CITY OF NOVI CITY COUNCIL
JUNE 17, 2024

SUBJECT: Consideration of the request of E & M Holdings, LLC, (Society Hill) to amend the 2001 Consent Judgment, and to set a public hearing on the proposed development.

SUBMITTING DEPARTMENT: Community Development Department - Planning

BACKGROUND INFORMATION:

The applicant is proposing changes to the Society Hill development that was originally approved in 1999. Society Hill is associated with a 2001 Consent Judgment with the City. The Consent Judgment states that the site plan approved in 1999 was to remain in effect for 5 years from the date of execution, after which time the applicant would need to seek approval annually from City Council to extend the final Site Plan approval. Each year since 2006 the applicant has requested, and City Council has granted, the site plan extension, so the 1999 site plan remains an approved project that could be built.

The applicant has submitted a new Concept plan for review by City Council to consider amending the Consent Judgment. Like the 1999 Plan, the new proposal for the development of the 33.89-acre property west of Novi Road and south of 12 ½ Mile Road is proposed to utilize the existing RM-1 Low Density Multiple Family zoning with the available Planned Development Option (PD-1) as designated on the Future Land Use Map. The current Concept Plan includes 463 units in mid-rise apartment buildings and attached townhouses. The five apartment buildings would each be 5-stories tall (including ground level parking), with a total of 363 apartments ranging in size from 617 square foot studios to 1,329 square foot three-bedroom units. Sixteen townhome buildings on the north side of the site would have 100 residences with garages – 80 of those in three-story buildings and 20 in 2.5-story buildings. Sixteen of the townhome units would provide a ground floor primary bedroom suite.

Indoor and outdoor amenities are proposed for the residents of the site. The central building (E) contains 15,000 square feet of indoor space for a fitness center, spa facilities, café/bistro, community lounge, co-working space, conference rooms,

community kitchen with dining area, library, and an indoor/outdoor terrace on the top floor overlooking the outdoor space. The outdoor amenities consist of two pools, a turf soccer field, tennis courts, sports court, pickleball courts, playground areas, dog park, and over two miles of walking path through the site. The chart below compares the approved 1999 Plan to the current plan to be considered.

	1999 Plan (Existing Development Approval)	**Current Plan (Proposed Development)**
Zoning	RM-1 Low Density Multiple Family with PD-1 Option	RM-1 Low Density Multiple Family with PD-1 Option
Land Area	33.89 acres	33.89 acres
Number of Buildings	23	21
Number of Units	312	463
Room Count	1,264	1,359
Average Unit Size	1,758 square feet	1,220 square feet
Lot Coverage	Not known	14.84%
Building Height	2 and 3 story	5 stories
Number of Parking Spaces	693	942
Parking Ratio	2.22 spaces/unit	2.03 spaces/unit
Wetland Impacts	0 acres	0.847 acres
Wetland Mitigation	N/A	0.923 acres on-site Some off-site/payment (needs clarification)
Woodland Impacts	1,062 trees	1,338 trees (82 are off-site on City-owned parcel)
Stormwater Management	All on-site	On-site and Use of City-owned parcel 22-10-400-005
Usable Open Space	~ 1 acre programmed outdoor 0% of units had private outdoor space	6.64 acres programmed outdoor 98% of units have private outdoor space
Traffic Impact	1,978 trips per day (per 1996 Traffic Study)	2,162 trips per day (per 5/24/24 F&V Trip Generation Analysis)
Curb cuts	1 on Novi Road, 1 on Twelve ½ Mile Road	2 on Novi Road, 1 on Twelve ½ Mile + 2 emergency access points

The City's staff and consultants reviewed the latest proposal and provided written comments to the applicant on May 2nd. Since that time, staff has met with the applicant and discussed many of the issues raised in the review letters. As a result of that discussion, and additional information provided by the applicant, staff has taken the opportunity to revise and update the initial review letters, as follows:

- The City's wetland consultant has provided a memo updating some of the initial comments based on additional information received from the applicant confirming the character and locations of the regulated wetlands.
- The Planning Review has been revised in a few locations to address new information.
- Engineering has provided a revised letter, including discussion for the need for soil borings to verify the viability of the locations proposed for the stormwater management ponds.

All review letters, as revised, are attached to this packet item.

RECOMMENDED ACTION: Approve request to set a public hearing in order to consider the request of E & M Holdings, LLC, (Society Hill) to amend the 2001 Consent Judgment, and direct City Staff to send notice of a public hearing to be held at the July 8, 2024 City Council meeting.

MAPS

Location

Zoning

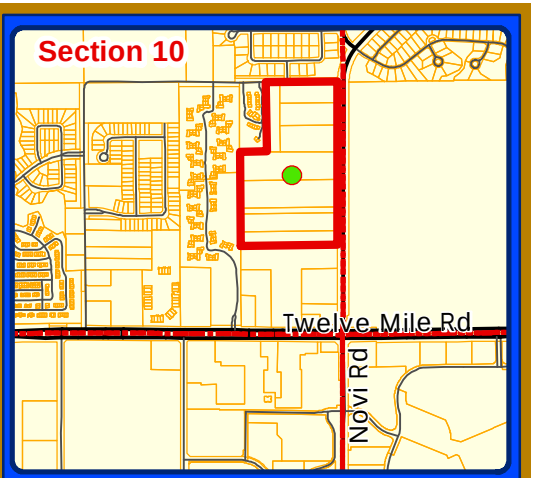
Future Land Use

Natural Features

Limits of Disturbance

SOCIETY HILL

LOCATION



LEGEND

- Subject Property
- City-Owned Property

City of Novi

Dept. of Community Development
City Hall / Civic Center
45175 W Ten Mile Rd
Novi, MI 48375
cityofnovi.org

Map Author: Lindsay Bell
Date: 6/12/24
Project: SOCIETY HILL
Version #: 1

Feet
0 80 160 320 480

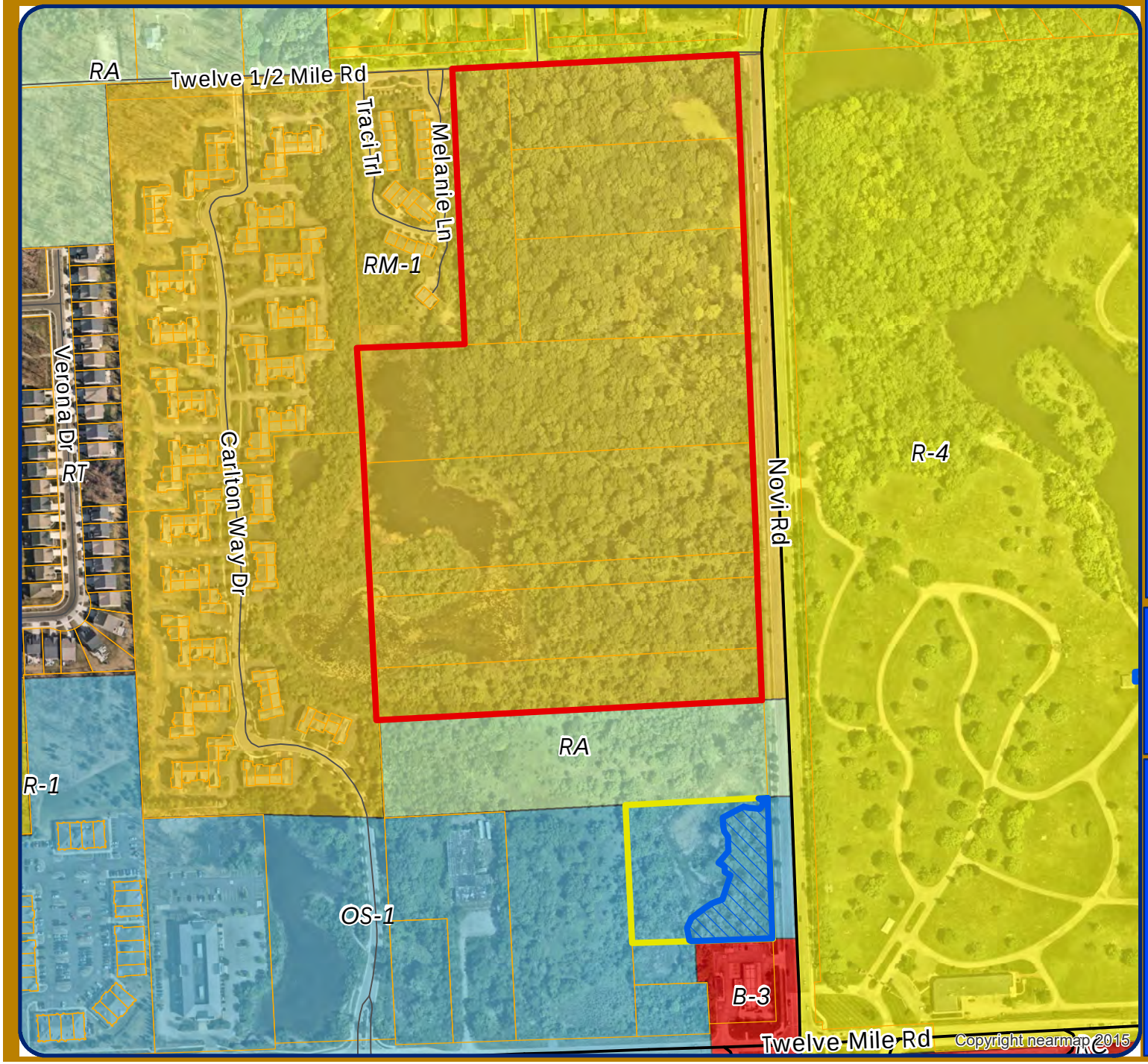
1 inch = 375 feet

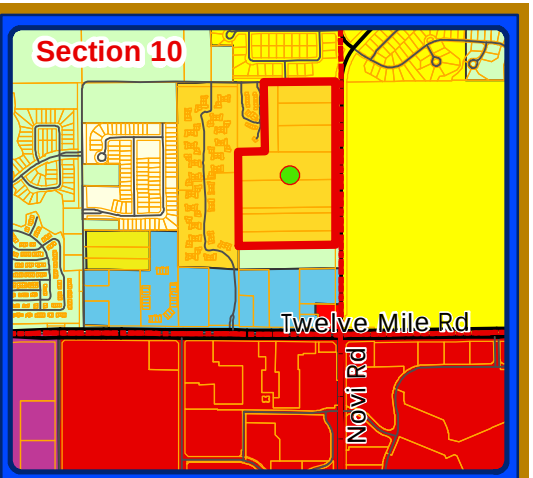
MAP INTERPRETATION NOTICE

Map information depicted is not intended to replace or substitute for any official or primary source. This map was intended to meet National Map Accuracy Standards and use the most recent, accurate sources available to the people of the City of Novi. Boundary measurements and area calculations are approximate and should not be construed as survey measurements performed by a licensed Michigan Surveyor as defined in Michigan Public Act 132 of 1970 as amended. Please contact the City GIS Manager to confirm source and accuracy information related to this map.

SOCIETY HILL

ZONING





LEGEND

- R-A: Residential Acreage
- R-1: One-Family Residential District
- R-4: One-Family Residential District
- RM-1: Low-Density Multiple Family
- B-3: General Business District
- OS-1: Office Service District
- OST: Office Service Technology
- RC: Regional Center District
- Subject Property
- City-Owned Property

City of Novi
Dept. of Community Development
City Hall / Civic Center
45175 W Ten Mile Rd
Novi, MI 48375
cityofnovi.org

Map Author: Lindsay Bell
Date: 6/12/24
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Feet
0 80 160 320 480
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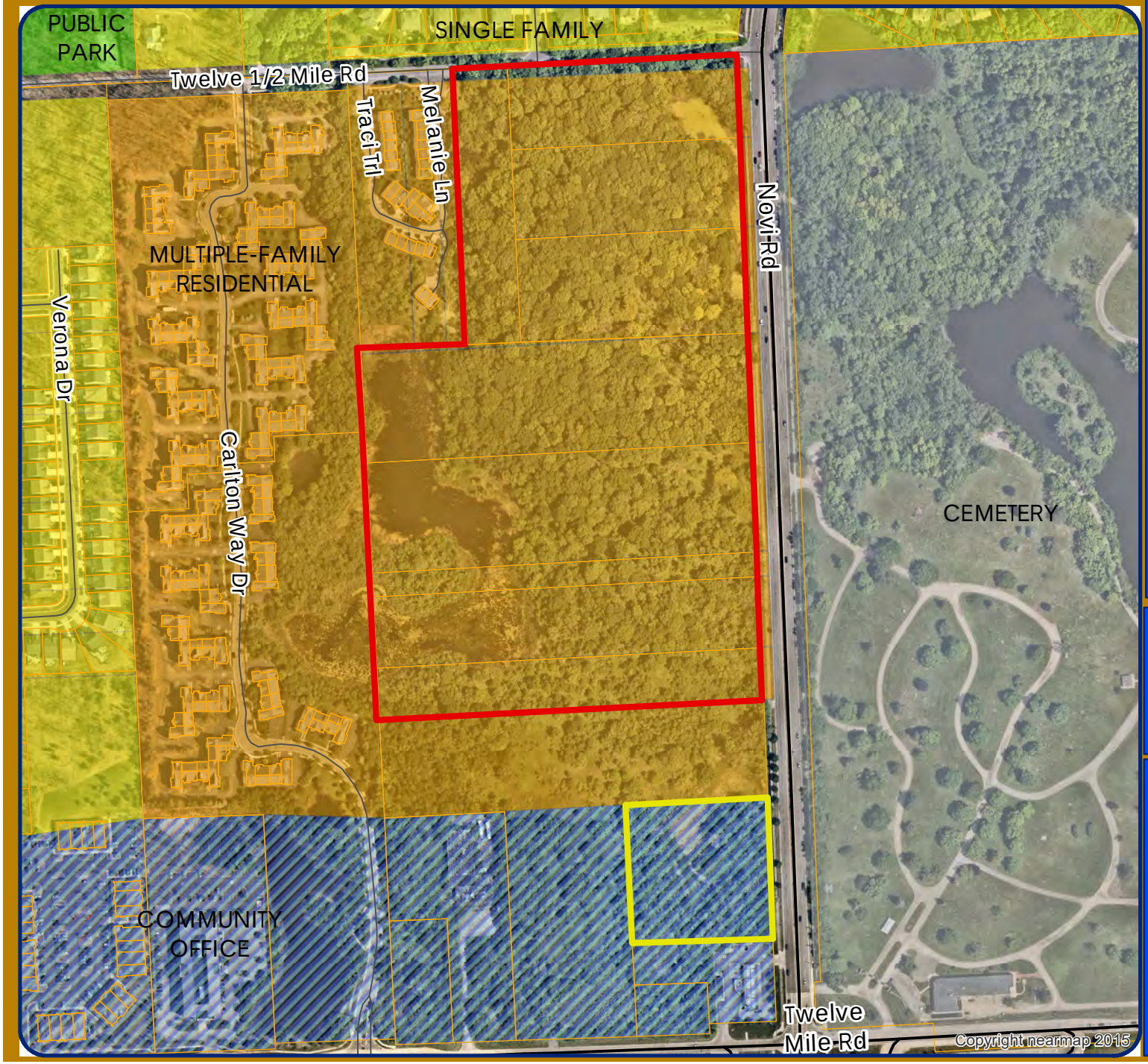
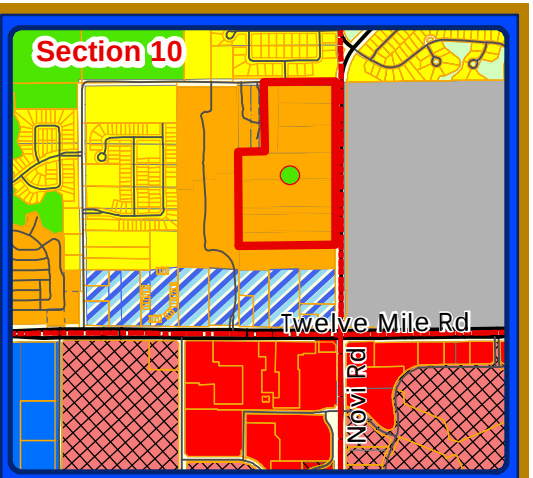
SOCIETY HILL

FUTURE LAND USE





LEGEND

- Single Family
- Multiple-Family Residential
- Community Office
- Office, Research, Development and Technology
- Regional Commercial
- Town Center Commercial
- Town Center Gateway
- Public Park
- Private Park
- Cemetery
- Subject Property
- City-Owned Property

City of Novi
Dept. of Community Development
City Hall / Civic Center
45175 W Ten Mile Rd
Novi, MI 48375
cityofnovi.org

Map Author: Lindsay Bell
Date: 6/12/24
Project: SOCIETY HILL
Version #: 1

Feet
0 80 160 320 480

1 inch = 375 feet

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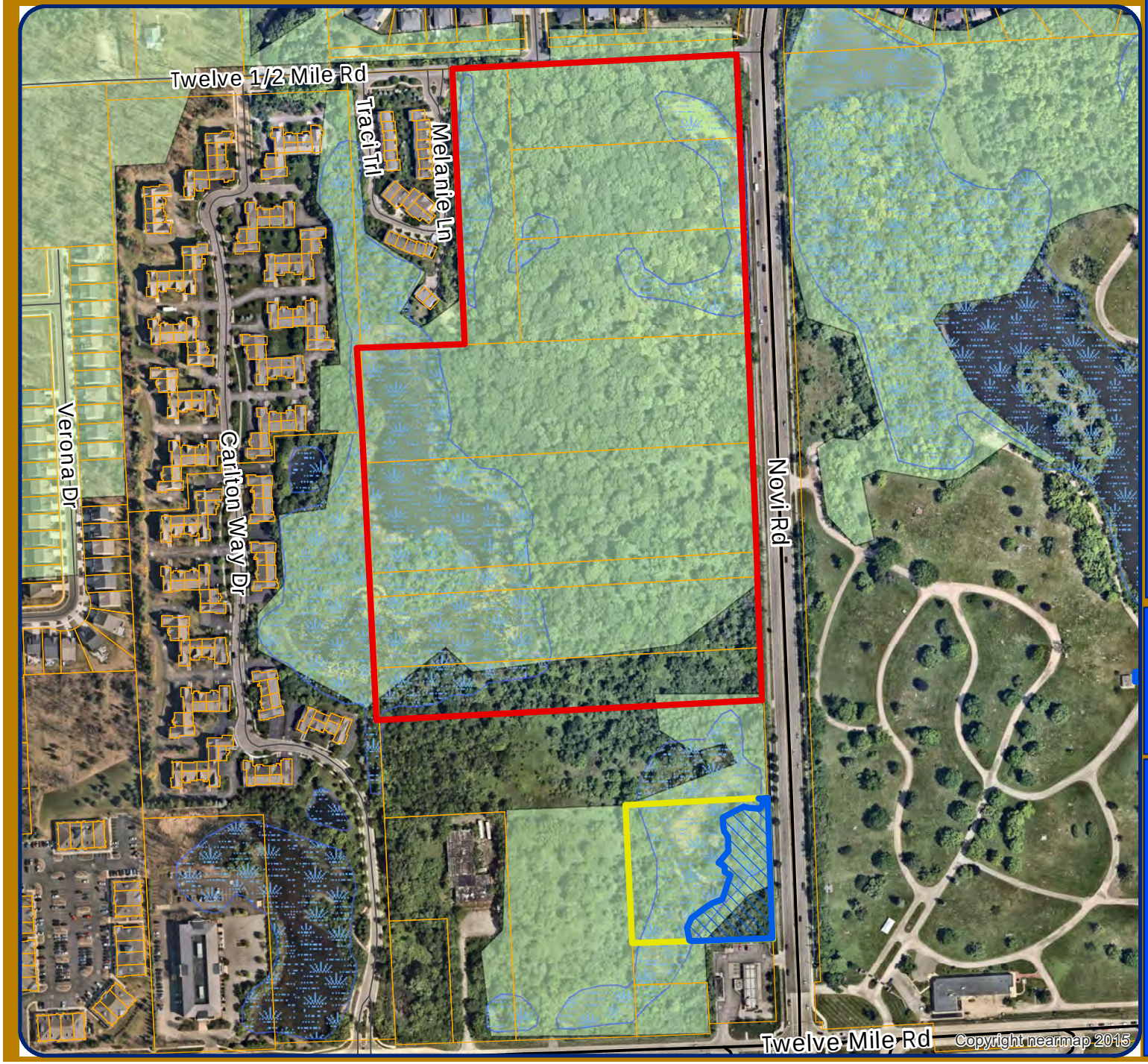
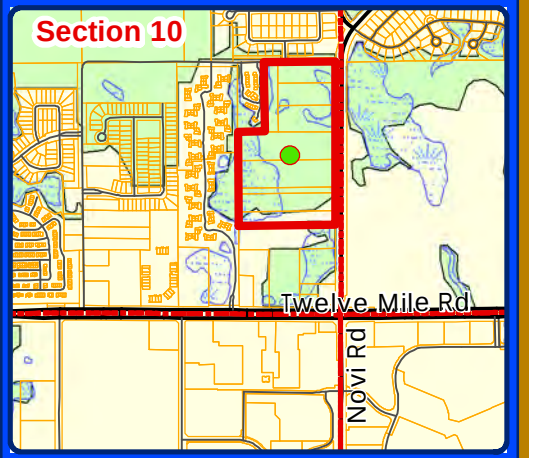
SOCIETY HILL

NATURAL FEATURES





LEGEND

- WETLANDS
- WOODLANDS
- Subject Property
- City-Owned Property

City of Novi

Dept. of Community Development
City Hall / Civic Center
45175 W Ten Mile Rd
Novi, MI 48375
cityofnovi.org

Map Author: Lindsay Bell
Date: 6/12/24
Project: SOCIETY HILL
Version #: 1

Feet
0 80 160 320 480

1 inch = 375 feet

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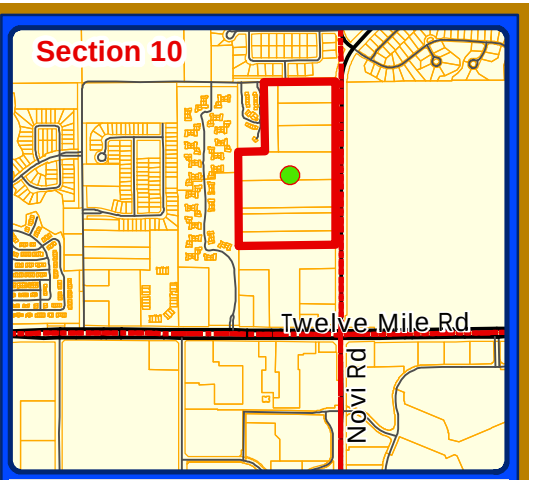
SOCIETY HILL

LIMITS OF DISTURBANCE - 1999 PLAN VS. 2024 PLAN



LEGEND

- Subject Property
- City-Owned Property
- APPROXIMATE LIMITS OF DISTURBANCE 1999 PLAN (19.4 ACRES)
- APPROXIMATE LIMITS OF DISTURBANCE 2024 PLAN (26.4 ACRES)

City of Novi
Dept. of Community Development
City Hall / Civic Center
45175 W Ten Mile Rd
Novi, MI 48375
cityofnovi.org

Map Author: Lindsay Bell
Date: 5/29/24
Project: SOCIETY HILL
Version #: 1

Feet
0 75 150 300 450

1 inch = 347 feet

MAP INTERPRETATION NOTICE

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PROPOSED SITE PLAN
(Selected sheets –
Full submittal is available at
Community Development Department Office)

Society Hill

West Side of Novi Rd. Between 12 Mile Rd. & 12-1/2 Mile Rd.

Owner

E&M Holdings, LLC
Attn: Jordan Sasson
32605 W. 12 Mile Rd., Ste. 290
Farmington Hills, MI 48334
P-248.640.8720

Architect

Krieger Klatt Architects Inc.
400 E. Lincoln Ave.
Royal Oak, MI 48067
P-248.414.9270
F-248.414.9275

Civil Engineer

Seiber Keast Lehner
39205 Country Club Dr., Suite C8
Farmington Hills, MI 48331
P-248.308.3331

Landscape Architect

MPFP, PLLC
120 Broadway Floor 20
New York, NY 10271
P-212.477.6366
F-212.346.0813

Land Planner/Architect

Allen Design
557 Carpenter
Northville, MI 48167
P-248.467.4668

North

Location Map

NTS

Civil Sheet Index

Sheet No.	Title	11-22-2023 Pre-App Submittal	03-25-2024 Preliminary Site Plan
1	Cover Sheet	•	•
2	Overall Survey Plan	•	•
3	Existing Tree Plan		•
4	Existing Tree Plan		•
5	Overall Plan	•	•
6	Grading and Paving Plan	•	•
7	Grading and Paving Plan	•	•
8	Grading and Paving Plan		•
9	Off-Site Detention Plan		•
10	Utility Plan	•	•
11	Utility Plan	•	•
12	Stormwater Management Plan	•	•
13	Pre/Post Development Run-Off Plan		•
14	Open Space Plan	•	•
15	Wetland Plan		•
16	Truck Route Plan		•
17	Proposed Tax Lot Subdivision		•
ND	Notes and Details		•
1 of 2	Photometric Site Plan		•
2 of 2	Photometric Site Plan		•

Landscape Sheet Index

Sheet No.	Title	11-22-2023 Pre-App Submittal	03-25-2024 Preliminary Site Plan
L-1	Landscape Plan		•
L-01	Render Plan		•
L-2	Landscape Plan		•
L-02	Site Plan		•
L-3	Detention Plan		•
L-4	Greenbelt Plan		•
L-5	Unit Typicals		•
L-6	Unit Typicals		•
L-7	Landscape Details		•
L-8	Detention Woodland Plan		•
L-9	Woodland Plan		•
L-10	Tree List		•
L-11	Tree List		•
L-12	Tree List		•

Architectural Sheet Index

Sheet No	Title	11-22-2023 Pre-App Submittal	03-25-2024 Preliminary Site Plan
G.001	Cover Sheet	•	•
G.002	Renderings	•	
G.003	Renderings	•	
G.004	Renderings	•	
G.005	Renderings	•	
G.006	Renderings	•	
G.007	Renderings	•	
G.008	Rendered Site Plan	•	
A.100	Building E - Lower Level Floor Plan	•	•
A.101	Building E - First Floor Plan	•	•
A.102	Building E - Second Floor Plan	•	•
A.103	Building E - Third Floor Plan	•	•
A.104	Building E - Fourth Floor Plan	•	•
A.105	Buildings A-D - Floor Plans	•	•

Architectural Sheet Index

Sheet No	Title	11-22-2023 Pre-App Submittal	03-25-2024 Preliminary Site Plan
A.106	Buildings A-D - Floor Plan	•	•
A.107	Buildings A-D - Floor Plan	•	•
A.108	Buildings A-D - Floor Plan	•	•
A.109	3-Story T.H. Floor Plans (7 Unit Mockup)	•	•
A.110	3-Story T.H. Floor Plans (7 Unit Mockup)	•	•
A.111	2-Story T.H. Floor Plans (6 Unit Mockup)	•	•
A.200	Building E - Exterior Elevations	•	•
A.201	Buildings A-D - Exterior Elevations	•	•
A.202	Buildings A-D - Exterior Elevations	•	•
A.203	3-Story T.H. - Exterior Elevations		•
A.204	3-Story T.H. - Exterior Elevations		•
A.205	2-Story T.H. - Exterior Elevations		•

KRIEGER KLATT ARCHITECTS
400 E. Lincoln Ave. | Royal Oak, MI 48067
P: 248.414.9270 F: 248.414.9275
www.kriegerklatt.com

Client:
E&M Holdings, LLC
32605 W. 12 Mile Rd., Ste. 290
Farmington Hills, MI 48334

Project:
Society Hill
Novi Rd.
Novi, MI 48337

Issued	Description	By
11-22-2023	Pre-App Submittal	
03-25-2024	Preliminary Site Plan	

PRELIMINARY NOT FOR CONSTRUCTION

Seal:

Note:
Do not scale drawings. Use calculated dimensions only. Verify existing conditions in field.

North Arrow:

Sheet Title:
Cover Sheet

Project Number:
23-065

Scale:

Sheet Number:
G.001

PRELIMINARY SITE PLANS FOR:

SOCIETY HILL

1/4 SECTION 10, TOWN 1 NORTH, RANGE 8 EAST,
CITY OF NOVI, OAKLAND COUNTY, MICHIGAN

LEGAL DESCRIPTION

[illegible]

NOTES:

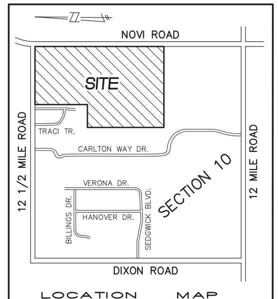
1. ALL WORK SHALL CONFORM TO THE CITY OF NOVI'S CURRENT STANDARDS AND SPECIFICATIONS.
2. THE CONTRACTOR MUST OBTAIN A PERMIT FROM THE CITY OF NOVI FOR ANY WORK WITHIN THE RIGHT-OF-WAY OF NOVI ROAD AND 12 1/2 MILE ROAD.
3. ALL PAVEMENT MARKINGS, TRAFFIC CONTROL SIGNS, AND PARKING SIGNS SHALL COMPLY WITH THE DESIGN AND PLACEMENT REQUIREMENTS OF THE 2011 MICHIGAN MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES.

FIRE DEPARTMENT NOTES

1. All fire hydrants and water mains shall be installed and in service prior to above foundation building construction as each phase is built.
2. All roads shall be paved and capable of supporting 35 tons prior to construction above foundation.

Building addresses shall be posted facing the street during all phases of construction. Addresses shall be a minimum of three inches in height on a contrasting background.

4. Provide 4-6" diameter concrete filled steel posts 48" above finish grade at each hydrant as required.
5. Fire lanes shall be posted with "Fire Lane – No Parking" signs in accordance with Ordinance #85.99.02.



LOCATION MAP
NOT TO SCALE

INDEX

PREPARED FOR:
E & M HOLDINGS, LLC
32605 WEST TWELVE MILE ROAD,
SUITE 290
FARMINGTON HILLS, MI 48334
CONTACT: MR. JORDAN SASSON
PHONE: 248.640.8720

SEIBER KEAST LEHNER
ENGINEERING | SURVEYING

Clinton Township Office
17001 Nineteen Mile Road, Suite 3
Clinton Township, MI 48038
586.412.7050

Farmington Hills Office
39205 Country Club Drive, Suite C8
Farmington Hills, MI 48331
248.308.3331

ARCHITECTURAL DESIGN PREPARED BY:
KREIGER KLATT ARCHITECTS
1412 E. 11 MILE ROAD
ROYAL OAK, MI 48067
PHONE: 248.414.9270

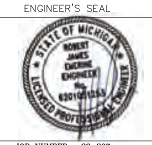
LANDSCAPE PLANS PREPARED BY:
MPFP PLLC
120 BROADWAY, FLOOR 20
NEW YORK, NY 10271
PHONE 212.477.6366

PROPERTY BOUNDARY & TOPO INFORMATION
NOWAK & FRAUS ENGINEERS
46777 WOODWARD AVE.
PONTIAC, MICHIGAN 48342
PHONE: 248.332.8257

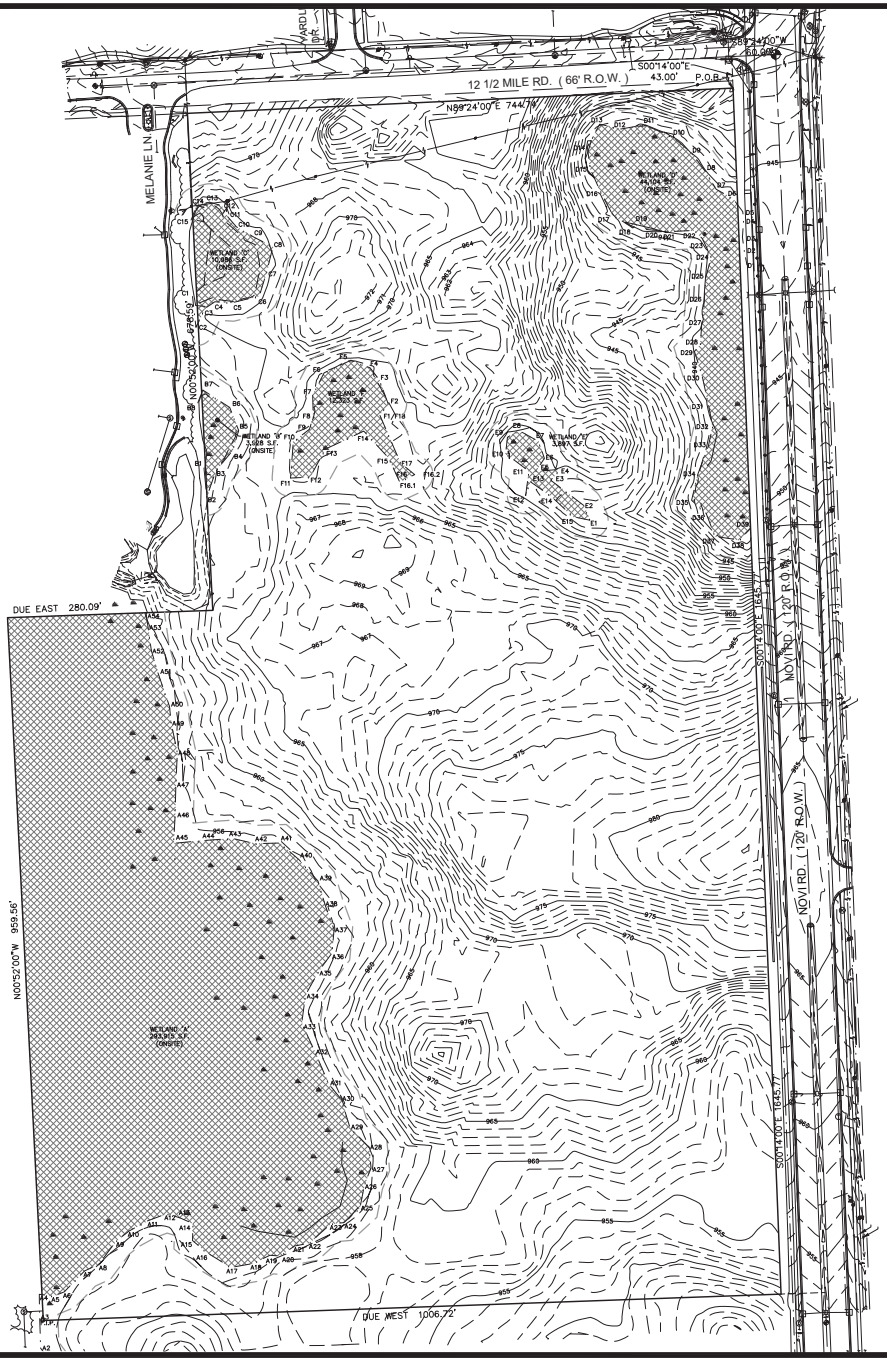
REVISIONS

NO.	ITEM	DATE
1.	PRE-APP SUBMITTAL	11-22-23
2.	PERLIMINARY SITE PLAN SUBMITTAL	03-25-24

ENGINEER'S SEAL



DATE: 11-3-2023	DESIGNED BY: A.A	JOB NUMBER: 23-207
	CHECKED BY: B.E.	DRAWING FILE: 1-23207-CV.dwg



Location Map
N.T.S.

LEGAL DESCRIPTION

PART OF THE S.E. 1/4 OF SECTION 10, T.1N., R.8E., CITY OF NOVI, OAKLAND COUNTY, MICHIGAN, BEING MORE PARTICULARLY DESCRIBED AS COMMENCING AT THE E. 1/4 CORNER SAID SECTION 10; THENCE ALONG THE EAST-WEST 1/4 LINE OF SAID SECTION 10, S. 89° 24' 00" W., 60.00 FEET; THENCE S. 00°14' 00" E., 43.00 FEET TO THE POINT OF BEGINNING; THENCE ALONG THE WEST RIGHT-OF-WAY LINE OF NOVI ROAD (120.00 FEET WIDE), S. 00°14' 00" E., 1645.77 FEET; THENCE DUE WEST 1006.72 FEET; THENCE N. 00° 52' 00" W., 959.56 FEET; THENCE DUE EAST 280.09 FEET; THENCE N. 00° 52' 00" W., 678.59 FEET; THENCE ALONG THE SOUTH RIGHT-OF-WAY LINE OF 12 1/2 MILE ROAD (PROPOSED 86.00 FEET WIDE), N. 89° 24' 00" E., 744.74 FEET TO THE POINT OF BEGINNING. CONTAINING 1,476,650 SQUARE FEET OR 33.899 ACRES. SUBJECT TO EASEMENTS AND RESTRICTIONS OF RECORD.

FLOOD HAZARD NOTE

THE PROPERTY DESCRIBED ON THIS SURVEY DOES NOT LIE WITHIN A SPECIAL FLOOD HAZARD AREA AS DEFINED BY THE FEDERAL EMERGENCY MANAGEMENT AGENCY; THE PROPERTY LIES WITHIN ZONE X OF THE FLOOD INSURANCE RATE MAP IDENTIFIED AS MAP NO. 26125C0488F AND 26125C0626F EACH BEARING AN EFFECTIVE DATE OF 09-29-2006.

MISS DIG / UTILITY DISCLAIMER NOTE

A MISS DIG TICKET NUMBER 20230119014G0, PURSUANT TO MICHIGAN PUBLIC ACT 174 WAS ENTERED FOR THE SURVEYED PROPERTY. DUE TO THE EXTENDED REPORTING PERIOD FOR UNDERGROUND FACILITY OWNERS TO PROVIDE THEIR RECORDS, THE SURVEY MAY NOT REFLECT ALL THE UTILITIES AT THE TIME THE SURVEY WAS ISSUED ON FEBRUARY 9, 2023. THE SURVEY ONLY REFLECTS THOSE UTILITIES WHICH COULD BE OBSERVED BY THE SURVEYOR IN THE FIELD OR AS DEPICTED BY THE UTILITY COMPANY RECORDS FURNISH PRIOR TO THE DATE THIS SURVEY WAS ISSUED. THE CLIENT AND/OR THEIR AUTHORIZED AGENT SHALL VERIFY WITH THE FACILITY OWNERS AND/OR THEIR AUTHORIZED AGENTS, THE COMPLETENESS AND EXACTNESS OF THE UTILITIES LOCATION.

