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	
	7:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	
	8:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	
	8:15 AM	0	0	0	0	0	0	1	0	1	0	0	0	
	Total	0	0	0	0	0	0	1	0	1	0	0	0	
MD	12:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	
	12:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	
	12:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	
	12:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	
	Total	0	0	0	0	0	0	0	0	0	0	0	0	
PM	4:30 PM	0	0	0	0	0	0	2	0	2	0	0	0	
	4:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	
	5:00 PM	1	0	1	0	0	0	0	0	0	0	1	1	
	5:15 PM	1	0	1	1	1	2	0	0	0	0	0	0	
	Total	2	0	2	1	1	2	2	0	2	0	1	1	

Intersection Traffic Volume Report

Count Basics			Page 4 of 13
Start Date:	Wednesday, September 4, 2024	Weekday	Schools in Session
Total Number of Hours Counted:	6	Non-Holiday	No Special Events

Hourly Volume Summary - Motor Vehicle Data

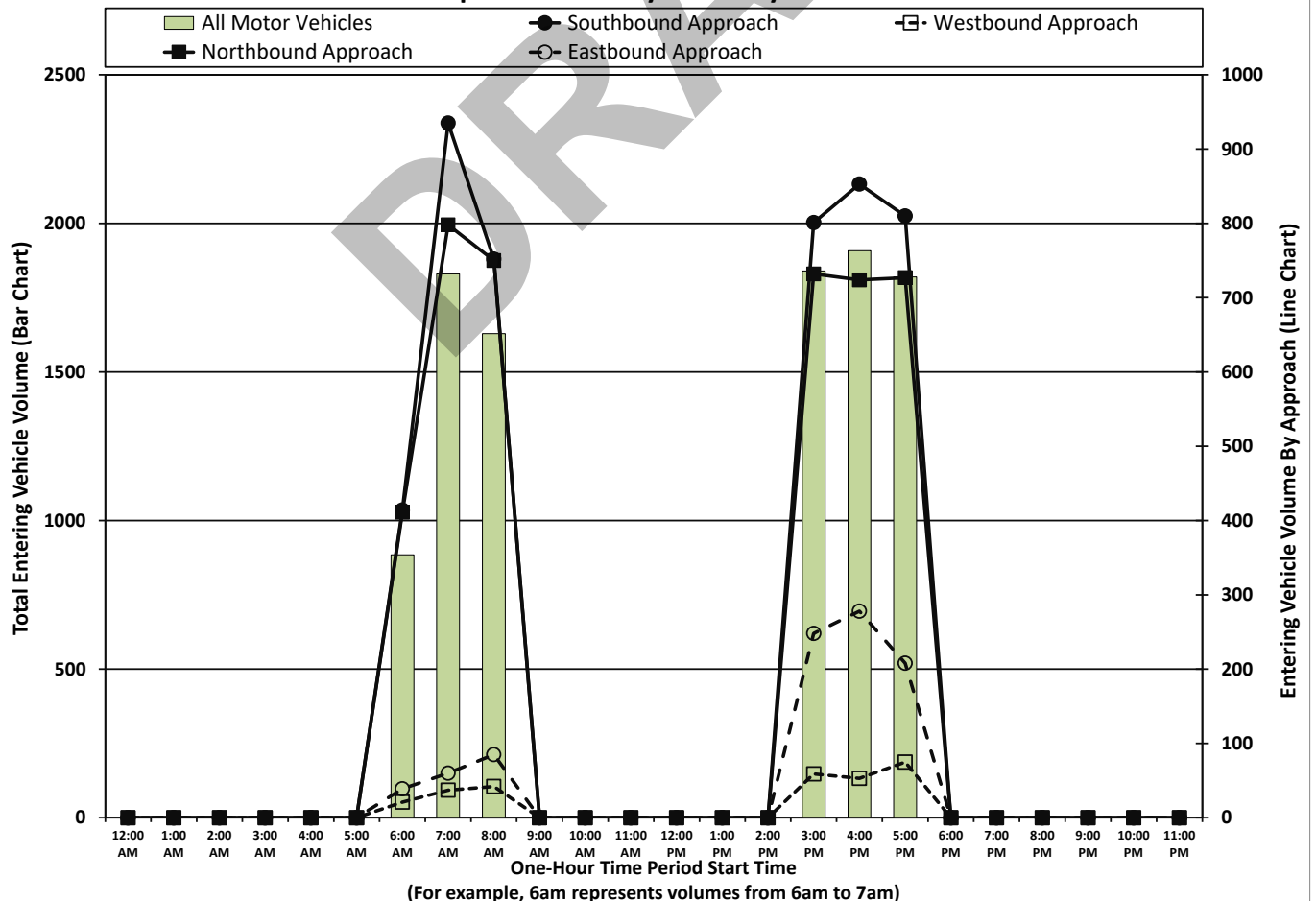
N. Green Bay Ave. & W. Florist Ave.



One-Hour Motor Vehicle Data

One-Hour Time Period	Start Time	From North N. Green Bay Ave.					From East W. Florist Ave.					From South N. Green Bay Ave.					From West W. Florist Ave.					Total Vehicle Volume	Directional Volume Totals	
		Right	Thru	Left	U-Tn	Total	Right	Thru	Left	U-Tn	Total	Right	Thru	Left	U-Tn	Total	Right	Thru	Left	U-Tn	Total			
		E/W	N/S																					
Pre-AM	12:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	1:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	2:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	3:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	4:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	5:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
AM	6:00 AM	29	361	24	0	414	15	5	1	0	21	5	239	167	0	411	33	1	5	0	39	885	60	825
	7:00 AM	84	817	34	0	935	25	8	4	0	37	9	542	247	0	798	37	3	20	0	60	1830	97	1733
	8:00 AM	77	640	34	1	752	25	13	4	0	42	16	547	187	0	750	57	4	24	0	85	1629	127	1502
	9:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
MD	10:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	11:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	12:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	1:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
PM	2:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	3:00 PM	22	751	23	5	801	47	5	7	0	59	20	680	32	0	732	184	4	60	0	248	1840	307	1533
	4:00 PM	19	797	30	7	853	33	2	18	0	53	11	672	41	0	724	192	7	79	0	278	1908	331	1577
	5:00 PM	24	766	17	3	810	60	2	13	0	75	10	681	35	1	727	136	5	67	0	208	1820	283	1537
	6:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	7:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	8:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	9:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	10:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	11:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Totals		255	4132	162	16	4565	205	35	47	0	287	71	3361	709	1	4142	639	24	255	0	918	9912	1205	8707

Graphical Summary of Hourly Volumes



Intersection Traffic Volume Report

Count Basics				Page 5 of 12	
Start Date:	Wednesday, September 4, 2024	Weekday	Schools in Session		
Total Number of Hours Counted:	6	Non-Holiday	No Special Events		

15-Minute Motor Vehicle Data

N. Green Bay Ave. & W. Florist Ave.



15-Minute Motor Vehicle Data

15-Minute Start Time	From North					From East					From South					From West					15-Min Totals	Hourly Sum	PHF	
	N. Green Bay Ave.					W. Florist Ave.					N. Green Bay Ave.					W. Florist Ave.								
	Right	Thru	Left	U-Tn	Total	Right	Thru	Left	U-Tn	Total	Right	Thru	Left	U-Tn	Total	Right	Thru	Left	U-Tn	Total				
Pre-AM Peak Period	12:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0			
	12:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0			
	12:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0			
	12:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0			
	1:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0			
	1:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0			
	1:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0			
	1:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0			
	2:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0			
	2:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0			
	2:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0			
	2:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0			
	3:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0			
	3:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0			
	3:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0			
	3:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0			
AM Peak Period	4:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0			
	4:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0			
	4:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0			
	4:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0			
	5:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0			
	5:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0			
	5:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0			
	5:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0			
	6:00 AM	5	72	3	0	80	1	0	1	0	2	0	52	25	0	77	21	0	3	0	24	183	885	0.74
	6:15 AM	5	75	7	0	87	1	0	0	0	1	0	45	26	0	71	3	0	0	0	3	162	1058	0.74
	6:30 AM	8	104	6	0	118	7	4	0	0	11	2	64	46	0	112	2	0	0	0	2	243	1336	0.76
	6:45 AM	11	110	8	0	129	6	1	0	0	7	3	78	70	0	151	7	1	2	0	10	297	1573	0.82
	7:00 AM	14	154	3	0	171	4	3	1	0	8	0	101	64	0	165	8	0	4	0	12	356	1830	0.83
	7:15 AM	15	209	9	0	233	2	2	0	0	4	1	138	52	0	191	6	0	6	0	12	440	1942	0.88
	7:30 AM	23	215	11	0	249	4	0	0	0	4	5	139	63	0	207	13	3	4	0	20	480	1950	0.88
	7:45 AM	32	239	11	0	282	15	3	3	0	21	3	164	68	0	235	10	0	6	0	16	554	1855	0.84
8:00 AM	17	204	9	0	230	4	1	0	0	5	0	156	55	0	211	15	1	6	0	22	468	1629	0.87	
8:15 AM	28	172	11	1	212	4	5	0	0	9	3	167	37	0	207	13	0	7	0	20	448			
8:30 AM	19	150	7	0	176	10	5	1	0	16	11	111	42	0	164	20	2	7	0	29	385			
8:45 AM	13	114	7	0	134	7	2	3	0	12	2	113	53	0	168	9	1	4	0	14	328			
9:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0				
9:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0				
9:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0				
9:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0				
Midday Peak Period	10:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0			
	10:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0			
	10:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0			
	10:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0			
	11:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0			
	11:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0			
	11:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0			
	11:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0			
	12:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0			
	12:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0			
	12:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0			
	12:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0			
	1:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0			
	1:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0			
	1:30 PM	0	0	0	0	0	0	0	0	0	0	0	0</											

Count Basics		Page 6 of 13
Start Date: Wednesday, September 4, 2024	Weekday	Schools in Session
Total Number of Hours Counted: 6	Non-Holiday	No Special Events

N. Green Bay Ave. & W. Florist Ave.

Automobiles (Cars, Light Trucks, & Motorcycles)



15-Minute Start Time	From North					From East					From South					From West					15-Min Totals	Hourly Sum
	N. Green Bay Ave.					W. Florist Ave.					N. Green Bay Ave.					W. Florist Ave.						
	Right	Thru	Left	U-Tn	Total	Right	Thru	Left	U-Tn	Total	Right	Thru	Left	U-Tn	Total	Right	Thru	Left	U-Tn	Total		
Pre-AM Peak Period	12:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	12:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	12:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	12:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	1:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	1:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	1:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	1:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	2:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	2:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	2:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	2:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	3:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	3:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	3:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	3:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	4:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
4:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
4:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
5:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
5:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
5:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
5:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
AM Peak Period	6:00 AM	5	65	3	0	73	1	0	1	0	2	0	51	23	0	74	20	0	3	0	23	172
	6:15 AM	5	69	7	0	81	1	0	0	1	1	0	40	25	0	65	3	0	0	0	3	150
	6:30 AM	8	96	6	0	110	7	4	0	0	11	2	64	44	0	110	2	0	0			

Start Hour: 11:00am - 12:00pm Summary																				
Hourly Time Period Start/End Time	From North				From East				From South				From West							
	N. Green Bay Ave.				W. Florist Ave.				N. Green Bay Ave.				W. Florist Ave.							
	Right	Thru	Left	U-Tn	Total	Right	Thru	Left	U-Tn	Total	Right	Thru	Left	U-Tn	Total	Right	Thru	Left	U-Tn	Total
AM 7:30 AM	94	792	42	1	929	24	8	3	0	35	10	588	218	0	816	39	2	18	0	59
MD 12:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
PM 4:30 PM	16	789	23	3	831	63	3	18	0	84	12	668	36	1	717	167	6	85	0	258

Intersection Traffic Volume Report

Count Basics	Page 7 of 13		
Start Date	Wednesday, September 4, 2024	Weekday	Schools in Session
Total Number of Hours Counted	6	Non-Holiday	No Special Events

15-Minute Single Unit (SU) Truck & Bus Data

N. Green Bay Ave. & W. Florist Ave.



15-Minute Single Unit (SU) Truck & Bus Data

15-Minute Time Period	From North				From East				From South				From West				15-Min Totals	Hourly Sum				
	N. Green Bay Ave.				W. Florist Ave.				N. Green Bay Ave.				W. Florist Ave.									
	Right	Thru	Left	U-Tn	Right	Thru	Left	U-Tn	Right	Thru	Left	U-Tn	Right	Thru	Left	U-Tn						
Start Time																						
Pre-AM Peak Period	12:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0				
	12:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0				
	12:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0				
	12:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0				
	1:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0				
	1:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0				
	1:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0				
	1:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0				
	2:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0				
	2:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0				
	2:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0				
	2:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0				
	3:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0				
	3:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0				
	3:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0				
	3:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0				
AM Peak Period	4:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0				
	4:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0				
	4:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0				
	4:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0				
	5:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0				
	5:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0				
	5:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0				
	5:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0				
	6:00 AM	0	6	0	0	6	0	0	0	0	1	2	0	3	1	0	0	1				
	6:15 AM	0	6	0	0	6	0	0	0	0	5	0	0	5	0	0	0	10				
	6:30 AM	0	4	0	0	4	0	0	0	0	0	2	0	2	0	0	0	6				
	6:45 AM	0	2	0	0	2	0	0	0	0	3	0	0	3	0	1	0	6				
	7:00 AM	0	10	0	0	10	1	1	0	2	0	7	2	0	9	1	0	23				
	7:15 AM	1	6	0	0	7	0	0	0	0	8	0	0	8	0	1	0	16				
	7:30 AM	2	12	0	0	14	1	0	0	1	0	7	0	7	3	2	2	0				
	7:45 AM	0	7	0	0	7	1	0	0	1	0	9	2	0	11	0	0	19				
8:00 AM	1	7	0	0	8	1	0	0	1	0	9	1	0	10	4	1	0					
8:15 AM	2	8	0	0	10	0	0	0	1	0	9	0	0	10	1	0	23					
8:30 AM	1	9	1	0	11	0	1	0	1	0	7	1	0	8	1	0	23					
8:45 AM	0	6	0	0	6	1	0	0	1	0	3	1	0	4	1	0	12					
9:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0					
9:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0					
9:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0					
9:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0					
Midday Peak Period	10:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0				
	10:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0				
	10:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0				
	10:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0				
	11:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0				
	11:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0				
	11:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0				
	11:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0				
	12:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0				
	12:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0				
	12:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0				
	12:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0				
	1:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0				
	1:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0				
	1:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0				
	1:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0				
PM Peak Period	2:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0				
	2:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0				
	2:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0				
	2:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0				
	3:00 PM	0	8	0	0	8	1	0	0	1	0	5	0	5	3	0	0	17				
	3:15 PM	2	5	0	0	7	0	0	0	0	6	0	0	6	0	1	0	14				
	3:30 PM	1	2	0	0	3	0	0	0	0	5	0	0	5	1	0	0	9				
	3:45 PM	0	4	0	0	4	0	0	0	0	3	0	0	3	1	0	0	8				
	4:00 PM	0	8	0	0	8	0	0	1	0	1	7	1	0	9	0	0	18				
	4:15 PM	3	4	0	0	7	0	0	0	0	1	1	0	2	1	0	0	10				
	4:30 PM	0	4	1	0	5	0	0	0	0	5	2	0	7	2	0	0	14				
	4:45 PM	0	2	0	0	2	0	0	0	0	4	1	0	5	0	0	0	7				
	5:00 PM	0	2	0	0	2	0	0	0	0	1	6	1	8	0	0	0	10				
	5:15 PM	1	7	0	0	8	0	0	0	0	3	1	0	4	0	0	0	12				
	5:30 PM	0	1	0	0	1	0	0	0	0	4	1	0	5	0	0	0	6				
	5:45 PM	0	6	0	0	6	0	0	0	0	5	1	0	6	0	0	0	12				
6:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0					
6:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0					
6:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0					
6:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0					
7:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0					
7:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0					
7:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0					
7:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0					
8:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0					
8:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0					
8:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0					
8:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0					
9:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0					
9:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0					
9:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0					
9:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0					
Post PM Peak Period	10:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0				
	10:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0				
	10:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0				
	10:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0				
	11:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0				
	11:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0				
Totals		14	136	2	0	152	5	3	1	0	9	3	122	20	0	145	20	2	11	0	33	339

Count Basics			Page 8 of 13
Start Date:	Wednesday, September 4, 2024	Weekday	Schools in Session
Total Number of Hours Counted:	6	Non-Holiday	No Special Events

N. Green Bay Ave. & W. Florist Ave.



15-Minute Time Period Start Time	From North N. Green Bay Ave.					From East W. Florist Ave.					From South N. Green Bay Ave.					From West W. Florist Ave.					15-Min Totals	Hourly Sum
	Right	Thru	Left	U-Tn	Total	Right	Thru	Left	U-Tn	Total	Right	Thru	Left	U-Tn	Total	Right	Thru	Left	U-Tn	Total		
Pre-AM Peak Period	12:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	12:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	12:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	12:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	1:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	1:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	1:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	1:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	2:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	2:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	2:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	2:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	3:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	3:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	3:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	3:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
AM Peak Period	4:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	4:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	4:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	4:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	5:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	5:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	5:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	5:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	6:00 AM	0	1	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	
	6:15 AM	0	0	0	0	0	0	0	0	0	0	1	0	1	0	0	0	0	0	0	1	
	6:30 AM	0	4	0	0	4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	4	
	6:45 AM	0	0	0	0	0	0	0	0	0	1	1	0	2	3	0						

Hourly Time Period Start Time	From North				From East				From South				From West				Total Hourly Volume				
	N. Green Bay Ave.				W. Florist Ave.				N. Green Bay Ave.				W. Florist Ave.								
	Right	Thru	Left	U-Tn	Total	Right	Thru	Left	U-Tn	Total	Right	Thru	Left	U-Tn	Total	Right		Thru	Left	U-Tn	Total
AM 7:30 AM	1	4	0	0	5	0	1	0	0	1	0	4	2	0	6	4	0	0	0	4	10
MD 12:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
PM 4:30 PM	0	7	4	0	11	0	0	0	0	0	1	1	0	2	0	0	0	0	0	0	0

Count Basics		Page 9 of 13
Start Date:	Wednesday, September 4, 2024	Weekday
Total Number of Hours Counted: 6		Schools in Session
		No Special Events

N. Green Bay Ave. & W. Florist Ave.

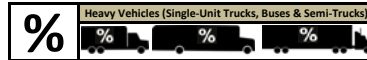


15-Minute Start Time	From North					From East					From South					From West					15-Min Totals	Hourly Sum
	N. Green Bay Ave.					W. Florist Ave.					N. Green Bay Ave.					W. Florist Ave.						
	Right	Thru	Left	U-Tn	Total	Right	Thru	Left	U-Tn	Total	Right	Thru	Left	U-Tn	Total	Right	Thru	Left	U-Tn	Total		
Pre-AM Peak Period	12:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	12:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	12:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	12:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	1:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	1:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	1:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	1:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	2:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	2:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	2:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	2:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	3:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	3:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	3:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	3:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
AM Peak Period	4:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	4:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	4:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	5:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	5:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	5:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	5:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	6:00 AM	0	7	0	0	7	0	0	0	0	0	0	1	2	0	3	1	0	0	0	1	11
	6:15 AM	0	6	0	0	6	0	0	0	0	0	5	1	0	6	0	0	0	0	0	12	5
	6:30 AM	0	8	0	0	8	0	0	0	0	0	0	2	0	2	0	0	0	0	0	10	6

Hourly Time Period Start Time	From North				From East				From South				From West				Total Hourly Volume				
	N. Green Bay Ave.				W. Florist Ave.				N. Green Bay Ave.				W. Florist Ave.								
	Right	Thru	Left	U-Tn	Total	Right	Thru	Left	U-Tn	Total	Right	Thru	Left	U-Tn	Total	Right		Thru	Left	U-Tn	Total
AM 7:30 AM	6	38	0	0	44	3	1	0	0	4	1	38	5	0	44	12	2	5	0	19	111
MD 12:00 PM	0	0	0	0	0	0	0	0	0	0	1	38	0	0	39	0	0	0	0	0	39
PM 4:30 PM	1	22	5	0	28	0	0	0	0	0	1	19	6	0	26	2	5	0	0	2	56

Count Basics		Page 10 of 13
Start Date: Wednesday, September 4, 2024	Weekday	Schools in Session
Total Number of Hours Counted: 6	Non-Holiday	No Special Events

N. Green Bay Ave. & W. Florist Ave.

[illegible]

Hourly Time Period	From North				From East				From South				From West				Hourly Heavy Vehicle Percentage			
	N. Green Bay Ave.				W. Florist Ave.				N. Green Bay Ave.				W. Florist Ave.							
	Right	Thru	Left	U-Tn	Total	Right	Thru	Left	U-Tn	Total	Right	Thru	Left	U-Tn	Total					
Start Time																				
AM 7:30 AM	6.0	4.6	0.0	0.0	4.5	11.1	11.1	0.0	0.0	10.3	9.1	6.1	2.2	0.0	5.1	23.5	50.0	21.7	0.0	24.4
MD 12:00 PM	4.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
PM 4:30 PM	5.9	2.7	17.9	0.0	3.3	0.0	0.0	0.0	0.0	0.0	7.7	2.8	14.3	0.0	3.5	1.2	0.0	0.0	0.0	0.8

Intersection Traffic Volume Report

Count Basics				Page 11 of 13
Start Date:	Wednesday, September 4, 2024	Weekday	Schools in Session	
Total Number of Hours Counted:	6	Non-Holiday	No Special Events	

15-Minute Pedestrian and Bicyclist Data

N. Green Bay Ave. & W. Florist Ave.



15-Minute Pedestrian and Bicyclist Data

15-Minute Time Period Start Time	Crossing North Approach			Crossing East Approach			Crossing South Approach			Crossing West Approach			15-Min Totals	Hourly Sum
	N. Green Bay Ave.			W. Florist Ave.			N. Green Bay Ave.			W. Florist Ave.				
	Pedestrian	Bicyclist	Total	Pedestrian	Bicyclist	Total	Pedestrian	Bicyclist	Total	Pedestrian	Bicyclist	Total		
Pre-AM Peak Period														
12:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	
12:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	
12:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	
12:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	
1:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	
1:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	
1:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	
1:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	
2:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	
2:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	
2:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	
2:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	
3:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	
3:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	
3:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	
3:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	
4:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	
4:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	
4:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	
4:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	
5:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	
5:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	
5:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	
5:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	
AM Peak Period														
6:00 AM	0	0	0	1	0	1	0	0	0	0	0	0	1	6
6:15 AM	0	0	0	1	0	1	0	1	1	0	0	0	2	6
6:30 AM	0	0	0	1	0	1	0	0	0	0	0	0	1	4
6:45 AM	0	0	0	0	0	0	0	1	1	0	1	1	2	3
7:00 AM	0	0	0	0	0	0	1	0	1	0	0	0	1	1
7:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	1
7:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	3
8:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	7
8:15 AM	0	0	0	0	0	0	1	0	1	0	0	0	1	
8:30 AM	0	0	0	0	2	2	0	0	0	0	0	0	2	
8:45 AM	1	0	1	2	0	2	1	0	1	0	0	0	4	
9:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	
9:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	
9:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	
9:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	
Midday Peak Period														
10:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	
10:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	
10:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	
10:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	
11:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	
11:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	
11:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	
11:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	
12:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	
12:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	
12:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	
12:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	
1:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	
1:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	
1:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	
1:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	
PM Peak Period														
2:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	
2:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	
2:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	
2:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	
3:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	1
3:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	4
3:30 PM	0	0	0	1	0	1	0	0	0	0	0	0	1	5
3:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	6
4:00 PM	0	0	0	1	0	1	1	0	1	1	0	1	3	6
4:15 PM	0	0	0	0	0	0	1	0	1	0	0	0	1	5
4:30 PM	0	0	0	0	0	0	2	0	2	0	0	0	2	7
4:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	8
5:00 PM	1	0	1	0	0	0	0	0	0	0	1	1	2	8
5:15 PM	1	0	1	1	1	2	0	0	0	0	0	0	3	
5:30 PM	0	0	0	0	0	0	1	0	1	2	0	2	3	
5:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	
6:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	
6:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	
6:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	
6:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	
7:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	
7:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	
7:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	
7:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	
8:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	
8:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	
8:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	
8:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	
9:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	
9:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	
9:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	
9:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	
Post PM Peak Period														
10:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	
10:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	
10:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	
10:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	
11:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	
11:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	
11:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	
11:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	
Totals	3	0	3	8	3	11	8	2	10	3	2	5	29	

Special Pedestrians

Pedestrian Type	None	1 or 2	A Few	Several	Many	Unknown
Pre-school Children	x					
Elementary School Age Children	x					
Visually Impaired (white cane/help)	x					
Elderly/Disabled (except wheelchair)	x					
Wheelchairs/Electric Scooters	x					
Other (None)	x					

Intersection Traffic Volume Report

Count Basics		Version 2023.05.03	Page 1 of 13
Start Date:	Wednesday, September 4, 2024	Weekday	Schools in Session
Total Number of Hours Counted:	6	Non-Holiday	No Special Events

Base Information, Observed (6) Hour and Estimated (24) Hour Volume Summaries

Major St: N. Green Bay Ave.
 Minor St: Development Drwy.
 Intersection of: N. Green Bay Ave. & Development Drwy.

IX_ID:



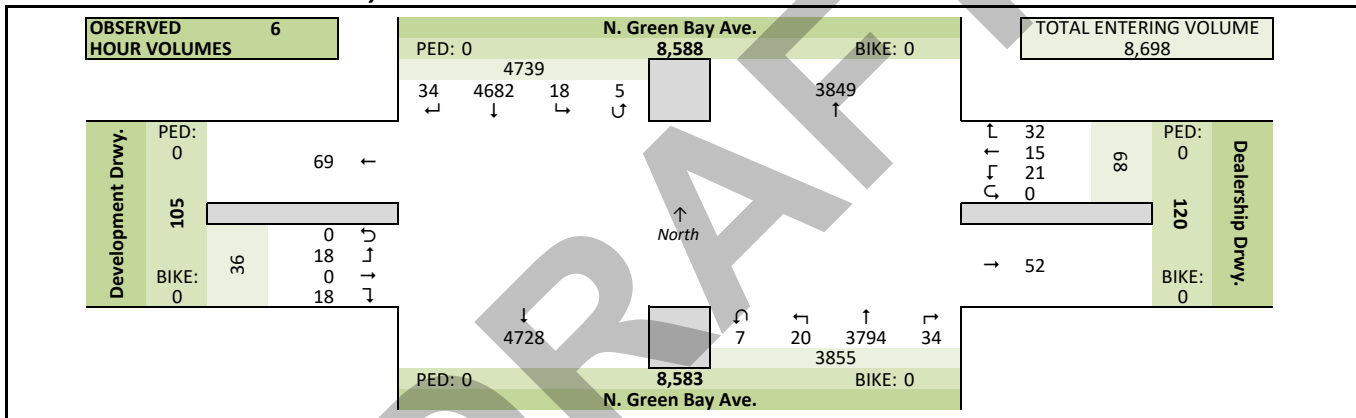
Site Information

Municipality	City of Glendale
County	40 - Milwaukee
WisDOT Region	SE
Traffic Control	Partial Stop Control
Roadway Names	North Direction
North Leg	N. Green Bay Ave.
East Leg	Dealership Drwy.
South Leg	N. Green Bay Ave.
West Leg	Development Drwy.
Special Considerations	
Schools	In Session
Holidays	None
Special Events	None
Special Pedestrians Observed	
Pre-school children	None
Elementary school age children	None
Visually impaired (white cane/helper dog)	None
Elderly/disabled (except wheelchairs)	None
Wheelchairs/electric scooters	None
Other (describe)	None

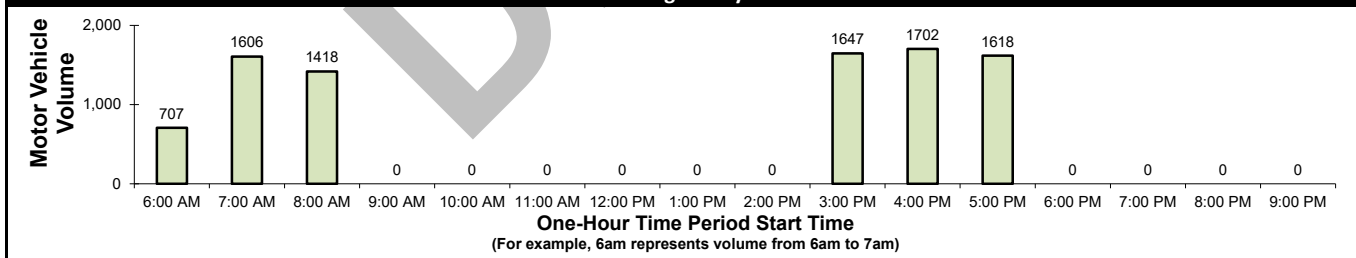
Count Information

Hrs Counted:	06:00 AM-09:00 AM and 03:00 PM-06:00 PM
1st Day of Count	Wednesday, September 4, 2024
AM Peak Period	Thursday, September 5, 2024
Midday Peak Period	Clear & Dry
PM Peak Period	Wednesday, September 4, 2024
Calculated Peak Hours	
AM	7:30-8:30am
MD	
PM	4:15-5:15pm
Peak Hours Selected for Analysis	
AM	7:30-8:30am
MD	
PM	4:30-5:30pm
Daily/Seasonal Adjustment Group	(2) Urban Arterials & Collectors
Count Expansion Group	(2) Urban Arterials & Collectors
Daily/Seasonal Adjustment Factor	0.858
Count Expansion Factor	2.421
Company Name	Ayres Associates
Manual Adj.	1.000
Observers	AM Peak Period: Miovision Video Recording Midday Peak Period: Miovision Video Recording PM Peak Period: Miovision Video Recording
Comments	2021 DOT Daily & Seasonal Factors

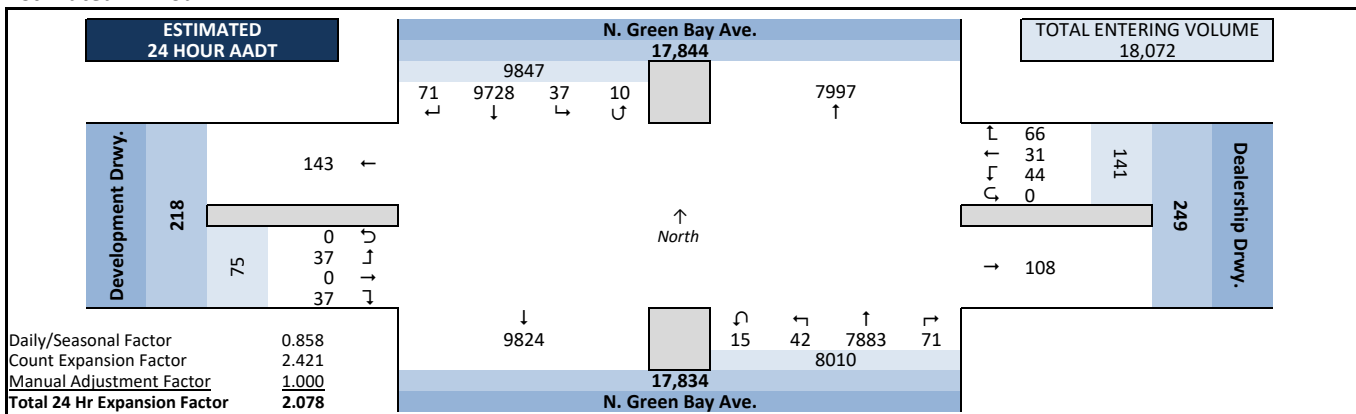
Observed 6 Hour Volume Summary



Total Entering Hourly Volume



Estimated 24 Hour AADT

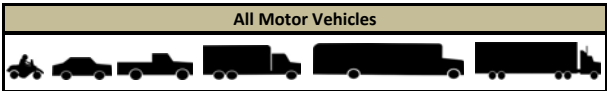


Intersection Traffic Volume Report

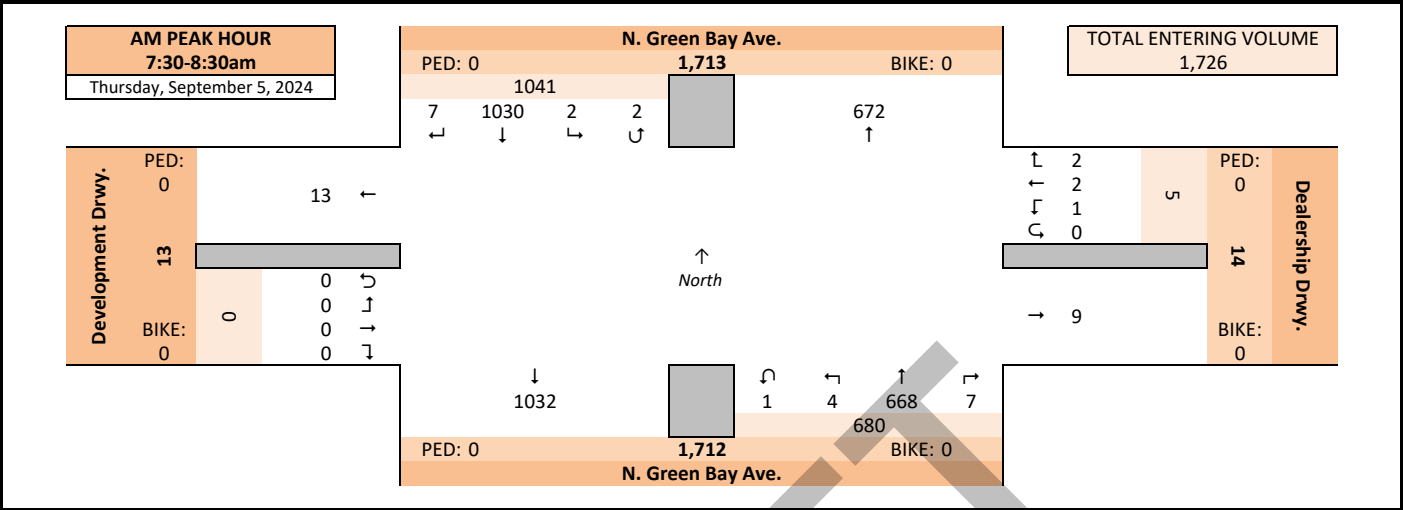
Count Basics		Page 2 of 13	
Start Date:	Wednesday, September 4, 2024	Weekday	Schools in Session
Total Number of Hours Counted: 6		Non-Holiday	No Special Events

Peak Hour Volume Graphical Summary

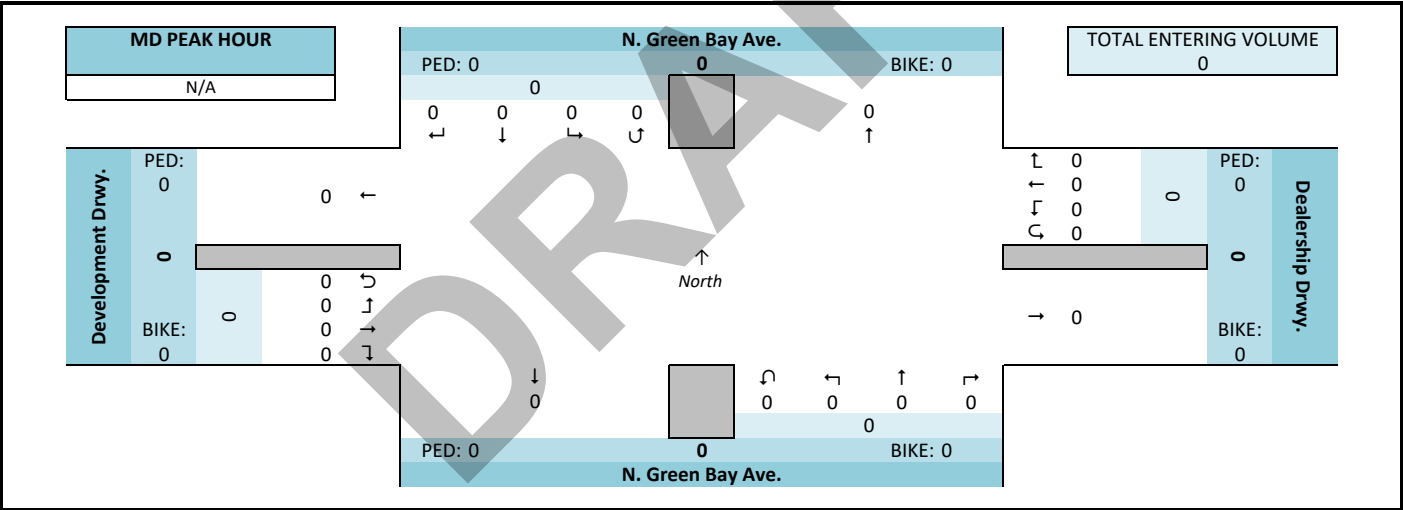
N. Green Bay Ave. & Development Drwy.



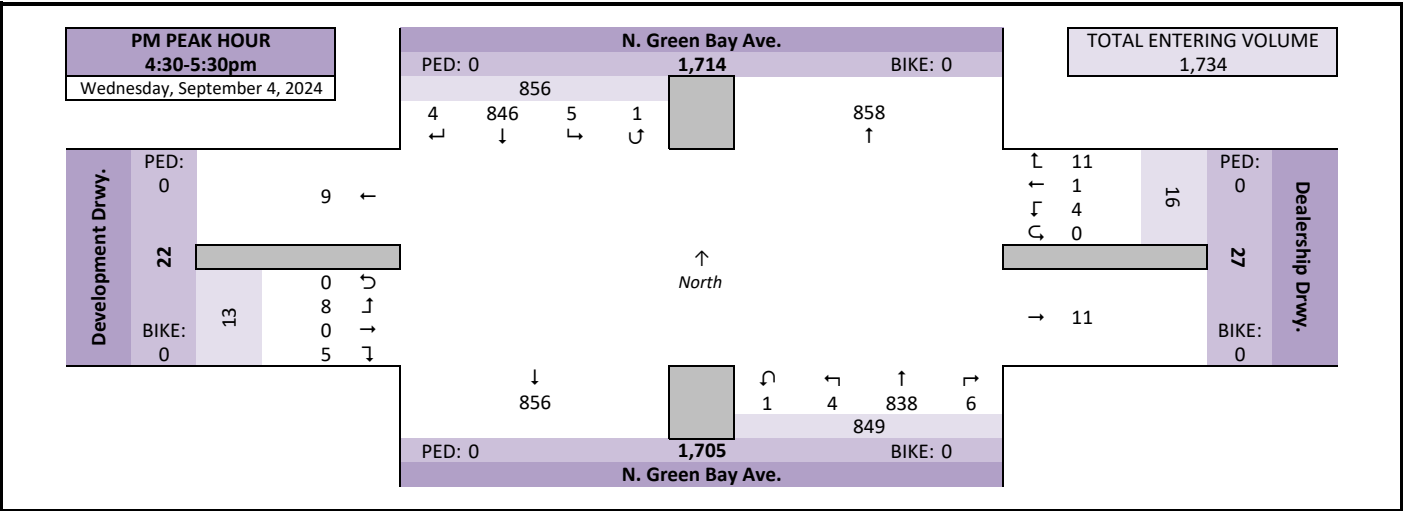
AM Peak Hour Summary



Midday (MD) Peak Hour Summary



PM Peak Hour Summary

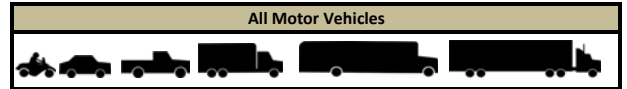


Intersection Traffic Volume Report

Count Basics			Page 3 of 13
Start Date:	Wednesday, September 4, 2024	Weekday	Schools in Session
Total Number of Hours Counted:	6	Non-Holiday	No Special Events