DTE DISCLAIMER NOTE

PLEASE NOTE THAT DTE HAS NEW REGULATIONS THAT MAY IMPACT DEVELOPMENT OUTSIDE THEIR EASEMENT OR THE PUBLIC RIGHT OF WAY. CLIENT SHALL CONTACT DTE TO DETERMINE THE "NEW STRUCTURES AND POWER LINE" REQUIREMENTS AS THEY MAY APPLY TO ANY FUTURE BUILDING OR RENOVATION OF A STRUCTURE. DTE ENERGY CAN BE CONTACTED AT 800-477-4747

TOPOGRAPHIC SURVEY NOTES

ALL ELEVATIONS ARE EXISTING ELEVATIONS, UNLESS OTHERWISE NOTED.

UTILITY LOCATIONS WERE OBTAINED FROM MUNICIPAL OFFICIALS AND RECORDS OF UTILITY COMPANIES, AND NO GUARANTEE CAN BE MADE TO THE COMPLETENESS, OR EXACTNESS OF LOCATION.

THIS SURVEY MAY NOT SHOW ALL EASEMENTS OF RECORD UNLESS AN UPDATED TITLE POLICY IS FURNISHED TO THE SURVEYOR BY THE OWNER.

LEGEND

MANHOLE(MH)	EXISTING SANITARY SEWER
HYDRANT(HYD) / GATE VALVE(GVW)	EXISTING SAN. CLEAN OUT
MANHOLE(MH) / CATCH BASIN(CB)	EXISTING WATER MAIN
	EXISTING STORM SEWER
CBH	EX. BEEHIVE CATCH BASIN
UTILITY POLE / GUY POLE	EX. UNDERGROUND (UG.) CABLE
UP / GUY WIRE	OVERHEAD (OH.) LINES
LP	LIGHT POLE
	SIGN
	EXISTING GAS MAIN
ASPH.	ASPHALT
CONC.	CONCRETE
FD. / FND.	FOUND
RET. WALL	RETAINING WALL
R.O.W.	RIGHT-OF-WAY
SPK	SET PK NAIL
(TYP)	TYPICAL
(R)	RECORD
(M)	MEASURED
C/L	CENTERLINE
P/L	PROPERTY LINE
GM	GAS METER
EM	ELECTRIC METER
L/S	LANDSCAPE
DS	DOWNSPOUT
GP	GUARD POST
MB	MAIL BOX

NF ENGINEERS
CIVIL ENGINEERS
LAND SURVEYORS
LAND PLANNERS

NOWAK & FRAUS ENGINEERS
46777 WOODWARD AVE.
PONTIAC, MI 48342-5032
TEL. (248) 332-7931
FAX. (248) 332-8257
WWW.NOWAKFRAUS.COM

SEAL

STATE OF MICHIGAN
KEVIN CHRISTOPHER NAVAROLI
License No. 4001053503
REGISTERED PROFESSIONAL SURVEYOR

PROJECT
Society Hill
Novi, MI

CLIENT
E & M Holdings, LLC
600 Madison Avenue
New York, NY 10022
Contact:
Mr. Jordan Sasson
Ph: 248-640-8720

PROJECT LOCATION
Part of the SE. ¼ of Section 10, T. 1 North, R. 8 East, City of Novi, Oakland County, MI

SHEET
Overall Survey Plan

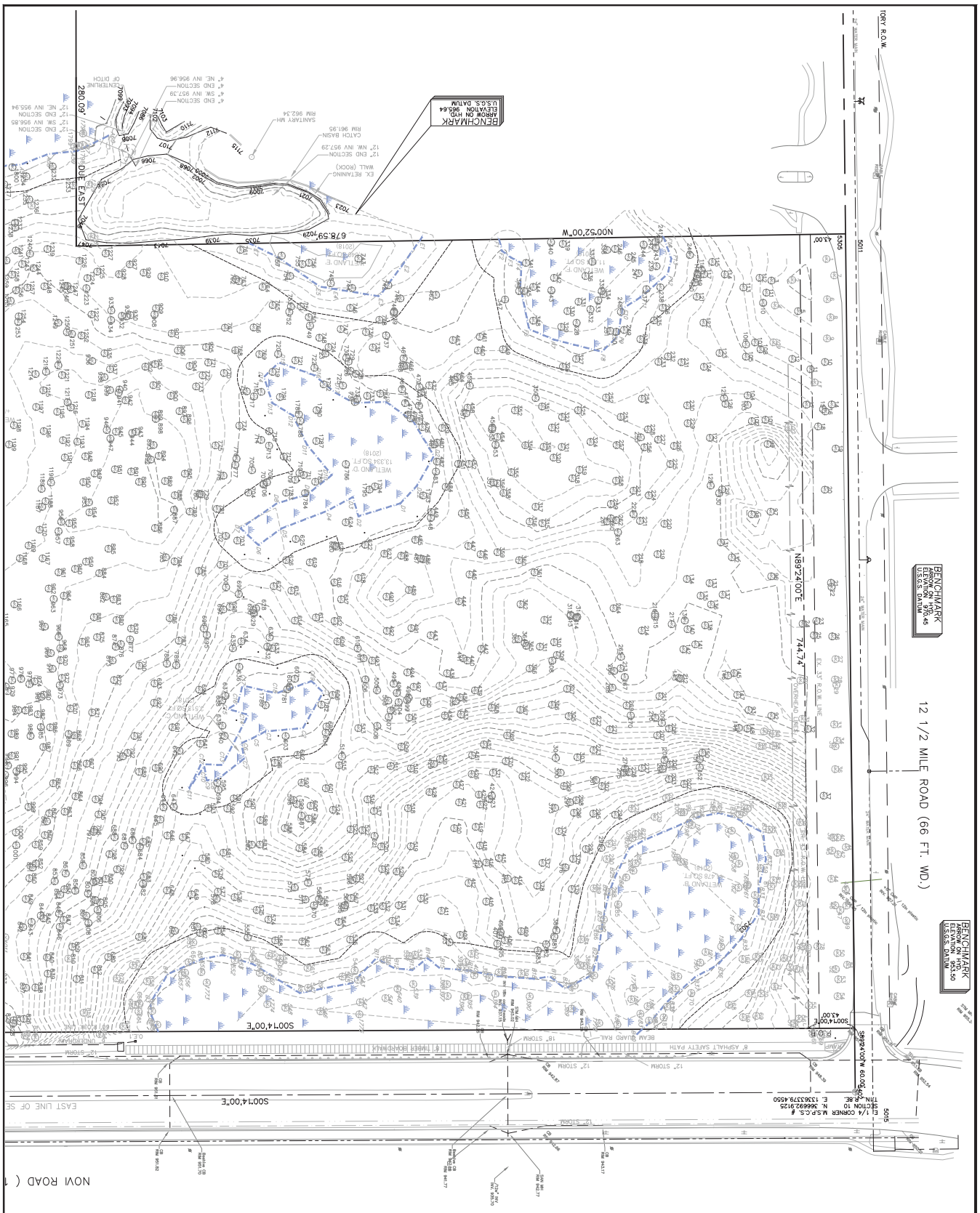
811 Know what's below Call before you dig.

DATE	ISSUED/REVISED
08-25-23	PRE-APP SUBMITTAL

DRAWN BY: M. Carnaghi
DESIGNED BY: B. Brickel
APPROVED BY: K. Navaroli
DATE: May 9, 2023
SCALE: 1" = 80'

80 40 0 40 80 120

NFE JOB NO. 7946-02
SHEET NO. 2



PROJECT NAME: SOCIETY HILL PART OF THE SE 1/4 OF SEC. 10, T.1N., R.8E., CITY OF NOVI, OAKLAND COUNTY, MI	CLIENT INFO: E AND M HOLDINGS, LLC JORDAN SASSON 32605 W. TWELVE MILE RD. SUITE 290 FARMINGTON HILLS, MI 48334	PROJECT NUMBER: 23-207 PROJECT MANAGER: B. EMERINE DRAWN BY: A.A. CHECKED BY: RJE DATE: 10/30/23	3 WORKING DAYS BEFORE YOU DIG CALL MISS DIG 1-800-482-7171 TOLL FREE FOR THE LOCATION OF UNDERGROUND FACILITIES

REV. #	REV. DATE	REVISION INFO.
1.	11-22-23	PRE-APP SUBMITTAL 1.
2.	3-18-24	PER CITY REVIEW LETTERS, SUBMITTED TO CITY

SEIBER KEAST LEHNER
ENGINEERING | SURVEYING

SHEET TITLE: EXISTING TREE PLAN

PAGE NO: 3

SEIBER KEAST LEHNER
ENGINEERING | SURVEYING

REV. #	REV. DATE	REVISION INFO.
1.	11-22-23	PRE-APP SUBMITTAL 1.
2.	3-18-24	PER CITY REVIEW LETTERS, SUBMITTED TO CITY

3 WORKING DAYS BEFORE YOU DIG CALL MISS DIG 1-800-482-7171 OR MISSDIG811.ORG

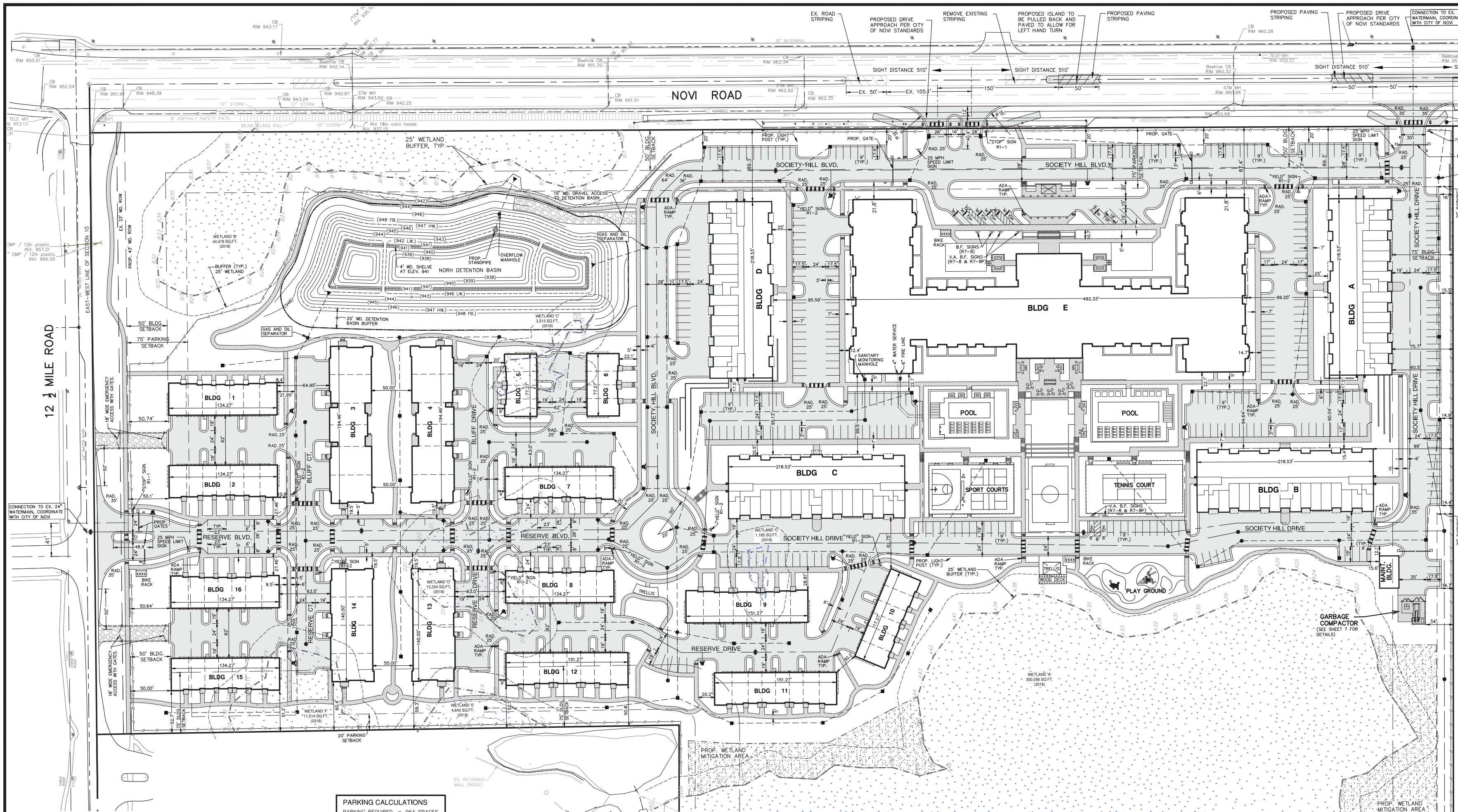
PROJECT NUMBER: 23-207
PROJECT MANAGER: R. EHEPME
DRAWN BY: A.A.
CHECKED BY: R.J.E
DATE: 10/30/23

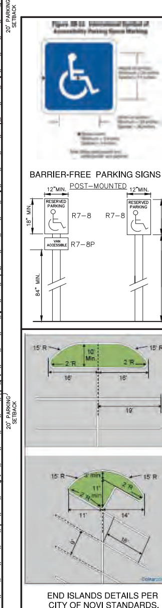
CLIENT INFO:
E AND M HOLDINGS, LLC
JORDAN SASSON
2355 W. TWELVE MILE RD.
SUITE 290
FARMINGTON HILLS, MI
48334

PROJECT NAME:
SOCIETY HILL
PART OF THE SE 1/4 OF SEC 10, T1N., R8E., CITY OF NOVI, OAKLAND COUNTY, MI

SHEET TITLE:
EXISTING TREE PLAN

PAGE No.:
4





PROPOSED LEGEND

- SANITARY SEWER
- WATER MAIN
- STORM SEWER
- DITCH/SWALE
- SANITARY LEAD
- TREE PROTECTION FENCE
- SILT FENCE
- FLOODPLAIN
- CONTOUR
- CURB AND GUTTER
- SANITARY MANHOLE
- STORM MANHOLE
- CATCH BASIN
- END SECTION
- FIRE HYDRANT
- GATE VALVE AND WELL
- SAND BACKFILL
- PAVEMENT (ASPHALT)
- PAVEMENT (CONC. WALK)
- DIRECTION SURFACE FLOW
- OVERFLOW ROUTE
- DRIVEWAY LOCATION
- 1000.00 GRADE

CONNECTION TO EX. SANITARY MANHOLE

EX. 12" SAN. RIM 955.38 12" NE. 933.18 12" S. 933.08

SITE DATA

EXISTING ZONING: RM-1 PD OPTION (MULTIPLE FAMILY)
SITE AREA = 33.89 ACRES OR 1,476,248.4 S.F.

UNIT DENSITY ALLOWED:
1,476,248.4 S.F./ 700 = 2,108

UNIT DENSITY PROPOSED:
NO. OF BUILDINGS PROPOSED = 21
NO. OF UNITS PROPOSED = 463
NO. OF BDRMS, DENS AND STUDIOS PROPOSED = 1,359

BIKE RACK REQUIREMENTS

1 SPACE FOR EACH 5 UNITS REQUIRED
NO. OF UNITS PROPOSED = 463
SPACES REQUIRED: 463 UNITS / 5 = 93 SPACES
SPACES PROVIDED:
SURFACE PARKING = 24 SPACES (AS SHOWN)
UNDERGROUND PARKING = 70 SPACES (SEE ARCHITECTURAL PLANS)
TOTAL SPACES PROVIDED: = 94 SPACES

BUILDING HEIGHT

PER NOVI ZONING ORDINANCE, BUILDING HEIGHT IS MINIMUM 3-STORIES AND MAXIMUM 5-STORIES.
MAXIMUM BUILDING HEIGHT PROPOSED IS 5-STORIES.

BUILDINGS COVERAGE

MAXIMUM PERMITTED LOT COVERAGE = 25%
PROVIDED LOT COVERAGE = 14.84%

ACCESSIBLE PARKING SPACES

ACCESSIBLE SPACES PER 2010 ADA (208.2.3 RESIDENTIAL FACILITIES)
TOTAL SURFACE SPACES = 362
V.A. SPACES REQUIRED:
MIN. 2% OF TOTAL SURFACE SPACES
V.A. SPACES REQUIRED: 362 x 2% = 7 SPACES
V.A. PROVIDED: 4 VAN ACCESSIBLE SPACES (SURFACE PARKING)
3 VAN ACCESSIBLE SPACES (UNDER GROUND PARKING)
TOTAL H.P. SPACES PROVIDED = 13

PARKING CALCULATIONS

PARKING REQUIRED = 964 SPACES
PARKING PROVIDED = 942 SPACES
(SEE ARCHITECTURAL PLANS FOR DETAILED INFORMATION)

YARD SETBACK CALCULATIONS

FRONT, SIDE AND REAR YARD PARKING SETBACKS AREA = 260,652 S.F. = 5.98 AC.
30% OF SETBACKS AREA = 1.79 AC.
PARKING, DRIVES & BUILDINGS WITHIN SETBACKS AREA = 58,441 S.F. = 1.34 AC.
1.34 AC. LESS THAN 1.79 AC.

SEE PHOTOMETRIC PLANS FOR LIGHTING DETAILS.

PROPOSED IMPROVEMENTS

1. MUNICIPAL SEWER TO BE PROVIDED BY CONNECTING TO AN EXIST. 12" SANITARY SEWER LOCATED NEAR THE SOUTHWEST CORNER OF THE SITE AS SHOWN.
2. MUNICIPAL WATER TO BE PROVIDED BY CONNECTING TO AN EXIST. 24" WATER MAIN ALONG THE NORTH SIDE OF 12 1/2 AND CONNECTING TO AN EXIST. 36" WATER MAIN ALONG THE EAST SIDE OF NOVI ROAD. ALL INTERNAL WATER MAINS TO BE 8" DIA.
3. STORM WATER DETENTION SHALL BE PROVIDED ON SITE.

UNIT / PARKING TABLE

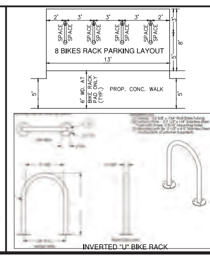
Society Hill													
	4-Story A	4-Story B	4-Story C	4-Story D	Podium E	Total Apt.	Tot. Apt. Ratio	2-St. TH	3-St. TH	Total TH		Grand Total	Total Site Ratio
Studio	0	0	0	0	8	8	2.2%	0	0	0		8	1.7%
1Bed	22	22	22	22	32	120		0	0	0		120	
1Bed w/Den	2	2	2	2	19	27	40.5%	0	0	0		27	31.7%
2Bed	27	27	27	27	58	166		0	36	36		202	
2Bed w/Den	0	0	0	0	30	30	54.0%	0	0	0		30	50.1%
3Bed	0	0	0	0	12	12	3.3%	20	44	64		76	16.4%
Total	51	51	51	51	159	363		20	80	100		463	
Garage Parking	15	15	15	15	147	207				164		207	
Par. Behind Gar.	15	15	15	0		45				164		45	
Surface Parking						340				22		340	
Total						592				350		942	
Ratio						1.63				3.50		2.03	

CROSSWALK DETAIL

NOTES:
1. TRANSVERSE LINES SHALL BE 12" WIDE.
2. LONGITUDINAL LINES SHALL BE 24" APART.
3. ALL STRIPING TO BE WHITE PAINT.

STRIPING NOTES:

1. PARKING LOTS SHALL HAVE PARKING AREAS AND RAMP PAVEMENT MARKINGS MARKED BY PAINTED 4-INCH WIDE LINES ACCURATELY AND NEATLY ARRANGED AS INDICATED ON THE PLAN. LINES SHALL BE PAINTED WITH AN APPROVED WHITE TRAFFIC PAINT COMPATIBLE WITH BITUMINOUS/CONCRETE SURFACES SUCH AS SHERWIN WILLIAMS NO. B2 9W1; PPG TYPE 11-3 OR 11-4, OR AS APPROVED BY THE OWNER. PROTECT ALL PAINTED AREAS UNTIL PAINT IS COMPLETELY DRY.PARKING AREAS FOR THE PHYSICALLY HANDICAPPED SHALL BE PAINTED WITH BLUE PAINT FOR STRIPING. WHEEL CHAIR SYMBOL SHALL BE PAINTED WHITE. ALL PAINTED MARKINGS AND STRIPING SHALL BE PROVIDED IN TWO COATS.
2. THE INTERNATIONAL SYMBOL FOR ACCESSIBILITY SHALL BE WHITE OR WHITE WITH BLUE BACKGROUND
3. WHEN A BARRIER FREE PARKING SPACE IS ADJACENT TO A STANDARD PARKING SPACE, BLUE AND WHITE LINES ABUTTING EACH OTHER SHALL BE PROVIDED.



NOTES:

1. 5' WD. CONCRETE SIDEWALKS SHALL BE CONSTRUCTED ON BOTH SIDES OF SOME INTERIOR ROADS AS SHOWN. ALL SIDEWALK STUBS SHALL BE PROVIDED WITH A.D.A. COMPLIANT RAMPS AND DETECTABLE WARNING SURFACES.
2. ALL ROADWAYS TO BE PRIVATE.
3. A CITY OF NOVI RIGHT-OF-WAY PERMIT IS REQUIRED FOR WORK WITHIN ANY PUBLIC ROAD RIGHT-OF-WAY.
4. ALL SIDEWALKS AND SIDEWALK RAMPS SHALL A.D.A. COMPLIANT.
5. ALL WORK SHALL CONFORM TO THE CURRENT CITY OF NOVI STANDARDS AND SPECIFICATIONS.
6. ALL PAVEMENT MARKINGS, TRAFFIC CONTROL SIGNS, AND PARKING SIGNS SHALL COMPLY WITH THE DESIGN & PLACEMENT REQUIREMENTS OF THE 2011 MICHIGAN MANUAL OF UNIFORM TRAFFIC CONTROL DEVICES. ALL ROADWAY SIGNS SHOULD BE INSTALLED TWO FEET FROM THE FACE OF CURB OR EDGE OF SIDEWALK TO THE NEAR EDGE OF THE SIGN.
7. PROP. WATER MAIN AND PROP. SANITARY SEWER TO BE CENTERLINE OF 20' WS. PUBLIC EASEMENT.
8. ALL ON-SITE EXISTING POWER POLES AND OVERHEAD WIRES SHOULD BE RELOCATED AND/OR REMOVED.
9. COMPACTED SAND BACKFILL WILL BE PROVIDED FOR ALL UTILITIES WITHIN THE INFLUENCE OF PAVED AREAS.
10. A 3' BUFFER DISTANCE SHALL BE PROVIDED BETWEEN THE SIDEWALK AND ANY FIXED OBJECTS.
11. THE CITY OF NOVI HAS NO RESPONSIBILITY TO IMPROVE OR MAINTAIN PRIVATE STREETS CONTAINED WITHIN OR PRIVATE STREETS PROVIDING ACCESS TO THE PROPERTY DESCRIBED IN THIS PLAN.
12. DEWATERING IS NOT ANTICPATED FOR THIS PROJECT. IF DEWATERING IS REQUIRED, A DEWATERING PLAN MUST BE SUBMITTED TO NOVI FOR APPROVAL.

SIGN QUANTITIES

SYMBOL	DESCRIPTION	QUANITITY PANEL	QUANITITY POST
	R1-1 30" "STOP" SIGN W/ STREET SIGN	3	3
	R1-2 30" "YIELD" SIGN W/ STREET SIGN	9	9
	R2-1(25) "25 MPH SPEED LIMIT" SIGN	3	3
	12" D3-1 STREET NAME ATOP "STOP" SIGN	12	0
	(MAIN LEVEL)		
	V.A. BARRIER SIGN (R7-8)	2	2
	VAN ACCESSIBLE SIGN (R7-8P)	4	4
	(UNDER GROUND PARKING)		
	V.A. BARRIER SIGN (R7-8)	4	4
	VAN ACCESSIBLE SIGN (R7-8P)	6	6

SIGNAGE NOTES

1. STREET NAME SIGNS SHOULD BE PLACED A TOP THE INTERIOR YIELD SIGNS AND THE EXITING STOP SIGNS.
2. ALL STREET-NAME SIGNS SHALL COMPLY WITH THE CITY OF NOVI DESIGN STANDARDS.
3. ALL TRAFFIC SIGNAGE SHALL COMPLY WIYH THE CURRENT MMUTCD STANDARDS.

SIGNING NOTES

NOTE: ACCESSIBLE PARKING SPACE SIGNS SHALL HAVE A MIN. HEIGHT AND SIZE TO PERMIT THE SPACE TO BE EASILY IDENTIFIED AND ARE ELEVATED SUCH THAT THEY SHALL NOT PRESENT A HAZARD TO PERSONS WALKING NEAR THE SIGN.

1. ALL SIGNS SHALL HAVE A MINIMUM BOTTOM MOUNTING HEIGHT OF 7' FROM FINAL GRADE FOR GROUND MOUNTED SIGNS. WALL MOUNTED SIGNS MAY HAVE A BOTTOM MOUNTING HEIGHT OF 5'.
2. ALL ROADSIDE SIGNS SHOULD BE INSTALLED 2' FROM THE FACE OF THE CURB TO THE NEAR EDGE OF THE SIGN.
3. SINGLE SIGNS WITH NOMINAL DIMENSIONS OF 12"x18" OR SMALLER IN SIZE SHALL BE MOUNTED ON A GALVANIZED 2 LB. U-CHANNEL POST. MULTIPLE SIGNS AND/OR SIGNS WITH NOMINAL DIMENSIONS GREATER THAN 12"x18" SHALL BE MOUNTED ON A GALVANIZED 3 LB. OR GREATER U-CHANNEL POST AS DICTATED BY THE WEIGHT OF THE PROPOSED SIGNS.
4. TRAFFIC CONTROL SIGNS SHALL USE THE FHWA STANDARD ALPHABET SERIES.
5. TRAFFIC CONTROL SIGNS SHALL HAVE A HIGH INTENSITY PRISMATIC (HIP) SHEETING TO MEET FHWA RETROREFLECTIVITY REQUIREMENTS.

GRAPHIC SCALE
60 0 30 60 120
(IN FEET)
1" = 60'

SEIBER KEAST LEHNER
ENGINEERING | SURVEYING
CLINTON TOWNSHIP OFFICE
17001 NINETEEN MILE ROAD, SUITE 3
CLINTON TOWNSHIP, MI 48038
586.412.7050
FARMINGTON HILLS OFFICE
39205 COUNTRY CLUB DRIVE, SUITE C8
FARMINGTON HILLS, MI 48331
248.308.3331

REV. #	REV. DATE	REVISION INFO.
1.	11-22-23	PRE-APP SUBMITTAL 1.
2.	03-25-24	PRELIMINARY SITE PLAN SUBMITTAL

3 WORKING DAYS BEFORE YOU DIG CALL MISS DIG 1-800-482-7171
TOLL FREE FOR THE LOCATION OF UNDERGROUND FACILITIES

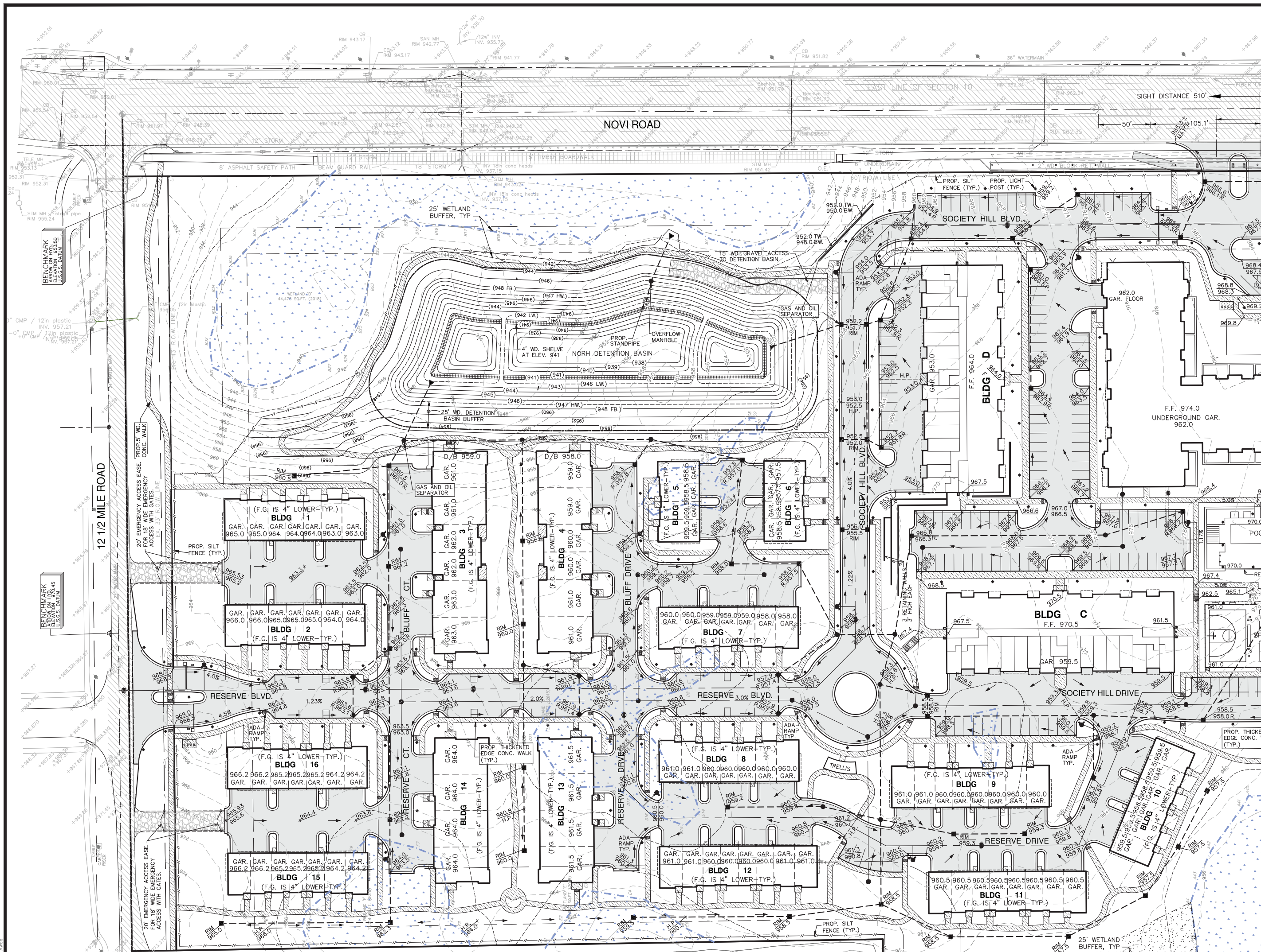
PROJECT NUMBER: 23-207
PROJECT MANAGER: B. EMERINE
DRAWN BY: A.A.
CHECKED BY: RJE
DATE: 10/30/23

CLIENT INFO:
E AND M HOLDINGS, LLC
JORDAN SASSON
32605 W. TWELVE MILE RD.
SUITE 290
FARMINGTON HILLS, MI
48334

PROJECT NAME:
SOCIETY HILL
PART OF THE SE 1/4 OF SEC. 10, T.1N., R.8E., CITY OF NOVI, OAKLAND COUNTY, MI

SHEET TITLE:
OVERALL PLAN

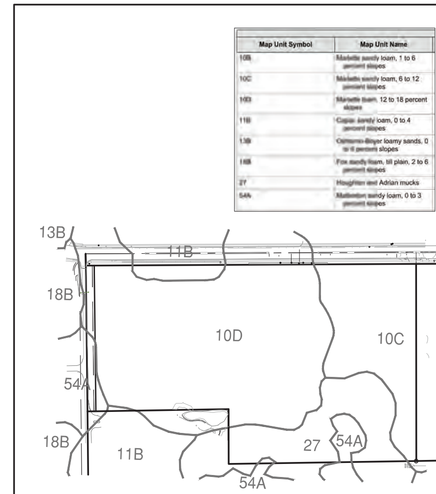
P:\23-207 Society Hill\Drawings\Site Plan\5-23207-OA.dwg 3/25/2024 3:22 PM Azad Awad



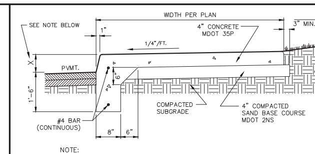
GRAPHIC SCALE

(IN FEET)

1" = 50'



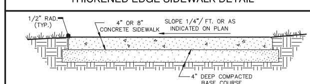
SOILS MAP



NOTE:

THICKENED EDGE SIDEWALK HEIGHT IS 6" HIGH IN FRONT OF 19' LONG PARKING SPACES AND IS 4" HIGH IN FRONT OF 17' LONG PARKING SPACES.

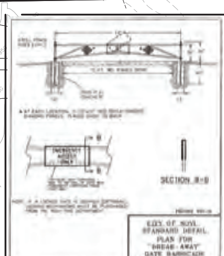
THICKENED EDGE SIDEWALK DETAIL

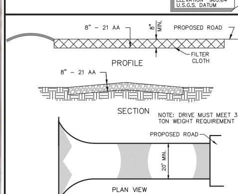


CONCRETE SIDEWALK DETAIL

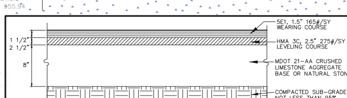
NOTES:

1. REFER TO CITY OF NOVI PAVING STANDARD DETAIL SHEET – TYPICAL BITUMINOUS ROADWAY SECTION (DETAIL 1B) FOR ASPHALT PAVING CROSS SECTION (1 1/2" WEARING COURSE, 2 1/2" LEVELING COURSE ON 8" 21AA BASE COURSE).
2. COMPACTED SAND BACKFILL TO BE PROVIDED FOR ALL UTILITIES WITHIN THE INFLUENCE OF PAVED AREAS.
3. INSTALL A BACKFLOW PREVENTION (RPZ) AT EACH TAB TO THE PUBLIC WATER SUPPLY.
4. SANITARY LEADS WILL BE BURRIED AT LEAST 5 FEET DEEP WHERE UNDER THE INFLUENCE OF PAVEMENT.
5. STORM SEWER SHALL MAINTAIN MINIMUM 3 FEET OF COVER.