Peak Hour Volume Summary

N. Green Bay Ave. & Development Drwy.



Peak Hour Volumes, Truck Percentages, and PHFs

Thursday, September 5, 2024		↓					↶					↑					↷					
		From North					From East					From South					From West					
AM Peak Hour	AM Peak Hour	N. Green Bay Ave.					Dealership Drwy.					N. Green Bay Ave.					Development Drwy.					
	Start Time	Right	Thru	Left	U-Tn	Total	Right	Thru	Left	U-Tn	Total	Right	Thru	Left	U-Tn	Total	Right	Thru	Left	U-Tn	Total	Totals
	7:30 AM	2	281	0	0	283	0	1	0	0	1	1	152	1	0	154	0	0	0	0	0	438
	7:45 AM	3	281	2	0	286	1	0	0	0	1	0	186	0	0	186	0	0	0	0	0	473
	8:00 AM	1	243	0	1	245	1	1	0	0	2	3	159	3	0	165	0	0	0	0	0	412
	8:15 AM	1	225	0	1	227	0	0	1	0	1	3	171	0	1	175	0	0	0	0	0	403
	Peak Hour Volume	7	1030	2	2	1041	2	2	1	0	5	7	668	4	1	680	0	0	0	0	0	1726
	Rounded Hourly Volume	5	1030	0	0	1035	0	0	0	0	0	5	670	5	0	680	0	0	0	0	0	1715
	% Single Unit Trucks	0.0	4.6	0.0	0.0	4.5	0.0	0.0	0.0	0.0	0.0	14.3	5.1	0.0	0.0	5.1	0.0	0.0	0.0	0.0	0.0	4.8
	% Heavy Trucks	0.0	0.4	0.0	0.0	0.4	50.0	0.0	0.0	0.0	20.0	0.0	0.7	0.0	0.0	0.7	0.0	0.0	0.0	0.0	0.0	0.6
% Trucks (Total)	0.0	5.0	0.0	0.0	4.9	50.0	0.0	0.0	0.0	20.0	14.3	5.8	0.0	0.0	5.9	0.0	0.0	0.0	0.0	0.0	5.3	
Peak Hour Factor (PHF)	0.58	0.92	0.25	0.50	0.91	0.50	0.50	0.25	0.00	0.62	0.58	0.90	0.33	0.25	0.91	0.00	0.00	0.00	0.00	0.00	0.91	

N/A		↓ From North					← From East					↑ From South					→ From West						
Midday (MD) Peak Hour	MD Peak Hour	N. Green Bay Ave.					Dealership Drwy.					N. Green Bay Ave.					Development Drwy.						
	Start Time	Right	Thru	Left	U-Tn	Total	Right	Thru	Left	U-Tn	Total	Right	Thru	Left	U-Tn	Total	Right	Thru	Left	U-Tn	Total	Totals	
	12:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	12:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	12:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	12:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Peak Hour Volume	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Rounded Hourly Volume	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	% Single Unit Trucks	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	% Heavy Trucks	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
% Trucks (Total)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Peak Hour Factor (PHF)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	

Wednesday, September 4, 2024		↓					↶					↑					↷					Totals
PM Peak Hour		From North					From East					From South					From West					
Start Time		N. Green Bay Ave.					Dealership Drwy.					N. Green Bay Ave.					Development Drwy.					
		Right	Thru	Left	U-Tn	Total	Right	Thru	Left	U-Tn	Total	Right	Thru	Left	U-Tn	Total	Right	Thru	Left	U-Tn	Total	
PM Peak Hour	4:30 PM	1	222	0	0	223	3	1	1	0	5	1	192	3	0	196	4	0	6	0	10	434
	4:45 PM	0	205	2	0	207	4	0	2	0	6	1	210	0	0	211	1	0	1	0	2	426
	5:00 PM	1	202	2	1	206	0	0	1	0	1	1	242	0	1	244	0	0	0	0	0	451
	5:15 PM	2	217	1	0	220	4	0	0	0	4	3	194	1	0	198	0	0	1	0	1	423
	Peak Hour Volume	4	846	5	1	856	11	1	4	0	16	6	838	4	1	849	5	0	8	0	13	1734
	Rounded Hourly Volume	5	845	5	0	855	10	0	5	0	15	5	840	5	0	850	5	0	10	0	15	1735
	% Single Unit Trucks	0.0	2.4	0.0	0.0	2.3	0.0	0.0	0.0	0.0	0.0	0.0	2.1	0.0	0.0	2.1	0.0	0.0	0.0	0.0	0.0	2.2
	% Heavy Trucks	0.0	0.8	0.0	0.0	0.8	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.0	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.5
	% Trucks (Total)	0.0	3.2	0.0	0.0	3.2	0.0	0.0	0.0	0.0	0.0	0.0	2.3	0.0	0.0	2.2	0.0	0.0	0.0	0.0	0.0	2.7
Peak Hour Factor (PHF)	0.50	0.95	0.62	0.25	0.96	0.69	0.25	0.50	0.00	0.67	0.50	0.87	0.33	0.25	0.87	0.31	0.00	0.33	0.00	0.32	0.96	

Peak Hour Pedestrian and Bicyclist Volumes

Pedestrians and Bicyclists		Crossing 			Crossing 			Crossing 			Crossing 			Total Ped & Bike Volume
		North Approach			East Approach			South Approach			West Approach			
		N. Green Bay Ave.			Dealership Drwy.			N. Green Bay Ave.			Development Drwy.			
15-Minute Start Time		Pedestrian	Bicyclist	Total	Pedestrian	Bicyclist	Total	Pedestrian	Bicyclist	Total	Pedestrian	Bicyclist	Total	
AM	7:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	
	7:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	
	8:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	
	8:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	
	Total	0	0	0	0	0	0	0	0	0	0	0	0	
MD	12:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	
	12:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	
	12:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	
	12:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	
	Total	0	0	0	0	0	0	0	0	0	0	0	0	
PM	4:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	
	4:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	
	5:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	
	5:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	
	Total	0	0	0	0	0	0	0	0	0	0	0	0	

Intersection Traffic Volume Report

Count Basics			Page 4 of 13
Start Date:	Wednesday, September 4, 2024	Weekday	Schools in Session
Total Number of Hours Counted:	6	Non-Holiday	No Special Events

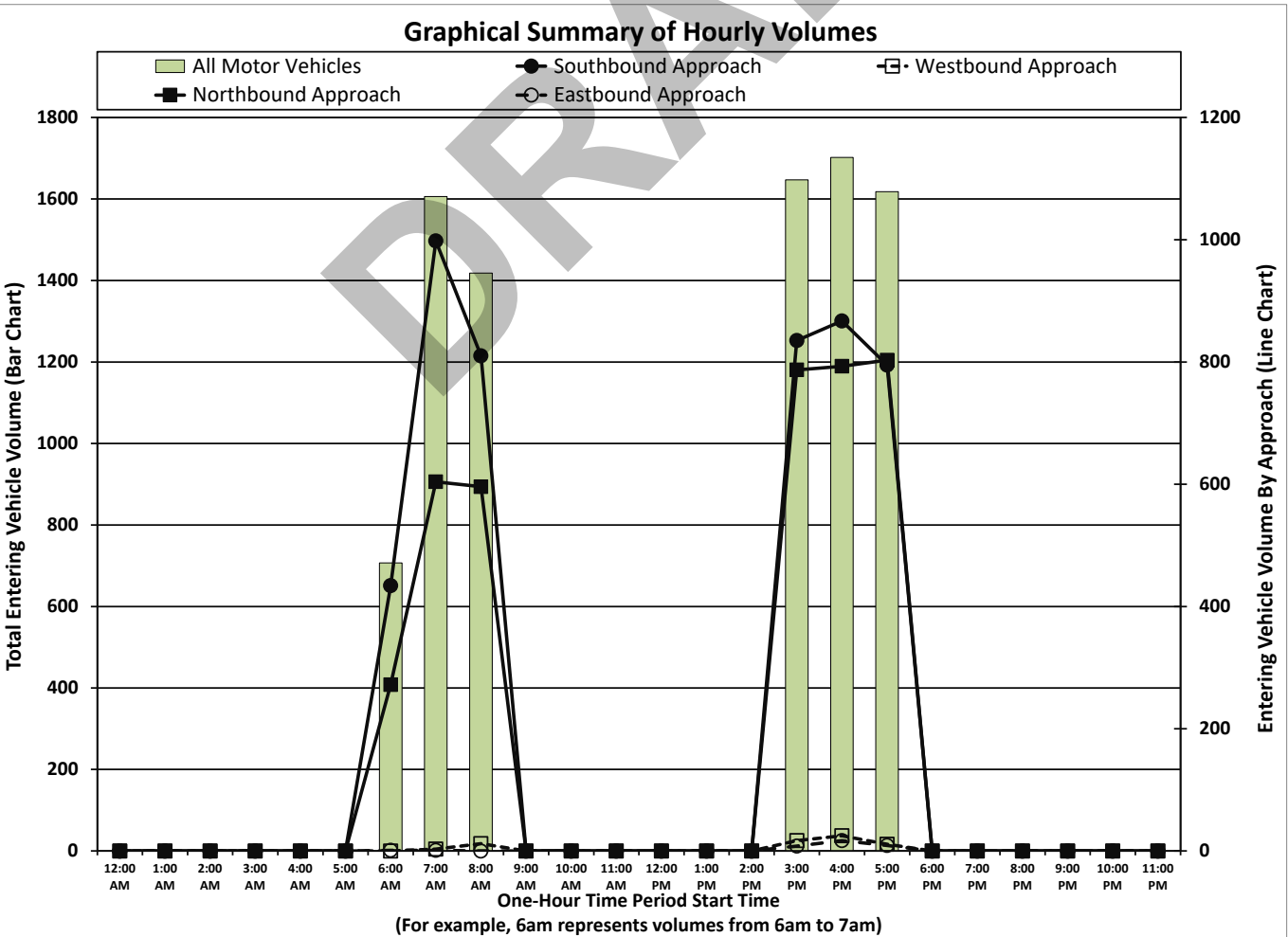
Hourly Volume Summary - Motor Vehicle Data

N. Green Bay Ave. & Development Drwy.

All Motor Vehicles

One-Hour Motor Vehicle Data

One-Hour Time Period Start Time		From North					From East					From South					From West					Total Vehicle Volume	Directional Volume Totals	
		N. Green Bay Ave.					Dealership Drwy.					N. Green Bay Ave.					Development Drwy.							
		Right	Thru	Left	U-Tn	Total	Right	Thru	Left	U-Tn	Total	Right	Thru	Left	U-Tn	Total	Right	Thru	Left	U-Tn	Total		E/W	N/S
Pre-AM	12:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	1:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
	2:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
	3:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
	4:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
AM	5:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
	6:00 AM	1	433	0	0	434	0	0	0	0	0	1	271	0	0	272	1	0	0	0	1	707	1	706
	7:00 AM	8	987	3	0	998	1	2	0	0	3	3	600	1	0	604	1	0	0	0	1	1606	4	1602
	8:00 AM	2	801	5	2	810	5	2	5	0	12	12	576	7	1	596	0	0	0	0	0	1418	12	1406
	9:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
MD	10:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
	11:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
	12:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
PM	1:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
	2:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
	3:00 PM	1	830	2	2	835	7	5	5	0	17	6	776	0	5	787	5	0	3	0	8	1647	25	1622
	4:00 PM	10	854	3	0	867	13	5	7	0	25	6	781	6	0	793	7	0	10	0	17	1702	42	1660
	5:00 PM	12	777	5	1	795	6	1	4	0	11	6	790	6	1	803	4	0	5	0	9	1618	20	1598
	6:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	7:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
	8:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
	9:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
	10:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0			
	11:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0			
Totals		34	4682	18	5	4739	32	15	21	0	68	34	3794	20	7	3855	18	0	18	0	36	8698	104	8594



Intersection Traffic Volume Report

Count Basics				Page 5 of 12	
Start Date:	Wednesday, September 4, 2024	Weekday	Schools in Session		
Total Number of Hours Counted:	6	Non-Holiday	No Special Events		

15-Minute Motor Vehicle Data

N. Green Bay Ave. & Development Drwy.



15-Minute Motor Vehicle Data

15-Minute Time Period	From North					From East					From South					From West					15-Min Totals	Hourly Sum	PHF	
	N. Green Bay Ave.					Dealership Drwy.					N. Green Bay Ave.					Development Drwy.								
	Right	Thru	Left	U-Tn	Total	Right	Thru	Left	U-Tn	Total	Right	Thru	Left	U-Tn	Total	Right	Thru	Left	U-Tn	Total				
Pre-AM Peak Period	12:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0			
	12:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0			
	12:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0			
	12:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0			
	1:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0			
	1:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0			
	1:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0			
	1:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0			
	2:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0			
	2:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0			
	2:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0			
	2:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0			
	3:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0			
	3:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0			
	3:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0			
3:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0				
AM Peak Period	6:00 AM	0	83	0	0	83	0	0	0	0	0	56	0	0	56	0	0	0	0	0	139	707	0.79	
	6:15 AM	0	92	0	0	92	0	0	0	0	0	49	0	0	49	0	0	0	0	0	141	868	0.72	
	6:30 AM	0	125	0	0	125	0	0	0	0	0	77	0	0	77	0	0	0	0	0	202	1122	0.71	
	6:45 AM	1	133	0	0	134	0	0	0	0	0	89	0	0	90	1	0	0	0	1	225	1358	0.78	
	7:00 AM	2	191	0	0	193	0	0	0	0	1	105	0	0	106	1	0	0	0	1	300	1606	0.85	
	7:15 AM	1	234	1	0	236	0	1	0	0	1	157	0	0	158	0	0	0	0	0	395	1718	0.91	
	7:30 AM	2	281	0	0	283	0	1	0	0	1	152	1	0	154	0	0	0	0	0	438	1726	0.91	
	7:45 AM	3	281	2	0	286	1	0	0	0	1	186	0	0	186	0	0	0	0	0	473	1617	0.85	
	8:00 AM	1	243	0	1	245	1	1	0	0	2	159	3	0	165	0	0	0	0	0	412	1418	0.86	
	8:15 AM	1	225	0	1	227	0	0	1	0	1	171	0	1	175	0	0	0	0	0	403			
	8:30 AM	0	189	2	0	191	3	1	3	0	7	123	3	0	131	0	0	0	0	0	329			
	8:45 AM	0	144	3	0	147	1	0	1	0	2	123	1	0	125	0	0	0	0	0	274			
	9:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0			
	9:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0			
	9:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0			
9:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0				
Midday Peak Period	10:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0			
	10:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0			
	10:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0			
	10:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0			
	11:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0			
	11:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0			
	11:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0			
	11:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0			
	12:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0			
	12:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0			
	12:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0			
	12:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0			
	1:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0			
	1:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0			
	1:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0			
1:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0				
PM Peak Period	2:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0			
	2:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0			
	2:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0			
	2:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0			
	3:00 PM	0	184	0	0	184	3	3	0	0	6	2	179	0	3	184	0	0	1	0	1	375	1647	0.94
	3:15 PM	1	236	1	1	239	1	0	3	4	2	177	0	0	179	2	0	1	0	3	425	1682	0.96	
	3:30 PM	0	229	0	1	230	1	1	2	4	1	201	0	1	203	0	0	0	0	0	437	1689	0.97	
	3:45 PM	0	181	1	0	182	2	1	0	0	3	1	219	0	1	221	3	0	1	0	4	410	1686	0.97
	4:00 PM	2	209	1	0	212	4	3	0	0	7	1	190	0	0	191	0	0	0	0	0	410	1702	0.98
	4:15 PM	7	218	0	0	225	2	1	4	0	7	3	189	3	0	195	2	0	3	0	5	432	1743	0.97
	4:30 PM	1	222	0	0	223	3	1	1	0	5	1	192	3	0	196	4	0	6	0	10	434	1734	0.96
	4:45 PM	0	205	2	0	207	4	0	2	6	1	210	0	0	211	1	0	1	0	2	426	1670	0.93	
	5:00 PM	1	202	2	1	206	0	0	1	0	1	1	242	0	1	244	0	0	0	0	0	451	1618	0.90
	5:15 PM	2	217	1	0	220	4	0	0	0	4	3	194	1	0	198	0	0	1	0	1	423		
	5:30 PM	4	178	2	0	184	0	1	1	0	2	1	178	0	0	179	2	0	3	0	5	370		
5:45 PM	5	180	0	0	185	2	0	2	4	1	176	5	0	182	2	0	1	0	3	374				
6:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0				
6:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0				
6:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0				
6:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0				
7:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0				
7:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0				
7:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0				
7:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0				
8:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0				
8:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0				
8:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0				
8:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0				
9:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0				
9:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0				
9:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0</					

Count Basics		Page 6 of 13
Start Date: Wednesday, September 4, 2024	Weekday	Schools in Session
Total Number of Hours Counted: 6	Non-Holiday	No Special Events

N. Green Bay Ave. & Development Drwy.

Automobiles (Cars, Light Trucks, & Motorcycles)



15-Minute Time Period Start Time		From North					From East					From South					From West					15-Min Totals	Hourly Sum
		N. Green Bay Ave.					Dealership Drwy.					N. Green Bay Ave.					Development Drwy.						
		Right	Thru	Left	U-Tn	Total	Right	Thru	Left	U-Tn	Total	Right	Thru	Left	U-Tn	Total	Right	Thru	Left	U-Tn	Total		
Pre-AM Peak Period	12:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	12:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	12:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	12:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	1:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	1:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	1:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	1:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	2:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	2:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	2:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	2:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	3:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	3:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	3:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	3:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
4:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
AM Peak Period	4:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	4:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	4:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	5:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	5:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	5:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	5:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	6:00 AM	0	78	0	0	78	0	0	0	0	0	0	55	0	0	55	0	0	0	0	0	133	
	6:15 AM	0	86	0	0	86	0	0	0	0	0	0	44	0	0	44	0	0	0	0	0	130	
	6:30 AM	0	112	0	0	112	0	0	0	0	0	0	73	0	0	73	0	0	0				

Task Force Performance & Time Summary																					
Hourly Time Period Start/End Time	From North				From East				From South				From West				Total Hourly Volume				
	N. Green Bay Ave.				Dealership Drwy.				N. Green Bay Ave.				Development Drwy.								
	Right	Thru	Left	U-Tn	Total	Right	Thru	Left	U-Tn	Total	Right	Thru	Left	U-Tn	Total	Right		Thru	Left	U-Tn	Total
AM 7:30 AM	7	979	2	0	2,990	1	2	1	0	4	6	629	4	1	640	0	0	0	0	0	1,634
MD 12:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
PM 4:30 PM	4	819	5	1	829	11	1	4	0	16	6	819	4	1	830	5	0	8	0	13	1,688

Intersection Traffic Volume Report

Count Basics	Page 7 of 13		
Start Date	Wednesday, September 4, 2024	Weekday	Schools in Session
Total Number of Hours Counted	6	Non-Holiday	No Special Events