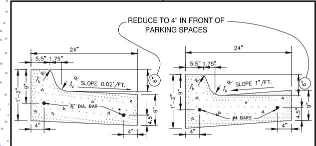




DETENTION BASIN AND EMERGENCY ACCESS DRIVE DETAIL

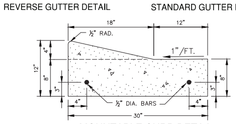


TYPICAL ASPHALT CROSS-SECTION FOR INTERIOR ROADS ONLY



STRAIGHT FACE CONCRETE CURB REVERSE GUTTER DETAIL

STRAIGHT FACE CONCRETE CURB STANDARD GUTTER DETAIL



4" MOUNTABLE CURB DETAIL

PROPOSED LEGEND

SEIBER KEAST LEHNER
ENGINEERING | SURVEYING
CLINTON TOWNSHIP OFFICE
17001 NINETEEN MILE ROAD, SUITE 3
CLINTON TOWNSHIP, MI 48038
586.412.7050
FARMINGTON HILLS OFFICE
39205 COUNTRY CLUB DRIVE, SUITE C8
FARMINGTON HILLS, MI 48331
248.308.3331

REV. #	REV. DATE	REVISION INFO.
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3 WORKING DAYS BEFORE YOU DIG
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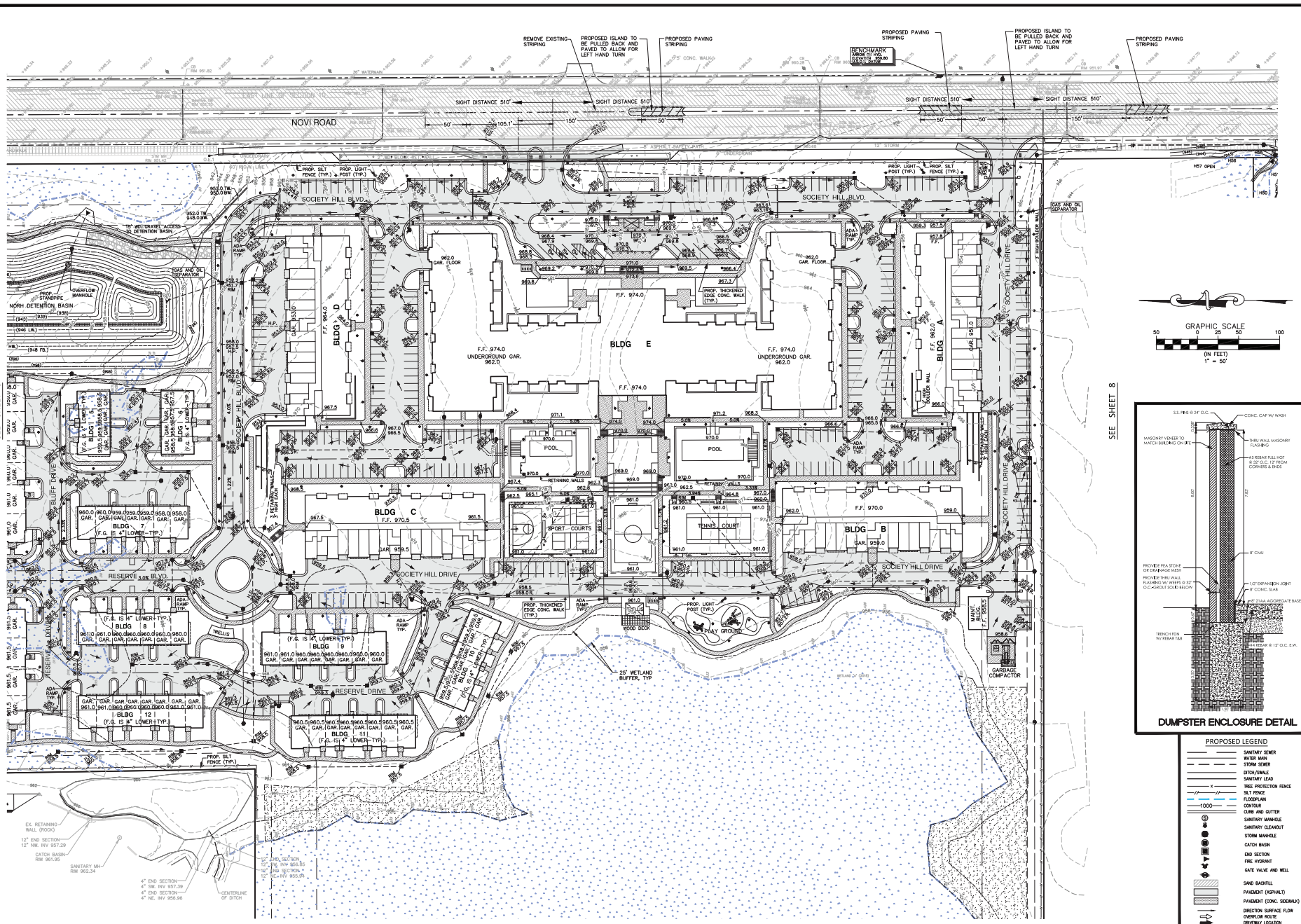
TOLL FREE FOR THE LOCATION OF UNDERGROUND FACILITIES

PROJECT NUMBER: 23-207
PROJECT MANAGER: B. EMERINE
DRAWN BY: A. AWAD
CHECKED BY: RJE
DATE: 10/30/23
OFFICE: FARMINGTON HILLS

CLIENT INFO:
E AND M HOLDINGS, LLC
JORDAN SASSON
32605 W. TWELVE MILE RD.
SUITE 290
FARMINGTON HILLS, MI
48334

PROJECT NAME:
SOCIETY HILL
PART OF THE SE 1/4 OF SECTION 10, T.1N., R.8E., CITY OF NOVI, OAKLAND COUNTY, MI

SHEET TITLE:
GRADING AND PAVING PLAN



DUMPSTER ENCLOSURE DETAIL

PROPOSED LEGEND

- SANITARY SEWER
- WATER MAIN
- STORM SEWER
- DITCH/SWALE
- SANITARY LEAD
- TREE PROTECTION FENCE
- SILT FENCE
- FLOODPLAIN
- CONTOUR
- CURB AND GUTTER
- SANITARY MANHOLE
- SANITARY CLEANOUT
- STORM MANHOLE
- CATCH BASIN
- END SECTION
- FIRE HYDRANT
- GATE VALVE AND WELL
- SAND BACKFILL
- PAVEMENT (ASPHALT)
- PAVEMENT (CONC. SIDEWALK)
- DIRECTION SURFACE FLOW
- OVERFLOW ROUTE
- DRIVEWAY LOCATION
- GRADE

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1-800-482-7171
811
IT'S THE LAW
OF UNDERGROUND FACILITIES

PROJECT NUMBER: 23-207
PROJECT MANAGER: R.J.E.
DRAWN BY: A. AMAD
CHECKED BY: R.J.E.
DATE: 03/25/24
OFFICE: FARMINGTON HILLS

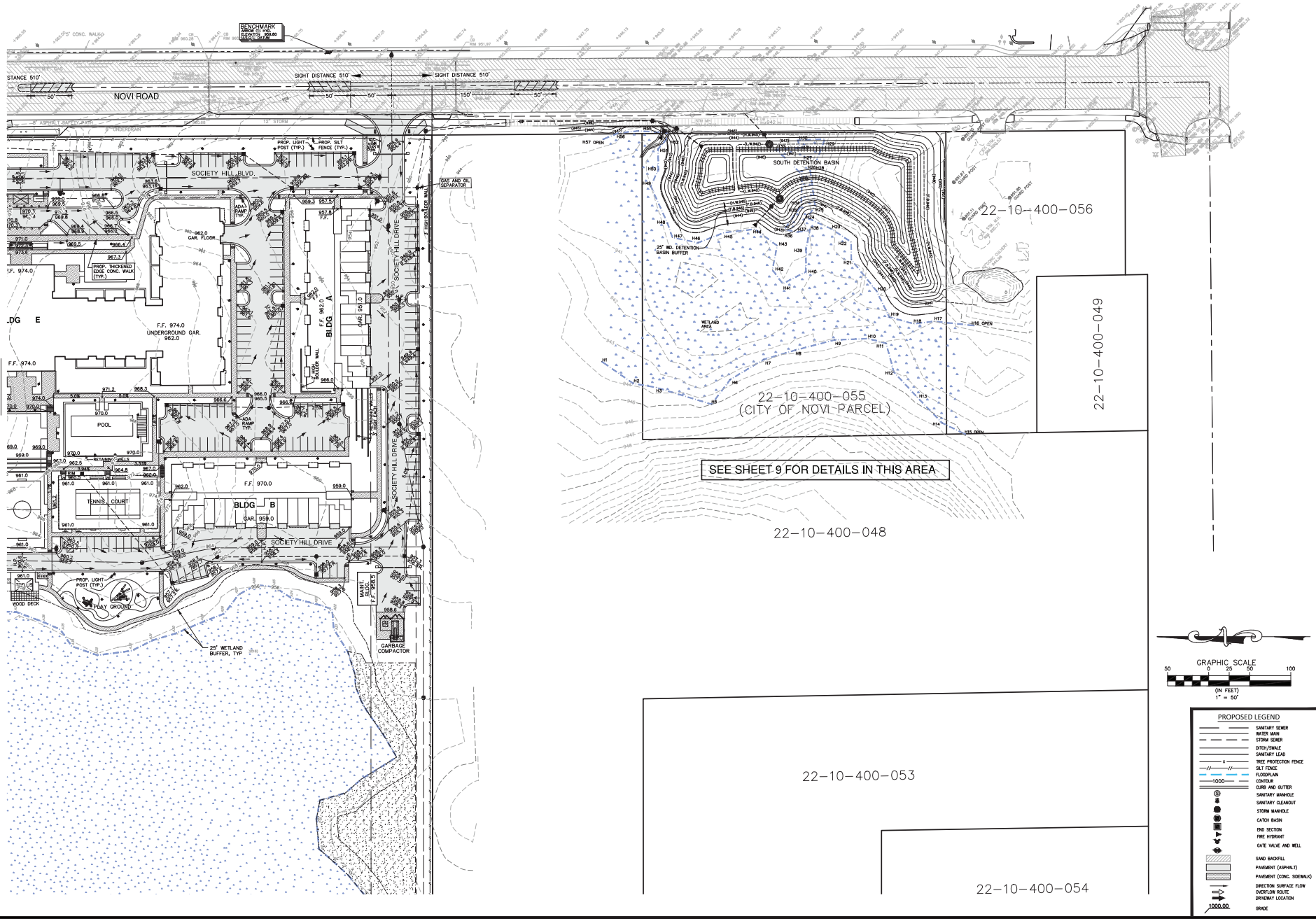
CLIENT INFO:
E AND M HOLDINGS, LLC
JORDAN SASSON
32605 W. TWELVE MILE RD.
SUITE 290
FARMINGTON HILLS, MI
48334

PROJECT NAME:
SOCIETY HILL

PART OF THE SE 1/4 OF SECTION 10, T1N, R.9E., CITY OF NOVI, OAKLAND COUNTY, MI

SHEET TITLE:
GRADING AND PAVING PLAN

PAGE No.:
7



SEIBER KEAST LEHNER
ENGINEERING | SURVEYING

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PROJECT NUMBER: 23-207
PROJECT MANAGER: BG, MEP
DRAWN BY: A. AMAD
CHECKED BY: RJE
DATE: 10/17/23
OFFICE: FARMINGTON HILLS

CLIENT INFO:
E AND M HOLDINGS, LLC
JORDAN SASSON
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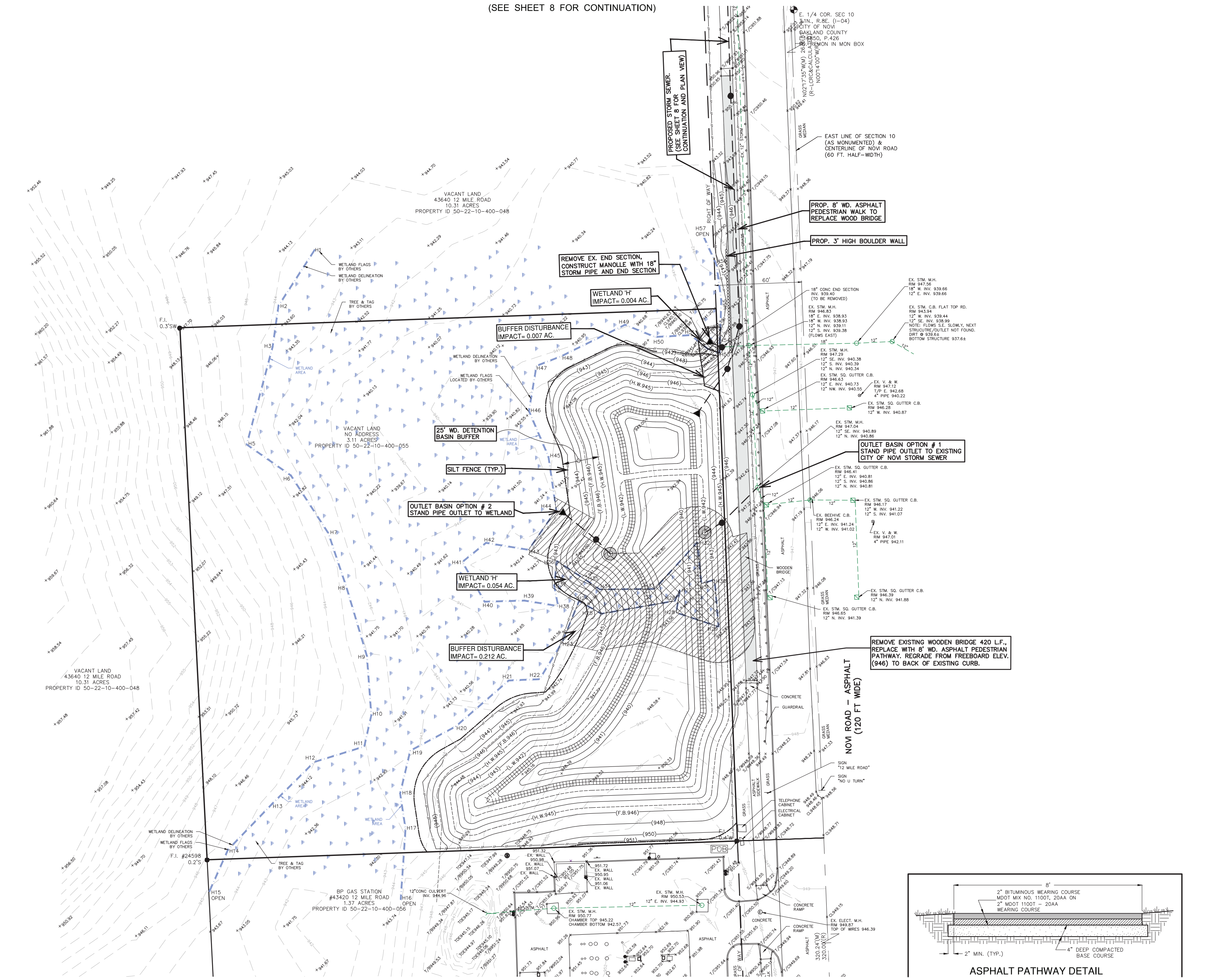
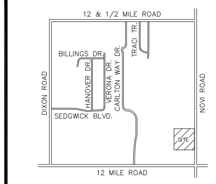
SHEET TITLE:
GRADING AND PAVING PLAN

PAGE No.:
8





LOCATION MAP
NOT TO SCALE

GRAPHIC SCALE
30 0 15 30 60
(IN FEET)
1" = 30'

SITE BENCHMARKS:
CITY OF NOVI BENCHMARKS
BENCHMARK #1042
"X" ON NORTH RIM OF GATEWELL LOCATED IN THE NORTHWEST QUAD OF INTERSECTION 12 MILE ROAD & NOVI ROAD, 5 FEET WEST OF SIDEWALK AND 15 FEET NORTH OF BACK OF CURB.
ELEV. = 951.69 (NAVD88)

BENCHMARK #1411
"X" ON NORTH RIM OF GATEWELL LOCATED BETWEEN LOTS #43223/43025 12 MILE ROAD, SOUTH OF 12 MILE ROAD AND 3 FEET SOUTH OF SIDEWALK.
ELEV. = 944.39 (NAVD88)

SITE BENCHMARKS
BENCHMARK #1
PK NAIL IN WEST FACE OF UTILITY POLE, LOCATED 158 FEET NORTH OF SOUTHEAST PROPERTY CORNER AND 85 FEET EAST OF WEST NOVI ROAD CURB AND GUTTER.
ELEV. = 947.79 (NAVD88)

BENCHMARK #2
PK NAIL IN NORTH FACE OF WALL, LOCATED 10 FEET SOUTH OF SOUTH PROPERTY LINE AND 116 FEET WEST OF SOUTHEAST PROPERTY CORNER.
ELEV. = 951.70 (NAVD88)

NOTE:
ALL EXISTING UTILITIES HAVE BEEN FIELD LOCATED WHERE VISIBLE. UNDERGROUND LOCATIONS HAVE BEEN TAKEN FROM RECORD DOCUMENTS AND NO GUARANTEE CAN BE MADE TO THE COMPLETENESS, EXACTNESS OR CORRECTNESS OF LOCATIONS. THE CONTRACTOR SHALL FIELD VERIFY THE LOCATION OF EXISTING UTILITIES AND RELOCATE AS NECESSARY TO AVOID CONFLICTS WITH NEW CONSTRUCTION.

STATE LAW ACT 53, THREE (3) DAYS BEFORE YOU DIG DIAL TOLL FREE MISS DIG 1-800-482-7171.

8'
2" BITUMINOUS WEARING COURSE MDOT MIX NO. 1100T, 20AA ON 2" MDOT 1100T - 20AA WEARING COURSE
2" MIN. (TYP.)
4" DEEP COMPACTED BASE COURSE

ASPHALT PATHWAY DETAIL

SEIBER KEAST LEHNER
ENGINEERING | SURVEYING

CLINTON TOWNSHIP OFFICE
17001 NINETEEN MILE ROAD, SUITE 3
CLINTON TOWNSHIP, MI 48038
586.412.7050

FARMINGTON HILLS OFFICE
39205 COUNTRY CLUB DRIVE, SUITE C8
FARMINGTON HILLS, MI 48331
248.308.3331

REV. #	REV. DATE	REVISION INFO.
1.	11-22-23	PRE-APP SUBMITTAL
2.	03-25-24	PRELIMINARY SITE PLAN SUBMITTAL

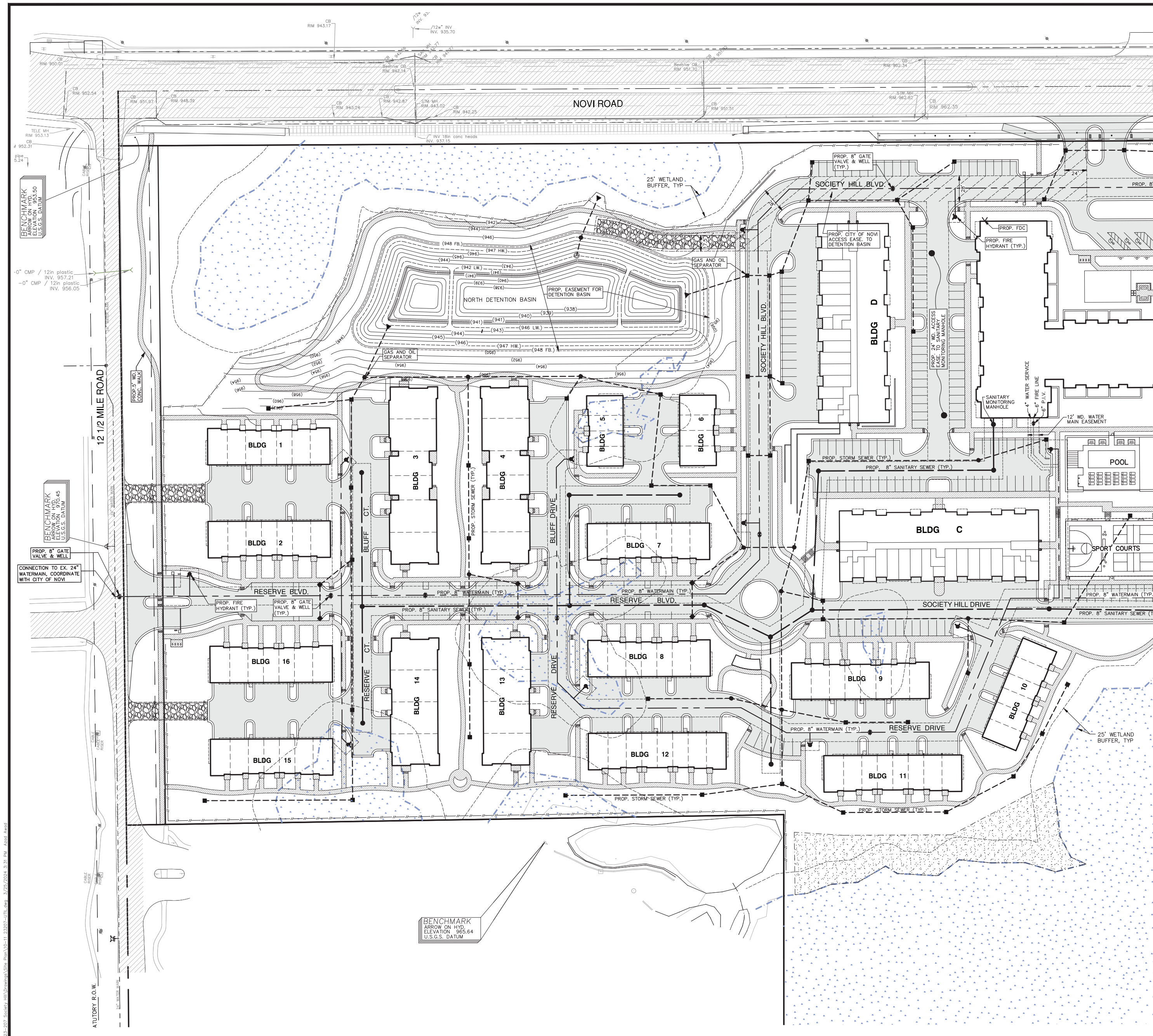
3 WORKING DAYS BEFORE YOU DIG
CALL MISS DIG
1-800-482-7171
TOLL FREE FOR THE LOCATION OF UNDERGROUND FACILITIES

PROJECT NUMBER: 23-207
PROJECT MANAGER: B. EMERINE
DRAWN BY: A. AWAD
CHECKED BY: RJE
DATE: 10/30/23
OFFICE: FARMINGTON HILLS

CLIENT INFO:
E AND M HOLDINGS, LLC
JORDAN SASSON
32605 W. TWELVE MILE RD.
SUITE 290
FARMINGTON HILLS, MI
48334

PROJECT NAME:
SOCIETY HILL
PART OF THE SE 1/4 OF SECTION 10, T.1N., R.8E., CITY OF NOVI, OAKLAND COUNTY, MI

SHEET TITLE:
OFF-SITE DETENTION PLAN



NOTE:
ALL 8" SANITARY SEWERS AND 8" WATERMAINS TO BE CENTERLINE OF 20' WIDE EASEMENT AS SHOWN.

PROPOSED IMPROVEMENTS

1. MUNICIPAL SEWER TO BE PROVIDED BY CONNECTING TO AN EXIST. SANITARY SEWER MANHOLE LOCATED NEAR THE SOUTHWEST CORNER OF THE SITE AS SHOWN.
2. MUNICIPAL WATER TO BE PROVIDED BY CONNECTING TO AN EXIST. 24" WATER MAIN ALONG THE NORTH SIDE OF 12 1/2 MILE ROAD AND CONNECTING TO AN EXIST. 36" WATER MAIN ALONG THE EAST SIDE OF NOVI ROAD. ALL INTERNAL WATER MAINS TO BE 8" DIA.
3. STORM WATER DETENTION SHALL BE PROVIDED ON SITE.

PROPOSED LEGEND

SANITARY SEWER
WATER MAIN
STORM SEWER
DITCH/SWALE
SANITARY LEAD
TREE PROTECTION FENCE
SILT FENCE
FLOODPLAIN
CONTOUR
CURB AND GUTTER
SANITARY MANHOLE
SANITARY CLEANOUT
STORM MANHOLE
CATCH BASIN
END SECTION
FIRE HYDRANT
GATE VALVE AND WELL
SAND BACKFILL
PAVEMENT (ASPHALT)
PAVEMENT (CONC. SIDEWALK)
DIRECTION SURFACE FLOW
OVERFLOW ROUTE
DRIVEWAY LOCATION
GRADE

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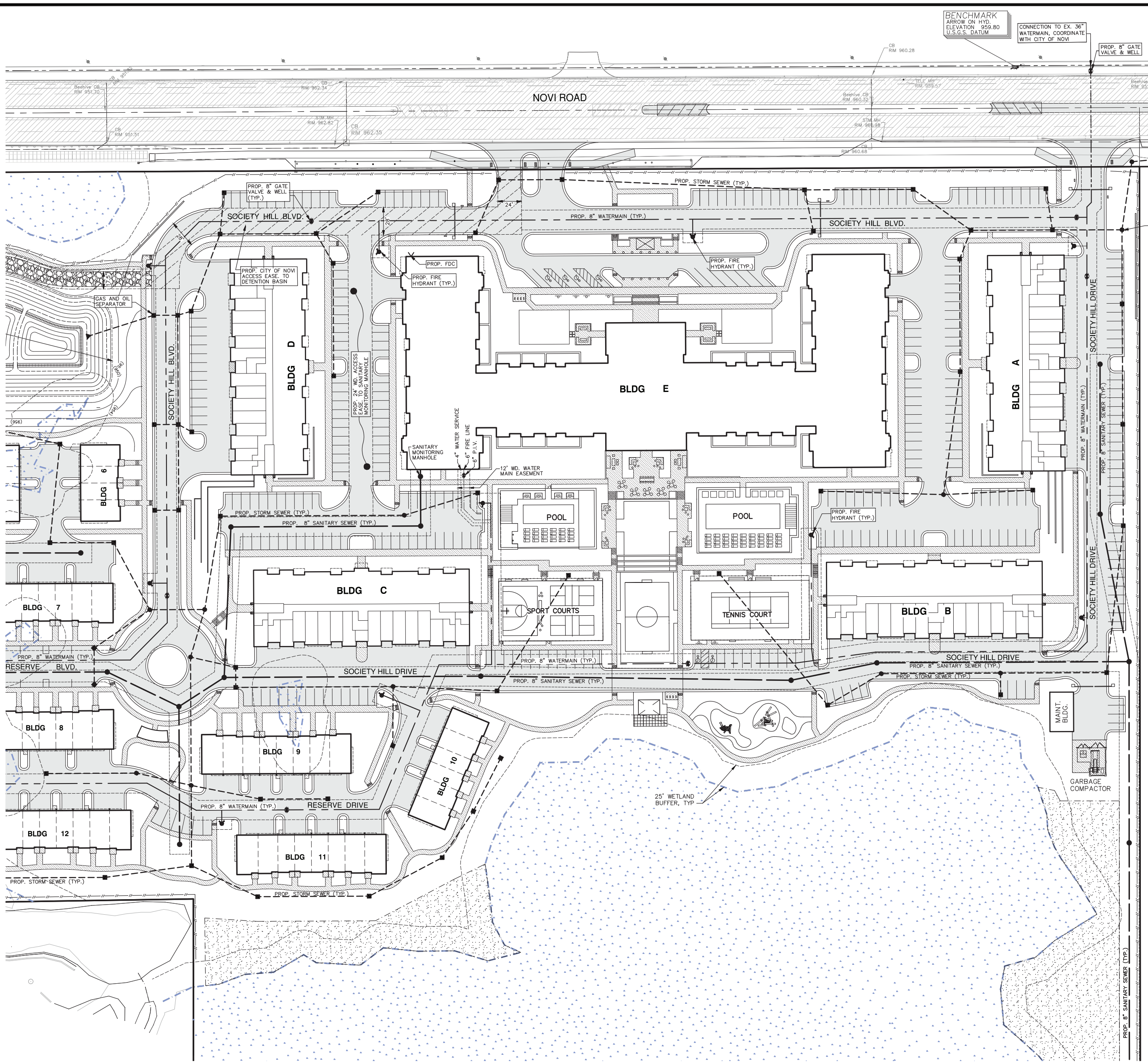
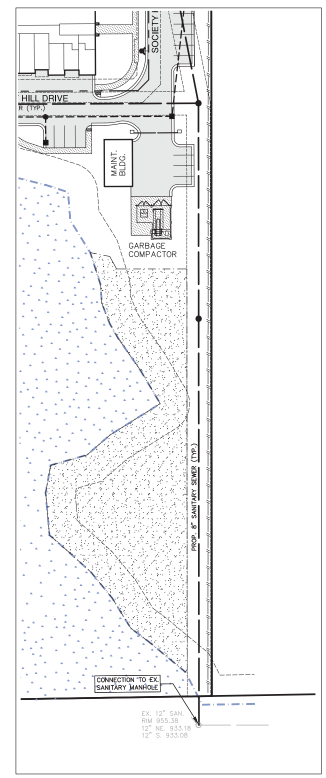
DRAWN BY: A. AWAD
CHECKED BY: RJE
DATE: 10/30/23
OFFICE: FARMINGTON HILLS

CLIENT INFO:
E AND M HOLDINGS, LLC
JORDAN SASSON
32605 W. TWELVE MILE RD.
SUITE 290
FARMINGTON HILLS, MI
48334

PROJECT NAME:
SOCIETY HILL
PART OF THE SE 1/4 OF SECTION 10, T.1N., R.8E., CITY OF NOVI, OAKLAND COUNTY, MI

SHEET TITLE:
UTILITY PLAN





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3. STORM WATER DETENTION SHALL BE PROVIDED ON SITE.

SEE CONTINUATION ON RIGHT

SEE CONTINUATION ON LEFT

GRAPHIC SCALE
50 0 25 50 100
(IN FEET)
1" = 50'

PROPOSED LEGEND

- SANITARY SEWER
- WATER MAIN
- STORM SEWER
- DITCH/SWALE
- SANITARY LEAD
- TREE PROTECTION FENCE
- SILT FENCE
- FLOODPLAIN
- CONTOUR
- CURB AND GUTTER
- SANITARY MANHOLE
- SANITARY CLEANOUT
- STORM MANHOLE
- CATCH BASIN
- END SECTION
- FIRE HYDRANT
- GATE VALVE AND WELL
- SAND BACKFILL
- PAVEMENT (ASPHALT)
- PAVEMENT (CONC. SIDEWALK)
- DIRECTION SURFACE FLOW
- OVERFLOW ROUTE
- DRIVEWAY LOCATION
- GRADE

SEIBER KEAST LEHNER
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FARMINGTON HILLS, MI 48331
248.308.3331
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REV. #	REV. DATE	REVISION INFO.
1.	11-22-23	PRE-APP SUBMITTAL
2.	03-25-24	PRELIMINARY SITE PLAN SUBMITTAL

3 WORKING DAYS BEFORE YOU DIG CALL MISS DIG
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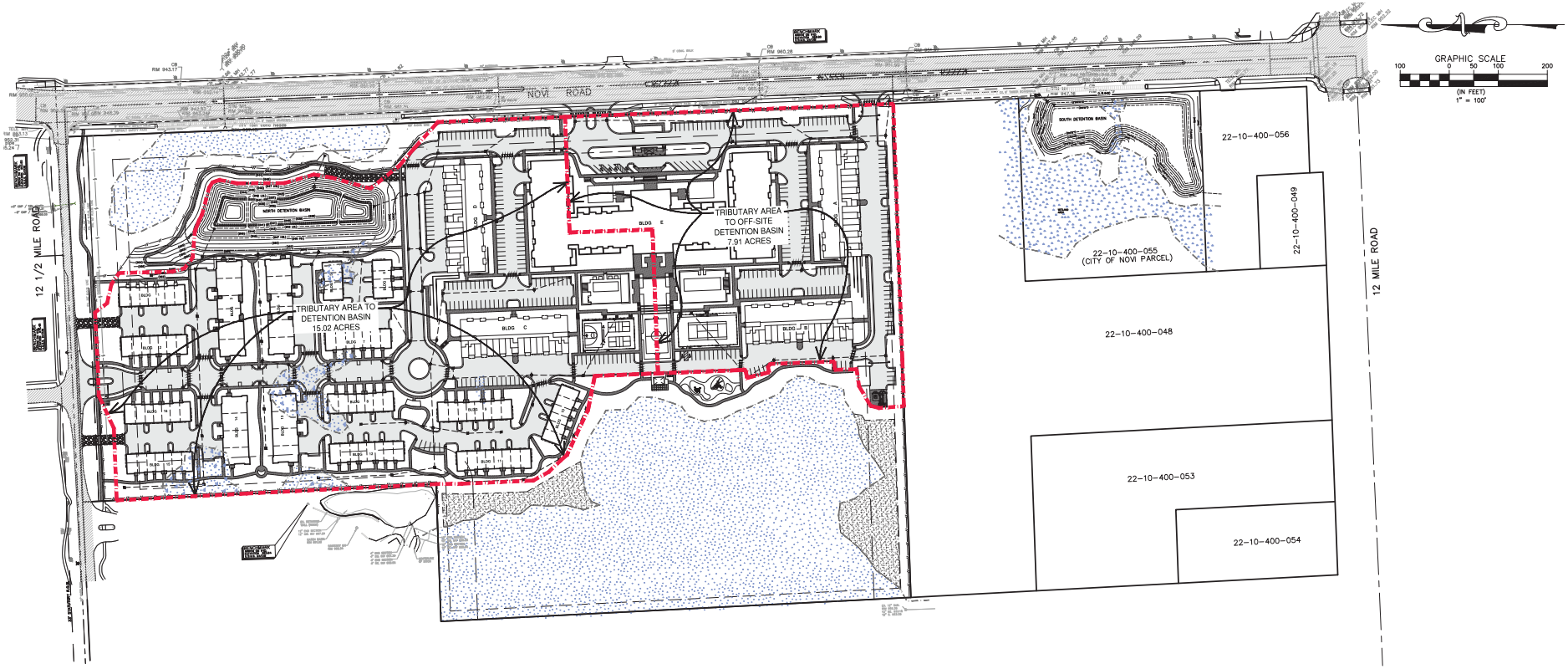
TOLL FREE FOR THE LOCATION OF UNDERGROUND FACILITIES

PROJECT NUMBER: 23-207
PROJECT MANAGER: B. EMERINE
DRAWN BY: A. AWAD
CHECKED BY: RJE
DATE: 10/30/23
OFFICE: FARMINGTON HILLS

CLIENT INFO:
E AND M HOLDINGS, LLC
JORDAN SASSON
32605 W. TWELVE MILE RD.
SUITE 290
FARMINGTON HILLS, MI
48334

PROJECT NAME:
SOCIETY HILL
PART OF THE SE 1/4 OF SECTION 10, T.1N., R.8E., CITY OF NOVI, OAKLAND COUNTY, MI

SHEET TITLE:
UTILITY PLAN



NORTH BASIN

DETERMINE DETENTION REQUIREMENTS (100-YEAR STORM)

Ac =	15.02	Ac	(On Site Area Tributary to Basin)
$Q_{allowable}$ =	2.25	cfs	(0.15 cfs/Ac)
$C_{comp.}$ =	0.74		
$Q_o = Q_{all} / (Ac * C)$ =	0.20	cfs/Ac. Imp	
$T = -25 + sqrt(10812.5/Q_o)$ =	200.55	min	
$Vs = (16500*T)/(T+25) - 40*Q_o*T$ =	13045	cf/Ac. Imp	
$Vt = Vs * Ac. * C$ =	144989	ft^3 req'd	

DETERMINE HW ELEVATION IN DETENTION BASIN

Basin A

Elevation	Area	Volume (c.f.)
942	20640	0
943	24371	22506
944	27712	48547
945	31130	77968
946	34645	110856
947	38261	147309

HW EL = 947.0 | Volume at HW = 147309

PERMANENT WATER VOLUME REQUIRED

Ac = 15.02 Ac
C = 0.74
$V_p = 1815 * A * C$ = 20173 cf

Basin A

Elevation	Area	Volume (c.f.)
942	20640	0
941	17141	18891
940	11780	33351
939	9322	43902
938	7007	53067

53067 cf > V_p

FIRST FLUSH VOLUME REQUIRED

$Vff = 1815 * A * C$ = 20173 cf
FF EL. = 943.0 ft

BANK FULL VOLUME REQUIRED

$Vbf = 5160 * A * C$ = 57352 cf
BF EL. = 944.3 ft

Storm Water North Basin Average "C" Factor

TRIBUTARY AREA: 15.02 AC.

A	B	C	D	E	F	G	H	I	
Building		Pavement		Lawn		Low Water		Total	Average "C" Factor
Area (Ac.)	"C" Factor	Area (Ac.)	"C" Factor	Area (Ac.)	"C" Factor	Area (Ac.)	"C" Factor	Area (Ac.)	((AxB)+(CxD)+(ExF)+(GxH))/I
3.650	0.950	5.580	0.950	5.320	0.350	0.470	1.000	15.020	0.74

SOUTH OFF-SITE BASIN

DETERMINE DETENTION REQUIREMENTS (100-YEAR STORM)

Ac =	7.91	Ac	(On Site Area Tributary to Basin)
$Q_{allowable}$ =	1.19	cfs	(0.15 cfs/Ac)
$C_{comp.}$ =	0.71		
$Q_o = Q_{all} / (Ac * C)$ =	0.21	cfs/Ac. Imp	
$T = -25 + sqrt(10312.5/Q_o)$ =	195.94	min	
$Vs = (16500*T)/(T+25) - 40*Q_o*T$ =	12977	cf/Ac. Imp	
$Vt = Vs * Ac. * C$ =	72881	ft^3 req'd	

DETERMINE HW ELEVATION IN DETENTION BASIN

Basin A

Elevation	Area	Volume (c.f.)
943	38875	0
943	22581	26728
944	26164	45101
945	29867	73116
946	0	
947	0	

HW EL = 945.0 | Volume at HW = 73116

PERMANENT WATER VOLUME REQUIRED

Ac = 7.91 Ac
C = 0.71
$V_p = 1815 * A * C$ = 10193 cf

Basin A

Elevation	Area	Volume (c.f.)
942	38875	0
941	3226	14051
940	6378	21853

21853 cf > V_p

FIRST FLUSH VOLUME REQUIRED

$Vff = 1815 * A * C$ = 10193 cf
FF EL. = 942.6 ft

BANK FULL VOLUME REQUIRED

$Vbf = 5160 * A * C$ = 28979 cf
BF EL. = 943.4 ft

Storm Water South Basin Average "C" Factor

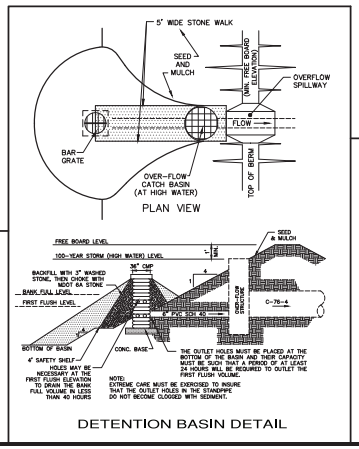
TRIBUTARY AREA: 7.91 AC.

A	B	C	D	E	F	G	H	I		
Building		Pavement		Lawn		Basin A Low Water		Total	Average "C" Factor	
Area (Ac.)	"C" Factor	Area (Ac.)	"C" Factor	Area (Ac.)	"C" Factor	Area (Ac.)	"C" Factor	Area (Ac.)	((AxB)+(CxD)+(ExF)+(GxH))/I	
2.170	0.950	2.840	0.950	2.510	0.350	0.390	1.000	7.910	0.71	

MAINTENANCE SCHEDULE:

THE PROPERTY OWNER IS RESPONSIBLE FOR THE MAINTENANCE OF THE DETENTION BASIN. MAINTENANCE SHOULD BE PERFORMED FOLLOWING ANY ANY STORM AND SHOULD INCLUDE:

1. CHECKING THE DEPTH OF SEDIMENT DEPOSIT TO ENSURE THE CAPACITY OF THE BASIN IS ADEQUATE FOR STORM WATER AND SEDIMENT DEPOSITION, AND FOR THE REMOVING OF SEDIMENT.
2. CHECKING THE BASIN FOR PIPING, SEEPAGE, OR OTHER MECHANICAL DAMAGE.
3. CHECKING FOR THE PRESENCE OF ANY SOIL CAKING, WHICH WOULD PREVENT PROPER DRAINAGE FROM THE BASIN.
4. CHECKING THE OUTFALL TO ENSURE DRAINAGE IS NOT CAUSING ANY ROSIVE VELOCITIES AND TO ENSURE THE OUTLET IS NOT CLOGGED.
5. ANY PROBLEM DISCOVERED DURING THE MAINTENANCE CHECKS SHOULD BE ADDRESSED IMMEDIATELY.
6. SEDIMENT REMOVED DURING CLEANING SHOULD BE PLACED AT AN UPLAND AREA AND STABILIZED SO THAT IT DOES NOT RE-ENTER THE DRAINAGE COURSE.



DETENTION BASIN DETAIL

PROPOSED LEGEND

- SANITARY SEWER
- WATER MAIN
- STORM SEWER
- DITCH/SWALE
- SANITARY LEAD
- TREE PROTECTION FENCE
- SILT FENCE
- FLOODPLAIN
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- CURB AND GUTTER
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- PAVEMENT (ASPHALT)
- PAVEMENT (CONC. SIDEWALK)
- DIRECTION SURFACE FLOW
- OVERFLOW ROUTE
- DRIVEWAY LOCATION
- 1000.00 GRADE

SEIBER KEAST LEHNER ENGINEERING | SURVEYING

REV. #	REV. DATE	REVISION INFO.
1.	11-22-23	PRE-APP SUBMITTAL
2.	03-25-24	PRELIMINARY SITE PLAN SUBMITTAL

3 WORKING DAYS BEFORE YOU DIG CALL MISS DIG 1-800-482-7171 811 IT'S THE LAW! OF UNDERGROUND FACILITIES

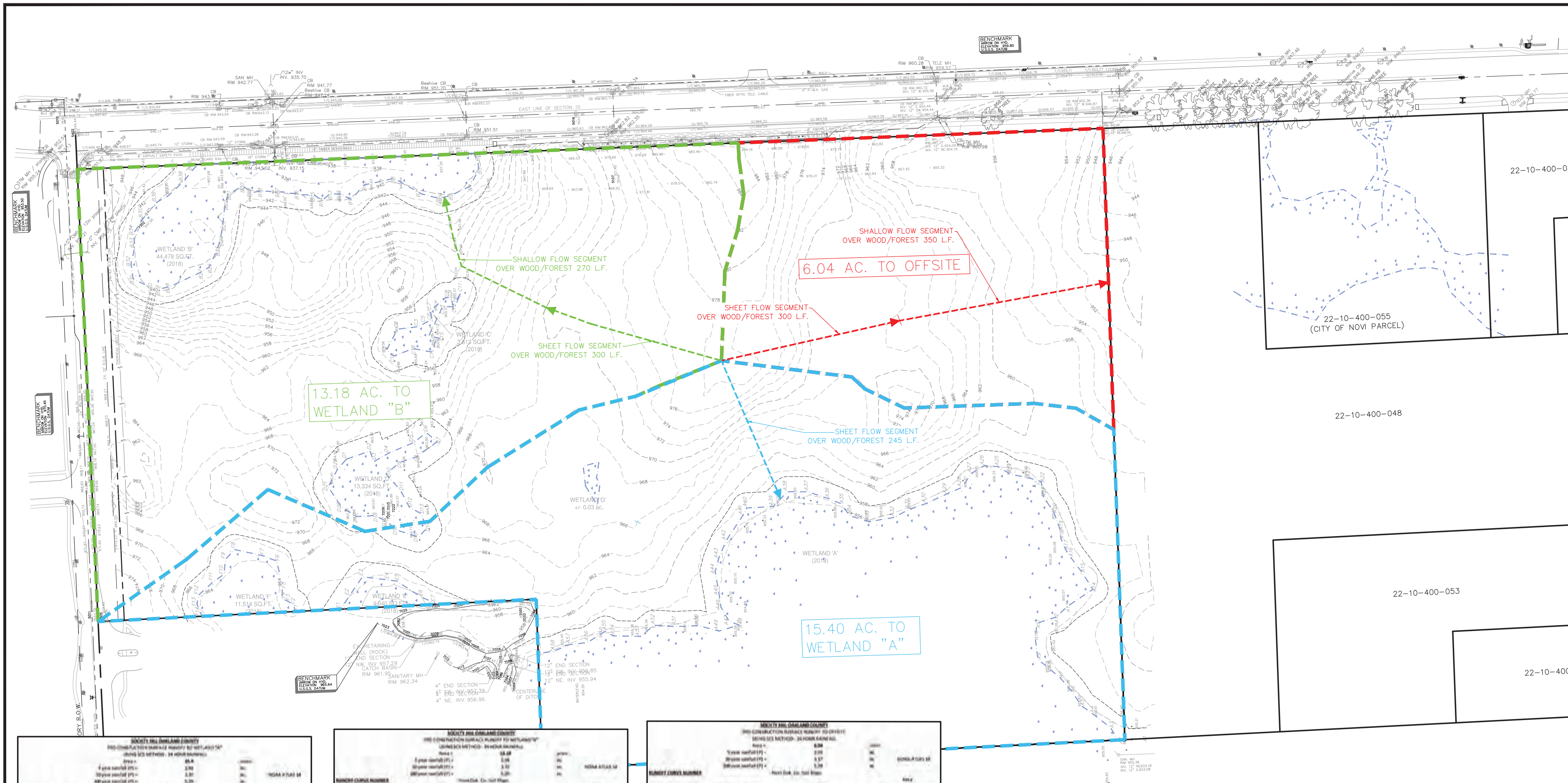
PROJECT NUMBER: 23-207
PROJECT MANAGER: R.J.E.
DRAWN BY: A. AMAD
CHECKED BY: R.J.E.
DATE: 03/26/24
OFFICE: FARMINGTON HILLS

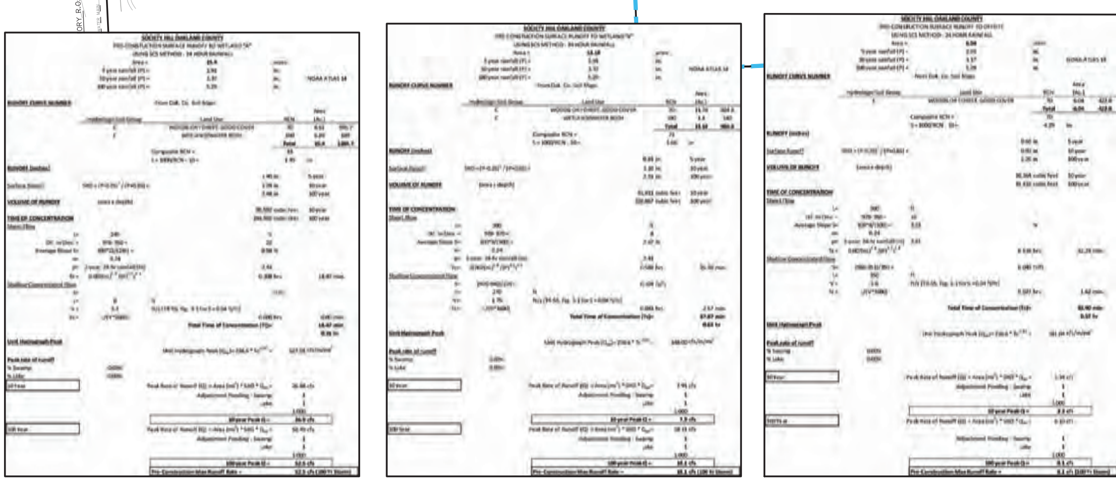
CLIENT INFO:
E AND M HOLDINGS, LLC
JORDAN SASSON
32605 W. TWELVE MILE RD.
SUITE 290
FARMINGTON HILLS, MI
48334

PROJECT NAME:
SOCIETY HILL
PART OF THE SE 1/4 OF SECTION 10, T.1N., R.8E., CITY OF NOVI, OAKLAND COUNTY, MI

SHEET TITLE:
STORM WATER MANAGEMENT PLAN

PAGE No.:
12





SOCIETY HILL OAKLAND COUNTY

POST-CONSTUCTION SURFACE RUNOFF

3/11/2024

TO SOUTH OFF-SITE BASIN				
	Ac =	7.91	Ac	(On Site Area Tributary to Basin)
	BASIN OUTLET $Q_{all\ onsite}$=	**1.19**	cfs	(0.15 cfs/Ac) - ENG. DESIGN MANUAL FOR CITY OF NOVI 2014
TO NORTH BASIN				
	Ac =	15.02	Ac	(On Site Area Tributary to Basin)
	BASIN OUTLET $Q_{all\ onsite}$=	**2.25**	cfs	(0.15 cfs/Ac) - ENG. DESIGN MANUAL FOR CITY OF NOVI 2014

RUNOFF CALCULATION SUMMARY		
TO WETLAND "B"	Pre-Construction Max Runoff Rate =	18.1 cfs (100 Yr Storm)
	Post- Construction Max Runoff Rate =	2.25 cfs (0.15 cfs/Ac)
TO OFFSITE	Pre-Construction Max Runoff Rate =	8.1 cfs (100 Yr Storm)
	Post- Construction Max Runoff Rate =	1.19 cfs (0.15 cfs/Ac)

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CLINTON TOWNSHIP OFFICE
17000 NINETEEN MILE ROAD, SUITE 3
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1-800-482-7171
TOLL FREE FOR THE LOCATION OF UNDERGROUND FACILITIES

811

PROJECT NUMBER: 23-207
PROJECT MANAGER: B. EMERINE
DRAWN BY: A. AWAD
CHECKED BY: RJE
DATE: 10/30/23
OFFICE: FARMINGTON HILLS

CLIENT INFO:
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JORDAN SASSON
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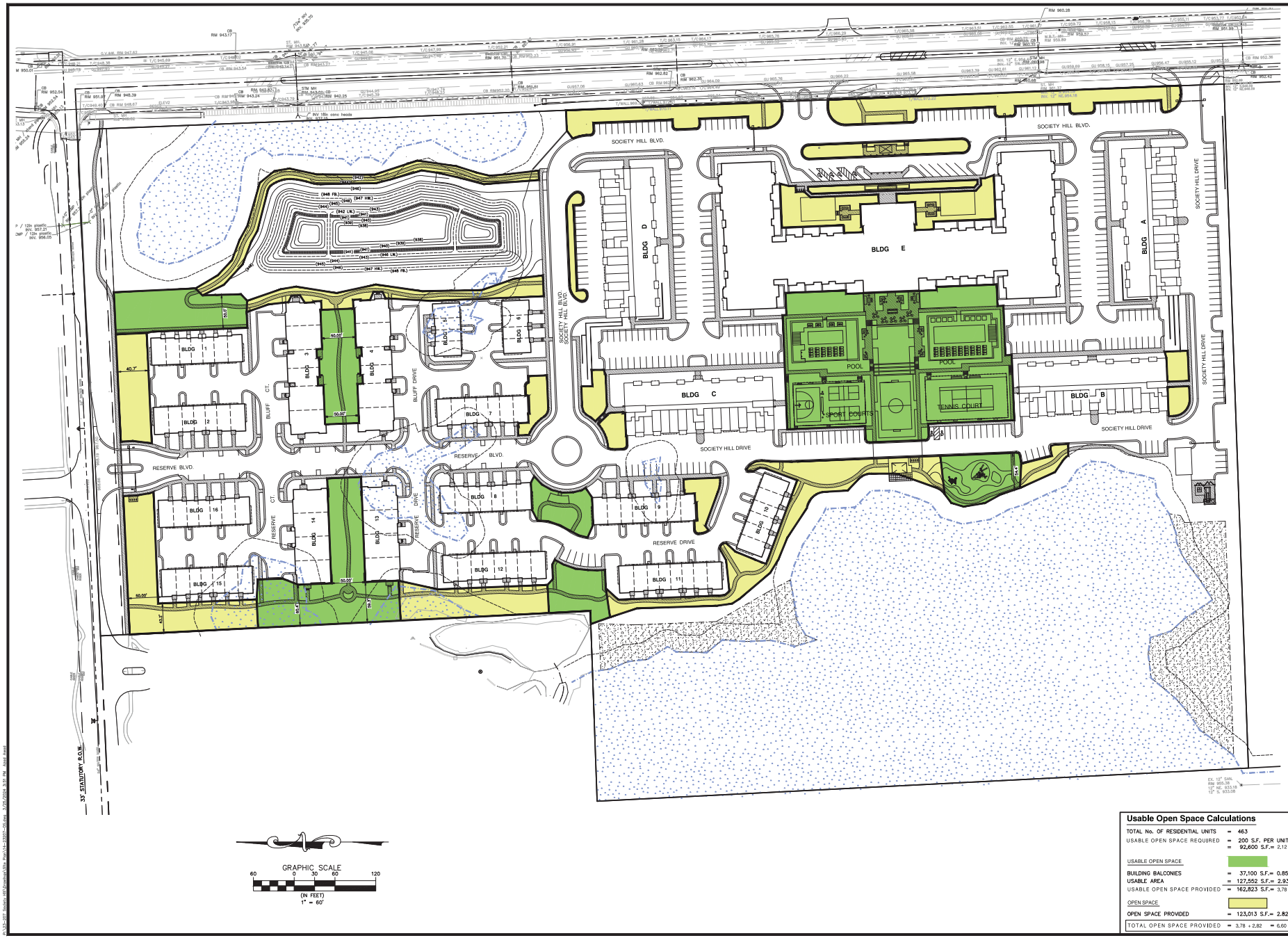
PROJECT NAME:
SOCIETY HILL
PART OF THE SE 1/4 OF SECTION 10, T.1N., R.8E., CITY OF NOVI, OAKLAND COUNTY, MI

SHEET TITLE:
PRE/POST DEVELOPMENT RUNOFF PLAN



GRAPHIC SCALE
60 0 30 60 120
(IN FEET)
1" = 60'

Usable Open Space Calculations

TOTAL No. OF RESIDENTIAL UNITS	=	463
USABLE OPEN SPACE REQUIRED	=	200 S.F. PER UNIT
	=	92,600 S.F.= 2.12 AC.
USABLE OPEN SPACE		
BUILDING BALCONIES	=	37,100 S.F.= 0.85 AC.
USABLE AREA	=	127,552 S.F.= 2.93 AC.
USABLE OPEN SPACE PROVIDED	=	162,823 S.F.= 3.78 AC.
OPEN SPACE		
OPEN SPACE PROVIDED	=	123,013 S.F.= 2.82 AC.
TOTAL OPEN SPACE PROVIDED	=	3.78 + 2.82 = 6.60 AC.

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Professional Surveying
Professional Landscape Architecture
Professional Planning
Professional Traffic Engineering
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Professional Underground Facilities Locating
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Professional Wetland Consulting
Professional Forestry Consulting
Professional Natural Resource Consulting
Professional Water Resource Consulting
Professional Wastewater Resource Consulting
Professional Stormwater Resource Consulting
Professional Floodplain Resource Consulting
Professional Coastal Resource Consulting
Professional Lake Resource Consulting
Professional River Resource Consulting
Professional Stream Resource Consulting
Professional Pond Resource Consulting
Professional Ditch Resource Consulting
Professional Drain Resource Consulting
Professional Culvert Resource Consulting
Professional Bridge Resource Consulting
Professional Dam Resource Consulting
Professional Levee Resource Consulting
Professional Seawall Resource Consulting
Professional Breakwater Resource Consulting
Professional Jetty Resource Consulting
Professional Groin Resource Consulting
Professional Revetment Resource Consulting
Professional Gabion Resource Consulting
Professional Riprap Resource Consulting
Professional Erosion Control Resource Consulting
Professional Sedimentation Control Resource Consulting
Professional Soil Erosion Control Resource Consulting
Professional Soil Sedimentation Control Resource Consulting
Professional Soil Stabilization Resource Consulting
Professional Soil Reinforcement Resource Consulting
Professional Soil Nailing Resource Consulting
Professional Soil Anchoring Resource Consulting
Professional Soil Grouting Resource Consulting
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Professional Soil Liming Resource Consulting
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Professional Soil Drainage Resource Consulting
Professional Soil Aeration Resource Consulting
Professional Soil Tillage Resource Consulting
Professional Soil Cultivation Resource Consulting
Professional Soil Planting Resource Consulting
Professional Soil Seeding Resource Consulting
Professional Soil Mulching Resource Consulting
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Professional Soil Disease Control Resource Consulting
Professional Soil Harvesting Resource Consulting
Professional Soil Storage Resource Consulting
Professional Soil Transportation Resource Consulting
Professional Soil Marketing Resource Consulting
Professional Soil Sales Resource Consulting
Professional Soil Purchasing Resource Consulting
Professional Soil Procurement Resource Consulting
Professional Soil Contracting Resource Consulting
Professional Soil Negotiation Resource Consulting
Professional Soil Arbitration Resource Consulting
Professional Soil Mediation Resource Consulting
Professional Soil Litigation Resource Consulting
Professional Soil Expert Witness Resource Consulting
Professional Soil Consulting Resource Consulting
Professional Soil Advisory Resource Consulting
Professional Soil Education Resource Consulting
Professional Soil Training Resource Consulting
Professional Soil Certification Resource Consulting
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Professional Soil Membership Resource Consulting
Professional Soil Association Resource Consulting
Professional Soil Society Resource Consulting
Professional Soil Organization Resource Consulting
Professional Soil Institute Resource Consulting
Professional Soil Academy Resource Consulting
Professional Soil College Resource Consulting
Professional Soil University Resource Consulting
Professional Soil School Resource Consulting
Professional Soil Program Resource Consulting
Professional Soil Course Resource Consulting
Professional Soil Curriculum Resource Consulting
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Professional Soil Symposium Resource Consulting
Professional Soil Exhibition Resource Consulting
Professional Soil Trade Show Resource Consulting
Professional Soil Competition Resource Consulting
Professional Soil Award Resource Consulting
Professional Soil Scholarship Resource Consulting
Professional Soil Grant Resource Consulting
Professional Soil Fellowship Resource Consulting
Professional Soil Internship Resource Consulting
Professional Soil Apprenticeship Resource Consulting
Professional Soil Mentorship Resource Consulting
Professional Soil Coaching Resource Consulting
Professional Soil Counseling Resource Consulting
Professional Soil Therapy Resource Consulting
Professional Soil Healing Resource Consulting
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Professional Soil Diet Resource Consulting
Professional Soil Exercise Resource Consulting
Professional Soil Yoga Resource Consulting
Professional Soil Meditation Resource Consulting
Professional Soil Mindfulness Resource Consulting
Professional Soil Spirituality Resource Consulting
Professional Soil Religion Resource Consulting
Professional Soil Philosophy Resource Consulting
Professional Soil Psychology Resource Consulting
Professional Soil Sociology Resource Consulting
Professional Soil Anthropology Resource Consulting
Professional Soil History Resource Consulting
Professional Soil Archaeology Resource Consulting
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Professional Soil Geology Resource Consulting
Professional Soil Mineralogy Resource Consulting
Professional Soil Petrology Resource Consulting
Professional Soil Stratigraphy Resource Consulting
Professional Soil Sedimentology Resource Consulting
Professional Soil Geomorphology Resource Consulting
Professional Soil Hydrology Resource Consulting
Professional Soil Meteorology Resource Consulting
Professional Soil Climatology Resource Consulting
Professional Soil Ecology Resource Consulting
Professional Soil Biology Resource Consulting
Professional Soil Chemistry Resource Consulting
Professional Soil Physics Resource Consulting
Professional Soil Mathematics Resource Consulting
Professional Soil Statistics Resource Consulting
Professional Soil Computer Science Resource Consulting
Professional Soil Engineering Resource Consulting
Professional Soil Surveying Resource Consulting
Professional Soil Mapping Resource Consulting
Professional Soil Survey Resource Consulting
Professional Soil Inventory Resource Consulting
Professional Soil Monitoring Resource Consulting
Professional Soil Management Resource Consulting
Professional Soil Conservation Resource Consulting
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Professional Soil Remediation Resource Consulting
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Professional Soil Irrigation Resource Consulting
Professional Soil Drainage Resource Consulting
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Professional Soil Weed Control Resource Consulting
Professional Soil Pest Control Resource Consulting
Professional Soil Disease Control Resource Consulting
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Professional Soil Storage Resource Consulting
Professional Soil Transportation Resource Consulting
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Professional Soil Academy Resource Consulting
Professional Soil College Resource Consulting
Professional Soil University Resource Consulting
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Professional Soil Program Resource Consulting
Professional Soil Course Resource Consulting
Professional Soil Curriculum Resource Consulting
Professional Soil Textbook Resource Consulting
Professional Soil Publication Resource Consulting
Professional Soil Journal Resource Consulting
Professional Soil Magazine Resource Consulting
Professional Soil Newsletter Resource Consulting
Professional Soil Website Resource Consulting
Professional Soil Blog Resource Consulting
Professional Soil Podcast Resource Consulting
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Professional Soil Workshop Resource Consulting
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Professional Soil Fitness Resource Consulting
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Professional Soil Diet Resource Consulting
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Professional Soil Yoga Resource Consulting
Professional Soil Meditation Resource Consulting
Professional Soil Mindfulness Resource Consulting
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Professional Soil Religion Resource Consulting
Professional Soil Philosophy Resource Consulting
Professional Soil Psychology Resource Consulting
Professional Soil Sociology Resource Consulting
Professional Soil Anthropology Resource Consulting
Professional Soil History Resource Consulting
Professional Soil Archaeology Resource Consulting
Professional Soil Paleontology Resource Consulting
Professional Soil Geology Resource Consulting
Professional Soil Mineralogy Resource Consulting
Professional Soil Petrology Resource Consulting
Professional Soil Stratigraphy Resource Consulting
Professional Soil Sedimentology Resource Consulting
Professional Soil Geomorphology Resource Consulting
Professional Soil Hydrology Resource Consulting
Professional Soil Meteorology Resource Consulting
Professional Soil Climatology Resource Consulting
Professional Soil Ecology Resource Consulting
Professional Soil Biology Resource Consulting
Professional Soil Chemistry Resource Consulting
Professional Soil Physics Resource Consulting
Professional Soil Mathematics Resource Consulting
Professional Soil Statistics Resource Consulting
Professional Soil Computer Science Resource Consulting
Professional Soil Engineering Resource Consulting
Professional Soil Surveying Resource Consulting

REV. #	REV. DATE	REVISION INFO.
1.	11-22-23	PRE-APP SUBMITTAL
2.	03-25-24	PRELIMINARY SITE PLAN SUBMITTAL

3 WORKING DAYS BEFORE YOU DIG
CALL MISS DIG
1-800-482-7171
811
IT'S THE LAW
OF UNDERGROUND FACILITIES

PROJECT NUMBER: 23-207
PROJECT MANAGER: R.J.E.
DRAWN BY: A. AWAD
CHECKED BY: R.J.E.
DATE: 11/22/23
OFFICE: FARMINGTON HILLS

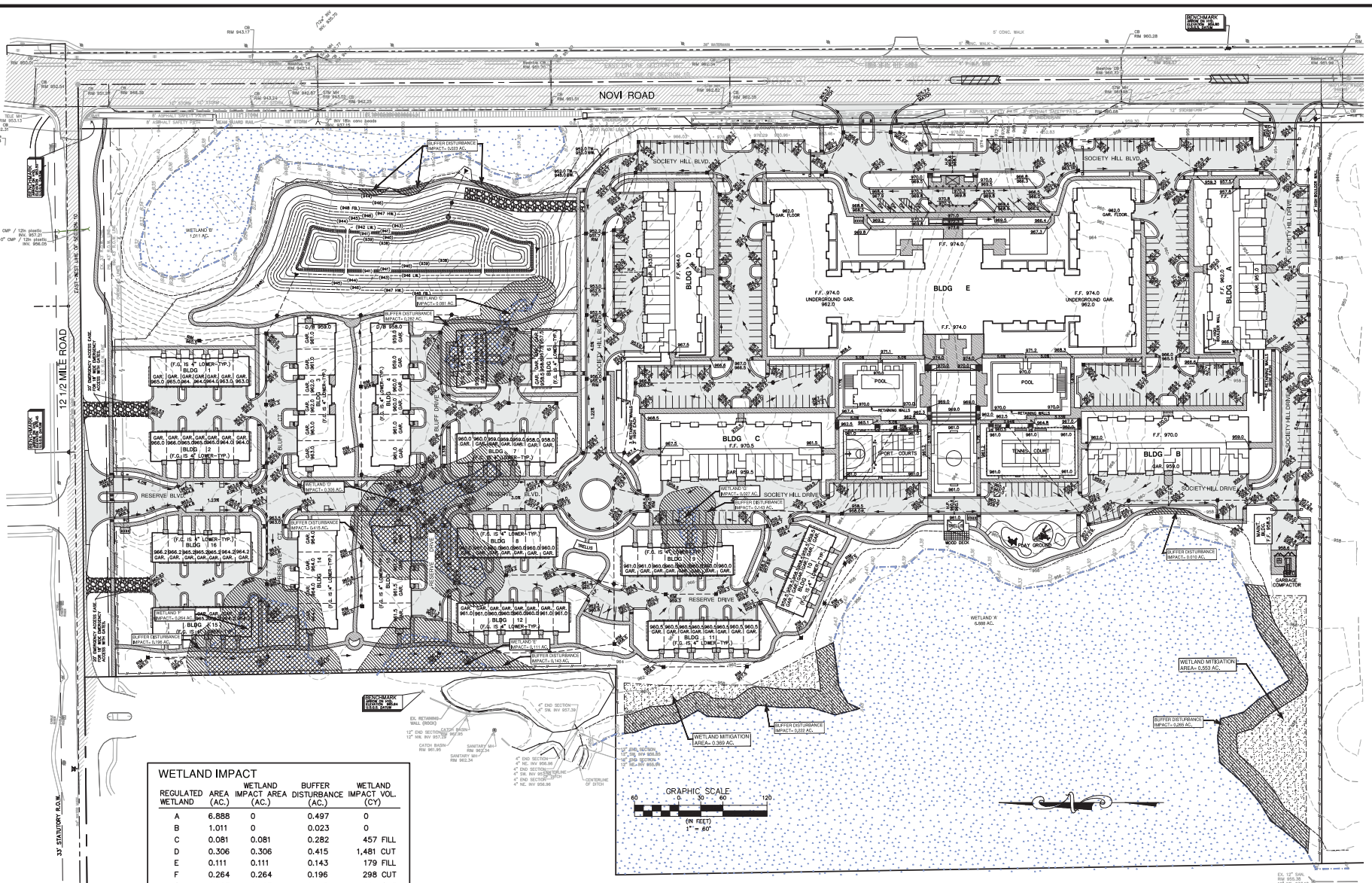
CLIENT INFO:
E AND M HOLDINGS, LLC
JORDAN SASSON
32605 W. TWELVE MILE RD.
SUITE 290
FARMINGTON HILLS, MI
48334

PROJECT NAME:
SOCIETY HILL

PART OF THE SE 1/4 OF SECTION 10, T1N, R.9E., CITY OF NOVI, OAKLAND COUNTY, MI

SHEET TITLE:
OPEN SPACE PLAN

PAGE No.:
14



WETLAND IMPACT

REGULATED WETLAND	AREA (AC.)	WETLAND IMPACT AREA (AC.)	BUFFER DISTURBANCE (AC.)	WETLAND IMPACT VOL. (CY)
A	6.888	0	0.497	0
B	1.011	0	0.023	0
C	0.081	0.081	0.282	457 FILL
D	0.306	0.306	0.415	1,481 CUT
E	0.111	0.111	0.143	179 FILL
F	0.264	0.264	0.196	298 CUT
G	0.027	0.027	0.143	261 CUT
H (SHOWN ON SHEET 9)	1.251	0.058	0.219	174 FILL
TOTAL:	9.939	0.847	1.918	1,230 CUT

TOTAL WETLAND IMPACT = 0.847 AC.
WETLAND MITIGATION PROVIDED ON SITE = 0.922 AC.

WETLAND LEGEND

WETLAND IMPACT | BUFFER SETBACK DISTURBANCE | WETLAND MITIGATION

SEIBER KEAST LEHNER
ENGINEERING | SURVEYING

REV. #	REV. DATE	REVISION INFO.
1.	11-22-23	PRE-APP SUBMITTAL
2.	03-25-24	PRELIMINARY SITE PLAN SUBMITTAL

3 WORKING DAYS BEFORE YOU DIG CALL MISS DIG 1-800-482-7171 811 FOR LOCATION OF UNDERGROUND FACILITIES

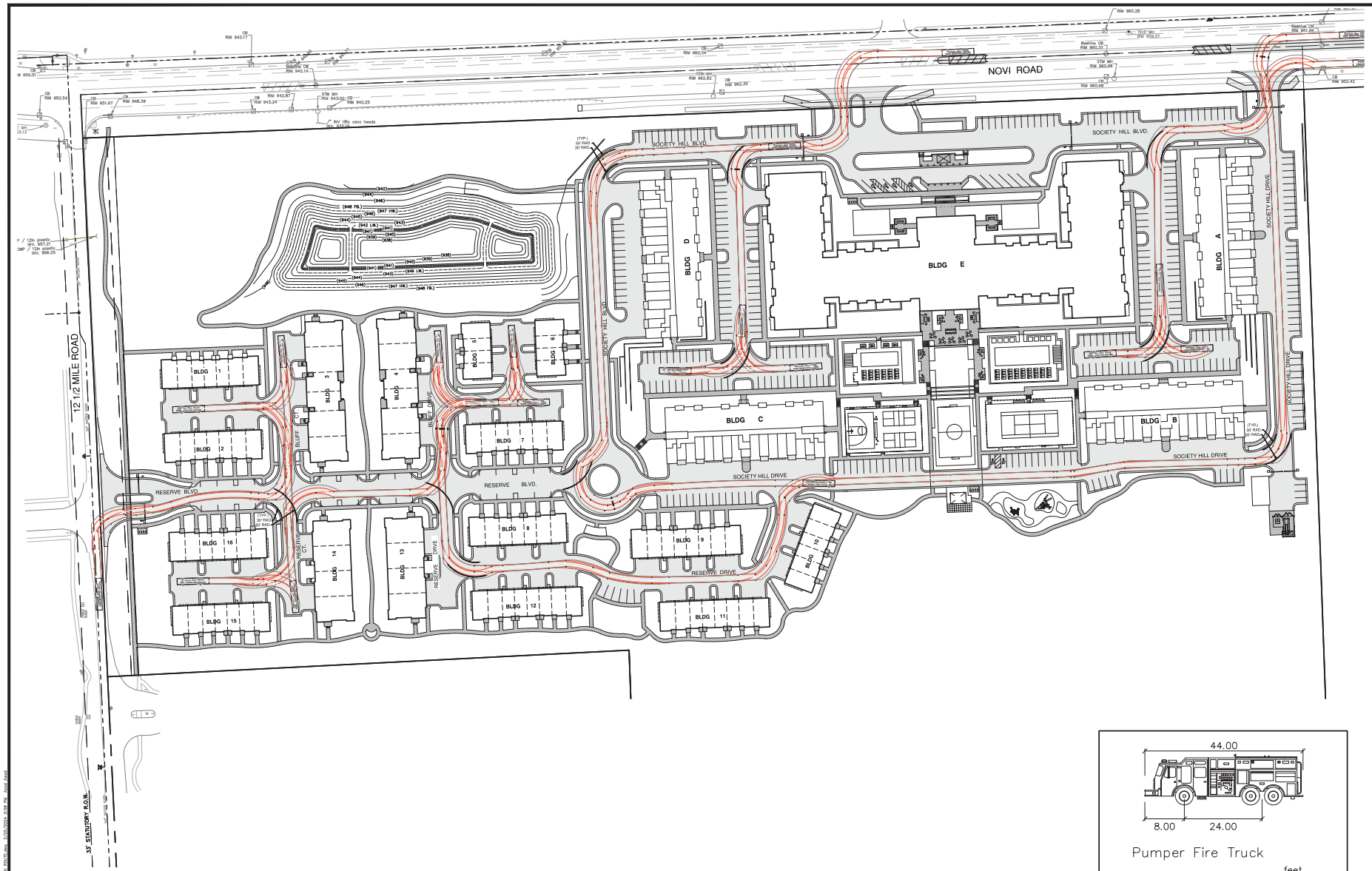
PROJECT NUMBER: 23-207
PROJECT MANAGER: R.J.E.
DRAWN BY: A. AMAD
CHECKED BY: R.J.E.
DATE: 03/25/23
OFFICE: FARMINGTON HILLS

CLIENT INFO:
E AND M HOLDINGS, LLC
JORDAN SASSON
32605 W. TWELVE MILE RD.
SUITE 290
FARMINGTON HILLS, MI
48334

PROJECT NAME:
SOCIETY HILL

PART OF THE SE 1/4 OF SECTION 10, T1N, R.8E., CITY OF NOVI, OAKLAND COUNTY, MI

SHEET TITLE:
WETLAND PLAN



Pumper Fire Truck

	feet
Width	: 8.50
Track	: 8.50
Lock to Lock Time	: 6.0
Steering Angle	: 37.8

GRAPHIC SCALE
60 0 30 60 120
(IN FEET)
1" = 60'

SEIBER KEAST LEHNER
ENGINEERING | SURVEYING

NO.	REV. DATE	REVISION INFO.
1.	11-22-23	PRE-APP SUBMITTAL
2.	03-25-24	PRELIMINARY SITE PLAN SUBMITTAL

3 WORKING DAYS BEFORE YOU DIG
CALL MISS DIG
1-800-482-7171
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OF UNDERGROUND FACILITIES

PROJECT NUMBER: 23-207
PROJECT MANAGER: R.J.E.
DRAWN BY: A. AMAD
CHECKED BY: R.J.E.
DATE: 03/26/24
OFFICE: FARMINGTON HILLS

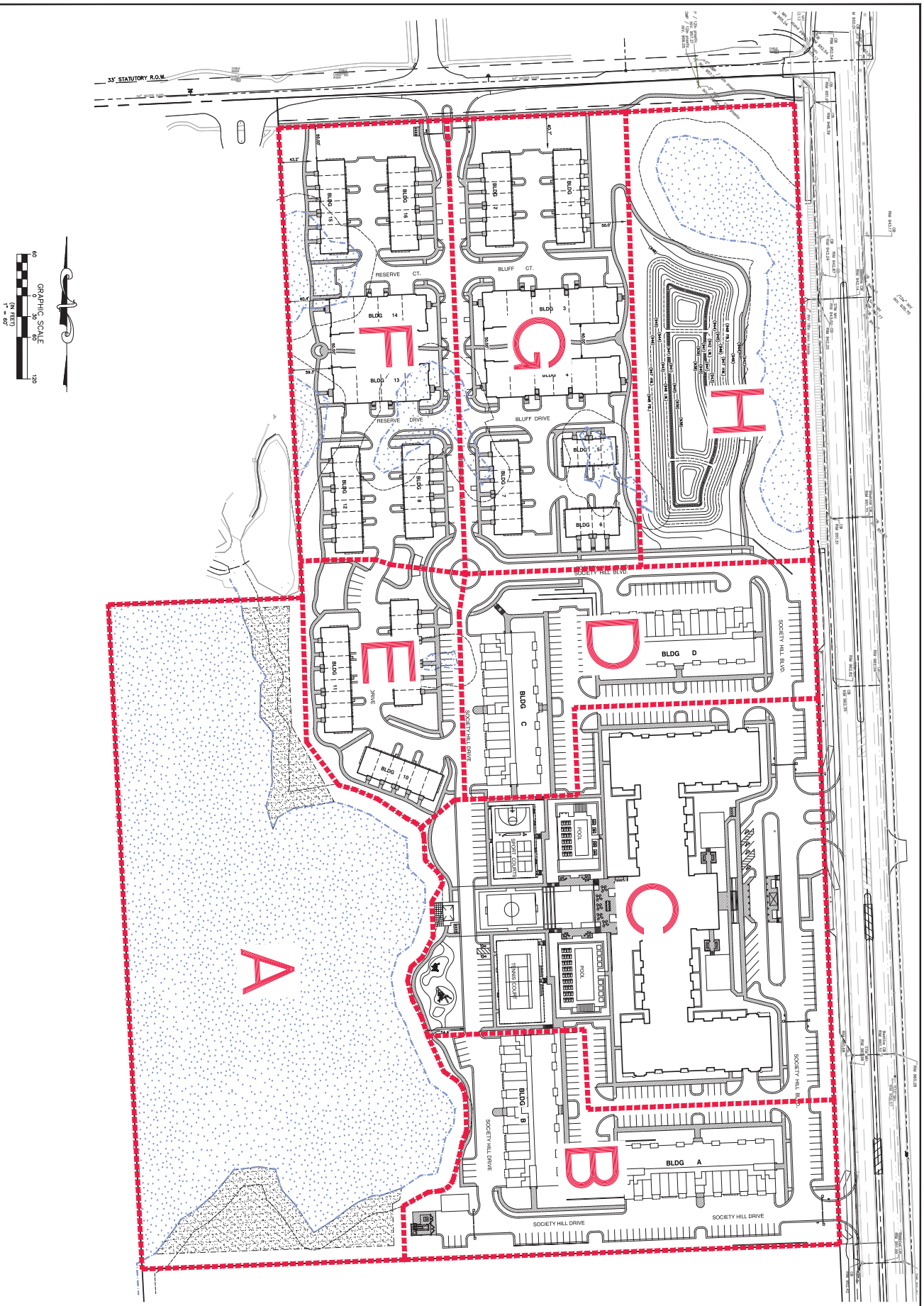
CLIENT INFO:
E AND M HOLDINGS, LLC
JORDAN SASSON
32605 W. TWELVE MILE RD.
SUITE 290
FARMINGTON HILLS, MI
48334

PROJECT NAME:
SOCIETY HILL

PART OF THE SE 1/4 OF SECTION 10, T1N, R.9E., CITY OF NOVI, OAKLAND COUNTY, MI

SHEET TITLE:
TRUCK ROUTE PLAN

PAGE No.:
16



PROJECT NAME: SOCIETY HILL PART OF THE SE 1/4 OF SECTION 10, T.1N., R.8E., CITY OF NOVI, OAKLAND COUNTY, MI SHEET TITLE: PROPOSED TAX LOT SUBDIVISION	CLIENT INFO: E AND M HOLDINGS, LLC JORDAN SASSON 32605 W. TWELVE MILE RD. SUITE 290 FARMINGTON HILLS, MI 48334	PROJECT NUMBER: 23-207 PROJECT MANAGER: B. EMERINE DRAWN BY: A. AWAD CHECKED BY: RJE DATE: 10/30/23 OFFICE: FARMINGTON HILLS	811 3 WORKING DAYS BEFORE YOU DIG CALL MISS DIG 1-800-482-7171 TOLL FREE FOR THE LOCATION OF UNDERGROUND FACILITIES

REV. #	REV. DATE	REVISION INFO.
1.	11-22-23	PRE-APP SUBMITTAL
2.	3-18-24	PER CITY REVIEW LETTERS, SUBMITTED TO CITY

SEIBER KEAST LEHNER
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CLINTON TOWNSHIP OFFICE
FARMINGTON HILLS OFFICE

Site Plan

1" = 60'-0"

LEGEND :

- PROPERTY LINE
- WETLAND 25' FT OFFSET
- WATER LIMIT
- EXISTING FOREST
- CONCRETE
- ASPHALT
- SPECIAL PAVEMENT
- 2' HT RETAINING WALL
- SAFETY SURFACE
- HARD COURT SPORT SURFACE
- STRUCTURE TRELLIS / GAZEBO
- WOOD DECK / PATH
- PLANTING
- LAWN
- SHADE TREE
- MEDIUM SIZE / FLOWERING TREE
- TALL EVERGREEN
- NARROW FASTIGIATED EVERGREEN
- LIGHT POLE
- SPORT FIELD LIGHT POLE
- PEDESTRIAN BOLLARD
- WALL SCONCE
- TREE UP LIGHT

F: 248.414.9275

Client:
E&M Holdings, LLC
32605 W. 12 Mile Rd., Ste. 290
Farmington Hills, MI 48334

Project:
Society Hill
Novi Rd.
Novi, MI 48377

ARCHITECT:
KK ARCHITECT
F: 248.414.9270
www.kriegerklatt.com

LANDSCAPE ARCHITECT:
MPFP PLLC
Landscape Architecture + Urban Design
120 Broadway Floor 20
New York, NY 10271

Issued	Description	By
11-22-2023	PreApp Submittal	
03-25-2024	Preliminary Site Plan	

Seal:

Note:
Do not scale drawings. Use calculated dimensions only. Verify existing conditions in field.