15-Minute Single Unit (SU) Truck & Bus Data

N. Green Bay Ave. & Development Drwy.



15-Minute Single Unit (SU) Truck & Bus Data

15-Minute Time Period Start Time	From North N. Green Bay Ave.					From East Dealership Drwy.					From South N. Green Bay Ave.					From West Development Drwy.					15-Min Totals	Hourly Sum
	Right	Thru	Left	U-Tn	Total	Right	Thru	Left	U-Tn	Total	Right	Thru	Left	U-Tn	Total	Right	Thru	Left	U-Tn	Total		
Pre-AM Peak Period	12:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	12:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	12:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	12:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	1:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	1:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	1:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	1:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	2:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	2:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	2:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	2:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	3:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	3:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	3:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
3:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
4:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
4:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
4:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
4:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
5:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
5:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
5:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
5:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
AM Peak Period	6:00 AM	0	4	0	0	4	0	0	0	0	0	1	0	0	1	0	0	0	0	0	0	5
	6:15 AM	0	6	0	0	6	0	0	0	0	0	5	0	0	5	0	0	0	0	0	0	11
	6:30 AM	0	9	0	0	9	0	0	0	0	0	4	0	0	4	0	0	0	0	0	0	13
	6:45 AM	0	3	0	0	3	0	0	0	0	0	5	0	0	5	1	0	0	0	0	1	9
	7:00 AM	0	9	0	0	9	0	0	0	0	0	8	0	0	8	0	0	0	0	0	0	17
	7:15 AM	0	7	0	0	7	0	0	0	0	0	7	0	0	7	0	0	0	0	0	0	14
	7:30 AM	0	14	0	0	14	0	0	0	0	0	9	0	0	9	0	0	0	0	0	0	23
	7:45 AM	0	8	0	0	8	0	0	0	0	0	9	0	0	9	0	0	0	0	0	0	17
	8:00 AM	0	12	0	0	12	0	0	0	0	0	9	0	0	9	0	0	0	0	0	0	21
	8:15 AM	0	13	0	0	13	0	0	0	0	1	7	0	0	8	0	0	0	0	0	0	21
	8:30 AM	0	12	0	0	12	1	0	0	0	1	7	0	0	7	0	0	0	0	0	0	20
	8:45 AM	0	8	0	0	8	0	0	0	0	0	3	0	0	3	0	0	0	0	0	0	11
	9:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	9:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	9:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
9:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
Midday Peak Period	10:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	10:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	10:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	10:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	11:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	11:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	11:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	11:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	12:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	12:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	12:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	12:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	1:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	1:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	1:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
PM Peak Period	2:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	2:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	2:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	2:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	3:00 PM	0	9	0	0	9	0	0	0	0	0	5	0	0	5	0	0	0	0	0	0	14
	3:15 PM	0	7	0	0	7	0	0	0	0	0	6	0	0	6	0	0	0	0	0	0	13
	3:30 PM	0	2	0	0	2	0	0	0	0	0	5	0	0	5	0	0	0	0	0	0	7
	3:45 PM	0	5	0	0	5	0	0	0	0	0	1	0	0	1	0	0	0	0	0	0	6
	4:00 PM	0	9	0	0	9	0	0	0	0	0	8	0	0	8	0	0	0	0	0	0	17
	4:15 PM	0	8	0	0	8	0	0	0	0	0	1	0	0	1	0	0	0	0	0	0	9
	4:30 PM	0	11	0	0	11	0	0	0	0	0	5	0	0	5	0	0	0	0	0	0	16
	4:45 PM	0	2	0	0	2	0	0	0	0	0	4	0	0	4	0	0	0	0	0	0	6
	5:00 PM	0	4	0	0	4	0	0	0	0	0	5	0	0	5	0	0	0	0	0	0	9
	5:15 PM	0	3	0	0	3	0	0	0	0	0	4	0	0	4	0	0	0	0	0	0	7
	5:30 PM	0	2	0	0	2	0	0	0	0	0	4	0	0	4	0	0	0	0	0	0	6
5:45 PM	0	5	0	0	5	0	0	0	0	0	3	0	0	3	0	0	0	0	0	0	8	
6:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
6:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
6:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
6:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
7:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
7:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
7:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
7:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
8:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
8:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
8:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
8:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
9:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0</							

Count Basics		Page 8 of 13
Start Date:	Wednesday, September 4, 2024	Weekday
		Schools in Session
Total Number of Hours Counted:	6	Non-Holiday
		No Special Events

N. Green Bay Ave. & Development Drwy.

[illegible]

Hourly Time Period		From North				From East				From South				From West				Total Hourly Volume				
		N. Green Bay Ave.				Dealership Drwy.				N. Green Bay Ave.				Development Drwy.								
		Right	Thru	Left	U-Tn	Total	Right	Thru	Left	U-Tn	Total	Right	Thru	Left	U-Tn	Total	Right		Thru	Left	U-Tn	Total
AM	7:30 AM	0	0	0	0	4	1	0	0	0	1	0	5	0	0	5	0	0	0	0	0	10
MD	12:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
PM	4:30 PM	0	7	0	0	7	0	0	0	0	0	1	0	0	1	0	0	0	0	0	0	0

Count Basics		Page 9 of 13
Start Date:	Wednesday, September 4, 2024	Weekday
Total Number of Hours Counted: 6		Schools in Session
		No Special Events

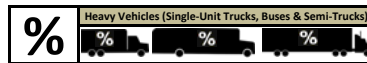
N. Green Bay Ave. & Development Drwy.

[illegible]

Hourly Time Period Start Time	From North				From East				From South				From West				Total Hourly Volume				
	N. Green Bay Ave.				Dealership Drwy.				N. Green Bay Ave.				Development Drwy.								
	Right	Thru	Left	U-Tn	Total	Right	Thru	Left	U-Tn	Total	Right	Thru	Left	U-Tn	Total	Right		Thru	Left	U-Tn	Total
AM 7:30 AM	0	51	0	0	51	1	0	0	0	1	1	39	0	0	40	0	0	0	0	0	93
MD 12:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
PM 4:30 PM	0	27	0	0	27	0	0	0	0	0	0	19	0	0	19	0	0	0	0	0	46

Count Basics		Page 10 of 13
Start Date: Wednesday, September 4, 2024	Weekday	Schools in Session
Total Number of Hours Counted: 6	Non-Holiday	No Special Events

N. Green Bay Ave. & Development Drwy.

[illegible]

Hourly Time Period Start Time	From North				From East				From South				From West				Hourly Heavy Vehicle Percentage				
	N. Green Bay Ave.				Dealership Drwy.				N. Green Bay Ave.				Development Drwy.								
	Right	Thru	Left	U-Tn	Total	Right	Thru	Left	U-Tn	Total	Right	Thru	Left	U-Tn	Total	Right		Thru	Left	U-Tn	Total
AM 7:30 AM	0.0	5.0	0.0	0.0	4.9	50.0	0.0	0.0	0.0	20.0	14.3	5.8	0.0	0.0	5.9	0.0	0.0	0.0	0.0	0.0	5.0
MD 12:00 PM	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
PM 4:30 PM	0.0	3.2	0.0	0.0	3.2	0.0	0.0	0.0	0.0	0.0	0.0	2.3	0.0	0.0	2.2	0.0	0.0	0.0	0.0	0.0	2.0

Intersection Traffic Volume Report

Count Basics				Page 11 of 13
Start Date:	Wednesday, September 4, 2024	Weekday	Schools in Session	
Total Number of Hours Counted:	6	Non-Holiday	No Special Events	

15-Minute Pedestrian and Bicyclist Data

N. Green Bay Ave. & Development Drwy.



15-Minute Pedestrian and Bicyclist Data

15-Minute Time Period	Crossing North Approach			Crossing East Approach			Crossing South Approach			Crossing West Approach			15-Min Totals	Hourly Sum
	N. Green Bay Ave.			Dealership Drwy.			N. Green Bay Ave.			Development Drwy.				
	Pedestrian	Bicyclist	Total	Pedestrian	Bicyclist	Total	Pedestrian	Bicyclist	Total	Pedestrian	Bicyclist	Total		
Pre-AM Peak Period	12:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	
	12:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	
	12:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	
	12:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	
	1:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	
	1:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	
	1:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	
	1:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	
	2:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	
	2:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	
	2:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	
	2:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	
	3:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	
	3:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	
	3:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	
	3:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	
AM Peak Period	4:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	
	4:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	
	4:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	
	4:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	
	5:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	
	5:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	
	5:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	
	5:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	
	6:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	
	6:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	
	6:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	
	6:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	
	7:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	
	7:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	
	7:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	
	7:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	
Midday Peak Period	8:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	
	8:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	
	8:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	
	8:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	
	9:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	
	9:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	
	9:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	
	9:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	
	10:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	
	10:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	
	10:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	
	10:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	
	11:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	
	11:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	
	11:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	
	11:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	
PM Peak Period	12:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	
	12:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	
	12:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	
	12:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	
	1:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	
	1:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	
	1:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	
	1:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	
	2:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	
	2:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	
	2:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	
	2:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	
	3:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	
	3:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	
	3:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	
	3:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	
Post PM Peak Period	4:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	
	4:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	
	4:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	
	4:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	
	5:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	
	5:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	
	5:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	
	5:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	
	6:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	
	6:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	
	6:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	
	6:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	
	7:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	
	7:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	
	7:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	
	7:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	
8:00 PM	0	0	0	0	0	0	0	0	0	0	0	0		
8:15 PM	0	0	0	0	0	0	0	0	0	0	0	0		
8:30 PM	0	0	0	0	0	0	0	0	0	0	0	0		
8:45 PM	0	0	0	0	0	0	0	0	0	0	0	0		
9:00 PM	0	0	0	0	0	0	0	0	0	0	0	0		
9:15 PM	0	0	0	0	0	0	0	0	0	0	0	0		
9:30 PM	0	0	0	0	0	0	0	0	0	0	0	0		
9:45 PM	0	0	0	0	0	0	0	0	0	0	0	0		
10:00 PM	0	0	0	0	0	0	0	0	0	0	0	0		
10:15 PM	0	0	0	0	0	0	0	0	0	0	0	0		
10:30 PM	0	0	0	0	0	0	0	0	0	0	0	0		
10:45 PM	0	0	0	0	0	0	0	0	0	0	0	0		
11:00 PM	0	0	0	0	0	0	0	0	0	0	0	0		
11:15 PM	0	0	0	0	0	0	0	0	0	0	0	0		
11:30 PM	0	0	0	0	0	0	0	0	0	0	0	0		
11:45 PM	0	0	0	0	0	0	0	0	0	0	0	0		
Totals	0	0	0	0	0	0	0	0	0	0	0	0	0	

Special Pedestrians

Pedestrian Type	None	1 or 2	A Few	Several	Many	Unknown
Pre-school Children	x					
Elementary School Age Children	x					
Visually Impaired (white cane/help)	x					
Elderly/Disabled (except wheelchair)	x					
Wheelchairs/Electric Scooters	x					
Other (None)	x					

Appendix B:
Highway Capacity Manual (HCM) Operational
Summaries

DRAFT

Timings

3: N. Green Bay Ave. & W. Florist Ave.

09/26/2024

											
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	SBL	SBT	SBR
Lane Configurations											
Traffic Volume (vph)	25	5	50	5	10	25	225	630	45	880	105
Future Volume (vph)	25	5	50	5	10	25	225	630	45	880	105
Turn Type	Perm	NA	Perm	Perm	NA	Perm	pm+pt	NA	Perm	NA	Perm
Protected Phases		8			4		1	6		2	
Permitted Phases	8		8	4		4	6		2		2
Detector Phase	8	8	8	4	4	4	1	6	2	2	2
Switch Phase											
Minimum Initial (s)	7.0	7.0	7.0	7.0	7.0	7.0	5.0	15.0	15.0	15.0	15.0
Minimum Split (s)	12.0	12.0	12.0	12.0	12.0	12.0	8.5	20.6	20.6	20.6	20.6
Total Split (s)	28.0	28.0	28.0	28.0	28.0	28.0	25.0	62.0	37.0	37.0	37.0
Total Split (%)	31.1%	31.1%	31.1%	31.1%	31.1%	31.1%	27.8%	68.9%	41.1%	41.1%	41.1%
Maximum Green (s)	23.0	23.0	23.0	23.0	23.0	23.0	21.5	56.4	31.4	31.4	31.4
Yellow Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.5	3.6	3.6	3.6	3.6
All-Red Time (s)	2.0	2.0	2.0	2.0	2.0	2.0	0.0	2.0	2.0	2.0	2.0
Lost Time Adjust (s)		0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)		5.0	5.0		5.0	5.0	3.5	5.6	5.6	5.6	5.6
Lead/Lag							Lead		Lag	Lag	Lag
Lead-Lag Optimize?							Yes		Yes	Yes	Yes
Vehicle Extension (s)	0.2	0.2	0.2	0.2	0.2	0.2	0.2	3.0	3.0	3.0	3.0
Minimum Gap (s)	0.2	0.2	0.2	0.2	0.2	0.2	0.2	2.0	2.0	2.0	2.0
Time Before Reduce (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	40.0	25.0	25.0	25.0
Time To Reduce (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	20.0	10.0	10.0	10.0
Recall Mode	None	None	None	None	None	None	None	C-Min	C-Min	C-Min	C-Min
Walk Time (s)											
Flash Dont Walk (s)											
Pedestrian Calls (#/hr)											
Intersection Summary											
Cycle Length: 90											
Actuated Cycle Length: 90											
Offset: 0 (0%), Referenced to phase 2:SBTL and 6:NBTL, Start of Green											
Natural Cycle: 55											
Control Type: Actuated-Coordinated											

Splits and Phases: 3: N. Green Bay Ave. & W. Florist Ave.



Queues

3: N. Green Bay Ave. & W. Florist Ave.

09/26/2024



Lane Group	EBT	EBR	WBT	WBR	NBL	NBT	SBL	SBT	SBR
Lane Group Flow (vph)	34	57	17	18	256	727	51	1000	74
v/c Ratio	0.33	0.49	0.12	0.13	0.50	0.25	0.11	0.43	0.07
Control Delay (s/veh)	46.7	53.0	38.9	39.3	5.3	2.5	9.0	9.4	7.9
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay (s/veh)	46.7	53.0	38.9	39.3	5.3	2.5	9.0	9.4	7.9
Queue Length 50th (ft)	19	32	9	10	20	39	10	132	14
Queue Length 95th (ft)	46	67	28	29	44	67	32	227	38
Internal Link Dist (ft)	447		368			305		180	
Turn Bay Length (ft)		175		25	260		110		150
Base Capacity (vph)	294	332	384	375	669	2854	451	2285	1022
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.12	0.17	0.04	0.05	0.38	0.25	0.11	0.44	0.07
Intersection Summary									

HCM 7th Signalized Intersection Summary

3: N. Green Bay Ave. & W. Florist Ave.

09/26/2024

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	25	5	50	5	10	25	225	630	10	45	880	105
Future Volume (veh/h)	25	5	50	5	10	25	225	630	10	45	880	105
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Lane Width Adj.	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No			No			No		
Adj Sat Flow, veh/h/ln	1544	1544	1544	1752	1752	1752	1826	1826	1826	1826	1826	1826
Adj Flow Rate, veh/h	28	6	0	6	11	18	256	716	11	51	1000	74
Peak Hour Factor	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88
Percent Heavy Veh, %	24	24	24	10	10	10	5	5	5	5	5	5
Cap, veh/h	127	19		74	86	95	492	2862	44	593	2506	1118
Arrive On Green	0.06	0.06	0.00	0.06	0.06	0.06	0.06	0.82	0.82	0.72	0.72	0.72
Sat Flow, veh/h	843	295	1309	307	1350	1485	1739	3497	54	710	3469	1547
Grp Volume(v), veh/h	34	0	0	17	0	18	256	355	372	51	1000	74
Grp Sat Flow(s),veh/h/ln	1138	0	1309	1656	0	1485	1739	1735	1816	710	1735	1547
Q Serve(g_s), s	1.9	0.0	0.0	0.0	0.0	1.0	3.1	4.2	4.2	1.9	10.1	1.3
Cycle Q Clear(g_c), s	2.8	0.0	0.0	0.8	0.0	1.0	3.1	4.2	4.2	1.9	10.1	1.3
Prop In Lane	0.82		1.00	0.35		1.00	1.00		0.03	1.00		1.00
Lane Grp Cap(c), veh/h	146	0		160	0	95	492	1419	1486	593	2506	1118
V/C Ratio(X)	0.23	0.00		0.11	0.00	0.19	0.52	0.25	0.25	0.09	0.40	0.07
Avail Cap(c_a), veh/h	375	0		461	0	379	808	1419	1486	593	2506	1118
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	0.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	40.8	0.0	0.0	39.8	0.0	39.9	3.7	1.9	1.9	3.7	4.9	3.6
Incr Delay (d2), s/veh	0.3	0.0	0.0	0.1	0.0	0.4	0.3	0.4	0.4	0.3	0.5	0.1
Initial Q Delay(d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.7	0.0	0.0	0.4	0.0	0.4	0.5	0.7	0.7	0.2	2.7	0.3
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	41.1	0.0	0.0	39.9	0.0	40.3	4.0	2.3	2.3	4.0	5.4	3.8
LnGrp LOS	D			D		D	A	A	A	A	A	A
Approach Vol, veh/h	34			35			983			1125		
Approach Delay, s/veh	41.1			40.1			2.7			5.2		
Approach LOS	D			D			A			A		
Timer - Assigned Phs	1	2		4		6		8				
Phs Duration (G+Y+Rc), s	8.6	70.6		10.8		79.2		10.8				
Change Period (Y+Rc), s	3.5	5.6		5.0		5.6		5.0				
Max Green Setting (Gmax), s	21.5	31.4		23.0		56.4		23.0				
Max Q Clear Time (g_c+l1), s	5.1	12.1		3.0		6.2		4.8				
Green Ext Time (p_c), s	0.1	7.3		0.0		4.7		0.0				
Intersection Summary												
HCM 7th Control Delay, s/veh				5.2								
HCM 7th LOS				A								
Notes												
Unsignalized Delay for [EBR] is excluded from calculations of the approach delay and intersection delay.												

Intersection												
Int Delay, s/veh	0.2											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	1	0	0	1	0	0	5	670	5	5	1030	5
Future Vol, veh/h	1	0	0	1	0	0	5	670	5	5	1030	5
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	1	-	-	1	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	91	91	91	91	91	91	91	91	91	91	91	91
Heavy Vehicles, %	2	2	2	2	2	2	6	6	6	5	5	5
Mvmt Flow	1	0	0	1	0	0	5	736	5	5	1132	5
Major/Minor	Minor2		Minor1		Major1		Major2					
Conflicting Flow All	1525	1898	569	1327	1898	371	1137	0	0	742	0	0
Stage 1	1146	1146	-	750	750	-	-	-	-	-	-	-
Stage 2	379	753	-	577	1148	-	-	-	-	-	-	-
Critical Hdwy	7.54	6.54	6.94	7.54	6.54	6.94	4.22	-	-	4.2	-	-
Critical Hdwy Stg 1	6.54	5.54	-	6.54	5.54	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.54	5.54	-	6.54	5.54	-	-	-	-	-	-	-
Follow-up Hdwy	3.52	4.02	3.32	3.52	4.02	3.32	2.26	-	-	2.25	-	-
Pot Cap-1 Maneuver	100	75	466	146	75	925	588	-	-	964	-	-
Stage 1	212	272	-	491	502	-	-	-	-	-	-	-
Stage 2	864	500	-	469	271	-	-	-	-	-	-	-
Platoon blocked, %	0	0	-	0	0	0	-	-	-	0	-	-
Mov Cap-1 Maneuver	98	73	466	143	73	925	588	-	-	964	-	-
Mov Cap-2 Maneuver	179	189	-	281	187	-	-	-	-	-	-	-
Stage 1	210	270	-	485	496	-	-	-	-	-	-	-
Stage 2	854	494	-	465	269	-	-	-	-	-	-	-
Approach	EB		WB		NB		SB					
HCM Control Delay, s/v25.28			17.88		0.21		0.11					
HCM LOS	D		C									
Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1WBLn1	SBL	SBT	SBR					
Capacity (veh/h)	26	-	-	179	281	17	-	-				
HCM Lane V/C Ratio	0.009	-	-	0.006	0.004	0.006	-	-				
HCM Control Delay (s/veh)	11.2	0.1	-	25.3	17.9	8.8	0.1	-				
HCM Lane LOS	B	A	-	D	C	A	A	-				
HCM 95th %tile Q(veh)	0	-	-	0	0	0	-	-				

Timings

3: N. Green Bay Ave. & W. Florist Ave.

09/26/2024

											
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	SBL	SBT	SBR
Lane Configurations											
Traffic Volume (vph)	85	5	170	20	5	65	40	700	30	810	15
Future Volume (vph)	85	5	170	20	5	65	40	700	30	810	15
Turn Type	Perm	NA	Perm	Perm	NA	Perm	pm+pt	NA	Perm	NA	Perm
Protected Phases		8			4		1	6		2	
Permitted Phases	8		8	4		4	6		2		2
Detector Phase	8	8	8	4	4	4	1	6	2	2	2
Switch Phase											
Minimum Initial (s)	7.0	7.0	7.0	7.0	7.0	7.0	5.0	15.0	15.0	15.0	15.0
Minimum Split (s)	12.0	12.0	12.0	12.0	12.0	12.0	8.5	20.6	20.6	20.6	20.6
Total Split (s)	28.0	28.0	28.0	28.0	28.0	28.0	25.0	62.0	37.0	37.0	37.0
Total Split (%)	31.1%	31.1%	31.1%	31.1%	31.1%	31.1%	27.8%	68.9%	41.1%	41.1%	41.1%
Maximum Green (s)	23.0	23.0	23.0	23.0	23.0	23.0	21.5	56.4	31.4	31.4	31.4
Yellow Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.5	3.6	3.6	3.6	3.6
All-Red Time (s)	2.0	2.0	2.0	2.0	2.0	2.0	0.0	2.0	2.0	2.0	2.0
Lost Time Adjust (s)		0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)		5.0	5.0		5.0	5.0	3.5	5.6	5.6	5.6	5.6
Lead/Lag							Lead		Lag	Lag	Lag
Lead-Lag Optimize?							Yes		Yes	Yes	Yes
Vehicle Extension (s)	0.2	0.2	0.2	0.2	0.2	0.2	0.2	3.0	3.0	3.0	3.0
Minimum Gap (s)	0.2	0.2	0.2	0.2	0.2	0.2	0.2	2.0	2.0	2.0	2.0
Time Before Reduce (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	40.0	25.0	25.0	25.0
Time To Reduce (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	20.0	10.0	10.0	10.0
Recall Mode	None	None	None	None	None	None	None	C-Min	C-Min	C-Min	C-Min
Walk Time (s)											
Flash Dont Walk (s)											
Pedestrian Calls (#/hr)											
Intersection Summary											
Cycle Length: 90											
Actuated Cycle Length: 90											
Offset: 8 (9%), Referenced to phase 2:SBTL and 6:NBTL, Start of Green											
Natural Cycle: 45											
Control Type: Actuated-Coordinated											

Splits and Phases: 3: N. Green Bay Ave. & W. Florist Ave.