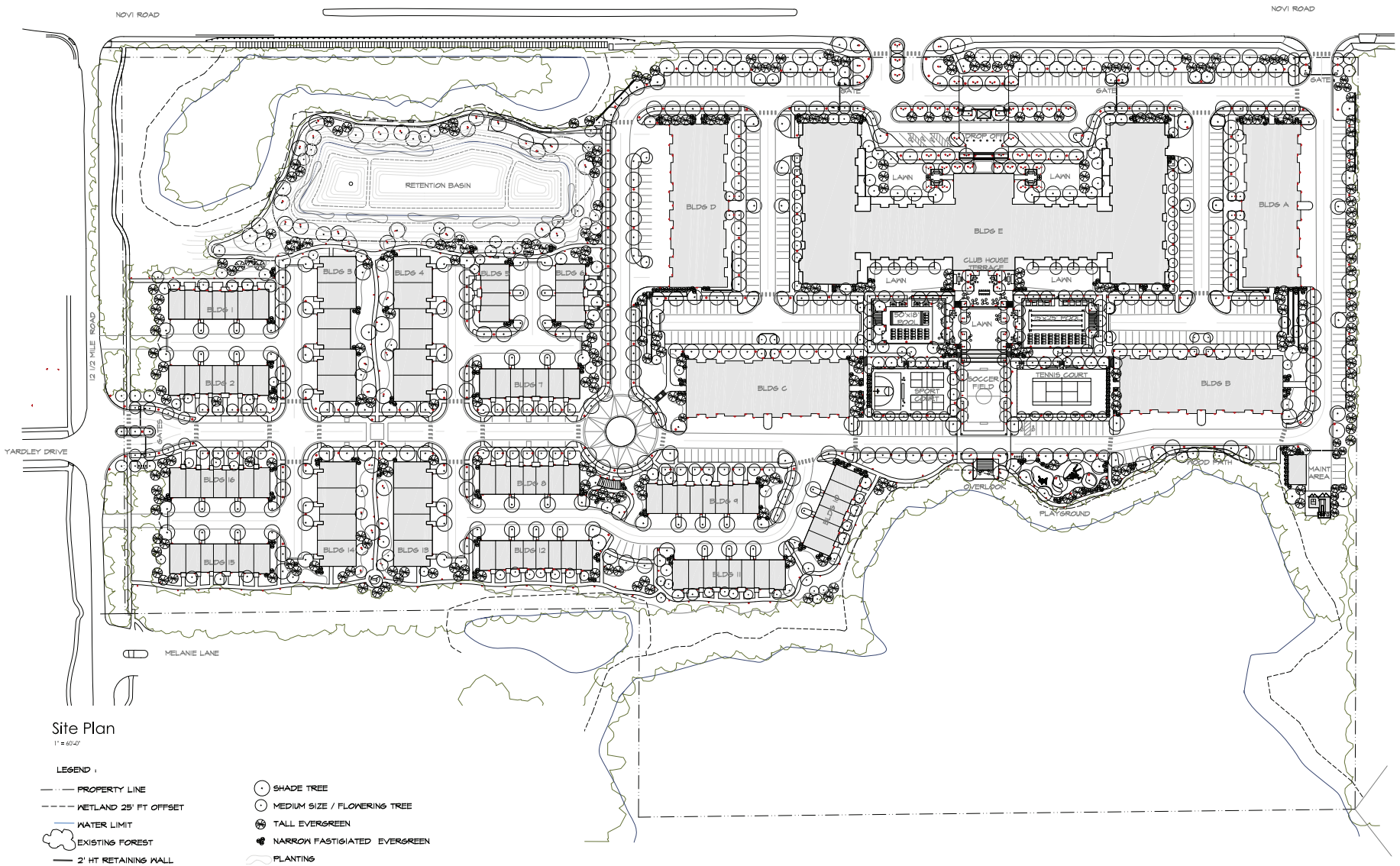
North Arrow:

Sheet Title:
RENDER PLAN

Project Number:
23-065

Scale:
As indicated

Sheet Number:
L.01



Site Plan

1" = 60'-0"

LEGEND :

- PROPERTY LINE
- WETLAND 25' FT OFFSET
- WATER LIMIT
- EXISTING FOREST
- 2' HT RETAINING WALL
- STRUCTURE TRELLIS / GAZEBO
- MOVEABLE FURNITURE
- SHADE TREE
- MEDIUM SIZE / FLOWERING TREE
- TALL EVERGREEN
- NARROW FASTIGIATED EVERGREEN
- PLANTING
- 14'-16' HT LIGHT POLE
- 25' HT SPORT FIELD LIGHT POLE
- PEDESTRIAN BOLLARD
- WALL SCONCE
- TREE UPLIGHT

F: 248.414.9275

Client:
E&M Holdings, LLC
32605 W. 12 Mile Rd., Ste. 290
Farmington Hills, MI 48334

Project:
Society Hill
Novi Rd.
Novi, MI 48377

ARCHITECT:
KK ARCHITECT
F: 248.414.9270
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LANDSCAPE ARCHITECT:
MPFP PLLC
Landscape Architecture + Urban Design
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Issued	Description	By
11-22-2023	PreApp Submittal	
03-25-2024	PreApp Submittal	

Seal:

Note:
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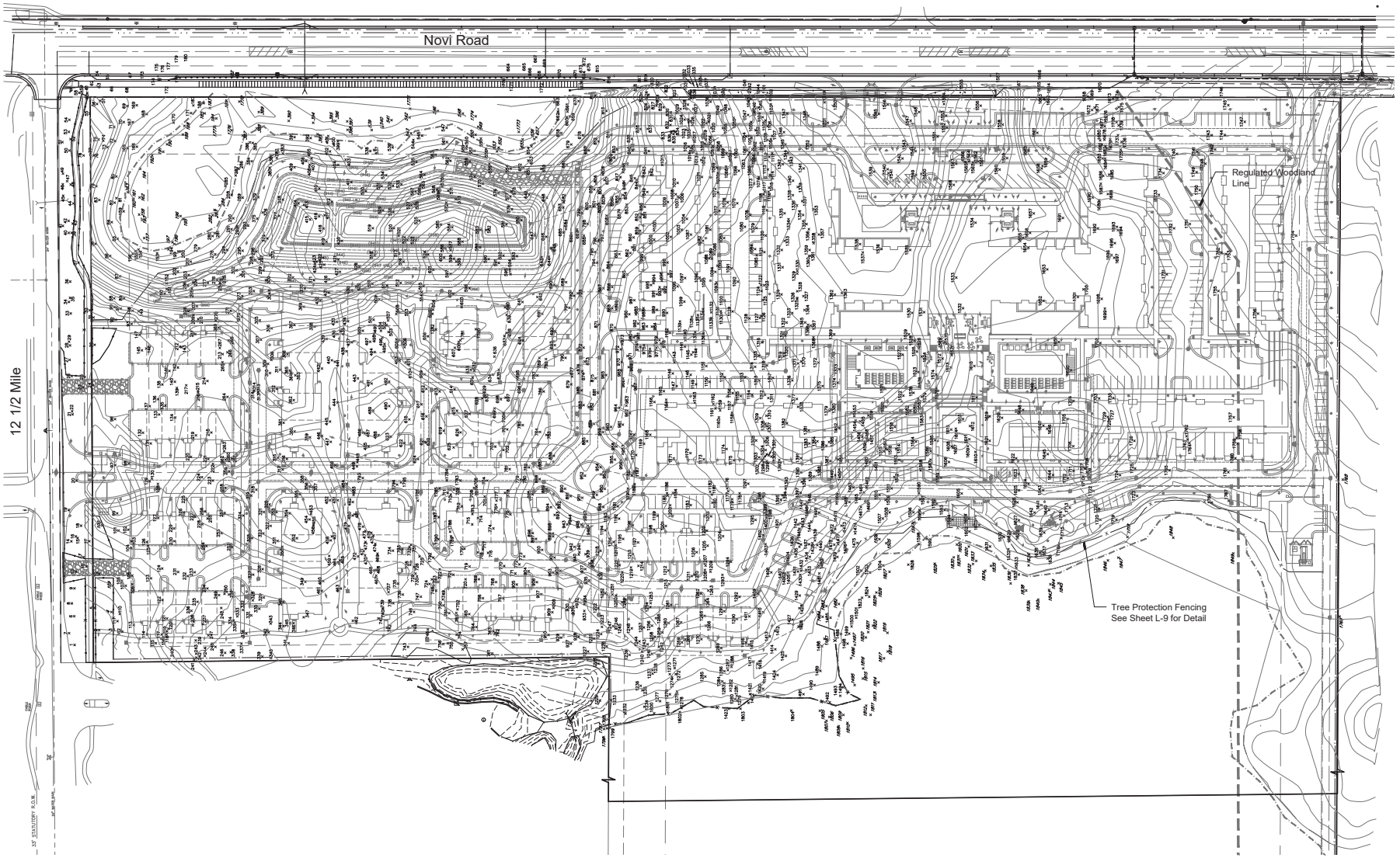
North Arrow:

Sheet Title:
SITE PLAN

Project Number:
23-065

Scale:
As indicated

Sheet Number:
L.02



Key

Bold Tree Tag Denotes Tree Removed

ALLENDESIGN
LAND PLANNING / LANDSCAPE ARCHITECTURE
557 Carpenter
Northville, Michigan 48167
e. jca@wideopenwest.com
t. 248.467.4668

Seal:

Title:

Woodland Plan

Project:

Society Hill
Novi, Michigan

Prepared for:

E and M Holdings
600 Madison Avenue
New York, New York 10022
248.640.8720

Revision:	Issued:
Preliminary Site Plan	March 25, 2024

Job Number:

23-077

Drawn By:	Checked By:
jca	jca

0' 15' 30' 60'

NORTH
1"=60'

Sheet No.

L-9

811 Know what's below. Call before you dig.

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Client:
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32605 W. 12 Mile Rd., Ste. 290
Farmington Hills, MI 48334

Project:
Society Hill
Novi Rd.
Novi, MI 48337

Issued	Description	By
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03-25-2024	Preliminary Site Plan	

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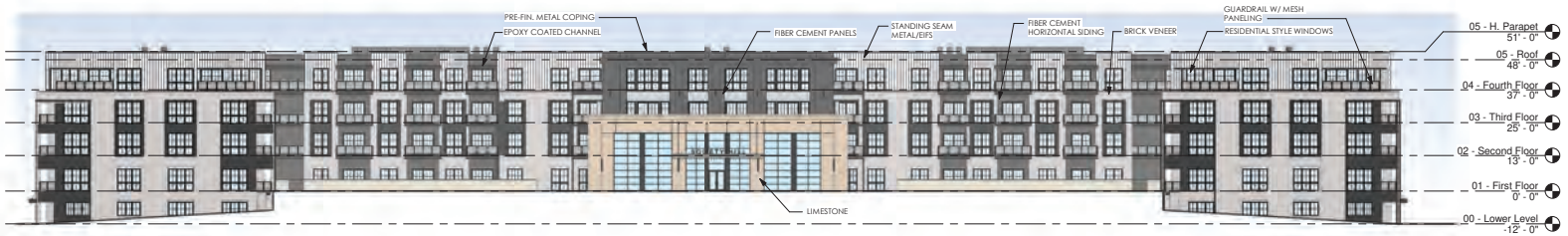
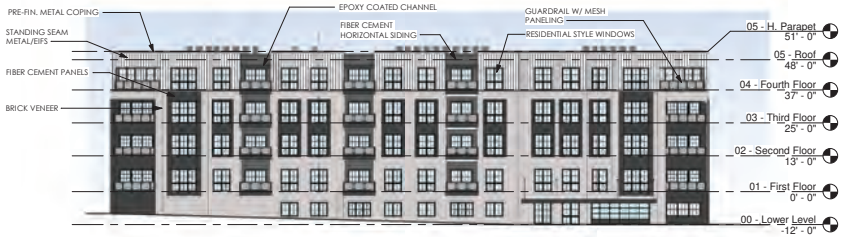
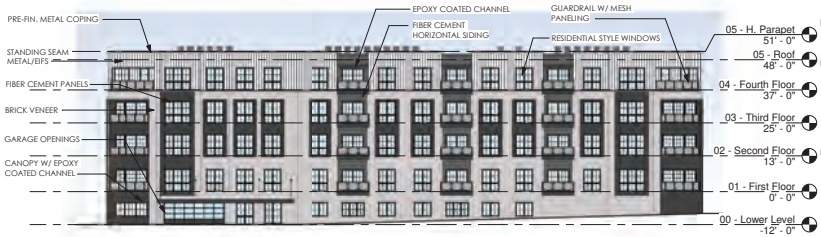


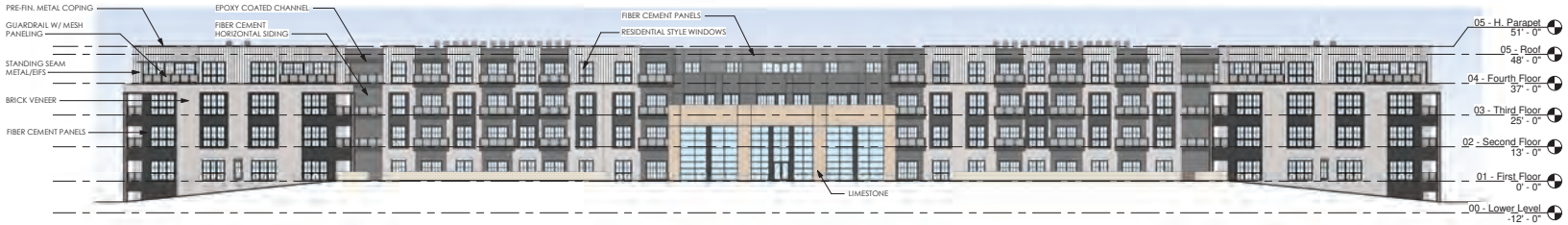
A A.100 East (Front) Elevation
3/64" = 1'-0"



B A.100 South (Left) Side Elevation
3/64" = 1'-0"



C A.100 North (Right) Side Elevation
3/64" = 1'-0"



D A.100 West (Rear) Elevation
3/64" = 1'-0"

MATERIAL CALCULATIONS

	FRONT	LEFT	RIGHT	REAR	MAX % ALLOWED
BRICK	36% (6,266 SF)	49% (4,157 SF)	48% (4,152 SF)	33% (5,508 SF)	100 % (MIN. 30%)
FIBER CEMENT SIDING	35% (5,976 SF)	30% (2,585 SF)	30% (2,595 SF)	40% (6,664 SF)	0%
STANDING SEAM METAL	17% (2,991 SF)	21% (1,808 SF)	22% (1,817 SF)	16% (2,767 SF)	25%
LIMESTONE	12% (2,052 SF)	0% (0 SF)	0% (0 SF)	11% (1,865 SF)	50%

Seal:

Note:
Do not scale drawings. Use calculated dimensions only. Verify existing conditions in field.

North Arrow:

Sheet Title:
Building E - Exterior Elevations

Project Number:
23-065

Scale:
As indicated

Sheet Number:
A.200

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www.kriegerklatt.com

Client:
E&M Holdings, LLC

Project:
Society Hill
Novi Rd.
Novi, MI 48377

Issued	Description	By
11-22-2023	PreApp Submittal	
03-25-2024	Preliminary Site Plan	

A A.105 Front Elevation
1/8" = 1'-0"

MATERIAL CALCULATIONS

	FRONT	LEFT	RIGHT	REAR	MAX % ALLOWED
BRICK	39% (2,723 SF)	59% (1,703 SF)	59% (1,703 SF)	42% (3,646 SF)	100 % (MIN. 30%)
FIBER CEMENT SIDING	34% (2,385 SF)	19% (552 SF)	19% (552 SF)	41% (3,493 SF)	0%
STANDING SEAM METAL	27% (1,963 SF)	22% (655 SF)	22% (655 SF)	17% (1,452 SF)	25%

B A.105 Left Elevation
1/8" = 1'-0"

PRELIMINARY NOT FOR CONSTRUCTION

Seal:

Note:
Do not scale drawings. Use calculated dimensions only. Verify existing conditions in field.

North Arrow:

Sheet Title:
Buildings A-D - Exterior Elevations

Project Number:
23-065

Scale:
As indicated

Sheet Number:
A.201

C A.105 Rear Elevation
1/8" = 1'-0"

MATERIAL CALCULATIONS

	FRONT	LEFT	RIGHT	REAR	MAX % ALLOWED
BRICK	39% (2,723 SF)	59% (1,703 SF)	59% (1,703 SF)	42% (3,646 SF)	100 % (MIN. 30%)
FIBER CEMENT SIDING	34% (2,385 SF)	19% (552 SF)	19% (552 SF)	41% (3,493 SF)	0%
STANDING SEAM METAL	27% (1,963 SF)	22% (655 SF)	22% (655 SF)	17% (1,452 SF)	25%

D A.105 Right Elevation
1/8" = 1'-0"

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www.kriegerklatt.com

Client:
E&M Holdings, LLC
32605 W. 12 Mile Rd., Ste. 290
Farmington Hills, MI 48334

Project:
Society Hill
Novi Rd.
Novi, MI 48377

Issued	Description	By
11-22-2023	PreApp Submittal	
03-25-2024	Preliminary Site Plan	

Seal:

Note:
Do not scale drawings. Use calculated dimensions only. Verify existing conditions in field.

North Arrow:

Sheet Title:
Buildings A-D - Exterior Elevations

Project Number:
23-065

Scale:
As indicated

Sheet Number:
A.202

A / A.109 Front Elevation
3/16" = 1'-0"

MATERIAL CALCULATIONS

	FRONT	LEFT	RIGHT	REAR	MAX % ALLOWED
BRICK	46% (1,379 SF)	53% (497 SF)	53% (497 SF)	31% (939 SF)	100 % (MIN. 30%)
FIBER CEMENT SIDING	29% (892 SF)	35% (331 SF)	35% (331 SF)	27% (812 SF)	50%
STANDING SEAM METAL	12% (356 SF)	0% (0 SF)	0% (0 SF)	30% (934 SF)	25%
ASPHALT SHINGLES	13% (395 SF)	12% (116 SF)	12% (116 SF)	12% (367 SF)	50%

B / A.109 Side Elevation (Left)
3/16" = 1'-0"

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www.kriegerklatt.com

Client:
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Farmington Hills, MI 48334

Project:
Society Hill
Novi Rd.
Novi, MI 48377

Issued	Description	By
11-22-2023	PreApp Submittal	
03-25-2024	Preliminary Site Plan	

Seal:

Note:
Do not scale drawings. Use calculated dimensions only. Verify existing conditions in field.

North Arrow:

Sheet Title:
3-Story T.H. - Exterior Elevations

Project Number:
23-065

Scale:
As indicated

Sheet Number:
A.203

C A.109 Rear Elevation
3/16" = 1'-0"

MATERIAL CALCULATIONS

	FRONT	LEFT	RIGHT	REAR	MAX % ALLOWED
BRICK	46% (1,379 SF)	53% (497 SF)	53% (497 SF)	31% (939 SF)	100 % (MIN. 30%)
FIBER CEMENT SIDING	29% (892 SF)	35% (331 SF)	35% (331 SF)	27% (812 SF)	50%
STANDING SEAM METAL	12% (356 SF)	0% (0 SF)	0% (0 SF)	30% (934 SF)	25%
ASPHALT SHINGLES	13% (395 SF)	12% (116 SF)	12% (116 SF)	12% (367 SF)	50%

D A.109 Side Elevation (Right)
3/16" = 1'-0"

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Client:
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Project:
Society Hill
Novi Rd.
Novi, MI 48377

Issued	Description	By
11-22-2023	PreApp Submittal	
03-25-2024	Preliminary Site Plan	

Seal:

Note:
Do not scale drawings. Use calculated dimensions only. Verify existing conditions in field.

North Arrow:

Sheet Title:
3-Story T.H. - Exterior Elevations

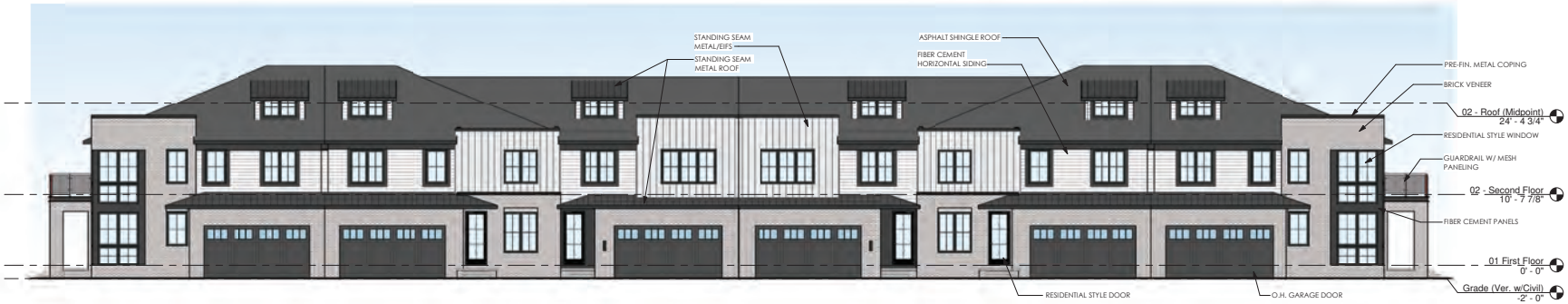
Project Number:
23-065

Scale:
As indicated

Sheet Number:
A.204

MATERIAL CALCULATIONS

	FRONT	LEFT	RIGHT	REAR	MAX % ALLOWED
BRICK	32% (1,272 SF)	61% (643 SF)	61% (643 SF)	50% (1,981 SF)	100 % (MIN. 30%)
FIBER CEMENT SIDING	12% (479 SF)	17% (182 SF)	17% (479 SF)	13% (504SF)	50%
STANDING SEAM METAL	24% (911 SF)	0% (0 SF)	0% (0 SF)	3% (134 SF)	25%
ASPHALT SHINGLES	32% (1,207 SF)	22% (228 SF)	22% (228 SF)	34% (1,379 SF)	50%



A A.111 Front Elevation
1/8" = 1'-0"

B A.111 Left Side Elevation
1/8" = 1'-0"

C A.111 Right Side Elevation
1/8" = 1'-0"

D A.111 Rear Elevation
1/8" = 1'-0"

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Client:
E&M Holdings, LLC
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Farmington Hills, MI 48334

Project:
Society Hill
Novi Rd.
Novi, MI 48377

Issued	Description	By
11-22-2023	PreApp Submittal	
03-25-2024	Preliminary Site Plan	

Seal:

Note:
Do not scale drawings. Use calculated dimensions only. Verify existing conditions in field.

North Arrow:

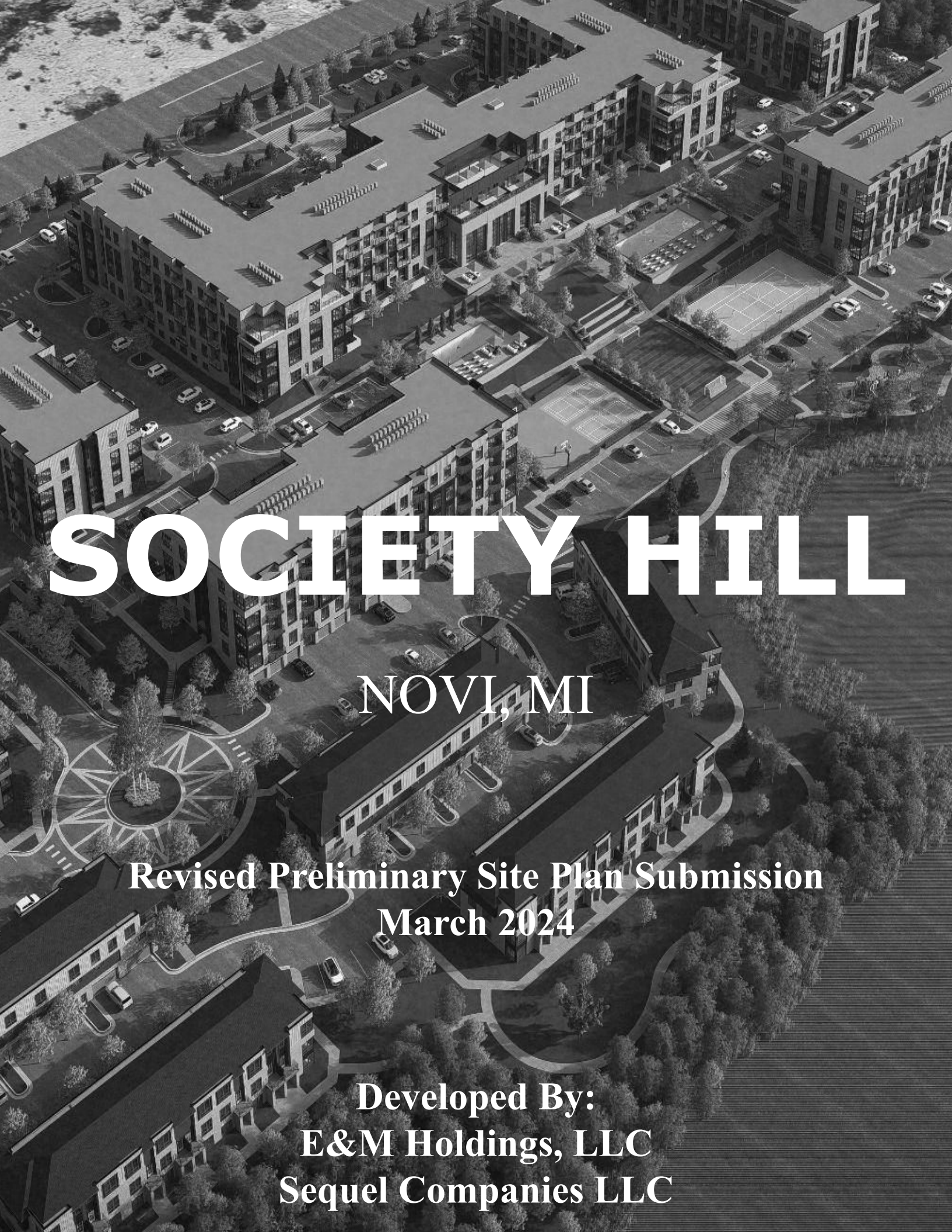
Sheet Title:
2-Story T.H. - Exterior Elevations

Project Number:
23-065

Scale:
As indicated

Sheet Number:
A.205

APPLICANT NARRATIVE



SOCIETY HILL

NOVI, MI

Revised Preliminary Site Plan Submission
March 2024

Developed By:
E&M Holdings, LLC
Sequel Companies LLC

SEQUEL

March 25, 2024

City of Novi - Planning Division
45175 Ten Mile Road
Novi, MI 48375
Victor Cardenas, City Manager
Barbara McBeth, City Planner

RE: Society Hill - Revision to 1999 Final Site Plan

Dear Mr. Cardenas & Ms. McBeth,

On behalf of E&M Holdings, LLC (the "Property Owner"), I am thrilled for the opportunity to share an exciting new vision for the property consisting of approximately 34 acres and located on the west side of Novi Road, south of 12 ½ Mile Road (commonly referred to herein as "Society Hill"). The current final site plan for Society Hill (the "1999 Final Site Plan"), which remains in effect as described below, was originally approved by the City in 1999 and reaffirmed in a Consent Judgment (the "Consent Judgment") entered in 2001. At the time of original approval of the 1999 Final Site Plan, Society Hill was a state-of-the-art multi-family project, with significant amenities, designed to appeal to housing needs and tastes of the times. While the 1999 Final Site Plan would still result in a desirable residential project, the Property Owner, after over a year of planning and design work, is proposing to amend the Consent Judgment and the 1999 Final Site Plan approved therein in order to create an innovative and contemporary residential development consistent with the current state of master-planning and development objectives of the City and catering to the needs and desires of new generations of current and future residents.

The revised plan (the "Revised Preliminary Site Plan") reflects two fundamental concepts - (1) providing mixed-use, multi-generational housing options in one comprehensive development, and (2) providing an entire range of modern recreational and healthy living amenities. While the 1999 Final Site Plan raised the bar for multi-family residential living over 25 years ago, the Revised Preliminary Site Plan was designed to raise the bar for residential living in Novi for 2024 and beyond.

This visionary project aligns seamlessly with the goals outlined in the 2022 draft update to the City's Master Plan, emphasizing optimal use of properties to maintain Novi's status as a top destination community, most notably at the critically important commercial intersection of 12 Mile & Novi Road. Society Hill will inspire others to find new ways to creatively compete and participate in the City. The influx of new residents into Society Hill will act as catalysts for economic advancement by supporting local businesses and contributing to the vibrancy of the entire community. The collateral economic development impact of Society Hill will be similar to that of our trailblazing project - River Oaks West - in the early 90's, when many developers flocked to Novi after that project delivered with great success.

For Society Hill, the process of review and approval is unique because it is governed by the Consent Judgment. The decision to amend the Consent Judgment in the manner proposed by Property Owner must be approved by City Council. Over a year ago, the City staff presented City Council with concept plans for the revised Society Hill development for informal review and for direction as to Council's

interest in pursuing such a change. It was reported back to the Property Owner that City Council was supportive of moving forward with more comprehensive planning and review of the changes. While City Council has the authority to unilaterally review and decide amendments to consent judgments, the City directed that Property Owner proceed with full administrative review by City Staff before City Council consideration and action on the request to amend the Consent Judgment. After more than a year of meticulous planning, our team is pleased to submit our Revised Preliminary Site Plan for Society Hill in accordance with the terms of the Consent Judgment. If approved by City Council, the Revised Preliminary Site Plan will amend the 1999 Final Site Plan, which was originally approved pursuant to the PD-1 guidelines and remains in effect today under the terms of the Consent Judgment.

1999 Final Site Plan

Dating back to as early as 1984, the parcels of land that make up Society Hill were acquired by the Property Owner through a series of transactions. In 1996, the Property Owner rezoned the Property to its current land use designation (RM-1, PD-1). In October 1999, the Property Owner received final site plan approval based on PD-1 guidelines.

The 1999 Final Site Plan contemplates a multi-family development made up of 312 units across 23 buildings. The units heavily favor oversized two, three and four bedrooms across "townhouse" and "flat" unit typologies with an average square footage of 1,758 SF. In addition, the 1999 Final Site Plan includes a gated entry, detached clubhouse with indoor amenities, swimming pool and tennis courts.

Image 1 - 1999 Final Site Plan

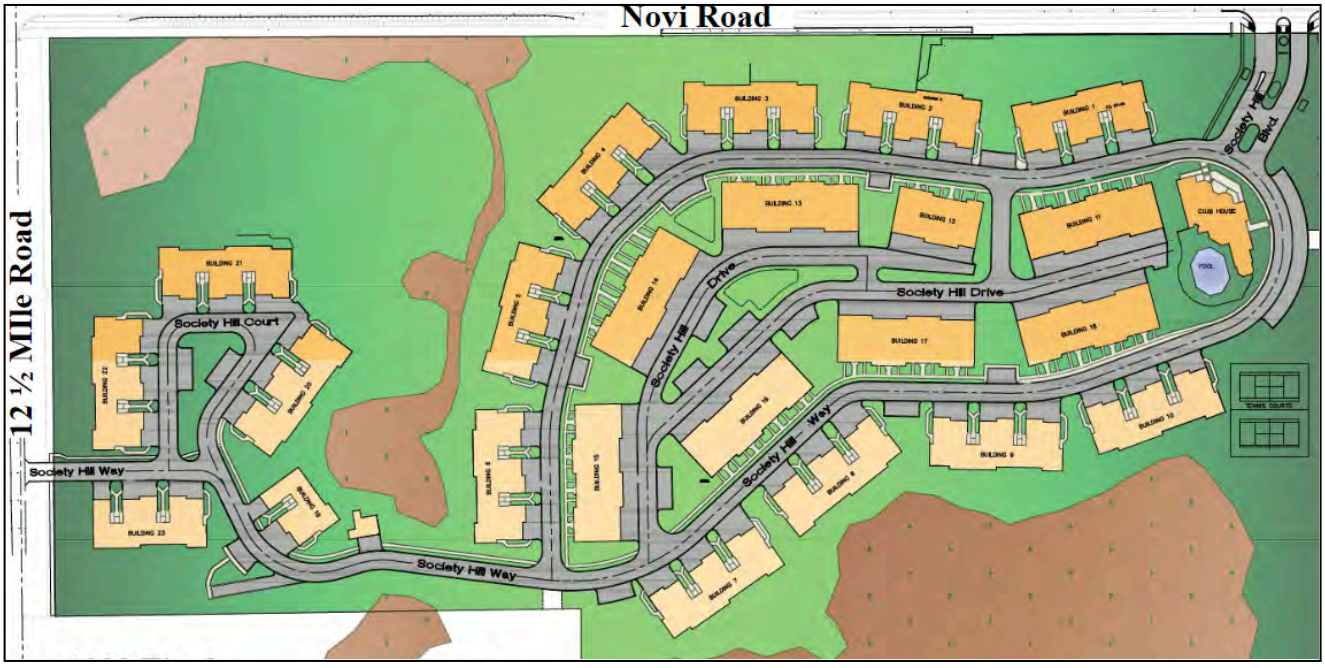


Image 2 – Bird's Eye View Rendering (from the SE) of 1999 Final Site Plan

2001 Consent Judgment

The Consent Judgment addresses the following substantive matters:

- SAD 94 Improvements: In the 1980's, the City established Special Assessment District 94 to construct sewer improvements by charging special assessments against certain properties, much of which was assessed against Society Hill. The City did not complete the sewer improvements to 12 ½ Mile Road as designed and as required under the SAD. Under the Consent Judgment, the City will provide the Property Owner with an easement and escrowed funds and the Property Owner will tie into an existing tap to provide connectivity to Society Hill.

- 1999 Final Site Plan: The City granted the Property Owner certain rights relating to the previously approved 1999 Final Site Plan, including (but not limited to):
    - Annual site plan extensions, the expiration of which triggers the immediate obligation of the City to complete construction of the SAD 94 improvements
    - Administrative review for revisions to the 1999 Final Site Plan, unless the 1997 Zoning Ordinance required formal review, in which case review would be through City Council
    - The project may be completed solely in accordance with the ordinances in effect in 1999 (i.e. - 1997 Zoning Ordinance, etc)

- Arena Drive Easements: An affiliate of Property Owner granted easements to the City to construct a berm along Nick Lidstrom Drive (f/k/a Arena Drive)

- Tree Planting & Mitigation: The City granted Property Owner (and its affiliates) the right to plant trees and the right to mitigate tree replacements (from Society Hill) within the City, including at property owned by affiliates of Property Owner and along Arena Drive

- Condemnation Settlement: The City and the Property Owner settled a dispute relating to the City's use of eminent domain to take land along Novi Road between 12 Mile and 12 ½ Mile to complete a road widening project.

As stated above, the Consent Judgment permits the Property Owner to revise the 1999 Final Site Plan. The procedure for reviewing certain proposed revisions shall be done administratively by City staff and consultants, unless formal review is required under the 1997 Zoning Ordinance, in which case it should be reviewed and approved by City Council, the latter of which applies here. The City Council and the Property Owner have authority to mutually agree to amend the Consent Judgment. As previously stated, the City Council determined that the Revised Preliminary Site Plan should be reviewed administratively by City staff and consultants before submission to City Council for final approval at a public hearing (the "Review Methodology"). Furthermore, based upon the agreed upon Review Methodology, it is the expectation that the City staff and consultants will review the Revised Preliminary Site Plan as an amendment to the 1999 Final Site Plan in accordance with the Consent Judgment and not as if the Revised Preliminary Site Plan is a new site plan submission (PD-1, PRO or otherwise) without the historical context of Society Hill.

To that end, within the Revised Preliminary Site Plan, our team has provided narratives, where applicable, to explain why certain deviations are appropriate (for example, in some cases, the deviations already exist under the 1999 Final Site Plan).

Revised Preliminary Site Plan

Image 3 – Revised Preliminary Site Plan

The new vision for Society Hill includes 463 units (1,220 SF on avg) across a diverse mix of housing typologies that will attract a range of residents spanning different backgrounds. Residents will have the option to live in residences within our elevatored buildings that include fully-integrated amenities and garage parking or in our reserve collection of distinct two and three story townhomes and villas with direct-entry, attached garages. The Revised Preliminary Site Plan will also incorporate 15,000 SF of indoor amenities and 16+ acres of open space including natural features and an outdoor, terraced vista of world-class recreational activities. In addition, the new vision for Society Hill will feature sustainable design features and meaningful enhancement and preservation of natural features, interconnected and seamlessly integrated within close proximity to the City's commercial core.

Society Hill is split into two distinct, but fully-integrated components - the Residences on the Hill and the Reserve Collection at Society Hill.

The Residences on the Hill, located on the southern portion of the property, is made up of 363 apartments across five buildings with elevators and garage parking. Of the 363 apartments, the average unit size is 1,075 SF and will include studios through three-bedrooms that range in size from 617 to 1,329 SF.

The central building, which sits on a parking podium and is considered the primary building, includes an indoor and outdoor amenity offering that is unmatched by any multi-family development in the region. What makes Society Hill truly special is the diversity of housing opportunities within an unified and walkable community and the overall extensive amenity offering, all of which benefit from the naturally sloping topographies and targeted preservation of natural features. Furthermore, the buildings are intentionally designed to bring a contemporary and innovative approach to the market that will define Society Hill as a special and unique place to live.

Within the primary building, a fully integrated indoor amenity offering consists of 15,000 SF of programmed and serviced space for the residents' enjoyment. The offering includes a state of the art fitness center and studios, spa facilities, café/bistro, community lounge, dedicated co-working space and conference rooms, community kitchen with dedicated dining area, library and reading area, and an indoor/outdoor terrace on the top floor of central building providing expansive views across an expansive outdoor amenity program, which incorporates vast areas of preserved natural features.

The outdoor amenities are programmed across a 10+ acre, terraced vista including two pools, a turf soccer field, tennis court, sports court, pickleball courts, playground areas, dog park and over two miles of walking path creating interconnectivity throughout the entire site.

The Reserve Collection at Society Hill, located on the northern and western portion of the property, is a collection of 100 townhome and villa residences with attached garages (1,731 SF on average) across 16 buildings all with access to the world-class amenity offering at Society Hill. Eighty of the townhomes are designed as three-story residences with either two or three bedrooms (plus a home office). The remaining 20 villas are designed as two-story residences with three-bedrooms, 16 of which provide a ground floor master suite adjacent to the living space, which we believe will be attractive to both empty nesters and large families.

Image 4 – Central Building Main Entry

Image 5 – Terraced Vista of Outdoor Amenities

Image 6 – Reserve Collection Three Story Townhome

Image 7 – Reserve Collection Two ½ Story Villa

In addition to the Society Hill property, the Revised Preliminary Site Plan includes a 3.15 acre parcel owned by the City (the "City Parcel"). The City informed the Property Owner that it acquired (through a tax foreclosure) the City Parcel with the intention of utilizing it for the development of Society Hill. As a result, our team worked with the city engineers to determine the feasibility and utility of the City Parcel. Given that the City Parcel is covered almost entirely by regulated wetlands and woodlands and has significant topographic slopes, our team has determined that its only utility is to be used as a stormwater detention basin on approximately one acre of upland area. To accomplish this, it is our intention that the City would grant an easement to the Property Owner to construct and maintain the stormwater detention basin on the City Parcel.

As consideration for using the City Parcel, the Property Owner is proposing to (1) increase the stormwater detention requirements for Society Hill to meet the standards under current ordinance (100 year storm event) rather than the approved standards (10 year storm event), and (2) provide new sidewalk improvements south of Society Hill and enhanced landscape features adjacent to and on the City Parcel along Novi Road.

Site Plan Comparison

The Revised Preliminary Site Plan was designed and engineered with the intended goal of creating the most desired residential offering in southeast Michigan. To accomplish this goal, certain design features became critically important to layout of the property, including, but not limited to:

- Distinct housing typologies to attract a variety of residents across differing demographics and reflect anticipated market trends
- Modern and contemporary design aesthetics
- Building placement on the topographic slopes to incorporate integrated garage parking
- Targeted preservation and enhancement of natural features
- Inclusion of vast open space and recreational amenities, including interconnected trails
- Energy efficiency and sustainability targets

After applying the stated goals to create the Revised Preliminary Site Plan, a comparison to the 1999 Final Site Plan results in nearly identical key metrics, including room counts, square footage and average daily traffic generation.

Given the Review Methodology described above, the following comparison is intended to support the City staff and consultants as well as City Council in its review of the Revised Preliminary Site Plan. The comparison charts will provide meaningful context of the tangible differences between the 1999 Final Site Plan and the Revised Preliminary Site Plan. In our submission, our team attempted to comply with the minimum applicable standards, but in instances where such standards could not be maintained, the team attempted to comply with many of the approved deviations that exist under the 1999 Final Site Plan.

RESIDENTIAL PROGRAMMING SUMMARY				
Programming	**1999 Final Site Plan**	**Revised PSP**	**Delta**	**Code (PD-1)**
Building Count	23	21	(8.7%)	Compliant
Building Height	2.5 - 4 stories	2.5 - 4.5 stories	N/A	Compliant
Rentable SF	548,533	563,749	2.7%	Compliant
Room Count	1,264	1,359	7.5%	Compliant
Avg Unit Size (SF)	1,758	1,220	(30.7%)	Compliant
Unit Count	312	463	151	Compliant

SITE PROGRAMMING SUMMARY		
Programming	**1999 Final Site Plan**	**Revised PSP**
Parking Ratio	2.22	2.03
Programmed Outdoor Space	~1 acre	6.64 acres
Private Outdoor Space	0% of units	98% of units
Interior Amenity	~5,000 SF	~15,000 SF
Exterior Amenity		
Swimming Pools	One	Two
Tennis/Pickleball	Two	Three
Sports Court	None	One
Soccer Field	None	One
Playground	None	One
Dog Park	None	One
Active Trails	0 Miles	2+ Miles
EV Charging	N/A	Included
Preserved Wetland (net)	~8.42 acres	10.02 acres
Wetland Impact	0 acres	.847 acres
Wetland Mitigation	N/A	.923 acres onsite (1.09x); some offsite/payment
Woodland Impact	1,062 trees	1,256 trees; 82 trees (City Parcel)
Woodland Mitigation	All offsite/payment	Some onsite; some offsite/payment
Traffic Impact	2,883 trips	2,930 trips; 47 trip variance (1.6%)
Community Enhancement:	N/A	Society Hill: Stormwater improvements City Parcel: Sidewalk and landscaping improvements

Conclusion and Next Steps

We are confident that our innovative approach to residential development will be an asset to the City and its residents. Our new vision for Society Hill will certainly be a transformative project for the City and set the bar as the new standard for residential living in the region.

Beyond the positive impact we intend to provide to our residents, we are confident that the City will experience immense economic benefit from Society Hill. It is our expectation that Society Hill will certainly be one of the largest economic development projects within the City. A project of this scale is certain to have significant collateral economic benefit for the City, notably in the form of an increased tax base and increased demand on the commercial core of Novi, which has always been (and will continue to be) critical to the future financial success of the City.

We are excited about the prospect of working together to bring this vision to life and to continue our longstanding partnership with the City. I invite you to reach out at your earliest convenience to discuss any questions or suggestions you may have. I am available via cell phone at 248-640-8720 or through email at jordan@sequelcos.com.

Thank you for your time, consideration, and commitment to the prosperity of Novi. Together, let us embark on this exciting journey to complete the legacy of Society Hill.

Sincerely,

Jordan Sasson

Jordan Sasson
CEO
Sequel Companies

CC: Henry Sasson, E&M Holdings
Richard Guido, Sequel Companies
Alan Greene, Dykema Gossett

TABLE OF CONTENTS

SOCIETY HILL
NOVI, MI

AMENDMENT TO EXISTING SITE PLAN

COMMUNITY IMPACT STATEMENT

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Site Plan Amendment & Methodology

The newly proposed site plan submission for Society Hill (the "Revised Preliminary Site Plan") proposes to amend the final site plan approved in 1999 (the "1999 Final Site Plan") that remains in effect today pursuant to the 2001 consent judgment (the "Consent Judgment").

As stated above, the Consent Judgment permits the Property Owner to revise the 1999 Final Site Plan. The procedure for reviewing certain proposed revisions shall be done administratively by City staff and consultants, unless formal review is required under the 1997 Zoning Ordinance, in which case it should be reviewed and approved by City Council, the latter of which applies here. The City Council and the Property Owner have authority to mutually agree to amend the Consent Judgment. As previously stated, the City Council determined that the Revised Preliminary Site Plan should be reviewed administratively by City staff and consultants before submission to City Council for final approval at a public hearing (the "Review Methodology"). Furthermore, based upon the agreed upon Review Methodology, it is the expectation that the City staff and consultants will review the Revised Preliminary Site Plan as an amendment to the 1999 Final Site Plan in accordance with the Consent Judgment and not as if the Revised Preliminary Site Plan is a new site plan submission (PD-1, PRO or otherwise) without the historical context of Society Hill.

The following Community Impact Statement sets forth various statements about the proposed revisions as well as comparisons to the 1999 Final Site Plan to identify the relative impacts between the Revised Preliminary Site Plan and the 1999 Final Site Plan, which is approved under the PD-1 option.

Site Description

Sitting on 33.92 acres of land North of 12 Mile Road and West of Novi Road, Society Hill will be home to 463 residential units spread across high and low density product types. The project has been designed to take full advantage of the site's vast topography and highlights the site's natural features including wetland and woodland areas.

Society Hill fronts Novi Road (approximately 1,646 feet) and is directly south of 12.5 Mile Road where it has roughly 741 feet of frontage. The property is approximately 1,000 feet from the intersection of Novi Road and 12 Mile Road and is in Section 10, T1N, R8E of the City of Novi. The property is currently zoned RM-1 with a PD-1 option which is, "Designed to encourage development of specific types of residential land use within the RM-1 district in those designated areas of the City's Master Plan for Land Use and which would be in substantial accord with the goals and objectives of that plan. The intent of this option is to permit the application of mid-rise, higher density multiple dwelling structures in a district otherwise restricted to low-rise, lower density residential use." Through the Revised Preliminary Site Plan design of the combination of higher density and lower density product within one single development is acting directly within the spirit of the PD-1 overlay which calls for higher density structures within districts normally allowing only lower density product. The 1999 Final Site Plan is also approved pursuant to the PD-1 option.

This new vision for Society Hill is consistent with the City's Master Plan goals for maximizing the use and development of the remaining developable properties in the City to maintain Novi's position as a top destination community for living, working and shopping in Michigan. The project will kick-start the broader future vision the City is contemplating for the commercial/mixed-use district at 12 Mile & Novi Road. The introduction of this one-of-a-kind, mixed residential project will result in a broader consumer base that will help to preserve and bolster the success of Twelve Oaks Mall and the surrounding commercial corridor and encourage further economic re-development of the core commercial areas within the City.

One main site artery, Society Hill Boulevard, will provide access throughout the site and will connect the Residences on the Hill, home to the higher density product type, to the Reserve Collection at Society Hill, which will include the townhomes and villas. One main entry and exit point will be constructed on Novi Road and an additional entry and exit point will be constructed on 12.5 Mile Road. One additional entry/exit road will be built that exits onto Novi Road to provide better fluidity throughout the development and provide direct access for service vehicles. The site currently contains 25.6 acres characterized as woodland area and 9.94 acres characterized as wetland area.

In addition to the Society Hill property, the Revised Preliminary Site Plan includes a 3.15 acre parcel owned by the City (the "City Parcel"). The City informed the Property Owner that it acquired (through a tax foreclosure) the City Parcel with the intention of utilizing it for the development of Society Hill. As a result, our team worked with the city engineers to determine the feasibility and utility of the City Parcel. Given that the City Parcel is covered almost entirely by regulated wetlands and woodlands and has significant topographic slopes, our team has determined that its only utility is to be used as a stormwater detention basin on approximately one acre of upland area. To accomplish this, it is our intention that the City would grant an easement to the Property Owner to construct and maintain the stormwater detention basin on the City Parcel.

Topography

Topographically, the site consists mostly of a gently to moderately sloping terrain (5% - 15% slopes). The highest point of the site is located near the middle of the eastern property line at the existing retaining wall along Novi Road at roughly Elev. 984 +/-. This high point slopes down northerly toward existing wetland "B" (Elev. 940 +/-), slopes down westerly toward existing wetland "A" (Elev. 956 +/-), and slopes down southerly toward the south property line (Elev. 950 +/-). Various depressions exist throughout the existing property, some of which hold existing wetlands (Wetlands A-G).

Adjacent Land Uses

The proposed Society Hill Development is surrounded by residential uses located within the RM-1 and RA (FLU: PD-1) zoning districts. Directly adjacent to the Southerly property line is an undeveloped 10.5 acre site. The North West property line is bordered by the Charneth Fen condominium development built in 2015 and the South West property line is bordered by the Carlton Forest condominium development built in 2003. Along the northern portion of the parcel the property faces 12.5 Mile Road (741 feet of frontage). The eastern facing portion of the site fronts Novi Road (1,646 feet of frontage).

Drainage Courses

The existing 33.89-acre site generally drains towards wetlands A, B and to the southerly property lines as described in the topography section above. There are no existing streams or rivers located on the property. However, wetlands A and B have outlets to adjacent properties. The northern +/- 13 Ac of the site drains to wetland B at the northeast corner of the property. This wetland outlets to an existing 18" storm sewer that crosses the Novi Road Right-of-Way and releases flows east of Novi Road to Bishop Creek. The southwestern +/- 15 Ac portion of the site drains toward wetland A, which is also an onsite lake at the southwest corner of the property. Wetland A ultimately outlets to a stream that runs south into the Carlton Forest development, crosses Carlton Way Drive via storm sewers and outlets into the lake in front of the development at 12 Mile Road. The southeast +/- 6 Ac of the property surface drains to the southern property line into the adjacent property and ultimately to wetland H located on the offsite parcel owned by the City of Novi. Wetland H outlets to an existing 18" storm sewer connecting to the City of Novi storm sewer system in the Novi Road right-of-way.

The developed site will be drained by means of sheet flow directed into a proposed storm sewer system. The storm sewer will lead to two detention basins designed in accordance with the City of Novi Engineering Design Manual. The north detention basin will be located adjacent to, and outlet to, existing wetland B. The south detention basin will be located offsite on the City of Novi owned parcel (21-10-400-055) adjacent to and outlet to existing wetland H (or tie into the city storm system within the Novi Road right of way). Provided that the City Parcel is used for stormwater detention, both detention basins will be sized for the 100-year storm event according to the City of Novi Engineering Design Manual.

Woodlands / Vegetation

The site is a mostly wooded area (25.6 acres) containing several tree varieties as outlined by the tree survey completed and included on Sheets L-10 - L-12 of the landscape drawings. The 1999 Final Site Plan approval called for the removal of 1,062 trees in order to develop Society Hill as designed. Under the Revised Preliminary Site Plan, an additional 194 trees will be removed, resulting in a total tree

removal of 1,256. The required tree mitigation is calculated to equal 2,041 trees, of which 1,266 have been previously mitigated in accordance with the 1999 Final Site Plan and the Consent Judgment. Of the remaining 775 trees, 150 are intended to be planted onsite with the remainder to be mitigated by payment into the City tree fund based on the fee schedule in effect at the time the 1999 Final Site Plan was approved or planted elsewhere in the City. Consistent with the 1999 Final Site Plan, no conservation easement will exist.

The City Parcel has 2.8 acres of wooded area and contains several tree varieties as outlined by the tree survey completed and included on Sheet L-8 of the landscape drawings. On the City Parcel where the stormwater detention basin will be built, an additional 82 trees will be removed. The required mitigation of 161 trees will all be planted onsite.

Wetlands

The project area (inclusive of the City Parcel) contains approximately 9.939 acres of wetland. Wetland impacts of approximately 0.847 acres are proposed, which is a Novi non-minor use classification. Approximately 1.92 acres of temporary wetland buffer setback impacts are also proposed. The wetlands on the properties are assumed to be regulated by the Michigan Department of Environment, Great Lakes, and Energy (EGLE). Wetland impacts and mitigation ratios by habitat type are shown in the table below. Wetland mitigation will likely be required as a condition of an EGLE permit. On-site wetland mitigation of 0.922 acres is proposed; however, due to the hilly terrain of the property, suitable wetland mitigation areas appear to be limited to the relatively shallower sloping ground adjacent to Wetland A. Wetland A has permanent surface water to provide a source of hydrology for the proposed wetland mitigation. A minimum ratio of 1 to 1 on-site wetland mitigation is proposed (0.92 acres - 1.09:1.00 onsite mitigation ratio) with the remaining wetland mitigation to be provided through purchase of credits from an EGLE approved wetland mitigation bank. Proposed wetland impacts and mitigation are shown in the table below. Wetland and wetland buffer setback locations and impact areas are shown on page 15 the Wetland Plan sheet. Consistent with the 1999 Final Site Plan, no conservation easement will exist.

Proposed Wetland Impact and Mitigation

Wetland	Size (ac)	Impacts by Habitat (ac)			Impact Total (ac)
		Forested	Scrub-Shrub	Emergent	
A	6.888	0	0	0	0
B	1.011	0	0	0	0
C	0.081	0.081	0	0	0.081
D	0.306	0.306	0	0	0.306
E	0.111	0.083	0	0.028	0.111
F	0.264	0	0	0.264	0.264
G	0.027	0.027	0	0	0.027
H	1.251	0	0.058	0	0.058
Totals	9.939	0.497	0.058	0.292	0.847
Mitigation Ratio		2.0	1.5	1.5	1.8
Required Mitigation		0.994	0.087	0.438	1.519
Proposed On-Site Mitigation					0.922
Proposed Wetland Mitigation Bank Credits					0.597

Wildlife

Wildlife commonly found on the site consists of small mammals such as field mice, squirrels, raccoons, fox and rabbits. A variety of small birds normally populate the area.

Soils Classifications

The soils classification as provided by the United States Soil Conservation Services Soil Survey of Oakland County indicate Marlette sandy loam (1% - 6% and 6% - 12%), Marlette loam (12% - 18%) and Houghton and Adrian mucks (within wetland A).

Municipal Water Supply

Municipal water supply is available to the site by means of an existing 36" watermain within the Novi Road right-of-way and an existing 24" watermain within the 12 ½ Mile Road right-of-way. The proposed water main will connect to both existing 36" and 24" watermains, extend into the site to create a looped watermain system, providing domestic water service to the residential buildings and providing adequate fire hydrant coverage throughout the development. Adequate water supply is anticipated for both domestic and firefighting purposes.

Wastewater Disposal

An existing City of Novi 12" sanitary sewer stub is located at the southwest corner of the development for wastewater disposal service. An existing sanitary sewer will be extended into the development along the southern property line of the site to provide a sanitary sewer system for the residential buildings within the development. 6-inch and 8-inch sanitary leads will connect the residential buildings to the proposed public sanitary sewer system. Pursuant to the Consent Judgment, the City will be required to provide offsite easement to the existing stub and sanitary manhole to make the connection to the existing sewer.

The residential portion of the development has 463 Multiple Family Residences multiplied by an appropriate unit factor (0.60 REU/ 1-BR MF unit, 0.75 REU/ 2-BR MF unit, 1.0 REU/ 3-BR MF unit) resulting in 343 equivalent Single-Family units. At a rate of 3.2 people per Single Family residential unit the service population for the residential portion of the development is 1,097.6 people. With a peaking factor of 3.77, the peak flow from the project would be 0.64 cubic feet per second. The capacity of an 8-inch diameter sanitary sewer is 0.76 cubic feet per second, therefore, capacity is sufficient.

Public Utilities

Public utilities such as electricity, telephone, gas and cable television, are available on Novi Road.

Project Description

Society Hill consists of four two-story townhome buildings (BLDGs 3, 4, 13, 14), twelve three-story townhome buildings (BLDGs 1, 2, 5 - 12, 15, 16), four four-story elevator buildings (BLDGs A - D) with underground parking tucked at the rear of the building and one centralized elevator building (BLDG E) that will sit on a full parking podium and will house the amenity offerings that will be accessible to all residents within the development. The units within the higher density product offerings will range in size from 617 SF to 1,329 SF and consist of studio to three bedroom units. The townhome units will be either two or three bedrooms and range in size from 1,440 SF to 2,281 SF. 363 of the units will be constructed in more "urban" buildings that will rise up to 4 stories in height and be serviced by elevators with the remaining 100 units being built as two to three story townhomes. The project will include eight studio/efficiency units, 120 one-bedroom units, 27 one-bedroom units with a den, 202 two-bedroom units, 30 two-bedroom units with a den and 76 three-bedroom units. The studio/efficiency units will be a minimum of 617 square feet, the one bedroom units will be a minimum of 777 square feet, the two bedroom units will be a minimum of 1,051 square feet and the three-bedroom units will be a minimum of 1,601 square feet.

- Of the 33.92 Acres of land within the site, 3.81 Acres (~166K square feet) will be usable open space. This exceeds the minimum open space requirement of 2.1 acres (Total Number of Units

x 200 SF). An additional 2.83 acres of naturally occurring open space creates a total of 6.64 acres of open space for residents to utilize and enjoy. Open spaces include all unit balconies, courtyards, pools and associated outdoor areas, a soccer field, tennis court, basketball courts, pickleball courts, playground areas, an exterior rooftop terrace on Building E, dog park, and over 2 miles of interconnected walking trails throughout the site.

- In addition to the exterior amenity spaces listed, the 15,000 square feet of interior amenity space will be programmed with a state of the art fitness center, studio spaces, spa facilitates, community lounge, dedicated coworking space and conference rooms, community kitchen with dedicated dining area, library and reading area, and an indoor/outdoor terrace on the top floor of Building E providing expansive views of the open green space and wetlands/woodlands beyond.

By keeping sustainable design standards front of mind throughout the design process, many of the townhome and villa units, as well as parking spaces throughout the parking garages, will be wired for EV charging stations. A total of 94 bike parking spaces will be provided onsite, 70 of which will be covered. This total does not include additional space that could be used as bike storage within the townhome and villa units, given that every townhome and villa unit will have its own dedicated garage. The interconnected road system within Society Hill provides over a mile loop of road for residents to ride on and will provide connectivity from 12 Mile Road, up Novi Road to 12.5 Mile Road. Via 12.5 mile Road, riders can access Skunk's Pass Mountain Bike trails and will have direct access to Lake Shore Park and Lake Shore Beach. This connection will be created and further enhanced by Property Owner's new construction of the sidewalk improvements in front of Society Hill and the City Parcel. The replacement of the existing boardwalk in front of the City Parcel with a brand new on-grade sidewalk creates a much more efficient and inviting connection from 12 Mile to 12.5 mile Road, and beyond.

Phasing

- The horizontal construction will be completed in a single phase at the outset of the project and the vertical construction will be sequenced to stagger unit deliveries in order to avoid oversaturation of one product type to the market at one time and allow for proper absorption for the new units being delivered.

Roadways

- All interior drives and parking areas are proposed to be private. Novi Road is 28-feet wide in both the Northbound and Southbound directions and will provide the main access to the Society Hill development and residential parking areas. An additional exit and entry access point will be provided on 12.5 Mile Road. Also, one entry/exit road will be located on the southern end of the property along Novi Road to provide better fluidity throughout the development and provide direct access for service vehicles.

- When comparing the 1999 Final Site Plan vs the Revised Preliminary Site Plan, the resulting calculations (per code based on using bedroom count) estimates 47 additional trips being generated between the two plans. On a relative basis, 47 trips equals a 1.6% increase over the original approved traffic generation. Based on the immateriality of the incremental traffic generation, we believe that the need for a traffic impact study is not required for the proposed revisions to the 1999 Final Site Plan. A letter to this effect has been completed by traffic engineering firm Fleis & Vanderbrink and is included as an Exhibit.

Environmental Concerns

- Upon full development, the Revised Preliminary Site Plan will result in a provided lot coverage area of 14.84%, below the maximum permitted lot coverage area of 25%.
- Ecologically, the development will affect the existing vegetation and ground cover to the extent that all existing field grasses and trees will be removed.
- The groundwater table will be affected slightly due to the extent of paving and building coverage. However, no deep excavations are planned which would contribute to the lowering of the ground water table. Soil erosion control will be provided on the site in accordance with the City of Novi requirements. Surface water run-off is expected to contain some road salts and oils carried by automobiles. Most suspended sediments will be removed in the storm water quality/detention basins, and oil and gas separators proposed in the development.
- Air quality will be affected somewhat by automobile emissions and natural gas combustion gasses from the apartment heating systems. In addition, the net ambient air temperature of the site will be increased slightly due to the loss of vegetation and the addition of pavement and buildings.
- Noise levels will increase due to the additional automobile and truck traffic, and exterior air conditioning units.
- An aesthetic impact will result from the introduction of man-made structures and site improvements.
- Site lighting will be designed to maintain a low profile and prevent light spill and glare onto adjacent properties. A photometric plan and light fixture catalog cuts have been provided in the plan set.
- Finally, landscaping will soften the overall impact of the development. A total of 1,086 trees are proposed to be planted at Society Hill. An additional 57 trees are to be planted on the City Parcel. (See the Planting Schedule on the Landscape Plans for reference).
- No hazardous or toxic chemicals will be stored on-site except for household cleaners, chlorine tablets for the swimming pool, pesticides and fertilizers used for lawn and plant care. No underground storage tanks, wells, or septic tanks are proposed and none will be permitted.

Storm Water Disposal

- Stormwater generated on the proposed site will be collected by on-site storm sewer and delivered to the on-site detention basin adjacent to wetland B (with an outlet into wetland B) and to an off-site detention basin located on the City of Novi Parcel adjacent to wetland H (with an outlet either into wetland H or the city storm sewer located within the Novi Road right of way). Provided that the City Parcel is available as a stormwater detention basin, the basins will be sized to detain the 100-year storm event and outlet into the adjacent wetland systems (or the city sewer system). In the alternative, the 10-year storm event will apply under the 1999 Final Site Plan and the Consent Judgment.

Demands on Police Department Services

- The SEMCOG 2023 population estimate for the City of Novi for 2023 was 68,080 persons. The per capita response was one Police Department response for every 2.63 persons. Based on an expected residential population of 889 persons, it is estimated that 338 annual Police Department calls would be made from the project. Property Owner expects no material impact to the Demands on Police Department Services when comparing the 1999 Final Site Plan Approval to the Revised Preliminary Site Plan.

Demands on Fire Department Services

- The per capita response for the City of Novi during the year 2013 was 132.99 persons per Fire Department run. Based on the estimated proposed development population of 889 persons, the total projected annual Fire Department responses is 7. The project is located near Fire Station No. 2 at 1919 Paramount Street. Due to the proximity of the fire station, response time is expected to be only a few minutes. Property Owner expects no material impact to the Demands on Fire Department Services when comparing the 1999 Final Site Plan Approval to the Revised Preliminary Site Plan.

Refuse and Solid Waste Disposal

- Each of the high density buildings (A-E) have dedicated trash rooms on each floor that contain a chute leading to the refuse room on the ground floor. Waste in the refuse room will be picked up periodically by maintenance staff and/or brought to the trash compactor outlined on the site plan or directly picked up (as needed) by the trash service company.
- The lower density townhome units will each have their own trash bin that will be brought out to the street corner weekly to be picked up by a trash service that will come through the site.

Educational Demands on the Public School System

- The total 2023 student enrollment in the Novi Community Schools was 6,906. Of this total, 2,107 were of High School Age (9-12th grade), 1,024 attended Middle School (7-8th grade), and 3,775 were enrolled at the elementary school level. Some impact is expected upon the community educational system due to the expected 110 +/- school age children living in the complex. Society Hill is located within the Parkview Elementary school district. Property Owner expects no material impact on the Public School System when comparing the 1999 Final Site Plan Approval to the Revised Preliminary Site Plan.

Economic Impact Statement

- At the time of original approval of the 1999 Final Site Plan, Society Hill was a state-of-the-art multi-family project, with significant amenities, designed to appeal to housing needs and tastes of the times. While the 1999 Final Site Plan would still result in a desirable residential project, the Property Owner is proposing to revise the 1999 Final Site Plan with a new innovative and contemporary vision for residential development consistent with the current state of master-planning and development objectives of the City and catering to the needs and desires of new generations of current and future residents.
- The Revised Preliminary Site Plan reflects two fundamental concepts - (1) providing mixed-use, multi-generational housing options in one comprehensive development, and (2) providing an entire range of modern recreational and healthy living amenities. While the 1999 Final Site Plan raised the bar for multi-family residential living over 25 years ago, the Revised Preliminary Site Plan was designed to raise the bar for residential living in Novi for 2024 and beyond.
- This visionary project aligns seamlessly with the goals outlined in the 2022 draft update to the City's Master Plan, emphasizing optimal use of properties to maintain Novi's status as a top destination community, most notably at the critically important commercial intersection of 12 Mile & Novi Road. Society Hill will inspire others to find new ways to creatively compete and participate in the City. The influx of new residents into Society Hill will act as catalysts for economic advancement by supporting local businesses and contributing to the vibrancy of the entire community. The collateral economic development impact of Society Hill will be similar to that of our trailblazing project - River Oaks West - in the early 90's, when many developers flocked to Novi after that project delivered with great success.
- It is estimated that Society Hill's proposed 463 units will bring 889 new residents within the submarket. Due to the site's unique location within the city, the investment into the project and the expected number of new residents, a captivated customer base will be created that will inevitably utilize the existing retail along the 12 mile corridor including Twelve Oaks Mall and the West Oaks Shopping Center. Society's Hill development will provide an anchor to

encourage additional development along the commercial core, consistent with the new early stage master plan that is being contemplated by the City

- Total cost of the proposed building and site improvements is expected to be in excess of $100 million
- To operate the 1999 Final Site Plan of 312 units roughly 3 - 5 full time jobs would have been created to oversee management, leasing and onsite operations including unit/community renovations and upkeep and meticulous landscaping. The additional units provided through the Revised Preliminary Site Plan will require several additional full time employees to properly operate resulting in the creation of 6 - 10 new full time jobs.
- The 889 new residents will provide an increased labor pool to choose from for employers within the City of Novi. The elevated product at Society Hill will help to encourage workers to relocate from other Cities to Novi to accept a job from an employer in the City, further expanding the potential employment reach of companies within the City.
- Using the National Association of Homebuilder's Economic Impact Analysis (2015), the following chart summarizes the anticipated collateral economic impact from the development of Society Hill under the Revised Preliminary Site Plan.

NAHB Model Adj. to Revised Preliminary Site Plan & CPI				
Phase I - Construction				
# of Units	**Local Income**	**Owners' Income**	**Local Wages**	**Local Jobs Supported**
463	$45,588,781	$16,937,304	$28,650,861	417
Phase II - Economic Premium				
# of Units	**Local Income**	**Owners' Income**	**Local Wages**	**Local Jobs Supported**
463	$26,415,544	$5,357,373	$21,057,555	329
Total Year One Impact (Phase I + Phase II)				
# of Units	**Local Income**	**Owners' Income**	**Local Wages**	**Local Jobs Supported**
463	$72,004,325	$22,294,677	$49,708,416	745
Phase III - Annual Effect Once Occupied				
# of Units	**Local Income**	**Owners' Income**	**Local Wages**	**Local Jobs Supported**
463	$16,260,551	$3,837,603	$12,419,869	204

Summary of Project Benefits

- Creates collateral economic development impact on the critically important 12 Mile and Novi Road commercial corridor, which is aligned with the City's 2022 draft Master Plan update
- Provides a new standard for residential living in the City of Novi
    - Diverse housing typologies reflecting the needs/desires of the broad percentage of the population
- Provides potential students for local schools
    - Nominal net impact between Revised Preliminary Site Plan and 1999 Final Site Plan
- Provides high-quality residents for the City
- Nominal impacts on infrastructure
    - Nominal net impact between Revised Preliminary Site Plan and 1999 Final Site Plan
- Additional Community Enhancement Benefits
    - Removal of existing 420' wooden bridge and installation of new at-grade sidewalk along City Parcel to enhance pedestrian and bicyclist safety on Novi Road and to create a better connection between the residential neighborhoods north of 12 Mile and the commercial core south of 12 Mile.
    - Landscape enhancements along Novi Road at the City Parcel to create a better visual along a critically important roadway
    - With the utility of the City Parcel for stormwater detention, increased stormwater standards (100 year vs 10 year)

Conclusion

We are confident that the City will experience immense economic benefit from Society Hill. It is our expectation that Society Hill will certainly be one of the largest economic development projects within the City. A project of this scale is certain to have significant collateral economic benefit for the City, notably in the form of an increased tax base and increased demand on the commercial core of Novi, which has always been (and will continue to be) critical to the future financial success of the City. In addition, the social and community benefits are significantly positive for the City and the residents of Novi and none of which reflect a negative change between the 1999 Final Site Plan and the Revised Preliminary Site Plan.

SOCIETY HILL
NOVI, MI

AMENDMENT TO EXISTING SITE PLAN

TRIP GENERATION ANALYSIS (TGA)

E&M Holdings LLC
32605 W. 12 Mile Road
Suite 290
Farmington Hills, MI 48334
248.640.8720

and

Sequel Companies LLC
600 Madison Avenue
11th Floor
New York, NY 10013
248.640.8720

Prepared by:

Fleis & Vandenbrink
27725 Stansbury Blvd., Suite 195
Farmington Hills, MI 48334
248.536.0800

APPLICANT RESPONSE TO
STAFF & CONSULTANT REVIEWS

SEQUEL

May 24, 2024

City of Novi - Planning Division
45175 Ten Mile Road
Novi, MI 48375
Barbara McBeth, City Planner
Lindsay Bell, Senior Planner

RE: Society Hill – Response Letter to City's Comments to Revised Preliminary Site Plan

Dear Ms. McBeth & Ms. Bell,

On behalf of E&M Holdings, LLC (the "Property Owner"), we appreciate the time and effort committed by the City's staff and consultants to review the revised plans (the "Revised Preliminary Site Plan") for Society Hill (the "Project"). We appreciate the staff's support of the Project, as evidenced by the positive recommendation, and look forward to continuing to work with your team in the coming weeks and months.

Following our in-person meeting on May 21, 2024, our project team has compiled responses (the "Response Letter") to the staff's comments (the "City's Comments") to our Revised Preliminary Site Plan. Our Response Letter can be found in the attachment to this cover letter and a summary of the key responses is provided below:

- **Planning Deviations** (Items 1-8, 13-15 on the Planning Review Letter): Corrections will be made as noted in the Response Letter and otherwise deviations are requested. Many of the proposed deviations exist under the currently approved final site plan that remains in effect today (the "1999 Final Site Plan"). In addition, all proposed deviations reflect necessary and reasonable requests to work within the framework of the existing RM-1/PD-1 classifications and to achieve new and desired standards for residential living in Novi.
- **Wetland Impacts** (Items 9 & 10 on the Planning Review Letter): Additional assessments have occurred on site based on the City's wetland consultant's report. The findings confirm no additional wetlands exist beyond those set forth in the Revised Preliminary Site Plan. As a result, the proposed wetland impact and mitigation is as set forth in the Revised Preliminary Site Plan.
- **Stormwater Management** (Item 11 on the Planning Review Letter): The proposed stormwater management plan improves the overall offsite flow of stormwater (i.e. - the run-off rate is higher today than after the proposed development is complete) and significantly enhances the stormwater management design approved under the 1999 Final Site Plan.
- **Traffic Study** (Item 12 on the Planning Review Letter): As discussed during our May 21, 2024 meeting, the 1999 Final Site Plan produced an adjusted baseline of 1,978 average daily trips (as evidenced by the 1996 Traffic Study and the Fleis & Vandenbrink memorandum included in our Response Letter). The 1996 Traffic Study was required as part of the original rezoning of the property to allow for the PD-1 option. Based on the approval of the 1999 Final Site Plan, the 1996 traffic study demonstrated suitable road traffic capacity/access for the approved higher density housing and since that approval both Novi Road and 12 Mile Road have been widened to increase traffic flow. As a comparison,

the Revised Preliminary Site Plan is anticipated to produce 2,162 average daily trips (as evidenced by the City's traffic consultant's memorandum and confirmed by Fleis & Vandenbrink). The resulting impact of 184 additional average daily trips is well below the City's threshold over 750 average daily trips.

- **Woodland Impacts** (See Landscape Review Letter): The Revised Preliminary Site Plan (excluding the City parcel - all impact and required mitigation is addressed onsite) results in an incremental woodland impact (above the approved woodland impact under the 1999 Final Site Plan) of ~194 trees. Mitigation efforts have been ongoing for many years as offsite plantings have occurred throughout approved locations in the City of Novi. For any remaining mitigation required, onsite and offsite plantings are contemplated and any remainder will be paid into the City's tree fund as more fully set forth in the Response Letter.

In addition, we are confirming our understanding of the following upcoming schedule for this Project.

- **June 3**: Closed session for City Council to be briefed by its legal counsel on the Project and the proposed amendment to the existing Consent Judgement.
- **Prior to June 17:** Notice of public hearing to be sent out by City Planning Department to satisfy the notice requirement for the July 8th City Council meeting.
- **June 17th City Council Meeting**: Presentation of the Project by applicant to City Council. No vote is scheduled to occur at this meeting.
- **July 8th**: Public hearing to vote on the Preliminary Site Plan and the amendment to the Consent Judgement.

We remain excited about the prospect of working together to bring this vision to life and to continue our longstanding partnership with the City. I invite you to reach out at your earliest convenience to discuss any questions or suggestions you may have. I am available via cell phone at 248-640-8720 or through email at jordan@sequelcos.com.

Thank you for your time, consideration, and commitment to the prosperity of Novi. Together, let us embark on this exciting journey to complete the legacy of Society Hill.

Sincerely,

Jordan Sasson

Jordan Sasson
CEO
Sequel Companies

CC: Henry Sasson, E&M Holdings
Richard Guido, Sequel Companies
Alan Greene, Dykema Gossett

City of Novi Preliminary Site Plan Comment Responses

Ordinance Requirements/Deviations

1. Maximum Length of Building:
   - Deviations requested per City Planning Review Letter and Revised Preliminary Site Plan.
   - Note: Buildings A-D have an entry lobby & lounge area with an occupant load of 61 people (910 sq.ft.).
2. Shoreline Setback:
   - Deviations requested per City Planning Review Letter and Revised Preliminary Site Plan
3. Building Setbacks:
   - Deviations requested per City Planning Review Letter and Revised Preliminary Site Plan
   - In addition, deviations for Building A and D are requested to satisfy the PD-1 provisions for building height and length. See below chart and attached sheet (Exhibit A) provided by Kreiger Klatt Architects.

Increased Building Setbacks based on height and length

A Building	B RM-1 Allowed Height	C Provided Height	D Increased Setback (Height) (D=C-B)	E RM-1 Allowed Length	F Provided Length	G Increased Setback (Length) (G=(F-E)/3)	H Max Increase (H=Max(D,G))	I RM-1 Front Setback	J Req'd. Front Setback (J=I+H)	K Provided Front Setback	L Complies	M Waiver	N RM-1 Side Setback	O Req'd. Side Setback (O=H+N)	P Provided Side Setback	Q Complies	R Waiver
Building A	35	57.5	22.5	180	219	13	22.5	75	98	89	No	8.2	75	98	76	No	21.8
Building B	35	57.5	22.5	180	219	13	22.5	75	98	399	Yes	N/A	75	98	99	Yes	N/A
Building C	35	57.5	22.5	180	219	13	22.5	75	98	399	Yes	N/A	75	98	680	Yes	N/A
Buidling D	35	57.5	22.5	180	219	13	22.5	75	98	89	No	8.2	75	98	842	Yes	N/A
Buidling E	35	60	25	180	493	104	104	75	179	197	No	N/A	75	179	252	Yes	N/A

4. Parking Setbacks:
   - Deviations requested per City Planning Review Letter and Revised Preliminary Site Plan
5. Building Orientation:
   - Deviations requested per City Planning Review Letter and Revised Preliminary Site Plan
6. Yard Setback Area:
   - Deviation requested for Front Yard setback area. See below chart and Exhibit B for updated calculations. Calculated Front Yard Coverage is 33.26%, over the 30% allowed threshold as per below chart and attached sheet.