Queues

3: N. Green Bay Ave. & W. Florist Ave.

09/26/2024



Lane Group	EBT	EBR	WBT	WBR	NBL	NBT	SBL	SBT	SBR
Lane Group Flow (vph)	94	179	26	42	42	753	32	853	10
v/c Ratio	0.48	0.78	0.12	0.18	0.08	0.29	0.06	0.35	0.00
Control Delay (s/veh)	42.6	59.5	32.4	33.5	3.9	4.7	7.8	7.8	7.5
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay (s/veh)	42.6	59.5	32.4	33.5	3.9	4.7	7.8	7.8	7.5
Queue Length 50th (ft)	50	100	13	21	5	62	6	107	2
Queue Length 95th (ft)	91	157	34	47	16	110	21	174	9
Internal Link Dist (ft)	447		368			305		180	
Turn Bay Length (ft)		175		25	260		110		150
Base Capacity (vph)	341	404	360	404	691	2553	459	2387	1068
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.28	0.44	0.07	0.10	0.06	0.29	0.07	0.36	0.01
Intersection Summary									

HCM 7th Signalized Intersection Summary

3: N. Green Bay Ave. & W. Florist Ave.

09/26/2024

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	85	5	170	20	5	65	40	700	15	30	810	15
Future Volume (veh/h)	85	5	170	20	5	65	40	700	15	30	810	15
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Lane Width Adj.	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No			No			No		
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1841	1841	1841	1856	1856	1856
Adj Flow Rate, veh/h	89	5	0	21	5	42	42	737	16	32	853	10
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	2	2	2	2	2	2	4	4	4	3	3	3
Cap, veh/h	193	6		206	42	160	530	2734	59	578	2490	1111
Arrive On Green	0.10	0.10	0.00	0.10	0.10	0.10	0.04	0.78	0.78	0.71	0.71	0.71
Sat Flow, veh/h	1137	64	1585	1321	413	1585	1753	3500	76	705	3526	1572
Grp Volume(v), veh/h	94	0	0	26	0	42	42	368	385	32	853	10
Grp Sat Flow(s),veh/h/ln	1201	0	1585	1733	0	1585	1753	1749	1827	705	1763	1572
Q Serve(g_s), s	6.0	0.0	0.0	0.0	0.0	2.2	0.5	5.2	5.3	1.3	8.4	0.2
Cycle Q Clear(g_c), s	7.2	0.0	0.0	1.2	0.0	2.2	0.5	5.2	5.3	1.3	8.4	0.2
Prop In Lane	0.95		1.00	0.81		1.00	1.00		0.04	1.00		1.00
Lane Grp Cap(c), veh/h	199	0		247	0	160	530	1366	1428	578	2490	1111
V/C Ratio(X)	0.47	0.00		0.11	0.00	0.26	0.08	0.27	0.27	0.06	0.34	0.01
Avail Cap(c_a), veh/h	412	0		476	0	405	885	1366	1428	578	2490	1111
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	0.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	40.2	0.0	0.0	36.9	0.0	37.4	3.2	2.7	2.7	4.1	5.1	3.9
Incr Delay (d2), s/veh	0.6	0.0	0.0	0.1	0.0	0.3	0.0	0.5	0.5	0.2	0.4	0.0
Initial Q Delay(d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.0	0.0	0.0	0.5	0.0	0.9	0.1	1.2	1.2	0.2	2.4	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	40.8	0.0	0.0	37.0	0.0	37.7	3.2	3.2	3.2	4.2	5.5	3.9
LnGrp LOS	D			D		D	A	A	A	A	A	A
Approach Vol, veh/h	94			68			795			895		
Approach Delay, s/veh	40.8			37.4			3.2			5.4		
Approach LOS	D			D			A			A		
Timer - Assigned Phs	1	2		4		6		8				
Phs Duration (G+Y+Rc), s	6.8	69.2		14.1		75.9		14.1				
Change Period (Y+Rc), s	3.5	5.6		5.0		5.6		5.0				
Max Green Setting (Gmax), s	21.5	31.4		23.0		56.4		23.0				
Max Q Clear Time (g_c+I1), s	2.5	10.4		4.2		7.3		9.2				
Green Ext Time (p_c), s	0.0	6.0		0.0		5.0		0.1				

Intersection Summary

HCM 7th Control Delay, s/veh	7.4
HCM 7th LOS	A

Notes

Unsignalized Delay for [EBR] is excluded from calculations of the approach delay and intersection delay.

Intersection												
Int Delay, s/veh	0.4											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	10	0	5	5	0	10	5	840	5	5	845	5
Future Vol, veh/h	10	0	5	5	0	10	5	840	5	5	845	5
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	1	-	-	1	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	96	96	96	96	96	96	96	96	96	96	96	96
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	3	3	3
Mvmt Flow	10	0	5	5	0	10	5	875	5	5	880	5
Major/Minor	Minor2		Minor1		Major1		Major2					
Conflicting Flow All	1341	1784	443	1339	1784	440	885	0	0	880	0	0
Stage 1	893	893	-	888	888	-	-	-	-	-	-	-
Stage 2	448	891	-	451	896	-	-	-	-	-	-	-
Critical Hdwy	7.54	6.54	6.94	7.54	6.54	6.94	4.14	-	-	4.16	-	-
Critical Hdwy Stg 1	6.54	5.54	-	6.54	5.54	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.54	5.54	-	6.54	5.54	-	-	-	-	-	-	-
Follow-up Hdwy	3.52	4.02	3.32	3.52	4.02	3.32	2.22	-	-	2.23	-	-
Pot Cap-1 Maneuver	*161	95	563	162	95	*906	760	-	-	909	-	-
Stage 1	*303	358	-	452	465	-	-	-	-	-	-	-
Stage 2	*855	464	-	558	357	-	-	-	-	-	-	-
Platoon blocked, %	0	0		0	0	0		-	-	0	-	-
Mov Cap-1 Maneuver	*156	93	563	158	93	*906	760	-	-	909	-	-
Mov Cap-2 Maneuver	*251	224	-	295	223	-	-	-	-	-	-	-
Stage 1	*300	355	-	448	461	-	-	-	-	-	-	-
Stage 2	*837	460	-	548	354	-	-	-	-	-	-	-
Approach	EB		WB		NB		SB					
HCM Control Delay, s/v17.32			11.92		0.14		0.12					
HCM LOS	C		B									
Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1WBLn1	SBL	SBT	SBR					
Capacity (veh/h)	21	-	-	308	536	21	-	-				
HCM Lane V/C Ratio	0.007	-	-	0.051	0.029	0.006	-	-				
HCM Control Delay (s/veh)	9.8	0.1	-	17.3	11.9	9	0.1	-				
HCM Lane LOS	A	A	-	C	B	A	A	-				
HCM 95th %tile Q(veh)	0	-	-	0.2	0.1	0	-	-				
Notes												
~: Volume exceeds capacity		\$: Delay exceeds 300s		+: Computation Not Defined				*: All major volume in platoon				

Timings

3: N. Green Bay Ave. & W. Florist Ave.

09/26/2024

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	SBL	SBT	SBR
Lane Configurations		↶	↷		↶	↷	↶	↶↷	↷	↶↷	↷
Traffic Volume (vph)	30	5	50	5	10	30	225	660	50	910	110
Future Volume (vph)	30	5	50	5	10	30	225	660	50	910	110
Turn Type	Perm	NA	Perm	Perm	NA	Perm	pm+pt	NA	Perm	NA	Perm
Protected Phases		8			4		1	6		2	
Permitted Phases	8		8	4		4	6		2		2
Detector Phase	8	8	8	4	4	4	1	6	2	2	2
Switch Phase											
Minimum Initial (s)	7.0	7.0	7.0	7.0	7.0	7.0	5.0	15.0	15.0	15.0	15.0
Minimum Split (s)	12.0	12.0	12.0	12.0	12.0	12.0	8.5	20.6	20.6	20.6	20.6
Total Split (s)	28.0	28.0	28.0	28.0	28.0	28.0	25.0	62.0	37.0	37.0	37.0
Total Split (%)	31.1%	31.1%	31.1%	31.1%	31.1%	31.1%	27.8%	68.9%	41.1%	41.1%	41.1%
Maximum Green (s)	23.0	23.0	23.0	23.0	23.0	23.0	21.5	56.4	31.4	31.4	31.4
Yellow Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.5	3.6	3.6	3.6	3.6
All-Red Time (s)	2.0	2.0	2.0	2.0	2.0	2.0	0.0	2.0	2.0	2.0	2.0
Lost Time Adjust (s)		0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)		5.0	5.0		5.0	5.0	3.5	5.6	5.6	5.6	5.6
Lead/Lag							Lead		Lag	Lag	Lag
Lead-Lag Optimize?							Yes		Yes	Yes	Yes
Vehicle Extension (s)	0.2	0.2	0.2	0.2	0.2	0.2	0.2	3.0	3.0	3.0	3.0
Minimum Gap (s)	0.2	0.2	0.2	0.2	0.2	0.2	0.2	2.0	2.0	2.0	2.0
Time Before Reduce (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	40.0	25.0	25.0	25.0
Time To Reduce (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	20.0	10.0	10.0	10.0
Recall Mode	None	None	None	None	None	None	None	C-Min	C-Min	C-Min	C-Min
Walk Time (s)											
Flash Dont Walk (s)											
Pedestrian Calls (#/hr)											
Intersection Summary											
Cycle Length: 90											
Actuated Cycle Length: 90											
Offset: 0 (0%), Referenced to phase 2:SBTL and 6:NBTL, Start of Green											
Natural Cycle: 55											
Control Type: Actuated-Coordinated											

Splits and Phases: 3: N. Green Bay Ave. & W. Florist Ave.



Queues

3: N. Green Bay Ave. & W. Florist Ave.

09/26/2024



Lane Group	EBT	EBR	WBT	WBR	NBL	NBT	SBL	SBT	SBR
Lane Group Flow (vph)	40	57	17	21	256	761	57	1034	78
v/c Ratio	0.39	0.49	0.12	0.16	0.51	0.26	0.13	0.45	0.07
Control Delay (s/veh)	49.6	53.0	39.0	39.8	5.6	2.5	9.1	9.5	7.8
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay (s/veh)	49.6	53.0	39.0	39.8	5.6	2.5	9.1	9.5	7.8
Queue Length 50th (ft)	22	32	9	11	20	41	11	136	14
Queue Length 95th (ft)	52	67	28	32	44	71	36	237	40
Internal Link Dist (ft)	447		368			305		180	
Turn Bay Length (ft)		175		25	260		110		150
Base Capacity (vph)	292	332	384	375	658	2854	437	2289	1024
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.14	0.17	0.04	0.06	0.39	0.27	0.13	0.45	0.08
Intersection Summary									

HCM 7th Signalized Intersection Summary

3: N. Green Bay Ave. & W. Florist Ave.

09/26/2024

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↗	↘		↗	↘	↘	↗↘		↘	↗↗	↘
Traffic Volume (veh/h)	30	5	50	5	10	30	225	660	10	50	910	110
Future Volume (veh/h)	30	5	50	5	10	30	225	660	10	50	910	110
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Lane Width Adj.	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No			No			No		
Adj Sat Flow, veh/h/ln	1544	1544	1544	1752	1752	1752	1826	1826	1826	1826	1826	1826
Adj Flow Rate, veh/h	34	6	0	6	11	21	256	750	11	57	1034	78
Peak Hour Factor	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88
Percent Heavy Veh, %	24	24	24	10	10	10	5	5	5	5	5	5
Cap, veh/h	132	16		75	90	99	477	2854	42	575	2495	1113
Arrive On Green	0.07	0.07	0.00	0.07	0.07	0.07	0.06	0.82	0.82	0.72	0.72	0.72
Sat Flow, veh/h	868	244	1309	313	1354	1485	1739	3500	51	688	3469	1547
Grp Volume(v), veh/h	40	0	0	17	0	21	256	372	389	57	1034	78
Grp Sat Flow(s),veh/h/ln	1112	0	1309	1667	0	1485	1739	1735	1817	688	1735	1547
Q Serve(g_s), s	2.5	0.0	0.0	0.0	0.0	1.2	3.1	4.5	4.5	2.3	10.7	1.3
Cycle Q Clear(g_c), s	3.3	0.0	0.0	0.8	0.0	1.2	3.1	4.5	4.5	2.3	10.7	1.3
Prop In Lane	0.85		1.00	0.35		1.00	1.00		0.03	1.00		1.00
Lane Grp Cap(c), veh/h	148	0		165	0	99	477	1415	1482	575	2495	1113
V/C Ratio(X)	0.27	0.00		0.10	0.00	0.21	0.54	0.26	0.26	0.10	0.41	0.07
Avail Cap(c_a), veh/h	372	0		462	0	379	792	1415	1482	575	2495	1113
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	0.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	40.9	0.0	0.0	39.6	0.0	39.8	4.0	1.9	1.9	3.9	5.1	3.7
Incr Delay (d2), s/veh	0.4	0.0	0.0	0.1	0.0	0.4	0.3	0.5	0.4	0.3	0.5	0.1
Initial Q Delay(d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.9	0.0	0.0	0.4	0.0	0.4	0.5	0.8	0.8	0.3	2.9	0.3
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	41.2	0.0	0.0	39.7	0.0	40.1	4.4	2.4	2.4	4.2	5.6	3.9
LnGrp LOS	D			D		D	A	A	A	A	A	A
Approach Vol, veh/h	40			38			1017			1169		
Approach Delay, s/veh	41.2			39.9			2.9			5.4		
Approach LOS	D			D			A			A		
Timer - Assigned Phs	1	2		4		6		8				
Phs Duration (G+Y+Rc), s	8.7	70.3		11.0		79.0		11.0				
Change Period (Y+Rc), s	3.5	5.6		5.0		5.6		5.0				
Max Green Setting (Gmax), s	21.5	31.4		23.0		56.4		23.0				
Max Q Clear Time (g_c+I1), s	5.1	12.7		3.2		6.5		5.3				
Green Ext Time (p_c), s	0.1	7.6		0.0		5.0		0.0				

Intersection Summary

HCM 7th Control Delay, s/veh	5.5
HCM 7th LOS	A

Notes

Unsignalized Delay for [EBR] is excluded from calculations of the approach delay and intersection delay.

Intersection												
Int Delay, s/veh	5.2											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	40	0	40	1	0	0	45	670	5	5	1030	50
Future Vol, veh/h	40	0	40	1	0	0	45	670	5	5	1030	50
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	1	-	-	1	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	50	50	50	91	50	91	50	91	91	91	91	50
Heavy Vehicles, %	2	2	2	2	2	2	2	6	6	5	5	2
Mvmt Flow	80	0	80	1	0	0	90	736	5	5	1132	100
Major/Minor	Minor2		Minor1		Major1		Major2					
Conflicting Flow All	1741	2115	616	1496	2162	371	1232	0	0	742	0	0
Stage 1	1193	1193	-	919	919	-	-	-	-	-	-	-
Stage 2	548	922	-	577	1243	-	-	-	-	-	-	-
Critical Hdwy	7.54	6.54	6.94	7.54	6.54	6.94	4.14	-	-	4.2	-	-
Critical Hdwy Stg 1	6.54	5.54	-	6.54	5.54	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.54	5.54	-	6.54	5.54	-	-	-	-	-	-	-
Follow-up Hdwy	3.52	4.02	3.32	3.52	4.02	3.32	2.22	-	-	2.25	-	-
Pot Cap-1 Maneuver	~ 65	52	434	105	49	925	561	-	-	964	-	-
Stage 1	198	258	-	378	412	-	-	-	-	-	-	-
Stage 2	669	410	-	469	245	-	-	-	-	-	-	-
Platoon blocked, %	0	0	-	0	0	0	-	-	-	0	-	-
Mov Cap-1 Maneuver	~ 52	42	434	68	38	925	561	-	-	964	-	-
Mov Cap-2 Maneuver	149	149	-	166	110	-	-	-	-	-	-	-
Stage 1	197	256	-	301	328	-	-	-	-	-	-	-
Stage 2	534	327	-	379	242	-	-	-	-	-	-	-
Approach	EB		WB		NB		SB					
HCM Control Delay, s/v	54.67		26.87		3.18		0.11					
HCM LOS	F		D									
Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR				
Capacity (veh/h)	386	-	-	221	166	14	-	-				
HCM Lane V/C Ratio	0.16	-	-	0.723	0.007	0.006	-	-				
HCM Control Delay (s/veh)	12.6	2.1	-	54.7	26.9	8.8	0.1	-				
HCM Lane LOS	B	A	-	F	D	A	A	-				
HCM 95th %tile Q(veh)	0.6	-	-	4.8	0	0	-	-				
Notes												
~: Volume exceeds capacity		\$: Delay exceeds 300s		+: Computation Not Defined				*: All major volume in platoon				

Timings

3: N. Green Bay Ave. & W. Florist Ave.

09/26/2024

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	SBL	SBT	SBR	
Lane Configurations												
Traffic Volume (vph)	90	5	170	20	5	70	40	725	35	840	20	
Future Volume (vph)	90	5	170	20	5	70	40	725	35	840	20	
Turn Type	Perm	NA	Perm	Perm	NA	Perm	pm+pt	NA	Perm	NA	Perm	
Protected Phases		8			4		1	6		2		
Permitted Phases	8		8	4		4	6		2		2	
Detector Phase	8	8	8	4	4	4	1	6	2	2	2	
Switch Phase												
Minimum Initial (s)	7.0	7.0	7.0	7.0	7.0	7.0	5.0	15.0	15.0	15.0	15.0	
Minimum Split (s)	12.0	12.0	12.0	12.0	12.0	12.0	8.5	20.6	20.6	20.6	20.6	
Total Split (s)	28.0	28.0	28.0	28.0	28.0	28.0	25.0	62.0	37.0	37.0	37.0	
Total Split (%)	31.1%	31.1%	31.1%	31.1%	31.1%	31.1%	27.8%	68.9%	41.1%	41.1%	41.1%	
Maximum Green (s)	23.0	23.0	23.0	23.0	23.0	23.0	21.5	56.4	31.4	31.4	31.4	
Yellow Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.5	3.6	3.6	3.6	3.6	
All-Red Time (s)	2.0	2.0	2.0	2.0	2.0	2.0	0.0	2.0	2.0	2.0	2.0	
Lost Time Adjust (s)		0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Total Lost Time (s)		5.0	5.0		5.0	5.0	3.5	5.6	5.6	5.6	5.6	
Lead/Lag							Lead		Lag	Lag	Lag	
Lead-Lag Optimize?							Yes		Yes	Yes	Yes	
Vehicle Extension (s)	0.2	0.2	0.2	0.2	0.2	0.2	0.2	3.0	3.0	3.0	3.0	
Minimum Gap (s)	0.2	0.2	0.2	0.2	0.2	0.2	0.2	2.0	2.0	2.0	2.0	
Time Before Reduce (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	40.0	25.0	25.0	25.0	
Time To Reduce (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	20.0	10.0	10.0	10.0	
Recall Mode	None	None	None	None	None	None	None	C-Min	C-Min	C-Min	C-Min	
Walk Time (s)												
Flash Dont Walk (s)												
Pedestrian Calls (#/hr)												
Intersection Summary												
Cycle Length: 90												
Actuated Cycle Length: 90												
Offset: 8 (9%), Referenced to phase 2:SBTL and 6:NBTL, Start of Green												
Natural Cycle: 45												
Control Type: Actuated-Coordinated												

Splits and Phases: 3: N. Green Bay Ave. & W. Florist Ave.



Queues

3: N. Green Bay Ave. & W. Florist Ave.