SETBACK PAVEMENT COVERAGE

	TOTAL AREA (SFT.)	PAVEMENT AREA (SFT.)	PERCENTAGE OF PAVEMENT
FRONT YARD (NOVI RD.):	123,403	41,047	33.26% *
FRONT YARD (12 1/2 MILE RD.):	50,199	6,374	12.70%
WEST SIDE YARD:	36,772	0	0
SOUTH SIDE YARD:	18,240	1,851	10.15%
OVERALL:	228,614	49,272	21.55%

* VARIANCE REQUIRED

7. Distance Between Buildings:
   - Deviations requested per City Planning Review Letter and Revised Preliminary Site Plan
8. Number of Parking Spaces:
   - Deviations requested per City Planning Review Letter and Revised Preliminary Site Plan
9. Wetland Impacts:
   - The below chart will be added to the drawing set and outlines the wetland mitigation calculation.

Wetland	Size (ac)	Impacts by Habitat (ac)			Impact Total (ac)
		Forested	Scrub-Shrub	Emergent	
A	6.888	0	0	0	0
B	1.011	0	0	0	0
C	0.081	0.081	0	0	0.081
D	0.306	0.306	0	0	0.306
E	0.111	0.083	0	0.028	0.111
F	0.264	0	0	0.264	0.264
G	0.027	0.027	0	0	0.027
H	1.251	0	0.058	0	0.058
Totals	9.939	0.497	0.058	0.292	0.847
Mitigation Ratio		2.0	1.5	1.5	1.8
Required Mitigation		0.994	0.087	0.438	1.519
Proposed On-Site Mitigation					0.922
Proposed Wetland Mitigation Bank Credits					0.597

    - See response from Consultant Barr Engineering in Wetland Comment Section and Exhibit C.
10. Wetland Buffer Impacts:
    - As discussed with City Staff, impact to wetland buffers will be marked as "permanent" on the next submission.
11. Stormwater Management:
    - Noted.
12. Traffic Study:
    - City response letter incorrectly compares the traffic generation between the two plans based on "Unit Count" density opposed to "Bedroom" density the proper comparison is 1,978 Trips (Consent Judgement) VS 2,162 Trips (Proposed Plan). Accordingly, the 184 trip variance is significantly below the 750 trip threshold which would trigger a full Traffic Impact Study. Provided response from consultant, Fleis & VandenBrink, is provided as Exhibit D.
    - In addition, the City shall confirm that the baseline of 1,978 trips has been used for all background information to-date since the approval of the Consent Judgement, including, but not limited to, all site plan approvals in the surrounding area as well as the city-wide traffic study recently completed.
13. Parking on Major Drive:
    - Deviations requested per City Planning Review Letter and Revised Preliminary Site Plan
14. Building Setbacks from Parking:
    - Deviations requested per City Planning Review Letter and Revised Preliminary Site Plan
    - Note that along the north and south elevations of Building E, the off-street parking generally abuts the lower-level parking garage (based on the site topography).
15. Bicycle Parking:
    - The code requirement will be satisfied in the subsequent revision to the Revised Preliminary Site Plan

Planning

Zoning and Use Requirements

- Uses Permitted:
    a. Site is zoned RM-1/PD-1 and allows for Multiple-Family Residential Units. The proposed use is permitted under code. As discussed with City Staff, Uses Permitted will be updated to "Yes*".
    b. In addition and in compliance with PD-1, the submission will be revised to include up to 7,500 SF of ancillary commercial space within the ground floor of Building E.

PD-1 Option (Sec. 3.31.4 & 6)

- Traffic Study:
    a. See response from consultant, Fleis & VandenBrink, in Traffic section and provided as Exhibit D.
- Special Land Use (Sec. 6.1.2.C):
    a. Special land use permit already exists for the 1999 Final Site Plan so all requirements should be continued to be satisfied under the Revised Preliminary Site Plan. The PD-1 Option has already been approved as part of the Consent Judgment.
- Building Height (Sec 3.31.6.B.iv.a):
    a. Buildings A-D are 4 story buildings and Building E is 4 residential stories over 1 podium story
- Applicable Standards Met? (Sec. 3.31.4.A):
    a. Noted, in compliance.
- Shoreline setback (Sec 3.31.6.B.iv.e):
    a. See response #2 in Ordinance Requirements/Deviations.

Residential Building Setbacks (Sec. 3.1.7.D, Sec. 3.6.2.B, and Sec. 3.8.2.C - if applicable)

- Residential Building Setbacks (South, West & East):
    a. See response #3 in Ordinance Requirements/Deviations.

Parking Setbacks (Sec. 3.1.7.D) Refer to applicable notes in Sec. 3.6.2

- Front (East:
    a. See response #4 in Ordinance Requirements/Deviations.
- Side (South):
    a. See response #4 in Ordinance Requirements/Deviations.

RM-1: Note to District Standards (Sec. 3.6.2)

- Setback Requirements (Sec. 3.6.2.B):
    a. See response #4 in Ordinance Requirements/Deviations.
- Wetland/Watercourse Setback (Sec 3.6.2.M):
    a. See response #10 in Ordinance Requirements/Deviations.

RM-1 District Required Conditions (Sec. 3.8 & 3.10)

- Maximum length of the buildings (Sec. 3.8.2.C):

a. See response #1 in Ordinance Requirements/Deviations.

- Modification of maximum length (Sec. 3.8.2.C):
  a. See response #1 in Ordinance Requirements/Deviations.
- Building Orientation (Sec. 3.8.2.D):
  a. See response #5 in Ordinance Requirements/Deviations.
- Yard setback restrictions (Sec. 3.8.2.E):
  a. See response #6 in Ordinance Requirements/Deviations.
- Off-Street Parking or related drives (Sec. 3.8.2.F):
  a. See response #14 in Ordinance Requirements/Deviations.
- Pedestrian Connectivity (Sec. 3.8.2.G):
  a. See response in Traffic Comment Section.
- Minimum Distance between the buildings (Sec. 3.8.2.H):
  a. See response #7 in Ordinance Requirements/Deviations.
- Number of Parking Spaces Residential, Multiple-family (Sec. 5.2.12.A):
  a. See response #8 in Ordinance Requirements/Deviations.
- Parking Space Dimensions and Maneuvering Lanes (Sec. 5.3.2):
  a. See response in Traffic Comment Section.
- End Islands (Sec. 5.3.12):
  a. See response in Traffic Comment Section.
- Barrier Free Spaces (Barrier Free Code):
  a. No deviation requested. 1 ADA Space will be located in a private garage in Buildings A-D. 3 ADA spaces are provided within Building E.
- Barrier Free Space Dimensions (Barrier Free Code):
  a. See response in Traffic Comment Section.
- Barrier Free Signs (Barrier Free Code):
  a. See response in Traffic Comment Section.
- Bicycle Parking General requirements (Sec. 5.16):
  a. See response #15 in Ordinance Requirements/Deviations.
- Bicycle Parking Lot layout (Sec 5.16.6):
  a. See response #15 in Ordinance Requirements/Deviations.

Additional Road Design, Building Setback, And Parking Setback Requirements, Multiple-Family Uses (Sec. 5.10)

- Road standards (Sec. 5.10):
- All major roads provide 28’ width as required. Major Drives:
  a. See response #13 in Ordinance Requirements/Deviations. Please note the drive that extends from the southern approach to Novi Road to the center cul-de-sac, behind Buildings A, B and C 9Society Hill Drive) is not considered to be a “Major Road” since it is intended for garage access, parking behind the buildings and additional access to the amenities area. This road is intentionally 24’ wide for this purpose. Society Hill Boulevard is intended to be the “Major Road” for the development fronting Novi Road. Also, a “table top” will be provided west of the amenity area to reduce traffic speeds.
- Parking on Major and Minor Drives:

a. See response #13 in Ordinance Requirements/Deviations.

Building Code and Other Requirements

- Woodlands (City Code Ch. 37):
  a. See response from consultant, Allen Design, in Woodland section.
- Wetlands (City Code Ch. 12, Art. V):
  a. See response from consultant, Barr Engineering, in Wetland section. Calculation chart to be provided on updated plan set.
- Design and Construction Standards Manual:
  a. Noted, in compliance.
- Building Exits:
  a. Noted, in compliance.
- Phasing:
  a. To be addressed prior to final site plan approval.

Other Permits and Approvals

- Development/Business Sign (City Code Sec 28.3):
  a. Sign location and size to be submitted with next submission. Deviation may be requested.
- Project & Street Naming Committee:
  a. Street Naming Committee comments have been received and will be properly addressed.

Other Legal Requirements

- Conservation easements:
  a. Consistent with the 1999 Final Site Plan Approval, no conservation easements will be provided.

Lighting and Photometric Plan (Sec. 5.7)

- Building Lighting (Sec. 5.7.2.A.iii):
  a. Noted. Will be provided by consultant, Gasser Bush.
- Lighting Specifications (Sec. 5.7.A.2.ii):
  a. Noted. Will be provided by consultant, Gasser Bush.
- Max. Illumination adjacent to Residential (Sec. 5.7.3.M):
  a. Noted. Will be provided by consultant, Gasser Bush.

Engineering

1. City response letter incorrectly compares the traffic generation between the two plans based on "Unit Count" density opposed to "Bedroom" density the proper comparison is 1,978 Trips (Consent Judgement) VS 2,162 Trips (Proposed Plan). Accordingly, the 184 trip variance is significantly below the 750 trip threshold which would trigger a full Traffic Impact Study. Provided response from consultant, Fleis & VandenBrink, is provided as Exhibit D.
2. A soil boring will be provided for the off-site detention basin prior to Final Site Plan Approval. Referring to Sheet 9 of the Preliminary Site Plan submittal, the elevation of the wetlands adjacent to the off-site detention basin is appx. EL. 941.50 and the Low Water Elevation of the off-site detention basin is set at EL 942.0 (0.5' higher than the wetland elevation. Although the groundwater elevation at the detention basin is expected to be near the wetland elevation of 941.50 (just below existing grade), the Low Water

Elevation at the detention basin will be set higher than the expected ground water elevation. The storage volume of the basin will not be reduced since the low water of the basin is set above the elevation of the adjacent wetlands.

3. Two possible off-site detention basin locations are provided in the Preliminary Site Plan to provide the City with options for discharge of the basin on the City owned parcel. Ultimately, the wetland and the direct connection to the City storm sewer both drain to the City storm sewer that runs east below Novi Road. The ultimate discharge of the City of Novi storm sewer is not known at this point and the City does not have any available As-Built information on their existing storm sewer system. The developer will coordinate with the City of Novi to perform a "Dye Test" to try to determine the ultimate discharge point of the existing City of Novi storm sewer below Novi Road. Referring to Sheet 13 of the Preliminary Site Plan – "Pre/Post Development Runoff Plan", appx. 6 Acres of the Society Hill currently surface drains to the off-site parcel wetland area, resulting in a 100-yr peak flow of 8.1 cfs. This existing flow ultimately goes to the existing City storm sewer below Novi Road. Once the off-site detention basin is constructed, this 6 Acres of area will be restricted to the Novi required maximum runoff rate of 0.15 cfs/Ac, resulting in a Post -Construction run-off rate of 1.19 cfs. After the basin is constructed, the resulting 100-yr flow into the existing sewer below Novi Road will be reduced by 6.91 cfs, improving on the conditions that exist today.
4. A soil boring will be provided in the on-site detention basin as requested. It should be noted that the Low Water elevation of the proposed detention basin is set higher than the adjacent wetland elevation. See attached Exhibit E for onsite borings previously completed.

General

1. It is noted that Right-of-Way permit will be required from the city of Novi for work within the Novi Road and 12 ½ Mile Road ROW's.
2. The 12 ½ Mile Road ROW is labeled "Prop. 43' Wd. ROW" in the submitted Preliminary Site Plan.
3. Utility easements are shown on the Landscaping Plan Sheets L-1 and L-2. In general, trees have been placed outside utility easements, a min 5' from watermains and 10' from sanitary sewers. The Preliminary Site Plan will be revised if there are locations where this criterion is not met.
4. The Site Plan will be revised to show light poles and bike racks on the Utility Plan as requested. It is noted License Agreement will be required for any light poles or bike racks that are located within a utility easement.
5. A hydrant table, utility crossing table and utility structure tables will be provided at Final Site Plan.
6. It is noted an opposite-side driveway spacing waiver will be required for the 12 ½ Mile Road approach. A distance of 43' spacing between the approaches is already provided in Sheet 5 of the Preliminary Site Plan.
7. The developer will coordinate with the City of Novi for the rehabilitation of Novi Road.

Water Main

8. The proposed watermain system, as shown in the Preliminary Site Plan, is a looped water main system with 2 connections to the existing City system. One connection is made to the ex. 24" water main within the 12 ½ Mile Road ROW and the other connection is to the ex. 36" water main within the Novi Road ROW. The design of the water main system within the development will be completed during Final Site Plan meeting the City and Fire Department pressure and flow requirements. There are already existing water mains located along the development frontages on Novi Road and 12 ½ Mile Road.

9. Comment is noted. A final water main system design will be provided at Final Site Plan.
10. The location of the riser room will be provide at Final Site Plan. It is noted a stop-box will be required.

Irrigation Comments

11. An irrigation plan will be provided for Final Site Plan.

Sanitary Sewer

12. Please see Sheet 11 of the Preliminary Site Plan submittal. A Sanitary Monitoring Manhole is provided for the Building E, as previously requested.
13. A Sanitary Sewer Basis of Design will be provided at Final Site Plan.

Storm Sewer

14. Storm sewer design will be provided at Final Site Plan.
15. Oil/Gas separators are shown in the Preliminary Site Plan as required. Final design will be provided at Final Site Plan.
16. Comment is noted.
17. A storm structure table will be provided at Final Site Plan as required.

Storm Water Management Plan

18. The Storm Water Management Plan is designed according to the Storm Water Ordinance and Chapter 5 of the Engineering Design Manual, as required. Please refer to Sheet 12 of the submitted Preliminary Site Plan for calculations.
19. Please refer to Sheet 13 of the Preliminary Site Plan for the "Pre/Post Development Runoff Plan".
20. Please refer to Sheet 13 of the Preliminary Site Plan for the "Pre/Post Development Runoff Plan". Please also refer to the discussion in response item #3 (Pg 2 of 6) above.
21. An access easement from the Novi Road ROW to the onsite detention basin is provided. Please refer to Sheet 10 of the submitted Preliminary Site Plan.
22. It is noted that a Storm Drainage Facility Maintenance Easement Agreement will be required.
23. Each of the detention basins will be provided with sediment forebay at each storm sewer outlet to the detention basins. A pre-treatment structure will not be required.
24. Soil borings will be performed at each storm water detention basin. Soil boring logs and a report from the Geotechnical Engineer will be provided at Final Site Plan. See attached Exhibit E for onsite borings previously completed.
25. Please see Sheet 12 of the Preliminary Site Plan – Storm Water Management Plan for runoff coefficient calculations.
26. Noted. These coefficients are shown on the Storm Water Management Plan.
27. A 4-foot wide safety shelf is provided in each proposed detention basin as required.
28. A 25-foot wide buffer is provided around each detention basin as required.
29. Proposed pond contours will be shown more clearly.
30. Final grading for all walkways will be provided at Final Site Plan.

Paving & Grading

31. A construction materials table and pavement cross section will be provided at Final Site Plan.
32. An emergency access gate is provided at each end of the emergency access drives. The City's detail for the break away gate is provided.

33. Comment noted. The geotechnical engineer for the project will determine the gravel paving section thickness and subgrade requirements at Final Site Plan.
34. Existing contours are provided on the Preliminary Site Plan. Proposed spot grades are provided throughout the development. The Final Site Plan will show existing and proposed contours as required.
35. Generally, fixed objects are located a minimum of 3-ft from any sidewalks. This will be confirmed at Final Site Plan once Preliminary is approved.
36. It is understood the maximum grade slope is 1V:4H. The grading plan meets this requirement and will be confirmed at Final Site Plan.
37. The proposed concrete sidewalk at 12 ½ Mile Road continues through the approach in the Preliminary Site Plan. Asphalt sidewalks are proposed along Novi Road to match the existing materials. Striping is provided at each of the Novi Road approaches as previously requested.
38. The Preliminary Site Plan was revised, as previously requested, so that no more than 15 consecutive parking spaces are provided.
39. Islands have been revised to conform to City standard, typical dimensions are provided on the Preliminary Site Plan.
40. Preliminary curb grades are provided on Sheets 6 and 7 – Grading and Paving Plan. A typical curb detail is provided calling out 4" curbs at parking spaces.
41. Comment noted.
42. Preliminary curb grades are provided on Sheets 6 and 7 – Grading and Paving Plan. A typical curb detail is provided calling out 4" curbs at parking spaces.
43. Angled parking has been dimensions as requested.
44. Soil borings will be performed and provided at Final Site Plan. See attached Exhibit E for onsite borings previously completed.
45. It is noted that retaining walls higher than 48-inches will require a permit from the Building Department.
46. Guardrail requirements for walls exceeding 30-inches in height are noted.

Off-Site Easements

47. It is noted that any off-site utility easements will be required to be executed prior to approval of Final Site Plan.
48. It is noted that an off-site SDFMEA and off-site construction easement will be required for the off-site detention basin.

Landscaping

Landscape Deviations that are Requested for Proposed Layout:

- Lack of Screening Berm Along South Property Line:
  - The property to the south is a vacant, isolated RA parcel that is bounded by RM-1 and OS-1 zoning. The future land use is PD-1 that matches Society Hill. When developed, this parcel will be improved to RM-1 or PD-1 standards and not RA standards. Nonetheless, the proposed screening will be modified to extend the evergreens further west to screen the maintenance/dumpster area and the proposed evergreen species will be changed to provide a better buffer, thereby eliminating the waiver.

  - After discussion, we believe this deviation is now supported by City Staff.
- Lack of Greenbelt Berms:
  - Deviation requested.
- Lack of Greenbelt Landscaping and Street Trees for Sections of Both Roads that are Being Preserved:
  - Deviation requested.
- Shortage in Greenbelt Landscaping for 12 ½ Mile Road and Novi North Beyond the Above:
  - City Staff agrees two means of emergency egress are required and therefore no deviation is required.
- Shortage in Greenbelt Subcanopy Trees in Novi South:
  - Deviation requested.
- Shortage in Street Trees in Novi South:
  - Deviation requested.
- Two Bays are 16 Spaces Long Without a Landscape Island:
  - The central islands for Buildings A-C will be converted to greenspace and expanded to meet the minimum 200 S.F., thereby eliminating the waiver.
- Shortage of Foundation Landscaping for Multiple Buildings:
  - See above for buildings A-C.
  - After further clarification with City Staff, Building 13 meets code and no deviation is required.
- Landscape Design Manual Deficiencies:
  - After discussion, the required landscaping will be provided eliminating this deviation.

Landscape Comments:

- Provide original off-site planting plans:
  - Original off-site plantings plan does not exist. Historical planting records are produced through on-site observation, invoices and aerial photography as outlined on the attached Exhibit F.
- Adjacent to residential:
  - The southern evergreen buffer will be extended westward beyond the trash compactor.
- Multi-family unit trees:
  - The number of subcanopy trees will be reduced to meet the 25% maximum.
- Interior roadway trees:
  - The required trees will be revisited using the provided mark-up to verify the correct number of trees are provided.
- Foundation landscaping:
  - Please see the previous comment.
- Plant list:
  - The number of native trees will be increased to meet the 50% requirement. Species will be revised to meet the genus and species requirements. Please see the above comment regarding the percentage of evergreen replacement trees.
- Invasive species:
  - Phragmites exist in the large western wetland. The plan will be revised and provide a removal plan.
- Tree fencing:

- Critical root zones will be shown once the final location of the tree fencing is finalized.

- Wetland mitigation:
  - Please see response from Barr Engineering.
- Proposed utilities:
  - Tree locations will be revised to eliminate lighting conflicts. The existing overhead line at 12 ½ Mile will be removed.
- Proposed topography:
  - The proposed grades will be better delineated showing how they tie off to existing contours.
- Berm requirements:
  - The White Pines will be substituted with a thicker evergreen.
- Canopy deciduous trees between the sidewalk and curb:
  - All existing trees along Novi Road will be shown.
- Interior street landscaping:
  - A graphic will be provided showing what streets are used in the calculations. The plan will be revised as needed.
- Vehicular use:
  - A graphic will be provided showing the areas included in the calculation. The plan will be revised as needed.
- Parking lot perimeter:
  - A graphic will be provided showing the areas included in the calculation. The plan will be revised as needed.
- Snow deposit:
  - Snow storage within parking lots will be shown.
- Plant list:
  - The number of Red Maple will be reduced. The Bowhall Maples will be substituted for a larger canopy species.
- General landscape:
  - A property line setback note will be added to the plans.
- Irrigation:
  - An irrigation plan will be provided at final site plan.

Woodland Comments

1. Regulated Woodlands:
   a. Notwithstanding the City's regulated woodland map, all trees on the tree survey for the Property are treated as regulated for purposes of removal and mitigation.
   b. On the City Parcel (southern parcel), the small area of land that is not regulated woodland on the City's regulated woodland map will be revised and included in the removal/mitigation calculations.
   c. No additional trees are necessary to survey.
2. Removal Standard:
   a. See L8, 9-12. Any additional mitigation required by updating the regulated tree boundary on the City Parcel will be reflected in a subsequent revision to the preliminary site plan.
3. Woodland Use Permit:

a. Noted.

4. Approval of Governing Body:
    a. Approval for tree removal and mitigation will be determined by City Council pursuant to the existing consent judgment.
5. Woodland Replacement:
    a. Property (northern parcel) - See L9-12. No change required as calculation reflects mitigation requirements under the existing site plan approval.
    b. City Parcel (southern parcel) - See L8 for City Parcel woodland replacement & mitigation. This will be revised to include the removal of 15 trees (additional mitigation of 19 trees) outside of the City's regulated woodland map boundary.
6. Woodland Mitigation:
    a. Woodland mitigation to be provided by: (1) previously provided mitigation off-site within the City of Novi (see L1), (2) additional off-site plantings within the City of Novi, (3) on-site plantings, and (4) any remainder paid into the City's tree fund at rates provided at the time under the previously approved site plan.
    b. The plant list shown on Sheet L-4 are proposed greenbelt trees and not woodland replacement trees.
7. Critical Root Zones:
    a. On the City Parcel, critical root zones will be provided once the grading limits are finalized. The center of the symbols shown on the tree survey depict the trunk. Critical root zones will be shown with a separate symbol once the grading limits are finalized.
8. Critical Root Zone Mitigation Requirement:
    a. On the City Parcel, preserved regulated woodlands with impacted critical root zones will be replaced.
9. Tree Survey:
    a. The tree survey provided on the Property (northern parcel) is reflective of the original site plan submission. Original tags remain in many cases.

Wetlands

Potential Wetlands and Connection

- The areas identified as a potential connection and potential wetlands by Merjent were previously reviewed by Barr, in some cases in the company of EGLE staff, and were not considered wetlands. In response to the April 18, 2024 wetland review by Merjent, Barr staff returned to these areas on May 16, 2024 to perform further investigations in a manner consistent with the Corps of Engineers Wetlands Delineation Manual (USACE 1987) and the Regional Supplement to the Corps of Engineers Wetland Delineation Manual: Midwest Region (Version 2, USACE 2010). The wetland delineation procedures outlined in these manuals require the evaluation of on-site vegetation, soils, and hydrologic characteristics. Based on this evaluation, Barr's previous opinion that these areas do not meet all the criteria to be determined to be wetland was confirmed, as all of these areas are lacking evidence of hydric soils, and some were found to be lacking primary/secondary evidence of hydrology in addition to lack of hydric soils. Draft wetland delineation data sheets were prepared in the field and final versions are enclosed with this letter. The potential connection was also previously reviewed by Barr and EGLE and was determined not to be a

stream but rather to be a surface water connection between Wetlands D, C and B. This surface water connection serves to make these wetlands contiguous with Bishop Creek and therefore regulated by the Michigan Department of Environment, Great Lakes, and Energy (EGLE).

Wetland Mitigation

- The quantity of wetland mitigation proposed (1.519 acres) is based on impacts to forested, scrub-shrub, and emergent wetland habitats (see Table 1 below). Forested wetland mitigation is being proposed on-site to the extent that is practical due to the sloping nature of the terrain on the subject property. Given there is no opportunity for wetland restoration, wetland creation is proposed in two locations adjoining the large wetland/pond on the west side of the property which is the best available source of hydrology. Insufficient suitable area is available to provide all wetland mitigation on site, however the amount of wetland mitigation proposed is more than a 1 to 1 replacement for no net loss of wetland within the watershed. No known suitable and available wetland mitigation sites within the City and the Rouge River watershed have been identified which is why purchase of EGLE approved wetland mitigation bank credits is proposed.

Table 1: Proposed Wetland Impacts and Wetland Mitigation

Wetland	Size (ac)	Impacts by Habitat Type (ac)			Impact Total (ac)
		Forested	Scrub-Shrub	Emergent	
A	6.888	0	0	0	0
B	1.011	0	0	0	0
C	0.081	0.081	0	0	0.081
D	0.306	0.306	0	0	0.306
E	0.111	0.083	0	0.028	0.111
F	0.264	0	0	0.264	0.264
G	0.027	0.027	0	0	0.027
H	1.251	0	0.058	0	0.058
Totals	9.939	0.497	0.058	0.292	0.847
Mitigation Ratio		2.0	1.5	1.5	1.8
Required Mitigation		0.994	0.087	0.438	1.519
				Proposed On-Site Mitigation	0.922
				Proposed Wetland Mitigation Bank Credits	0.597

- The full Wetland Response is outlined in Exhibit C.

Traffic

- Please see attached Traffic Memo (Exhibit D) prepared by Fleis & VandenBrink addressing AECOM's Waiver Recommendation and summarized response below:
- F&V Response: There is an approved site plan for this property from 1999 (the "1999 Final Site Plan") that continues to be extended annually as per the 2001 consent judgment (the "Consent Judgement"). As part of the 1999 Final Site Plan a Traffic Impact Study (TIS) was performed for the proposed development plan dated February 12, 1996. This study considered the impact of 300 apartment units and the projected traffic volumes and roadway conditions at site buildout. Additionally, the study evaluated the impact of the development with the following roadway improvements, that have subsequently been completed:

- Novi Road: Widened to 5-lanes
- 12 Mile Road: 4-Lane Divided Blvd.

- The 1999 Final Site Plan and Consent Judgement was approved with the resulting traffic impacts and the scheduled roadway improvements on Novi Road and 12 Mile Road as noted. However, the impact of the development has not been realized, but the Consent Judgement continues to be extended annually in anticipate of this future development.
- At this time, the applicant is looking to proceed with the approval of the revised site plan for Society Hill (the "Revised Preliminary Site Plan"). F&V performed a comparative trip generation analysis to determine the difference between the approved 1999 Final Site Plan (312 units) and the Revised Preliminary Site Plan.
- The revised trip generation analysis is attached and summarized below, and shows that the difference in trip generation between the 1999 Final Site Plan / Consent Judgement and the Revised Preliminary Site Plan is negligible, and below the Novi Thresholds for further evaluation.

TRIP GENERATION COMPARISON SUMMARY

Scenario	Land Use	ITE Code	Amount	Units	Average Daily Traffic (vpd)	AM Peak Hour (vph)			PM Peak Hour (vph)		
						In	Out	Total	In	Out	Total
1999 Final Site Plan	Apartments	220	312	DU	1,978	37	120	157	117	67	184
Revised Preliminary Site Plan	Multi-Family Residential (Mid-Rise)	221	463	DU	2,162	44	148	192	110	71	181
				Difference	184	8	33	41	-3	7	4
	City of Novi TIA Threshold				*500*		*75*			*75*	
	City of Novi TIS Threshold				*750*		*100*			*100*	

External Site Access and Operations:

3a. Comment Noted:

a. A waiver of this requirement is requested at the approach to the gravel 12 ½ Mile Road.

9. The latest version of the R-28-K detail will be provided as requested.

10. The developer will coordinate with the City of Novi for the reconstruction of Novi Road. Novi Road pavement markings and colors will be coordinated with the City at Final Site Plan.

Internal Site Operations:

15b. Additional radius and width dimensions will be provided as requested.

20. Detail will be revised as requested.

24c. The new City of Novi bike rack detail will be provided with 6' wide path width as requested.

24d. A note stating the height of the bike rack (3' Required) will be provided as requested.

24e. The new City of Novi bike rack detail will be provided with 6' wide path width as requested.

26. The latest version of the R-28-K detail will be provided as requested.

Signing and Striping:

33. The sign quantities will be revised to separate the R7-8 and R7-8p as separate signs.

43. The Final Site Plan submittal will provide the requested additional signs for maintaining traffic.

Facade

Facade Materials

- Although Buildings A-E are not classified as "Residential Style Architecture" by ordinance definition, they are part of the overall multi-family residential development. We are requesting a waiver for the Horizontal siding as it is an accent piece to help provide a visual break in the overall exterior design of these buildings while still helping them feel like residential buildings.
- “Standing Seam Metal/ EIFS” - The final material selection in these areas has not been determined, but will be prior to Final Site Plan approval.

Notes to the Applicant

- Inspections:
    a. Noted.
- RTU Screening:
    a. Noted, all roof-top equipment will be screened from view and/or demonstrate how it complies with screening via building sections and site studies.

Fire

Comments

- Comment Noted.
- Comment Noted.
- Proposed landscaping plan will be reviewed to confirm a 10’ setback from hydrants.
- Comment Noted.
- Secondary Access Drive notes will be revised to 20 ft wide as required. A note will be added to the plans stating the Gravel Emergency Access Roads will be required to support a 35-Ton vehicle.
- The emergency access gate will be relocated as requested adjacent to the public roadway. The signage, mountable curbs and radii will also be revised as requested.
- Comment noted. The developer will coordinate with the City Fire Department to designate fire lanes and signage locations.
- Comment noted.
- The 30’ min / 50’ max turning radii are shown throughout the plan shown on Sheet 15. The developer will meet with the Fire Marshall to review all areas of concern. All internal road intersections currently meet the 30’ / 50’ turning radii criteria.
- Comment noted.
- The proposed watermain system, as shown in the Preliminary Site Plan, is a looped water main system with 2 connections to the existing City system. One connection is made to the ex. 24“ water main within the 12 ½ Mile Road ROW and the other connection is to the ex. 36” water main within the Novi Road

ROW. The design of the water main system within the development will be completed during Final Site Plan meeting the City and Fire Department pressure and flow requirements.

- Comment noted. Details of required interior fire protections systems will be provided at Final Site Plan. Individual shutoffs for interior fire protection will be provided as required.
- Comment noted. Hazardous Chemical Survey received by Fire Department on 4/3/24.

General

1. Comment noted.
2. Comment noted. Notes will be added to the plans as requested.
3. Comment noted. Notes will be added to the plans as requested.
4. Comment noted. Notes will be added to the plans as requested.
5. Comment noted. Notes will be added to the plans as requested.
6. Comment noted.

Exhibit A – Kreiger Klatt Setback Calculations

Increased Building Setbacks based on height and length																		
A Building	B RM-1 Allowed Height	C Provided Height	D Increased Setback (Height) (D=C-B)	E RM-1 Allowed Length	F Provided Length	G Increased Setback (Length) (G=(F-E)/3)	H Max Increase (H=Max(D,G))	I RM-1 Front Setback	J Req'd. Front Setback (J=I+H)	K Provided Front Setback	L Complies	M Waiver	N RM-1 Side Setback	O Req'd. Side Setback (O=H+N)	P Provided Side Setback	Q Complies	R Waiver
Building A	35	57.5	22.5	180	219	13	22.5	75	98	89	No	8.2	75	98	76	No	21.8
Building B	35	57.5	22.5	180	219	13	22.5	75	98	399	Yes	N/A	75	98	99	Yes	N/A
Building C	35	57.5	22.5	180	219	13	22.5	75	98	399	Yes	N/A	75	98	680	Yes	N/A
Buidling D	35	57.5	22.5	180	219	13	22.5	75	98	89	No	8.2	75	98	842	Yes	N/A
Buidling E	35	60	25	180	493	104	104	75	179	197	No	N/A	75	179	252	Yes	N/A

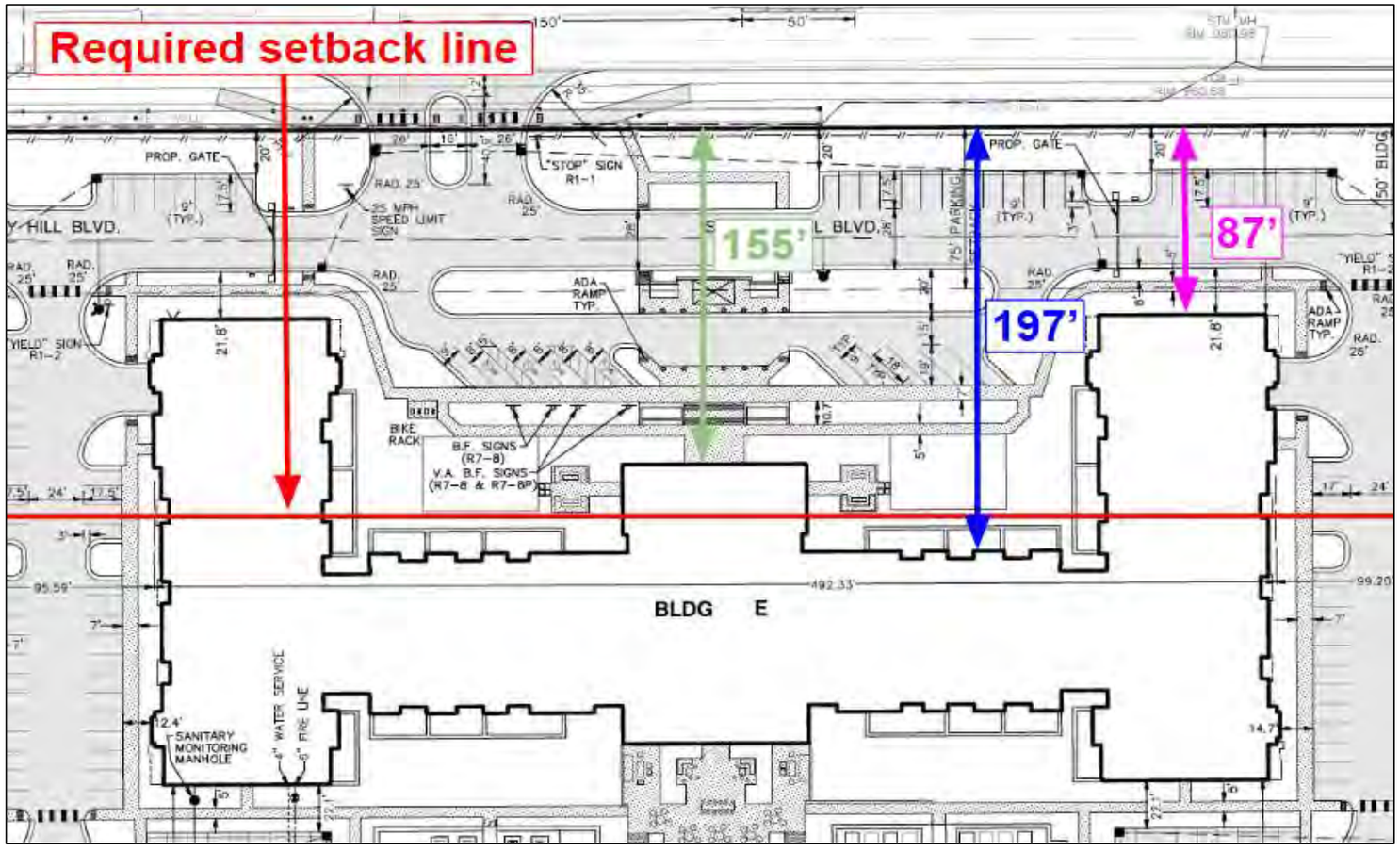

Exhibit B – Seiber Keast Lehner Parking Setback Calculation

NOVI ROAD

12 ½ MILE ROAD

SOCIETY HILL BLVD.

SOCIETY HILL DRIVE

BLUFF DRIVE

BLUFF CT.

RESERVE BLVD.

RESERVE DRIVE

RESERVE CT.

BLDG 1
BLDG 2
BLDG 3
BLDG 4
BLDG 5
BLDG 6
BLDG 7
BLDG 8
BLDG 9
BLDG 10
BLDG 11
BLDG 12
BLDG 13
BLDG 14
BLDG 15
BLDG 16
BLDG A
BLDG B
BLDG C
BLDG D
BLDG E

50' BLDG. SETBACK
75' PARKING SETBACK
20' PARKING SETBACK
75' BLDG. SETBACK

SETBACK PAVEMENT COVERAGE

	TOTAL AREA (SFT.)	PAVEMENT AREA (SFT.)	PERCENTAGE OF PAVEMENT
FRONT YARD (NOVI RD.):	123,403	41,047	33.26% *
FRONT YARD (12 1/2 MILE RD.):	50,199	6,374	12.70%
WEST SIDE YARD:	36,772	0	0
SOUTH SIDE YARD:	18,240	1,851	10.15%
OVERALL:	228,614	49,272	21.55%

* VARIANCE REQUIRED

GRAPHIC SCALE
60 0 30 60 120
(IN FEET)
1" = 60'

SEIBER KEAST LE
ENGINEERING | SURVEYING
FARMINGTON HILLS OFFICE
39500 HIGH POINTE BLVD., SUITE 6B
FARMINGTON HILLS, MI 48331
248.308.3331
CLINTON TOWNSHIP OFFICE
170 N. NEY ROAD, SUITE 3
CLINTON TOWNSHIP, MI 48038
586.412.7050

REV. #	REV. DATE	REVISION INFO.

3 WORKING DAYS BEFORE YOU DIG CALL MISS DIG 1-800-482-7171 (NOT INCLUDING WEEKENDS OR UNDERGROUND FACILITIES)

PROJECT NUMBER: 23-207
PROJECT MANAGER: B. EMERINE
DRAWN BY: A.A.
CHECKED BY: R.E.
DATE: 10/30/23

CLIENT INFO:
E AND M HOLDINGS, LLC
JORDAN SASSON
32605 W. TWELVE MILE RD.
SUITE 290
FARMINGTON HILLS, MI
48334

PROJECT NAME:
SOCIETY HILL
PART OF THE SE 1/4 OF SEC. 10, T1N, R8E., CITY OF NOVI, OAKLAND COUNTY, MI

SHEET TITLE:
SETBACK COVERAGE PLAN

PAGE No.:

Exhibit C – Barr Engineering Wetland Response

May 23, 2024

Lindsay Bell, AICP, Senior Planner
City of Novi - Community Development
45175 Ten Mile Road
Novi, MI 48375

Dear Ms. Bell:

Below are our responses to wetland review comments provided by Jason Demoss of Merjent, Inc. in his letter dated April 18, 2024 and to wetland mitigation comments provided by Rick Meader of the City of Novi in his letter dated April 5, 2024.