09/26/2024



Lane Group	EBT	EBR	WBT	WBR	NBL	NBT	SBL	SBT	SBR
Lane Group Flow (vph)	100	179	26	46	42	779	37	884	13
v/c Ratio	0.51	0.78	0.12	0.20	0.09	0.30	0.08	0.37	0.01
Control Delay (s/veh)	44.0	59.5	32.4	33.8	3.9	4.8	7.8	7.9	7.3
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay (s/veh)	44.0	59.5	32.4	33.8	3.9	4.8	7.8	7.9	7.3
Queue Length 50th (ft)	53	100	13	23	5	64	7	113	2
Queue Length 95th (ft)	96	157	34	51	16	115	23	182	11
Internal Link Dist (ft)	447		368			305		180	
Turn Bay Length (ft)		175		25	260		110		150
Base Capacity (vph)	341	404	359	404	681	2553	448	2387	1068
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.29	0.44	0.07	0.11	0.06	0.31	0.08	0.37	0.01
Intersection Summary									

HCM 7th Signalized Intersection Summary

3: N. Green Bay Ave. & W. Florist Ave.

09/26/2024

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	90	5	170	20	5	70	40	725	15	35	840	20
Future Volume (veh/h)	90	5	170	20	5	70	40	725	15	35	840	20
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Lane Width Adj.	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No			No			No		
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1841	1841	1841	1856	1856	1856
Adj Flow Rate, veh/h	95	5	0	21	5	46	42	763	16	37	884	13
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	2	2	2	2	2	2	4	4	4	3	3	3
Cap, veh/h	199	6		213	43	168	511	2720	57	562	2473	1103
Arrive On Green	0.11	0.11	0.00	0.11	0.11	0.11	0.04	0.78	0.78	0.70	0.70	0.70
Sat Flow, veh/h	1145	60	1585	1327	410	1585	1753	3503	73	688	3526	1572
Grp Volume(v), veh/h	100	0	0	26	0	46	42	381	398	37	884	13
Grp Sat Flow(s),veh/h/ln	1205	0	1585	1737	0	1585	1753	1749	1828	688	1763	1572
Q Serve(g_s), s	6.4	0.0	0.0	0.0	0.0	2.4	0.5	5.6	5.6	1.5	9.0	0.2
Cycle Q Clear(g_c), s	7.6	0.0	0.0	1.2	0.0	2.4	0.5	5.6	5.6	1.5	9.0	0.2
Prop In Lane	0.95		1.00	0.81		1.00	1.00		0.04	1.00		1.00
Lane Grp Cap(c), veh/h	205	0		256	0	168	511	1358	1419	562	2473	1103
V/C Ratio(X)	0.49	0.00		0.10	0.00	0.27	0.08	0.28	0.28	0.07	0.36	0.01
Avail Cap(c_a), veh/h	411	0		478	0	405	866	1358	1419	562	2473	1103
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	0.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	39.9	0.0	0.0	36.5	0.0	37.1	3.4	2.9	2.9	4.2	5.4	4.0
Incr Delay (d2), s/veh	0.7	0.0	0.0	0.1	0.0	0.3	0.0	0.5	0.5	0.2	0.4	0.0
Initial Q Delay(d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.2	0.0	0.0	0.5	0.0	0.9	0.1	1.3	1.3	0.2	2.6	0.1
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	40.6	0.0	0.0	36.6	0.0	37.4	3.4	3.4	3.4	4.5	5.8	4.1
LnGrp LOS	D			D		D	A	A	A	A	A	A
Approach Vol, veh/h	100			72			821			934		
Approach Delay, s/veh	40.6			37.1			3.4			5.7		
Approach LOS	D			D			A			A		
Timer - Assigned Phs	1	2		4		6		8				
Phs Duration (G+Y+Rc), s	6.8	68.7		14.5		75.5		14.5				
Change Period (Y+Rc), s	3.5	5.6		5.0		5.6		5.0				
Max Green Setting (Gmax), s	21.5	31.4		23.0		56.4		23.0				
Max Q Clear Time (g_c+I1), s	2.5	11.0		4.4		7.6		9.6				
Green Ext Time (p_c), s	0.0	6.3		0.0		5.2		0.1				

Intersection Summary

HCM 7th Control Delay, s/veh

7.7

HCM 7th LOS

A

Notes

Unsignalized Delay for [EBR] is excluded from calculations of the approach delay and intersection delay.

Intersection

Int Delay, s/veh 4.4

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	50	0	45	5	0	10	40	840	5	5	845	45
Future Vol, veh/h	50	0	45	5	0	10	40	840	5	5	845	45
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	1	-	-	1	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	50	50	50	96	50	96	50	96	96	96	96	50
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	3	3	2
Mvmt Flow	100	0	90	5	0	10	80	875	5	5	880	90

Major/Minor	Minor2		Minor1		Major1		Major2		Major2		Major2	
Conflicting Flow All	1533	1976	485	1488	2018	440	970	0	0	880	0	0
Stage 1	936	936	-	1038	1038	-	-	-	-	-	-	-
Stage 2	598	1040	-	451	981	-	-	-	-	-	-	-
Critical Hdwy	7.54	6.54	6.94	7.54	6.54	6.94	4.14	-	-	4.16	-	-
Critical Hdwy Stg 1	6.54	5.54	-	6.54	5.54	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.54	5.54	-	6.54	5.54	-	-	-	-	-	-	-
Follow-up Hdwy	3.52	4.02	3.32	3.52	4.02	3.32	2.22	-	-	2.23	-	-
Pot Cap-1 Maneuver	109	68	528	119	64	*906	706	-	-	909	-	-
Stage 1	285	342	-	354	386	-	-	-	-	-	-	-
Stage 2	724	385	-	558	326	-	-	-	-	-	-	-
Platoon blocked, %	0	0		0	0	0		-	-	0	-	-
Mov Cap-1 Maneuver	~ 91	58	528	84	54	*906	706	-	-	909	-	-
Mov Cap-2 Maneuver	210	177	-	191	151	-	-	-	-	-	-	-
Stage 1	283	339	-	301	329	-	-	-	-	-	-	-
Stage 2	608	327	-	459	323	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s/v37.06		14.31	2.14	0.11
HCM LOS	E	B		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1WBLn1	SBL	SBT	SBR
Capacity (veh/h)	297	-	-	294	402	17	-
HCM Lane V/C Ratio	0.113	-	-	0.646	0.039	0.006	-
HCM Control Delay (s/veh)	10.7	1.4	-	37.1	14.3	9	0.1
HCM Lane LOS	B	A	-	E	B	A	A
HCM 95th %tile Q(veh)	0.4	-	-	4.1	0.1	0	-

Notes

~: Volume exceeds capacity \$: Delay exceeds 300s +: Computation Not Defined *: All major volume in platoon

Appendix C)

ITE Trip Generation Outputs

DRAFT

Day Care Center

(565)

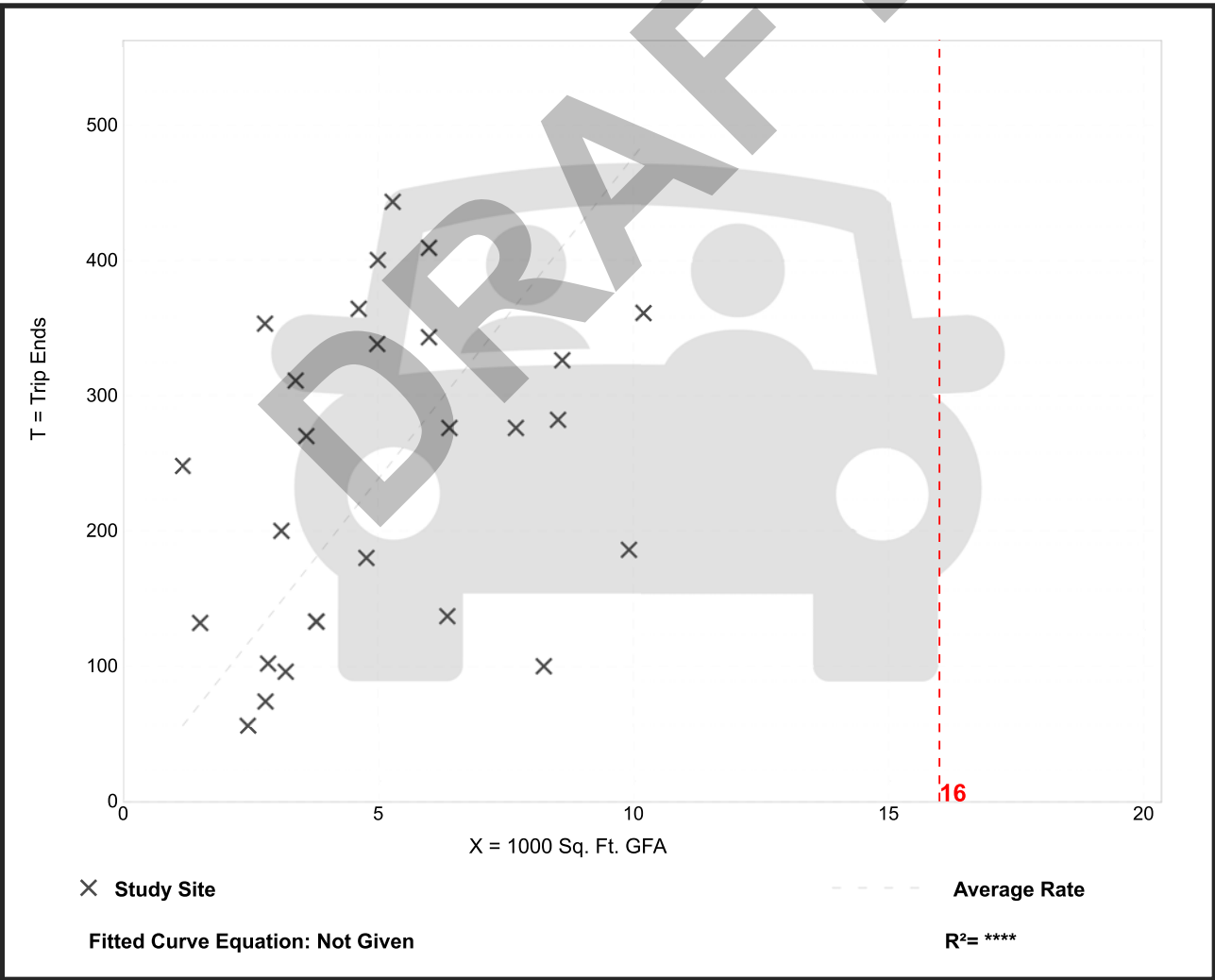
Vehicle Trip Ends vs: 1000 Sq. Ft. GFA
On a: Weekday

Setting/Location: General Urban/Suburban
Number of Studies: 27
Avg. 1000 Sq. Ft. GFA: 5
Directional Distribution: 50% entering, 50% exiting

Vehicle Trip Generation per 1000 Sq. Ft. GFA

Average Rate	Range of Rates	Standard Deviation
47.62	12.12 - 211.06	29.78

Data Plot and Equation



Day Care Center

(565)

Vehicle Trip Ends vs: 1000 Sq. Ft. GFA

On a: Weekday,
Peak Hour of Adjacent Street Traffic,
One Hour Between 7 and 9 a.m.

Setting/Location: General Urban/Suburban

Number of Studies: 89

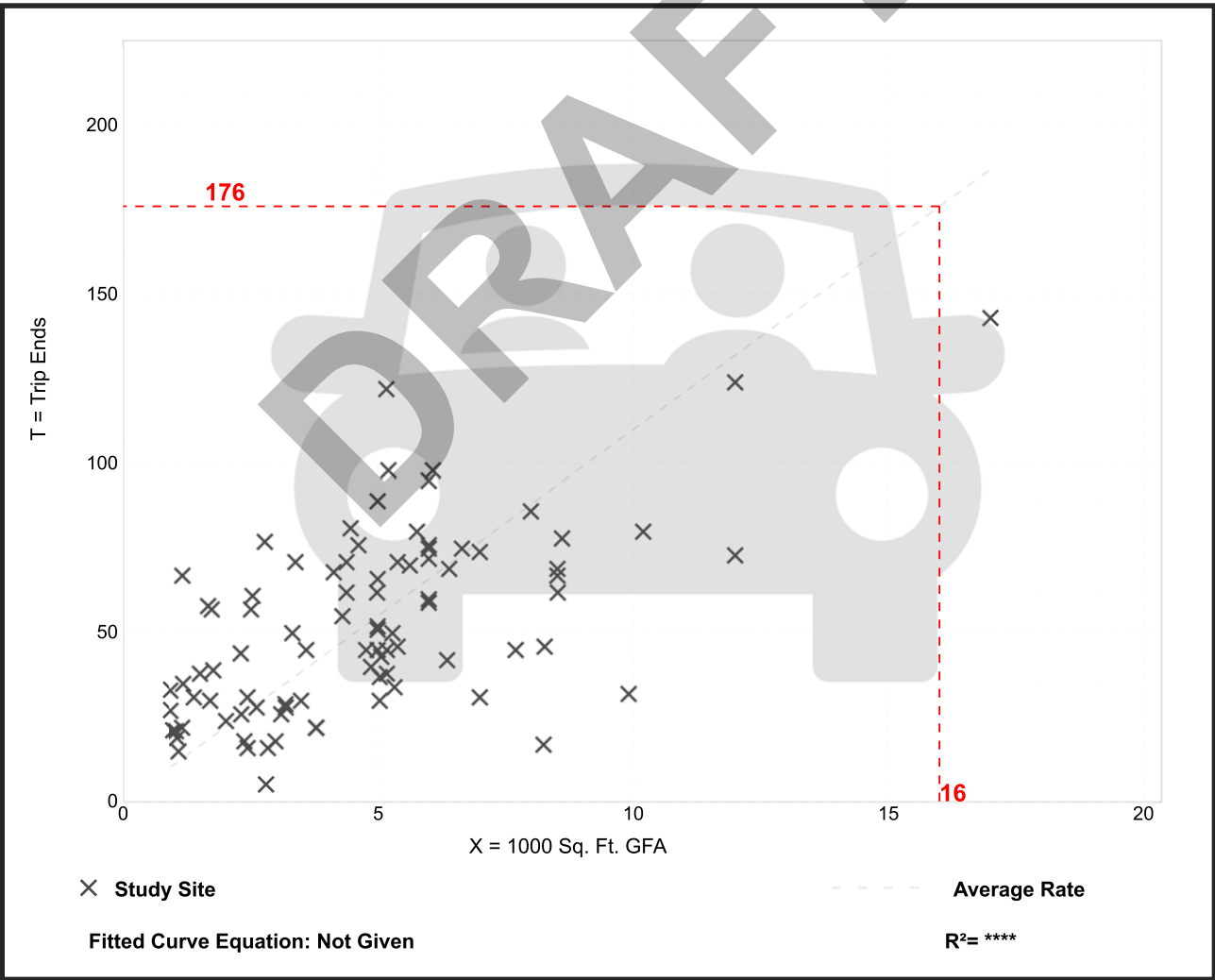
Avg. 1000 Sq. Ft. GFA: 5

Directional Distribution: 53% entering, 47% exiting

Vehicle Trip Generation per 1000 Sq. Ft. GFA

Average Rate	Range of Rates	Standard Deviation
11.00	1.79 - 57.02	6.08

Data Plot and Equation



Day Care Center

(565)

Vehicle Trip Ends vs: 1000 Sq. Ft. GFA

On a: Weekday,
Peak Hour of Adjacent Street Traffic,
One Hour Between 4 and 6 p.m.

Setting/Location: General Urban/Suburban

Number of Studies: 90

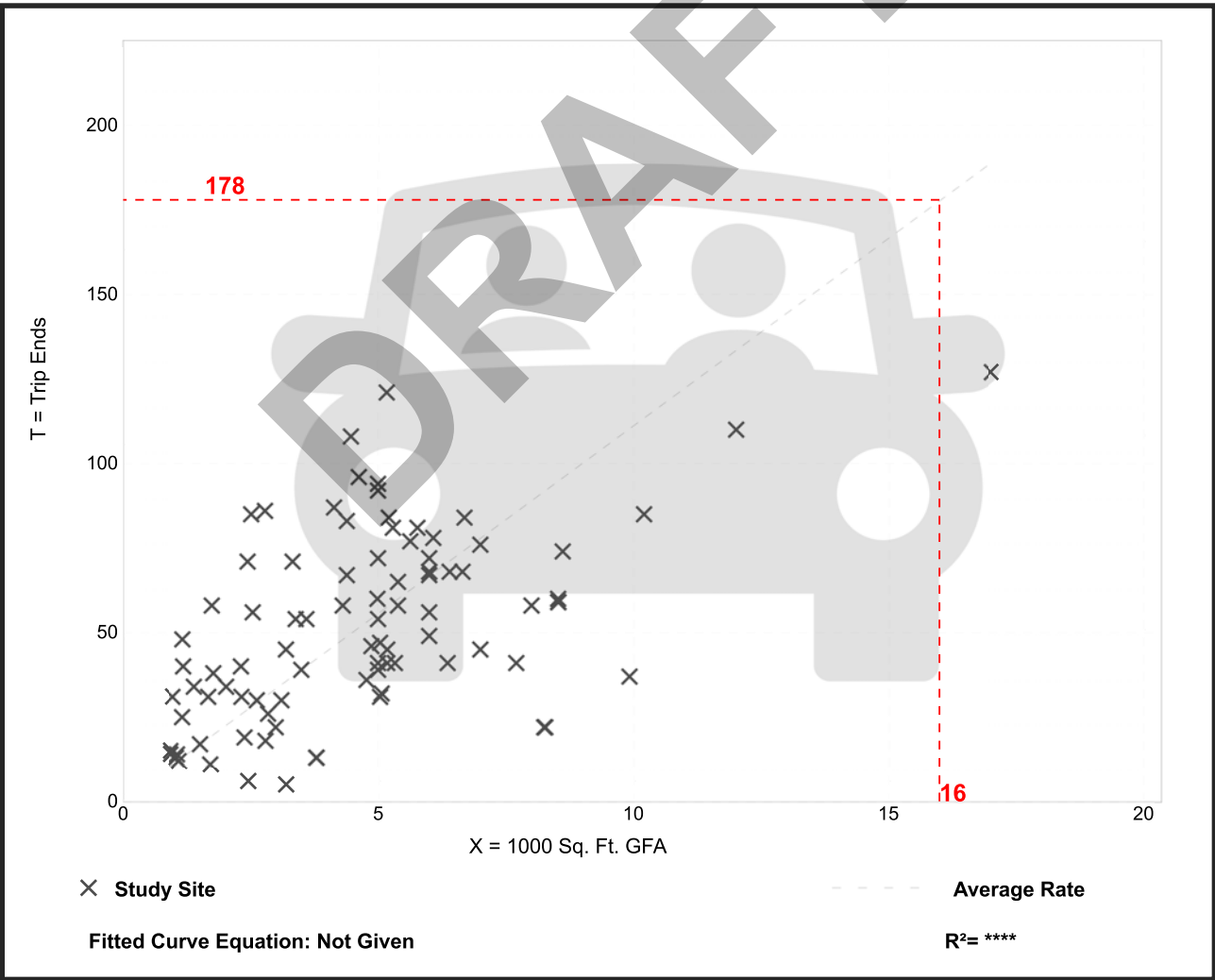
Avg. 1000 Sq. Ft. GFA: 5

Directional Distribution: 47% entering, 53% exiting

Vehicle Trip Generation per 1000 Sq. Ft. GFA

Average Rate	Range of Rates	Standard Deviation
11.12	1.56 - 40.85	6.28

Data Plot and Equation



SUBJECT: Amending 13.1.20 (b) of the Zoning Code to allow "General Business Offices with Common Accessory Uses (light manufacturing) not exceeding 60 percent of the gross floor area of the primary structure" as a permitted use in the B-1 "C-1" Zoning District, to allow "Fitness Activity Studio" as a Permitted Use B-5 Zoning Districts and Amending 13.1.200, "Definitions" to add "Fitness Activity Studio".

FROM: Benjamin Polony, Assistant to the Administrator

MEETING: Planning and Architectural Review Commission

MEETING DATE: July 1, 2025

FISCAL SUMMARY:

Budget Summary: N/A
Budgeted Expenditure: N/A
Budgeted Revenue: N/A

STATUTORY REFERENCE:

Wisconsin Statutes: N/A
Municipal Code: 13.1.20, 13.1.200

BACKGROUND & ANALYSIS: One new business, Bernie's Book Bank, seeks to locate at 5235 Ironwood, and one existing business, Top Line Gym, seeks to relocate from 2012 W. Bender to 2345 W. Mill Road. Both have applied for occupancy and business use approvals. Upon review, it was determined that the uses involved with these businesses do not meet the permitted use criteria within the districts they seek to open. After staff review, these uses are a good fit for the zoning districts where they seek to operate. Bernie's Book Bank is a nonprofit organization that packages and distributes free books to children across the area. It seeks to locate its main Wisconsin office here. While a nonprofit, the land is still owned by a private company that would pay property taxes. Top Line Gym is an existing fitness gym in Glendale that is seeking to relocate to allow for a larger and more affordable operation.

This ordinance amends the City Zoning Code to expand permitted uses in two business districts. Specifically:

- B-1, C-1 would include an already existing permitted use type in the B-5 zoning district, described as general business offices with common accessory uses (light manufacturing not exceeding 60% of gross floor area). This existing definition would account for the significant space that Bernie's would use for packaging and storage of books.
- B-5 would be amended to include a new use category, physical activity studio, describing facilities for indoor training, instruction, and physical activity.

Additionally, section 13.1.200 of the zoning code, pertaining to definitions, would be amended to include a definition for physical activity studios.

RECOMMENDATION: Recommendation of approval of the Zoning Text Amendments to the Common Council to hold a public hearing.

ACTION REQUESTED: Recommendation of approval of the Zoning Text Amendments to the Common Council to hold a public hearing.

ATTACHMENTS:

13.1.20 Text Amendments

ORDINANCE NO. 2025-

An Ordinance Amending 13.1.20 (b) of Title 13 of Article C to allow General Business Uses with light manufacturing accessory use as a Permitted Use in the “B-1, C-1” and Physical Activity Studio in the “B-5” Zoning Districts, and Amending Section 13.1.200 of Title 13 of Article C to include a definition for “Physical Activity Studio”

WHEREAS, the City of Glendale does not permit “Physical activity studios” that generally includes physical training, instruction, and activity within an enclosed area; and

WHEREAS, the City of Glendale does not permit “General business offices with common accessory uses (light manufacturing) not exceeding 60 percent of the gross floor area of the primary structure outside of the B-5 zoning district;

WHEREAS, recently these business types have submitted requests for occupancy, but were denied because the “use” is not permitted in the Glendale Zoning Code; and

WHEREAS, the City has evaluated the Zoning Code and determined that “General business offices with common accessory uses (light manufacturing not exceeding 60 percent)” and “Physical activity studios” would be appropriately located within the B-1, C-1 subareas and B-5 districts respectively; and

WHEREAS, the City of Glendale has previously created use types for other business types in zoning districts; and

Now, therefore, the City Council does ordain as follows:

SECTION 1

Section 13.1.20 (B) is hereby amended in its entirety and replaced with the following:

13.1.20 Establishment of districts.

- (b) *Zoning use table.* According to generalized land uses, the following table lists the type of use permission in each district, as well as definitions for each use listed. References for additional use standards may be contained in other sections of the city Code.

	"B"	"B-3"	"B-4"	"B-5"	"D-2"	"E"	"F-1"	"G-1"	"H-1"	"M"
Specialty retail shops and stores (no drive-through service).	X		X		X	X	X	X		

Created: 2025-06-12 11:48:00 [EST]

Restaurants: as defined under Wis. Stats. 97.01 (14g)	X	X			X	X	X	X	X	X
Studios for photography, painting, music, sculpture, dance or other recognized fine arts.	X	X	X		X	X	X	X	X	
Physical Activity Studio				X						
Professional services and administrative offices.	X	X	X	X	X	X	X		X	X
General corporate headquarters offices.	X	X	X	X	X	X	X	X	X	
Medical and dental offices.	X	X	X	X	X	X	X	X	X	X
Sales offices.	X	X	X	X	X	X	X	X	X	X
Research Establishments		X	X							
Financial, insurance and real estate offices.	X	X	X	X	X	X	X	X		X
Business and office equipment, supplies and services.		X	X	X						
Beauty shops		X								
Childcare, day care centers or preschool centers licensed by the State of Wisconsin			C							
Indoor Self Storage				C						
Office services and supplies, including employment agencies, blueprinting, duplicating and similar functions.	X	X			X		X			
General business offices with common accessory uses (light manufacturing) not exceeding 60 percent of the gross floor area of the primary structure.				X						
Single-Family residence						X				
Multi-family residences (15+ per acre) (2nd level and above).		X				X				
Grocery Stores									X	
Hotel/convention centers	PD				PD			X		
Any other uses found to be a similar use by the plan commission or community development authority upon review of application.	X	X	X	X	X	X	X	X	X	X

B-1 Sub Areas	A	A2	B	Cl	C2	DI	D2	E	F1	F2	G1	G2	HI	H2	11	12	J	K	L	M	N	O	p
Retail sales and service																				X			
Specialty breweries with accessory retail sales																							X
Specialty service businesses with showrooms																						X	
Specialty retail shops and stores (no drive-through service).			X			X	X	X	X		X		X		X								
Restaurants: as defined under Wis. Stats. 97.01 (14g)			X				X	X	X		X		X							X			
Studios for photography, painting, music, sculpture, dance or other recognized fine arts.			X			X	X	X	X		X		X		X							X	
Professional services and administrative offices.	X	X	X	X		X	X	X	X	X	X	X	X	X	X	X	X	X	X	X		X	X
General business offices with common accessory uses (light manufacturing) not exceeding 60 percent of the gross floor area of the primary structure.				X																			
General corporate headquarters offices.	X	X	X	X		X	X	X	X	X	X	X	X	X	X	X	X	X	X	X		X	X
Medical and dental offices.	X	X	X	X		X	X	X	X	X	X	X	X	X	X	X	X	X	X	X		X	X
Sales offices.	X	X	X	X		X	X	X	X	X	X	X	X	X	X	X	X	X	X	X		X	X
Research Establishments	X	X		X														X					
Financial insurance and real estate offices.	X	X	X	X		X	X	X	X	X	X	X	X	X	X	X	X	X	X	X		X	X
Business and office equipment, supplies and services.			X																				
New motor vehicle sales																			X				
Grocery Stores														X									

Beauty shops	X	X	X	X		X	X	X	X	X	X	X	X	X	X	X	X	X	X	X		X	X
Office services and supplies, including employment agencies, blueprinting, duplicating and similar functions.			X			X	X		X	X													
Utilities					X																		
Parking			C												C								
R-7 Zoning																					X		
Single-Family residence								X															
Multi-family residences (15+ per acre) (2nd level and above).	PD			PD			X	X															
Hotel/convention centers				PD			PD											X					
Any other uses found to be a similar use by the plan commission or community development authority upon review of application.	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X		X	X

X = Permitted Use. Any use allowed in a zoning district and subject to the restrictions applicable to that zoning district.

C = Conditional Use. A use permitted in a particular zoning district upon showing that such use in a specified location will comply with all the conditions and standards for the location or operation of the use as specified in the zoning ordinance and authorized by the approving agency.

PD = Will be considered only under PD-planned development district zoning.

Prohibited use. Use is not specifically permitted in the city Code.

SECTION 2

Section 13.1.200 is hereby amended to include the following:

13.1.200 - Definitions

Physical Activity Studio. All land uses that provide a facility for training, instruction, and physical activity within an enclosed building. Such activities may have operating hours that extend earlier or later than most other commercial land uses. All organized activities must be conducted indoors, and the facility must comply with all noise standards. Examples of such land uses include health or fitness centers, all forms of training studios (yoga, dance, art, martial arts, gymnastics, etc.).

SECTION 3

That if any subsection, section, or portions of this ordinance, or the application thereof to any persons as enacted hereunder, is for any reason held invalid or unconstitutional by any court of competent jurisdiction, such portions shall be deemed a separate, distinct, and independent provision and such holdings shall not affect the validity of the remaining portions hereof and the validity of the ordinance in all other respects shall not be affected thereby.

SECTION 4

That all ordinances or parts of ordinances conflicting with the provisions of this ordinance are hereby to such extent repealed.

SECTION 5

This ordinance shall be in full force and effect after its passage and posting as provided by law. PASSED AND ADOPTED by the City Council of the City of Glendale, Milwaukee

County, Wisconsin, this _____ day of _____ 2025.

Bryan Kennedy, Mayor

Counter signed.

City Clerk

SUBJECT: Business Use Approval: Top Line Gym

FROM: Benjamin Polony, Assistant to the Administrator

MEETING: Planning and Architectural Review Commission

MEETING DATE: July 1, 2025

FISCAL SUMMARY:

Budget Summary: N/a
Budgeted Expenditure: N/a
Budgeted Revenue: N/a

STATUTORY REFERENCE:

Wisconsin Statutes: N/a
Municipal Code: 13.1.37.5

BACKGROUND & ANALYSIS: The applicant, Top Line Gym, is seeking to relocate from its current location at 2012 W Bender Road in Glendale to 2345 W Mill Road in the B-5 Business-office zoning district. Currently, a text amendment to allow this type of use is up for consideration, and business use approval will be contingent on final approval of that zoning text amendment. They are seeking to relocate to grow and increase operational efficiency.

Top Line Gym is an indoor physical fitness studio that provides specialized training to customers. It is a small, locally owned business with two employees, including the owner. Top Line operates from 5 a.m. to 10 p.m. Monday through Sunday.

RECOMMENDATION: Grant business use approval to Top Line Gym, 2345 W Mill Rd, Taxkey Number 1609015000, subject to final approval of the zoning text amendment.

ACTION REQUESTED: Grant business use approval to Top Line Gym, 2345 W Mill Rd, Taxkey Number 1609015000, subject to final approval of the zoning text amendment for the B-5 Zoning District.

ATTACHMENTS:

PARC Application - Top Line Gym

PLANNING AND ARCHITECTURAL REVIEW COMMISSION APPLICATION

FEE SCHEDULE

Application Type	Fee	Application Type	Fee
Standard Application	\$ 300	CSM	\$ 175 + \$15 per lot
Architectural Review:	\$ 50	Plat Review Preliminary	\$ 100 + \$5 per dwelling unit
Zoning Text or Map Amendment	\$ 250	Plat Review Preliminary - Re Application Fee	\$ 50
Zoning Text or Map Amendment - Planned Unit Development	\$ 500	Plat Review Final	\$ 50 + \$5 per dwelling unit
Conditional Use Permit - Minor	\$ 125	Plat Review Final Plat - Reapplication Fee	\$ 25
Conditional Use Permit - Standard	\$ 300	Sign Appeal	\$ 300
Conditional Use Permit - Wetland Areas	\$ 300	Street Renaming	\$ 1,000

APPLICANT INFORMATION

Name of Applicant: Timothy Brett Summers
 Legal Name of Business: Top Line Training, LLC
 Name of Business Owner (if different from Applicant): _____
 Applicant Address (City, State, and Zip Code): 1635D West Spr Road, #108
Waukesha Wisconsin 53092
 Office Phone Number: _____ Cell: 262.309.5550 Fax: _____
 Applicant E-Mail: Brett@TopLineTraining.com
 Applicants Signature: _____ Date: 6/17/25

PROPERTY INFORMATION

Property Address: 2401 W mill road Tax Key Number: 1609001001 Zoning District: B-5
 Project Description: Industrial warehouse
 Property Owner (if different from Applicant): B. Brock Morgensen
 Property Owner Address (City, State, and Zip Code): 200 W main street Waukesha, WI
53186
 Property Owner Phone: _____ Cell: 262 705 1130 Fax: _____
 Property Owner E-Mail: Brock & Smart Asset capital.com
 Property Owner Signature: Brock Morgensen Date: 6/17/25

PRIMARY CONTACT

Primary Contact Person for this Project: Timothy Brett Summers
 Primary Contact Phone: _____ Cell: 262 309 5550 Fax: _____
 Primary Contact E-Mail: Brett@TopLineTraining.com

IMPORTANT NOTE: The City of Glendale is not accepting paper document submittals. Plan Commission Review Submittals are required to be submitted via email to b.polony@glendalewi.gov with PDF documents attached or as a web link to the PDF documents. Fee remittals may be delivered to Glendale City Hall, deposited in the drop box in front of City Hall, or mailed to:

City of Glendale, WI, 5909 North Milwaukee River Parkway, Glendale, WI 53209-3815,
 Attn: Community Development Department

CITY OF GLENDALE USE ONLY

Application Fee: _____ Date of Application: 6/17 Time: 1:49pm Received by with date: _____ Tentative Hearing Date: 4/23

CH-DATA(VCH-SERVER) (G:\Community Development Planning Department\0003 Plan Commission Administration (2-4-4-J\001 PLAN COMMISSION PROCEDURES\09152021 Plan Commission Review Application

SUPPLEMENTARY INFORMATION:

Type of review being requested: Zoning Text Amendment
Name of Business and Type of Business/Use (Please be specific): Top Line Training
Private exclusive bar Fitness Consultancy
Total Building Area: Approx To Be Occupied Area: 1,200 sq ft
Lot Size: Depth: _____ Width: _____ Area: _____
Previous Occupant in To Be Occupied Space: Power washing
Other Uses of This Site: Storage/mixed use
Total Number of Parking Spaces: 50+ Parking Spaces Available to Tenancy: 50+
Business Hours (Days and Hours of Operation): Sam - 10pm
Total Number of Employees: 2 Maximum Number of Employees at Site at One Time: 2

For applications regarding approval of a new business please refer to the list of information that should be included with a plan of operation or business plan.

SUBJECT: Business Use Approval: Bernie's Book Bank, 5235 North Ironwood Road, Taxkey Number 1968996000

FROM: Benjamin Polony, Assistant to the Administrator

MEETING: Planning and Architectural Review Commission

MEETING DATE: July 1, 2025

FISCAL SUMMARY:

Budget Summary: N/a

Budgeted Expenditure: N/a

Budgeted Revenue: N/a

STATUTORY REFERENCE:

Wisconsin Statutes: N/a

Municipal Code: 13.1.20

BACKGROUND & ANALYSIS: The applicant, Bernie's Book Bank, is a non-profit organization seeking to open a main office in Wisconsin at 5235 North Ironwood Road in the B-1 business and commercial district, sub area C-1. Bernie's Book Bank packages and distributes free books to children across the area providing volunteer opportunities for people to help with packaging. The entire building would be used for packaging, storage, and office space. While a nonprofit, the land is still owned by a private company that would pay property taxes.

Currently, a zoning text amendment to provide a permitted use that would allow for the type of use that Bernie's seeks is under consideration and final approval of this business use will be contingent on the passage of the change by the Common Council.

RECOMMENDATION: Staff recommend the Planning and Architectural Review Commission grant business use approval for Bernie's Book Bank at 5235 North Ironwood Road with the following contingencies: Approval of the zoning text amendment for the B-1, C-1 zoning district.

ACTION REQUESTED: Motion to grant business use for Bernie's Book Bank at 5235 North

Ironwood Road with the following contingencies:
Approval of the zoning text amendment for the B-1, C-1 zoning district.

ATTACHMENTS:

PARC Application - 5235 N Ironwood



June 12, 2025

Benjamin Polony
Assistant to the City Administrator
City of Glendale
5909 N. Milwaukee River Parkway
Glendale, WI 53209

RE: 5235 N Ironwood, Glendale, WI
Application to Amend Zoning Text

Ben,
I have completed the zoning and development application and have attached the following other documents:

1. Plan of Operation
2. Site plan, aerial and graphic representation of the proposed loading dock area
3. Conceptual demising layout

ICAP Development has entered a contract with La Causa Social Services to purchase the above-referenced property. As a condition to this purchase, ICAP seeks approval from the City of Glendale to amend the zoning text of the B-1, C-1 zoning to include the following use language; "General business offices with common accessory uses (light manufacturing) not exceeding 60 percent of the gross floor area of the primary structure." This slight change to the zoning text, which is consistent with other Business districts in the City, will provide clarity to the B-1, C-1 district and also allow for our intended use of the Property, which is further described in the following submittal.

We look forward to hearing from you.

Sincerely,

A handwritten signature in black ink, appearing to read "B. Adamson", with a long horizontal flourish extending to the right.

Brian Adamson
Managing Principal
ICAP Development

ZONING AND DEVELOPMENT APPLICATION

FEE SCHEDULE

Application Type	Fee	Application Type	Fee
Standard Application	\$ 300	CSM	\$ 175 + \$15 per lot
Architectural Review:	\$ 50	Plat Review Preliminary	\$ 100 + \$5 per dwelling unit
Zoning Text or Map Amendment	\$ 250	Plat Review Preliminary - Re Application Fee	\$ 50
Zoning Text or Map Amendment - Planned Unit Development	\$ 500	Plat Review Final	\$ 50 + \$5 per dwelling unit
Conditional Use Permit – Minor	\$ 125	Plat Review Final Plat - Reapplication Fee	\$ 25
Conditional Use Permit - Standard	\$ 300	Sign Appeal	\$ 300
Conditional Use Permit - Wetland Areas	\$ 300	Street Renaming	\$ 1,000

APPLICANT INFORMATION

Name of Applicant: ICAP Development LLC and/or Assigns

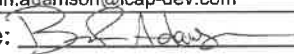
Legal Name of Business: ICAP Development LLC and/or Assigns

Name of Business Owner (if different from Applicant): _____

Applicant Address (City, State, and Zip Code): 1830 N Hubbard Street Suite 700, Milwaukee, WI 53212

Office Phone Number: _____ Cell: 414-412-8633 Fax: _____

Applicant E-Mail: brian.adamson@icap-dev.com

Applicants Signature:  Date: 6/12/25

PROPERTY INFORMATION

Property Address: 5235 N. Ironwood Dr. Tax Key Number: 1968996000 Zoning District: B-1, C-1

Project Description: A 32,000 sf single-story office building on 3.6 acres

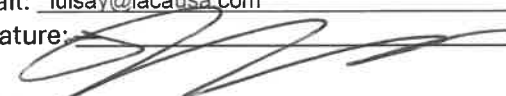
Property Owner (if different from Applicant): La Causa, Inc.

Property Owner Address (City, State, and Zip Code): 413 W Scott Street, Milwaukee, WI

Attn: Luis Ayala

Property Owner Phone: (414) 316-5500 Cell: (414) 259-6286 Fax: _____

Property Owner E-Mail: luisay@lacausa.com

Property Owner Signature:  Date: 6/12/25

PRIMARY CONTACT

Primary Contact Person for this Project: Brian Adamson

Primary Contact Phone: _____ Cell: 414-412-8633 Fax: _____

Primary Contact E-Mail: brian.adamson@icap-dev.com

IMPORTANT NOTE: The City of Glendale is not accepting paper document submittals. Plan Commission Review Submittals are required to be submitted via email to b.polony@glendalewi.gov with PDF documents attached or as a web link to the PDF documents. Fee remittals may be delivered to Glendale City Hall, deposited in the drop box in front of City Hall, or mailed to:

*City of Glendale, WI, 5909 North Milwaukee River Parkway, Glendale, WI 53209-3815,
 Attn: Community Development Department*

CITY OF GLENDALE USE ONLY

Application Fee: _____ Date of Application: _____ Time: _____ Received by with date: _____ Tentative Hearing Date: _____

CH-DATA\NCH-SERVER\G\Community Development Planning Department\0003 Plan Commission Administration (2-4-4-)/001 PLAN COMMISSION PROCEDURES\09152021 Plan Commission Review Application

SUPPLEMENTARY INFORMATION:

Type of review being requested: Zoning text amendment

Name of Business and Type of Business/Use (Please be specific): ICAP Development, a real estate investment company,
will purchase the building and will lease 24,000sf to Bernie's Book Bank and the remaining 8,000sf to a future tenant.

Total Building Area: 32,000sf To Be Occupied Area: 32,000sf

Lot Size: Depth: 888' on the north 709' on the south end Width: 203' Area: 3.6 acres

Previous Occupant in To Be Occupied Space: La Causa Social Services

Other Uses of This Site: N/A

Total Number of Parking Spaces: 193 Parking Spaces Available to Tenancy: 193

Business Hours (Days and Hours of Operation): 9:00 AM - 5:00 PM

Total Number of Employees: 20-50 Maximum Number of Employees at Site at One Time: 20-50

For applications regarding approval of a new business please refer to the list of information that should be included with a plan of operation or business plan.

ICAP Business Plan

Business Name and Address

Address: 5235 N Ironwood Road, Glendale, Wisconsin 53217

Ownership and Applicant Information

Owner: ICAP Development LLC and/or assigns. ICAP currently has the property under contract to purchase the subject property.

Applicant: ICAP Development LLC is the applicant and will lease approximately 24,000sf of the building's 32,000sf to Bernie's Book Bank. The remaining space will be leased to a future tenant, which has not yet been identified.

Legal Description of Property

PARCEL A:

All that part of the Northwest 1/4 of Section 32, Town 8 North, Range 22 East, in the City of Glendale, County of Milwaukee, State of Wisconsin, bounded as follows:

Commencing at a point in the East line of said 1/4 Section, 253.75 feet North 00° 00' 30" East from the Southeast corner of said 1/4 Section; thence North 89° 51' 40" West, 420.00 feet to a point in the Westerly right-of-way line U.S. Highway 141, now known as I-43 which is the point of beginning of the tract about to be described herein; thence continuing North 89° 51' 40" West, 442.52 feet; thence North 0° 12' 40" West, 197.58 feet; thence South 89° 53' 00" East, 400.00 feet to a point in the Westerly right-of-way line of said U.S. Highway 141, now known as I-43; thence Southeasterly along said Westerly right-of-way line, 202.99 feet, more or less, to the beginning.

PARCEL B:

All that part of the Northwest 1/4 of Section 32, Town 8 North, Range 22 East, in the City of Glendale, County of Milwaukee, State of Wisconsin, bounded as follows:

Commencing at a point in the East line of said 1/4 Section, 253.75 feet North 00° 00' 30" East from the Southeast corner of said 1/4 Section; thence North 89° 51' 40" West, 862.52 feet to the point of beginning of the tract about to be described herein; thence continuing North 89° 51' 40" West, 264.85 feet to a point in the Northeasterly right-of-way line of the C & NW Railway; thence North 48° 36' 30" West along said right-of-way line, 299.36 feet to a point; thence South 89° 53' 00" East, 488.70 feet to a point which is 400.00 feet West of the Westerly right-of-way line of said U.S. Highway 141, now known as I-43; thence South 0° 12' 40" East, 197.58 feet to the point of beginning.

Tax Key

Parcel: 196-8996

Zoning

B-1 (Community Business District), C-1 (Conservancy District)

Project Description

The project involves the reuse of a currently vacant building, formerly used by La Causa Social Services. Prior to vacating the building, La Causa used the property as an office and training facility. ICAP Development proposes reusing the existing building as a multi-tenant office and light warehousing facility. Currently ICAP intends to lease approximately 24,000 sq. ft. of the building to Bernie's Book Bank for their Wisconsin headquarters. Bernie's would use the building for office space, light warehousing, and volunteer service areas. The remaining 8,000+/- sq. ft. will be leased to a complementary, to-be-determined tenant.

ICAP proposes installing a single loading dock on the western side of the building, screened from any public right-of-way. This dock will be utilized by one, or both, of the occupants of the building. Existing parking will remain and is adequate for all intended uses of the property.

Lot and Building Details

Lot Size: 3.6292 acres

Dimensions: Approx. 888 ft (depth) x 203 ft (frontage)

Building Size: 102 ft x 256 ft

Total Area: 32,084 square feet

Stories: Single-story facility

Planned Uses of the Facility

ICAP Development proposes reusing the existing building as a multi-tenant office and light warehousing facility. Currently ICAP intends to lease approximately 24,000 sq. ft. of the building to Bernie's Book Bank for their Wisconsin headquarters and intends to seek a complimentary tenant for the additional space in the building. Bernie's will use the space for office administration, light warehousing for books and related materials, and volunteer engagement spaces for processing and packing books. It is anticipated that one (1), 21-foot box truck will leave the site daily for book distribution and collection. In addition, it is anticipated that there will be one (1) single semi-truck delivery a week, at a maximum.

Employment

Bernie's expects to have between 5-10 employees. It is anticipated that a future tenant for the remaining vacant space could have 15-40 employees, depending on the use.

Operating Schedule

Bernie's will operate Monday-Friday between 9:00 AM - 5:00 PM as well as one Saturday a month between 9:00 AM - 4:00 PM.

The expected hours of operation for the remaining space are Monday-Friday, 8:00 AM-5:00 PM, but are subject to final confirmation.

Signage

As code allows and subject to approval, the existing signage will be replaced with Bernie's signage, which will be internally illuminated and affixed to the building. In addition, Bernie's would seek approval for lighted signage above the entry door. Any signage for future tenants for the vacant space will be subject to code and municipal approval.

County or State Conditions

None known at this time.

Security Fencing

No fencing is planned.

Environmental or Public Impact

No anticipated problems regarding noise, odors, glare, fire hazards, or smoke.

Food Service

No food services will be offered on-site.

Interior Plans

Plans are preliminary at this point, but if required, a set of plans will be sent to the State of Wisconsin for approval.

Exterior Plans

The lighting and landscaping are to remain as they exist. A loading dock will be added to the northwest portion of the building. ICAP understands additional building permit submittals shall be required for this and any other building improvements.

Fire and Safety Compliance

If not already, the building will be brought up to code and will meet all required life safety and fire protection standards.

Rules and Regulations

The property will adhere to all applicable building codes and municipal regulations.

Project Timeline

Construction and Renovation Start: Pending City approval

Target Operational Date: End of 2025

Security Measures

Formal security measures are not anticipated to be necessary due to the nature of the use. The building tenants may choose to install security systems.

Maximum Occupancy

Typical day-to-day activity will include 50-60 people.

Additional Information

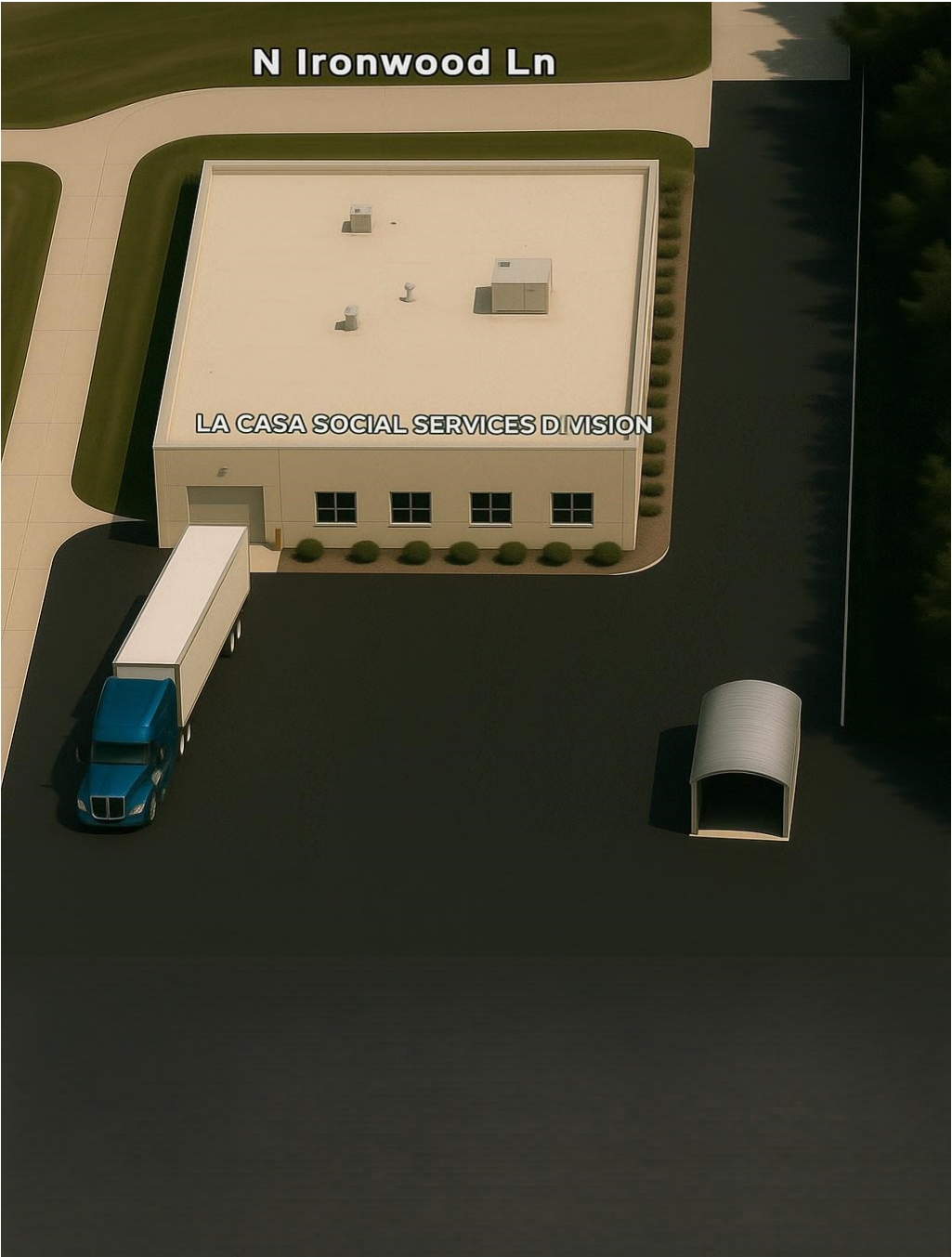
This property is an ideal reuse option, as it is currently vacant. The zoning text amendment requested will provide clarity to the B1,C-1 zoning district and will allow for a reuse of the existing building in a way that is consistent with surrounding properties in this zoning district. The proposed redevelopment will also add monetary value to the City of Glendale through the conversion of this property to a taxable parcel. As a tenant, Bernie's Book Bank will enhance local community engagement via volunteerism and bring educational value through Bernie's mission to increase literacy.

Proposed Loading Dock Location



5235 N Ironwood

Proposed Loading Dock Location



SUBJECT: Business Use Approval: WMSVision Detail Hub, 6161 N Flint Road,
Taxkey Number 1609035000

FROM: Benjamin Polony, Assistant to the Administrator

MEETING: Planning and Architectural Review Commission

MEETING DATE: July 1, 2025

FISCAL SUMMARY:

Budget Summary: N/a

Budgeted Expenditure: N/a

Budgeted Revenue: N/a

STATUTORY REFERENCE:

Wisconsin Statutes: N/a

Municipal Code: 13.1.39

BACKGROUND & ANALYSIS: The applicant, WMSVision, is seeking business use approval to open at 6161 N Flint Road. The applicants' business would specialize in providing comprehensive car detailing services and compliance laboratory solutions for the Department of Transportation and non-DOT vehicles. The first part of the business, car detailing, would provide services to enhance a vehicles' aesthetic and lifespan as well as include training courses on detailing. The second part of the business would be specialized urine collection services to ensure compliance with DOT regulations. There would also be training offered for collection services. The business would operate out of units C and D in the building which also hosts other detailing shops. They would operate between the hours of 8 A.M. and 7 P.M.

Per 13.1.39 (b) (3), a permitted use for M-1 is "uses providing a service in which noise, vibration, heat, flash or odor produced on the premises but such service uses is confined within a building". It was found that no prohibited uses listed are similar to this business. As such, as long as the applicant provides the aforementioned services inside the building at 6161 N Flint Road, then they would qualify as a permitted use.

RECOMMENDATION: Staff recommend the Planning and Architectural Review Commission grant business use approval for WMSVision Detail Hub at 6161 N Flint Road.

ACTION REQUESTED: Motion to grant business use for WMSVision Detail Hub at 6161 N Flint Road.

ATTACHMENTS:

Wmvision Business Plan, Wmvision Application

**Wmsvision Inc. DBA Wmsvision Detail Hub,
Wmsvision DOT/ NONE DOT Lab**

Business Address:

6161 N Flint Dr
Glendale, WI 53209

Date of the Plan:

June 19, 2025

Contact Information:

- Phone Number: Lynn Williams
- Email Address: Lynwilliams39@gmail.com

Prepared By:

- Name: Turela Williams
- Title: Co-Owner Operator/ HR Manager

Table of Contents

1. Executive Summary
2. Company description
3. Market Analysis
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5. Services Offered
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7. Financial Projections

Executive Summary

Wmsvision Detail Hub/ Wmsvision DOT/None DOT is dedicated to providing superior automotive detailing services and compliance laboratory solutions tailored for both Department of Transportation (DOT) and non-DOT vehicles. Our mission is to deliver exceptional quality and customer satisfaction through our diverse service offerings. We aim to set a benchmark in the industry as we seek to establish our operations at 6161 N Flint Dr, Glendale, WI 53209.

Company Description

Company Overview

Wmsvision Detail Hub, Wmsvision DOT/ NONE DOT Lab is an S Corporation that will be located at 6161 N Flint Dr, Glendale, WI 53209. Our company specializes in providing comprehensive automotive detailing services and essential compliance laboratory solutions for both Department of Transportation (DOT) and non-DOT regulated vehicles.

Founded in 2025 Wmsvision Detail Hub/Wmsvision DOT/None DOT was established with the vision of becoming a leading provider in the automotive care and compliance industry. Our founders recognized a growing need for high-quality detailing services and reliable compliance checks that adhere to industry standards, paving the way for a business model that emphasizes quality, customer satisfaction, and regulatory compliance.

At Wmsvision Detail Hub and DOT/NONE DOT LAB, we pride ourselves on our commitment to excellence and innovation. Our facility is equipped with state-of-the-art technology and staffed by highly trained professionals who are passionate about automotive care. We offer a wide range of services, including:

- Wmsvision Detail Hub: Comprehensive exterior and interior vehicle cleaning services, paint protection, and restoration techniques designed to enhance vehicles' aesthetics and prolong their lifespan. This Detail Hub will also offer in-person and virtual training. Which will include a 5-week training course. This Detail Clean Hub will be supervised by a Certified Detail Professional with over 20 years' experience.

- Wmsvision DOT/ None DOT LAB: Specialized urine collection services ensuring compliance with Department of Transportation regulations, including training for collectors and proper chain-of-custody procedures. Tailored urine collection services for non-DOT regulated entities, focusing on meeting specific client needs while maintaining high standards of safety and integrity. A virtual training program for DOT/None DOT Collections will also be offered.

Market Analysis

The automotive detailing and compliance service industries are experiencing growth due to increasing consumer awareness of vehicle maintenance and regulatory adherence. Furthermore, the demand for reliable urine collection services is driven by employers requiring compliance and substance testing standards.

- Target Market: Our primary clients include individual car owners, commercial fleet operators, and companies requiring DOT and Non-DOT urine collection services for employee testing.

- Competitive Analysis: The market contains both traditional detailing services and specialized laboratories for urine collection. While competitors exist, Wmsvision Detail Hub/ DOT/None DOT Lab differentiates itself through our dual focus on detailing and stringent compliance, combined with exceptional customer service.

- Market Opportunities: With the rise in regulatory standards and safety concerns, there is an increased demand for professional urine collection and compliance services. Wmsvision Detail Hub/ DOT/None DOT Lab is well-positioned to capture this market by offering both quality detailing and reliable collection processes.

Organization and Management

Wmsvision Detail Hub/ Wmsvision DOT/None DOT is structured to ensure operational efficiency, featuring key management roles:

- Lynn Williams: Chief Executive Officer (CEO): Responsible for overall strategy and vision.
- Turela Williams: Chief Operating Officer (COO): Oversees daily operations and service delivery.
- Lynequa Williams MBA: Chief Financial Officer (CFO): Manages financial planning and analysis.

Each team member brings extensive industry experience and shares a commitment to executing the company's strategic objectives.

Services Offered

Wmsvision provides a range of services to meet our clients' needs:

- Wmsvision Detail Hub: Comprehensive vehicle detailing services, including exterior and interior cleaning, paint protection, and restoration techniques that enhance vehicle aesthetics and ensure longevity.
- Wmsvision DOT: Specialized urine collection services designed to meet DOT regulations, including training for collection personnel and proper chain-of-custody procedures.
- NONE DOT Lab: Focused on urine collection services for non-DOT regulated entities, offering customized solutions that uphold the highest standards of safety and integrity.

Marketing and Sales Strategy

Wmsvision Detailing Hub/DOT/None DOT will implement a multi-faceted marketing strategy that includes:

- Digital Marketing: Utilizing social media platforms and search engine optimization to increase visibility and attract customers.
- Local Advertising: Engaging with the community through local events and partnerships with businesses to promote our services.
- Sales Strategy: Building strong relationships with clients through exceptional service delivery and personalized follow-ups, while actively seeking client referrals.

Financial Projections

Wmsvision's Detailing Hub/ DOT/ None DOT financial projections estimate consistent revenue growth over the next five years:

- Sales Forecast: Projects sustainable growth based on market analysis and planned service expansion.
- Break-even Analysis: Highlights the anticipated timeline for achieving profitability.
- Funding Requirements: Details any funding needed to launch operations and support marketing efforts.

PLANNING AND ARCHITECTURAL REVIEW COMMISSION APPLICATION

FEE SCHEDULE

Application Type	Fee	Application Type	Fee
Standard Application	\$ 300	CSM	\$ 175 + \$15 per lot
Architectural Review:	\$ 50	Plat Review Preliminary	\$ 100 + \$5 per dwelling unit
Zoning Text or Map Amendment	\$ 250	Plat Review Preliminary - Re Application Fee	\$ 50
Zoning Text or Map Amendment - Planned Unit Development	\$ 500	Plat Review Final	\$ 50 + \$5 per dwelling unit
Conditional Use Permit - Minor	\$ 125	Plat Review Final Plat - Reapplication Fee	\$ 25
Conditional Use Permit - Standard	\$ 300	Sign Appeal	\$ 300
Conditional Use Permit - Wetland Areas	\$ 300	Street Renaming	\$ 1,000

APPLICANT INFORMATION

Name of Applicant: Lynn Williams & Turela Williams
 Legal Name of Business: WMSVision Detail Hub/WMSVision DOT/None DOTLab
 Name of Business Owner (if different from Applicant):
 Applicant Address (City, State, and Zip Code): 9009 N White Oak Ln Apt 120
Bayside WI 53217
 Office Phone Number: 815 402 1100 Cell: _____ Fax: _____
 Applicant E-Mail: lynnwilliams39@gmail.com
 Applicants Signature: Lynn Williams / JBLW Date: 6/19/25

PROPERTY INFORMATION

Property Address: 4161 N Flint RD Tax Key Number: _____ Zoning District: M-1
 Project Description: _____
 Property Owner (if different from Applicant): Brel
 Property Owner Address (City, State, and Zip Code): _____

 Property Owner Phone: _____ Cell: _____ Fax: _____
 Property Owner E-Mail: _____
 Property Owner Signature: _____ Date: _____

PRIMARY CONTACT

Primary Contact Person for this Project: Lynn Williams
 Primary Contact Phone: _____ Cell: 815 402 1100 Fax: _____
 Primary Contact E-Mail: lynnwilliams39@gmail.com

IMPORTANT NOTE: The City of Glendale is not accepting paper document submittals. Plan Commission Review Submittals are required to be submitted via email to b.polony@glendalewi.gov with PDF documents attached or as a web link to the PDF documents. Fee remittals may be delivered to Glendale City Hall, deposited in the drop box in front of City Hall, or mailed to:

City of Glendale, WI, 5909 North Milwaukee River Parkway, Glendale, WI 53209-3815,
Attn: Community Development Department

CITY OF GLENDALE USE ONLY

Application Fee: 300 Date of Application: _____ Time: _____ Received by with date: _____ Tentative Hearing Date: _____
CH-DATA\NCH-SERVER\G:\Community Development Planning Department\0003 Plan Commission Administration (2-4-4-)\001 PLAN COMMISSION PROCEDURES\09152021 Plan Commission Review Application

Rct #306271

SUPPLEMENTARY INFORMATION:

Type of review being requested: Business use
Name of Business and Type of Business/Use (Please be specific): Car Detailing (Cleaning interior and exterior) DOT/NONE DOT urine collection
Total Building Area: _____ To Be Occupied Area: _____
Lot Size: Depth: _____ Width: _____ Area: _____
Previous Occupant in To Be Occupied Space: C And D Units
Other Uses of This Site: _____
Total Number of Parking Spaces: _____ Parking Spaces Available to Tenancy: _____
Business Hours (Days and Hours of Operation): 8am - 7pm
Total Number of Employees: 3 Maximum Number of Employees at Site at One Time: 5

For applications regarding approval of a new business please refer to the list of information that should be included with a plan of operation or business plan.