Potential Wetlands and Connection

The areas identified as a potential connection and potential wetlands by Merjent were previously reviewed by Barr, in some cases in the company of EGLE staff, and were not considered wetlands. In response to the April 18, 2024 wetland review by Merjent, Barr staff returned to these areas on May 16, 2024 to perform further investigations in a manner consistent with the *Corps of Engineers Wetlands Delineation Manual* (USACE 1987) and the *Regional Supplement to the Corps of Engineers Wetland Delineation Manual: Midwest Region (Version 2, USACE 2010).* The wetland delineation procedures outlined in these manuals require the evaluation of on-site vegetation, soils, and hydrologic characteristics. Based on this evaluation, Barr's previous opinion that these areas do not meet all the criteria to be determined to be wetland was confirmed, as all of these areas are lacking evidence of hydric soils, and some were found to be lacking primary/secondary evidence of hydrology in addition to lack of hydric soils. Draft wetland delineation data sheets were prepared in the field and final versions are enclosed with this letter. The potential connection was also previously reviewed by Barr and EGLE and was determined not to be a stream but rather to be a surface water connection between Wetlands D, C and B. This surface water connection serves to make these wetlands contiguous with Bishop Creek and therefore regulated by the Michigan Department of Environment, Great Lakes, and Energy (EGLE).

Wetland Mitigation

The quantity of wetland mitigation proposed (1.519 acres) is based on impacts to forested, scrub-shrub, and emergent wetland habitats (see Table 1 below). Forested wetland mitigation is being proposed on-site to the extent that is practical due to the sloping nature of the terrain on the subject property. Given there is no opportunity for wetland restoration, wetland creation is proposed in two locations adjoining the large wetland/pond on the west side of the property which is the best available source of hydrology. Insufficient suitable area is available to provide all wetland mitigation on site, however the amount of wetland mitigation proposed is more than a 1 to 1 replacement for no net loss of wetland within the watershed. No known suitable and available wetland mitigation sites within the City and the Rouge River watershed have been identified which is why purchase of EGLE approved wetland mitigation bank credits is proposed.

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C	0.081	0.081	0	0	0.081
D	0.306	0.306	0	0	0.306
E	0.111	0.083	0	0.028	0.111
F	0.264	0	0	0.264	0.264
G	0.027	0.027	0	0	0.027
H	1.251	0	0.058	0	0.058
Totals	9.939	0.497	0.058	0.292	0.847
Mitigation Ratio		2.0	1.5	1.5	1.8
Required Mitigation		0.994	0.087	0.438	1.519
				Proposed On-Site Mitigation	0.922
				Proposed Wetland Mitigation Bank Credits	0.597

Thank you for your time and attention to these matters. If you have any questions or comments please contact me at wheld@barr.com or 734-558-9288.

Sincerely,

BARR ENGINEERING CO.

Woody L. Held
Senior Environmental Consultant

Enclosures

U.S. Army Corps of Engineers
WETLAND DETERMINATION DATA SHEET – Midwest Region
See ERDC/EL TR-10-16; the proponent agency is CECW-CO-R

OMB Control #: 0710-0024, Exp:11/30/2024
Requirement Control Symbol EXEMPT:
(Authority: AR 335-15, paragraph 5-2a)

Project/Site: Society Hill | City/County: City of Novi/ Oakland County | Sampling Date: 5/16/2024
Applicant/Owner: E & M Holdings, LLC; Jordan Sasson | State: MI | Sampling Point: NW Pot. Wet.
Investigator(s): Woody Held; Fran Thompson; Bill Brodovich | Section, Township, Range: Section 10 T01N R08E
Landform (hillside, terrace, etc.): depression | Local relief (concave, convex, none): concave
Slope (%): 0 | Lat: 42.502316 | Long: -83.478620 | Datum: WGS
Soil Map Unit Name: Marlette sandy loam, 12 to 18 percent slopes | NWI classification: N/A
Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No ____ (If no, explain in Remarks.)
Are Vegetation ____, Soil ____, or Hydrology ____ significantly disturbed? Are "Normal Circumstances" present? Yes X No ____
Are Vegetation ____, Soil ____, or Hydrology ____ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes X	No ____	**Is the Sampled Area within a Wetland?** Yes ____ No X
Hydric Soil Present?	Yes ____	No X	
Wetland Hydrology Present?	Yes X	No ____	

Remarks:

VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size: 30')	Absolute % Cover	Dominant Species?	Indicator Status
1. *Acer saccharum*	40	Yes	FACU
2.			
3.			
4.			
5.			
	40	=Total Cover	
Sapling/Shrub Stratum (Plot size: 15')			
1. *Fraxinus pennsylvanica*	50	Yes	FACW
2.			
3.			
4.			
5.			
	50	=Total Cover	
Herb Stratum (Plot size: 5')			
1. *Carex sparganioides*	25	Yes	FAC
2. *Carex blanda*	5	No	FAC
3. *Toxicodendron radicans*	2	No	FAC
4. *Brachyelytrum aristosum*	2	No	UPL
5. *Poa pratensis*	2	No	FAC
6. *Parthenocissus quinquefolia*	2	No	FACU
7. *Alliaria petiolata*	1	No	FAC
8. *Celastrus orbiculatus*	1	No	UPL
9.			
10.			
	40	=Total Cover	
Woody Vine Stratum (Plot size: ____)			
1.			
2.			
	____	=Total Cover	

Dominance Test worksheet:
Number of Dominant Species That Are OBL, FACW, or FAC: 2 (A)
Total Number of Dominant Species Across All Strata: 3 (B)
Percent of Dominant Species That Are OBL, FACW, or FAC: 66.7% (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species	0	x 1 =	0
FACW species	50	x 2 =	100
FAC species	35	x 3 =	105
FACU species	42	x 4 =	168
UPL species	3	x 5 =	15
Column Totals:	130 (A)		388 (B)

Prevalence Index = B/A = 2.98

Hydrophytic Vegetation Indicators:
____ 1 - Rapid Test for Hydrophytic Vegetation
X 2 - Dominance Test is >50%
____ 3 - Prevalence Index is ≤3.0[1]
____ 4 - Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)
____ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? Yes X No ____

Remarks: (Include photo numbers here or on a separate sheet.)

U.S. Army Corps of Engineers
WETLAND DETERMINATION DATA SHEET – Midwest Region
See ERDC/EL TR-10-16; the proponent agency is CECW-CO-R

OMB Control #: 0710-0024, Exp:11/30/2024
Requirement Control Symbol EXEMPT:
(Authority: AR 335-15, paragraph 5-2a)

Project/Site: Society Hill | City/County: City of Novi/ Oakland County | Sampling Date: 5/16/2024
Applicant/Owner: E & M Holdings, LLC; Jordan Sasson | State: MI | Sampling Point: Vernal Pool
Investigator(s): Woody Held; Fran Thompson; Bill Brodovich | Section, Township, Range: Section 10 T01N R08E
Landform (hillside, terrace, etc.): depression | Local relief (concave, convex, none): concave
Slope (%): 0 | Lat: 42.501964 | Long: -83.478029 | Datum: WGS
Soil Map Unit Name: Marlette sandy loam, 12 to 18 percent slopes | NWI classification: N/A

Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No ____ (If no, explain in Remarks.)
Are Vegetation ____, Soil ____, or Hydrology ____ significantly disturbed? Are "Normal Circumstances" present? Yes X No ____
Are Vegetation ____, Soil ____, or Hydrology ____ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes ____	No X	**Is the Sampled Area within a Wetland?** Yes ____ No X
Hydric Soil Present?	Yes ____	No X	
Wetland Hydrology Present?	Yes X	No ____	

Remarks:

VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size: 30')	Absolute % Cover	Dominant Species?	Indicator Status
1. *Acer saccharum*	70	Yes	FACU
2. *Tillia americana*	20	Yes	FACU
3. *Fagus grandifolia*	10	No	FACU
4.			
5.			
	100	=Total Cover	

Sapling/Shrub Stratum (Plot size: 15')			
1.			
2.			
3.			
4.			
5.			
		=Total Cover	

Herb Stratum (Plot size: 5')			
1.			
2.			
3.			
4.			
5.			
6.			
7.			
8.			
9.			
10.			
		=Total Cover	

Woody Vine Stratum (Plot size: ____)			
1.			
2.			
		=Total Cover	

Dominance Test worksheet:
Number of Dominant Species That Are OBL, FACW, or FAC: 0 (A)
Total Number of Dominant Species Across All Strata: 2 (B)
Percent of Dominant Species That Are OBL, FACW, or FAC: 0.0% (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species	0	x 1 =	0
FACW species	0	x 2 =	0
FAC species	0	x 3 =	0
FACU species	100	x 4 =	400
UPL species	0	x 5 =	0
Column Totals:	100 (A)		400 (B)

Prevalence Index = B/A = 4.00

Hydrophytic Vegetation Indicators:
____ 1 - Rapid Test for Hydrophytic Vegetation
____ 2 - Dominance Test is >50%
____ 3 - Prevalence Index is ≤3.0[1]
____ 4 - Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)
____ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? Yes ____ No X

Remarks: (Include photo numbers here or on a separate sheet.)

SOIL

Sampling Point: Vernal Pool

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth	Matrix		Redox Features					
(inches)	Color (moist)	%	Color (moist)	%	Type[1]	Loc[2]	Texture	Remarks
0-8	10YR 2/1	100					Loamy/Clayey	
8-13	10YR 5/2	50	10YR 6/8	50	C	M	Loamy/Clayey	Prominent redox concentrations

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains.

[2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

- ___ Histosol (A1)
- ___ Histic Epipedon (A2)
- ___ Black Histic (A3)
- ___ Hydrogen Sulfide (A4)
- ___ Stratified Layers (A5)
- ___ 2 cm Muck (A10)
- ___ Depleted Below Dark Surface (A11)
- ___ Thick Dark Surface (A12)
- ___ Sandy Mucky Mineral (S1)
- ___ 5 cm Mucky Peat or Peat (S3)
- ___ Sandy Gleyed Matrix (S4)
- ___ Sandy Redox (S5)
- ___ Stripped Matrix (S6)
- ___ Dark Surface (S7)
- ___ Loamy Mucky Mineral (F1)
- ___ Loamy Gleyed Matrix (F2)
- ___ Depleted Matrix (F3)
- ___ Redox Dark Surface (F6)
- ___ Depleted Dark Surface (F7)
- ___ Redox Depressions (F8)

Indicators for Problematic Hydric Soils[3]:

- ___ Coast Prairie Redox (A16)
- ___ Iron-Manganese Masses (F12)
- ___ Red Parent Material (F21)
- ___ Very Shallow Dark Surface (F22)
- ___ Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if observed):

Type: _____

Depth (inches): _____

Hydric Soil Present? **Yes** ___ **No** X

Remarks:

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one is required; check all that apply)

- ___ Surface Water (A1)
- ___ High Water Table (A2)
- ___ Saturation (A3)
- ___ Water Marks (B1)
- ___ Sediment Deposits (B2)
- ___ Drift Deposits (B3)
- ___ Algal Mat or Crust (B4)
- ___ Iron Deposits (B5)
- ___ Inundation Visible on Aerial Imagery (B7)
- X Sparsely Vegetated Concave Surface (B8)
- ___ Water-Stained Leaves (B9)
- ___ Aquatic Fauna (B13)
- ___ True Aquatic Plants (B14)
- ___ Hydrogen Sulfide Odor (C1)
- ___ Oxidized Rhizospheres on Living Roots (C3)
- ___ Presence of Reduced Iron (C4)
- ___ Recent Iron Reduction in Tilled Soils (C6)
- ___ Thin Muck Surface (C7)
- ___ Gauge or Well Data (D9)
- ___ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ___ Surface Soil Cracks (B6)
- ___ Drainage Patterns (B10)
- ___ Dry-Season Water Table (C2)
- ___ Crayfish Burrows (C8)
- ___ Saturation Visible on Aerial Imagery (C9)
- ___ Stunted or Stressed Plants (D1)
- X Geomorphic Position (D2)
- ___ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present? Yes ___ No X Depth (inches): ___

Water Table Present? Yes ___ No X Depth (inches): ___

Saturation Present? (includes capillary fringe) Yes ___ No X Depth (inches): ___

Wetland Hydrology Present? **Yes** X **No** ___

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

SOIL

Sampling Point: NW Pot. Wet.

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth	Matrix		Redox Features					
(inches)	Color (moist)	%	Color (moist)	%	Type[1]	Loc[2]	Texture	Remarks
0-8	10YR 3/2	100					Loamy/Clayey	
8-13	10YR 4/6	60	10YR 5/3	30	C	M	Loamy/Clayey	Distinct redox concentrations
			10YR 3/2	10				

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains.

[2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

- ___ Histosol (A1)
- ___ Histic Epipedon (A2)
- ___ Black Histic (A3)
- ___ Hydrogen Sulfide (A4)
- ___ Stratified Layers (A5)
- ___ 2 cm Muck (A10)
- ___ Depleted Below Dark Surface (A11)
- ___ Thick Dark Surface (A12)
- ___ Sandy Mucky Mineral (S1)
- ___ 5 cm Mucky Peat or Peat (S3)
- ___ Sandy Gleyed Matrix (S4)
- ___ Sandy Redox (S5)
- ___ Stripped Matrix (S6)
- ___ Dark Surface (S7)
- ___ Loamy Mucky Mineral (F1)
- ___ Loamy Gleyed Matrix (F2)
- ___ Depleted Matrix (F3)
- ___ Redox Dark Surface (F6)
- ___ Depleted Dark Surface (F7)
- ___ Redox Depressions (F8)

Indicators for Problematic Hydric Soils[3]:

- ___ Coast Prairie Redox (A16)
- ___ Iron-Manganese Masses (F12)
- ___ Red Parent Material (F21)
- ___ Very Shallow Dark Surface (F22)
- ___ Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if observed):

Type: _____

Depth (inches): _____

Hydric Soil Present? **Yes** ___ **No** X

Remarks:

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one is required; check all that apply)

- ___ Surface Water (A1)
- ___ High Water Table (A2)
- ___ Saturation (A3)
- ___ Water Marks (B1)
- ___ Sediment Deposits (B2)
- ___ Drift Deposits (B3)
- ___ Algal Mat or Crust (B4)
- ___ Iron Deposits (B5)
- ___ Inundation Visible on Aerial Imagery (B7)
- ___ Sparsely Vegetated Concave Surface (B8)
- ___ Water-Stained Leaves (B9)
- ___ Aquatic Fauna (B13)
- ___ True Aquatic Plants (B14)
- ___ Hydrogen Sulfide Odor (C1)
- ___ Oxidized Rhizospheres on Living Roots (C3)
- ___ Presence of Reduced Iron (C4)
- ___ Recent Iron Reduction in Tilled Soils (C6)
- ___ Thin Muck Surface (C7)
- ___ Gauge or Well Data (D9)
- ___ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ___ Surface Soil Cracks (B6)
- ___ Drainage Patterns (B10)
- ___ Dry-Season Water Table (C2)
- ___ Crayfish Burrows (C8)
- ___ Saturation Visible on Aerial Imagery (C9)
- ___ Stunted or Stressed Plants (D1)
- X Geomorphic Position (D2)
- X FAC-Neutral Test (D5)

Field Observations:

Surface Water Present? Yes ___ No X Depth (inches): ___

Water Table Present? Yes ___ No X Depth (inches): ___

Saturation Present? (includes capillary fringe) Yes ___ No X Depth (inches): ___

Wetland Hydrology Present? **Yes** X **No** ___

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

U.S. Army Corps of Engineers
WETLAND DETERMINATION DATA SHEET – Midwest Region
See ERDC/EL TR-10-16; the proponent agency is CECW-CO-R

OMB Control #: 0710-0024, Exp:11/30/2024
Requirement Control Symbol EXEMPT:
(Authority: AR 335-15, paragraph 5-2a)

Project/Site: Society Hill | City/County: City of Novi/ Oakland County | Sampling Date: 5/16/2024
Applicant/Owner: E & M Holdings, LLC; Jordan Sasson | State: MI | Sampling Point: E Extension
Investigator(s): Woody Held; Fran Thompson; Bill Brodovich | Section, Township, Range: Section 10 T01N R08E
Landform (hillside, terrace, etc.): toeslope | Local relief (concave, convex, none): concave
Slope (%): 0 | Lat: 42.500998 | Long: -83.479192 | Datum: WGS
Soil Map Unit Name: Marlette sandy loam; 12 to 18 percent slopes | NWI classification: N/A
Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No ____ (If no, explain in Remarks.)
Are Vegetation ____, Soil ____, or Hydrology ____ significantly disturbed? Are "Normal Circumstances" present? Yes X No ____
Are Vegetation ____, Soil ____, or Hydrology ____ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes X	No ____	**Is the Sampled Area within a Wetland?** Yes ____ No X
Hydric Soil Present?	Yes ____	No X	
Wetland Hydrology Present?	Yes X	No ____	

Remarks:

VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size: 30')	Absolute % Cover	Dominant Species?	Indicator Status
1. *Ulmus americana*	90	Yes	FACW
2. *Acer saccharum*	10	No	FACU
3.			
4.			
5.			
	100	=Total Cover	
Sapling/Shrub Stratum (Plot size: 15')			
1. *Zanthoxylum americanum*	60	Yes	FACU
2. *Fraxinus pennsylvanica*	5	No	FACW
3.			
4.			
5.			
	65	=Total Cover	
Herb Stratum (Plot size: 5')			
1. *Symphyotrichum lateriflorum*	10	Yes	FACW
2. *Toxicodendron radicans*	10	Yes	FAC
3. *Glyceria striata*	5	No	OBL
4. *Carex tenera*	5	No	FACW
5. *Carex radiata*	5	No	FAC
6. *Fragaria virginiana*	2	No	FACU
7. *Barbarea vulgaris*	1	No	FAC
8. *Carya cordiformis*	1	No	FACU
9.			
10.			
	39	=Total Cover	
Woody Vine Stratum (Plot size: ____)			
1.			
2.			
	____	=Total Cover	

Dominance Test worksheet:
Number of Dominant Species That Are OBL, FACW, or FAC: 3 (A)
Total Number of Dominant Species Across All Strata: 4 (B)
Percent of Dominant Species That Are OBL, FACW, or FAC: 75.0% (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species	5	x 1 =	5
FACW species	110	x 2 =	220
FAC species	16	x 3 =	48
FACU species	73	x 4 =	292
UPL species	0	x 5 =	0
Column Totals:	204 (A)		565 (B)
Prevalence Index = B/A =			2.77

Hydrophytic Vegetation Indicators:
____ 1 - Rapid Test for Hydrophytic Vegetation
X 2 - Dominance Test is >50%
____ 3 - Prevalence Index is ≤3.0[1]
____ 4 - Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)
____ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? Yes X No ____

Remarks: (Include photo numbers here or on a separate sheet.)

SOIL

Sampling Point: E Extension

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth	Matrix		Redox Features					
(inches)	Color (moist)	%	Color (moist)	%	Type[1]	Loc[2]	Texture	Remarks
0-5	10YR 3/2	100					Loamy/Clayey	
5-16	10YR 5/3	60	10YR 5/6	40	C	M	Loamy/Clayey	Distinct redox concentrations
			10YR 3/2	10				

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains.

[2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

- ___ Histosol (A1)
- ___ Histic Epipedon (A2)
- ___ Black Histic (A3)
- ___ Hydrogen Sulfide (A4)
- ___ Stratified Layers (A5)
- ___ 2 cm Muck (A10)
- ___ Depleted Below Dark Surface (A11)
- ___ Thick Dark Surface (A12)
- ___ Sandy Mucky Mineral (S1)
- ___ 5 cm Mucky Peat or Peat (S3)
- ___ Sandy Gleyed Matrix (S4)
- ___ Sandy Redox (S5)
- ___ Stripped Matrix (S6)
- ___ Dark Surface (S7)
- ___ Loamy Mucky Mineral (F1)
- ___ Loamy Gleyed Matrix (F2)
- ___ Depleted Matrix (F3)
- ___ Redox Dark Surface (F6)
- ___ Depleted Dark Surface (F7)
- ___ Redox Depressions (F8)

Indicators for Problematic Hydric Soils[3]:

- ? Coast Prairie Redox (A16)
- ___ Iron-Manganese Masses (F12)
- ___ Red Parent Material (F21)
- ___ Very Shallow Dark Surface (F22)
- ___ Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if observed):

Type: _____

Depth (inches): _____

Hydric Soil Present? **Yes** ___ **No** X

Remarks:

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one is required; check all that apply)

- ___ Surface Water (A1)
- ___ High Water Table (A2)
- ___ Saturation (A3)
- ___ Water Marks (B1)
- ___ Sediment Deposits (B2)
- ___ Drift Deposits (B3)
- ___ Algal Mat or Crust (B4)
- ___ Iron Deposits (B5)
- ___ Inundation Visible on Aerial Imagery (B7)
- ___ Sparsely Vegetated Concave Surface (B8)
- ___ Water-Stained Leaves (B9)
- ___ Aquatic Fauna (B13)
- ___ True Aquatic Plants (B14)
- ___ Hydrogen Sulfide Odor (C1)
- ___ Oxidized Rhizospheres on Living Roots (C3)
- ___ Presence of Reduced Iron (C4)
- ___ Recent Iron Reduction in Tilled Soils (C6)
- ___ Thin Muck Surface (C7)
- ___ Gauge or Well Data (D9)
- ___ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ___ Surface Soil Cracks (B6)
- ___ Drainage Patterns (B10)
- ___ Dry-Season Water Table (C2)
- ___ Crayfish Burrows (C8)
- ___ Saturation Visible on Aerial Imagery (C9)
- ___ Stunted or Stressed Plants (D1)
- X Geomorphic Position (D2)
- X FAC-Neutral Test (D5)

Field Observations:

Surface Water Present? Yes ___ No X Depth (inches): ___

Water Table Present? Yes ___ No X Depth (inches): ___

Saturation Present? (includes capillary fringe) Yes ___ No X Depth (inches): ___

Wetland Hydrology Present? **Yes** X **No** ___

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

U.S. Army Corps of Engineers
WETLAND DETERMINATION DATA SHEET – Midwest Region
See ERDC/EL TR-10-16; the proponent agency is CECW-CO-R

OMB Control #: 0710-0024, Exp:11/30/2024
Requirement Control Symbol EXEMPT:
(Authority: AR 335-15, paragraph 5-2a)

Project/Site: Society Hill | City/County: City of Novi/ Oakland County | Sampling Date: 5/16/2024
Applicant/Owner: E & M Holdings, LLC; Jordan Sasson | State: MI | Sampling Point: Hillslope S
Investigator(s): Woody Held; Fran Thompson; Bill Brodovich | Section, Township, Range: Section 10 T01N R08E
Landform (hillside, terrace, etc.): hillside | Local relief (concave, convex, none): convex
Slope (%): 0 | Lat: 42.50050556 | Long: -83.47699722 | Datum: WGS
Soil Map Unit Name: Marlette sandy loam, 12 to 18 percent slopes | NWI classification: N/A

Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No ____ (If no, explain in Remarks.)
Are Vegetation ____, Soil ____, or Hydrology ____ significantly disturbed? Are "Normal Circumstances" present? Yes X No ____
Are Vegetation ____, Soil ____, or Hydrology ____ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes X	No ____	**Is the Sampled Area within a Wetland?** Yes ____ No X
Hydric Soil Present?	Yes ____	No X	
Wetland Hydrology Present?	Yes ____	No X	

Remarks:

VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size: 30')	Absolute % Cover	Dominant Species?	Indicator Status
1. *Tilia americana*	30	Yes	FACU
2. *Carya cordiformis*	25	Yes	FAC
3. *Acer saccharum*	15	Yes	FACU
4.			
5.			
	70	=Total Cover	
Sapling/Shrub Stratum (Plot size: 15')			
1.			
2.			
3.			
4.			
5.			
		=Total Cover	
Herb Stratum (Plot size: 5')			
1. *Carex tenera*	15	Yes	FACW
2. *Toxicodendron radicans*	10	Yes	FAC
3. *Persicaria virginiana*	5	No	FAC
4. *Epilobium hirsutum*	2	No	FACW
5. *Carex blanda*	2	No	FAC
6. *Geum canadense*	2	No	FAC
7. *Taraxacum officinale*	2	No	FACU
8. *Circaea canadensis*	1	No	FACU
9. *Acer saccharum*	1	No	FACU
10.			
	40	=Total Cover	
Woody Vine Stratum (Plot size: ____)			
1.			
2.			
		=Total Cover	

Dominance Test worksheet:
Number of Dominant Species That Are OBL, FACW, or FAC: 3 (A)
Total Number of Dominant Species Across All Strata: 5 (B)
Percent of Dominant Species That Are OBL, FACW, or FAC: 60.0% (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species	0	x 1 =	0
FACW species	17	x 2 =	34
FAC species	44	x 3 =	132
FACU species	49	x 4 =	196
UPL species	0	x 5 =	0
Column Totals:	110 (A)		362 (B)
Prevalence Index = B/A =			3.29

Hydrophytic Vegetation Indicators:
____ 1 - Rapid Test for Hydrophytic Vegetation
X 2 - Dominance Test is >50%
____ 3 - Prevalence Index is ≤3.0[1]
____ 4 - Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)
____ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? Yes X No ____

Remarks: (Include photo numbers here or on a separate sheet.)

SOIL

Sampling Point: Hillslope S

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth	Matrix		Redox Features					
(inches)	Color (moist)	%	Color (moist)	%	Type[1]	Loc[2]	Texture	Remarks
0-7	10YR 3/2	100					Loamy/Clayey	
7-15	10YR 4/4	100					Loamy/Clayey	

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains.

[2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

- ___ Histosol (A1)
- ___ Histic Epipedon (A2)
- ___ Black Histic (A3)
- ___ Hydrogen Sulfide (A4)
- ___ Stratified Layers (A5)
- ___ 2 cm Muck (A10)
- ___ Depleted Below Dark Surface (A11)
- ___ Thick Dark Surface (A12)
- ___ Sandy Mucky Mineral (S1)
- ___ 5 cm Mucky Peat or Peat (S3)
- ___ Sandy Gleyed Matrix (S4)
- ___ Sandy Redox (S5)
- ___ Stripped Matrix (S6)
- ___ Dark Surface (S7)
- ___ Loamy Mucky Mineral (F1)
- ___ Loamy Gleyed Matrix (F2)
- ___ Depleted Matrix (F3)
- ___ Redox Dark Surface (F6)
- ___ Depleted Dark Surface (F7)
- ___ Redox Depressions (F8)

Indicators for Problematic Hydric Soils[3]:

- ___ Coast Prairie Redox (A16)
- ___ Iron-Manganese Masses (F12)
- ___ Red Parent Material (F21)
- ___ Very Shallow Dark Surface (F22)
- ___ Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if observed):

Type: _____

Depth (inches): _____

Hydric Soil Present? **Yes** ___ **No** X

Remarks:

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one is required; check all that apply)

- ___ Surface Water (A1)
- ___ High Water Table (A2)
- ___ Saturation (A3)
- ___ Water Marks (B1)
- ___ Sediment Deposits (B2)
- ___ Drift Deposits (B3)
- ___ Algal Mat or Crust (B4)
- ___ Iron Deposits (B5)
- ___ Inundation Visible on Aerial Imagery (B7)
- ___ Sparsely Vegetated Concave Surface (B8)
- ___ Water-Stained Leaves (B9)
- ___ Aquatic Fauna (B13)
- ___ True Aquatic Plants (B14)
- ___ Hydrogen Sulfide Odor (C1)
- ___ Oxidized Rhizospheres on Living Roots (C3)
- ___ Presence of Reduced Iron (C4)
- ___ Recent Iron Reduction in Tilled Soils (C6)
- ___ Thin Muck Surface (C7)
- ___ Gauge or Well Data (D9)
- ___ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ___ Surface Soil Cracks (B6)
- ___ Drainage Patterns (B10)
- ___ Dry-Season Water Table (C2)
- ___ Crayfish Burrows (C8)
- ___ Saturation Visible on Aerial Imagery (C9)
- ___ Stunted or Stressed Plants (D1)
- ___ Geomorphic Position (D2)
- X FAC-Neutral Test (D5)

Field Observations:

Surface Water Present? Yes ___ No X Depth (inches): ___

Water Table Present? Yes ___ No X Depth (inches): ___

Saturation Present? (includes capillary fringe) Yes ___ No X Depth (inches): ___

Wetland Hydrology Present? **Yes** ___ **No** X

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

U.S. Army Corps of Engineers
WETLAND DETERMINATION DATA SHEET – Midwest Region
See ERDC/EL TR-10-16; the proponent agency is CECW-CO-R

OMB Control #: 0710-0024, Exp:11/30/2024
Requirement Control Symbol EXEMPT:
(Authority: AR 335-15, paragraph 5-2a)

Project/Site: Society Hill | City/County: City of Novi/ Oakland County | Sampling Date: 5/16/2024
Applicant/Owner: E & M Holdings, LLC; Jordan Sasson | State: MI | Sampling Point: Hillslope N
Investigator(s): Woody Held; Fran Thompson; Bill Brodovich | Section, Township, Range: Section 10 T01N R08E
Landform (hillside, terrace, etc.): Hillside | Local relief (concave, convex, none): convex
Slope (%): 0 | Lat: 42.500662 | Long: -83.477006 | Datum: WGS
Soil Map Unit Name: Marlette sandy loam, 12 to 18 percent slopes | NWI classification: N/A
Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No ____ (If no, explain in Remarks.)
Are Vegetation ____, Soil ____, or Hydrology ____ significantly disturbed? Are "Normal Circumstances" present? Yes X No ____
Are Vegetation ____, Soil ____, or Hydrology ____ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present? Yes X No ____
Hydric Soil Present? Yes ____ No X
Wetland Hydrology Present? Yes ____ No X
Is the Sampled Area within a Wetland? **Yes** ____ **No** X

Remarks:

VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size: 30')	Absolute % Cover	Dominant Species?	Indicator Status
1. *Tilia americana*	20	Yes	FACU
2. *Carya cordiformis*	20	Yes	FAC
3. *Acer saccharum*	5	No	FACU
4.			
5.			
	45	=Total Cover	
Sapling/Shrub Stratum (Plot size: 15')			
1.			
2.			
3.			
4.			
5.			
		=Total Cover	
Herb Stratum (Plot size: 5')			
1. *Epilobium coloratum*	20	Yes	OBL
2. *Toxicodendron radicans*	5	No	FAC
3. *Geum canadense*	2	No	FAC
4. *Liriodendron tulipifera*	1	No	FACU
5. *Taraxacum officinale*	1	No	FACU
6. *Parthenocissus quinquefolia*	1	No	FACU
7. *Ulmus americana*	1	No	FACW
8.			
9.			
10.			
	31	=Total Cover	
Woody Vine Stratum (Plot size: ____)			
1.			
2.			
		=Total Cover	

Dominance Test worksheet:
Number of Dominant Species That Are OBL, FACW, or FAC: 2 (A)
Total Number of Dominant Species Across All Strata: 3 (B)
Percent of Dominant Species That Are OBL, FACW, or FAC: 66.7% (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species	20	x 1 =	20
FACW species	1	x 2 =	2
FAC species	27	x 3 =	81
FACU species	28	x 4 =	112
UPL species	0	x 5 =	0
Column Totals:	76 (A)		215 (B)
Prevalence Index = B/A =			2.83

Hydrophytic Vegetation Indicators:
____ 1 - Rapid Test for Hydrophytic Vegetation
X 2 - Dominance Test is >50%
____ 3 - Prevalence Index is ≤3.0[1]
____ 4 - Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)
____ Problematic Hydrophytic Vegetation[1] (Explain)
[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? **Yes** X **No** ____

Remarks: (Include photo numbers here or on a separate sheet.)

SOIL

Sampling Point: Hillslope N

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth	Matrix		Redox Features					
(inches)	Color (moist)	%	Color (moist)	%	Type[1]	Loc[2]	Texture	Remarks
0-13	10YR 2/1	100					Loamy/Clayey	
13-17	10YR 4/3	60	10YR 3/2	30			Loamy/Clayey	
			10YR 4/6	10				

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

- ___ Histosol (A1)
- ___ Histic Epipedon (A2)
- ___ Black Histic (A3)
- ___ Hydrogen Sulfide (A4)
- ___ Stratified Layers (A5)
- ___ 2 cm Muck (A10)
- ___ Depleted Below Dark Surface (A11)
- ___ Thick Dark Surface (A12)
- ___ Sandy Mucky Mineral (S1)
- ___ 5 cm Mucky Peat or Peat (S3)
- ___ Sandy Gleyed Matrix (S4)
- ___ Sandy Redox (S5)
- ___ Stripped Matrix (S6)
- ___ Dark Surface (S7)
- ___ Loamy Mucky Mineral (F1)
- ___ Loamy Gleyed Matrix (F2)
- ___ Depleted Matrix (F3)
- ___ Redox Dark Surface (F6)
- ___ Depleted Dark Surface (F7)
- ___ Redox Depressions (F8)

Indicators for Problematic Hydric Soils[3]:

- ___ Coast Prairie Redox (A16)
- ___ Iron-Manganese Masses (F12)
- ___ Red Parent Material (F21)
- ___ Very Shallow Dark Surface (F22)
- ___ Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if observed):

Type: _____

Depth (inches): _____

Hydric Soil Present? **Yes** ___ **No** X

Remarks:

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one is required; check all that apply)

- ___ Surface Water (A1)
- ___ High Water Table (A2)
- ___ Saturation (A3)
- ___ Water Marks (B1)
- ___ Sediment Deposits (B2)
- ___ Drift Deposits (B3)
- ___ Algal Mat or Crust (B4)
- ___ Iron Deposits (B5)
- ___ Inundation Visible on Aerial Imagery (B7)
- ___ Sparsely Vegetated Concave Surface (B8)
- ___ Water-Stained Leaves (B9)
- ___ Aquatic Fauna (B13)
- ___ True Aquatic Plants (B14)
- ___ Hydrogen Sulfide Odor (C1)
- ___ Oxidized Rhizospheres on Living Roots (C3)
- ___ Presence of Reduced Iron (C4)
- ___ Recent Iron Reduction in Tilled Soils (C6)
- ___ Thin Muck Surface (C7)
- ___ Gauge or Well Data (D9)
- ___ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ___ Surface Soil Cracks (B6)
- ___ Drainage Patterns (B10)
- ___ Dry-Season Water Table (C2)
- ___ Crayfish Burrows (C8)
- ___ Saturation Visible on Aerial Imagery (C9)
- ___ Stunted or Stressed Plants (D1)
- ___ Geomorphic Position (D2)
- ___ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present? Yes ___ No X Depth (inches): ___

Water Table Present? Yes ___ No X Depth (inches): ___

Saturation Present? (includes capillary fringe) Yes ___ No X Depth (inches): ___

Wetland Hydrology Present? **Yes** ___ **No** X

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

U.S. Army Corps of Engineers
WETLAND DETERMINATION DATA SHEET – Midwest Region
See ERDC/EL TR-10-16; the proponent agency is CECW-CO-R

OMB Control #: 0710-0024, Exp:11/30/2024
Requirement Control Symbol EXEMPT:
(Authority: AR 335-15, paragraph 5-2a)

Project/Site: Society Hill | City/County: City of Novi/ Oakland County | Sampling Date: 5/16/2024
Applicant/Owner: E & M Holdings, LLC; Jordan Sasson | State: MI | Sampling Point: Southeast
Investigator(s): Woody Held; Fran Thompson; Bill Brodovich | Section, Township, Range: Section 10 T01N R08E
Landform (hillside, terrace, etc.): toeslope | Local relief (concave, convex, none): concave
Slope (%): 0 | Lat: 42.498965 | Long: -83.476685 | Datum: WGS
Soil Map Unit Name: Marlette sandy loam, 6 to 12 percent slopes | NWI classification: N/A
Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No ____ (If no, explain in Remarks.)
Are Vegetation ____, Soil ____, or Hydrology ____ significantly disturbed? Are "Normal Circumstances" present? Yes X No ____
Are Vegetation ____, Soil ____, or Hydrology ____ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present? Yes X No ____
Hydric Soil Present? Yes ____ No X
Wetland Hydrology Present? Yes X No ____

Is the Sampled Area within a Wetland? Yes ____ No X

Remarks:

VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size: 30')	Absolute % Cover	Dominant Species?	Indicator Status
1. *Populus deltoides*	30	Yes	FAC
2. *Fraxinus pennsylvanica*	20	Yes	FACW
3.			
4.			
5.			
	50	=Total Cover	
Sapling/Shrub Stratum (Plot size: 15')			
1. *Rhamnus cathartica*	40	Yes	FAC
2.			
3.			
4.			
5.			
	40	=Total Cover	
Herb Stratum (Plot size: 5')			
1. *Celastrus orbiculatus*	10	Yes	UPL
2. *Parthenocissus quinquefolia*	5	Yes	FACU
3. *Toxicodendron radicans*	5	Yes	FAC
4.			
5.			
6.			
7.			
8.			
9.			
10.			
	20	=Total Cover	
Woody Vine Stratum (Plot size: ____)			
1.			
2.			
	____	=Total Cover	

Dominance Test worksheet:
Number of Dominant Species That Are OBL, FACW, or FAC: 4 (A)
Total Number of Dominant Species Across All Strata: 6 (B)
Percent of Dominant Species That Are OBL, FACW, or FAC: 66.7% (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species	0	x 1 =	0
FACW species	20	x 2 =	40
FAC species	75	x 3 =	225
FACU species	5	x 4 =	20
UPL species	10	x 5 =	50
Column Totals:	110 (A)		335 (B)
Prevalence Index = B/A =			3.05

Hydrophytic Vegetation Indicators:
____ 1 - Rapid Test for Hydrophytic Vegetation
X 2 - Dominance Test is >50%
____ 3 - Prevalence Index is ≤3.0[1]
____ 4 - Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)
____ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? Yes X No ____

Remarks: (Include photo numbers here or on a separate sheet.)

SOIL

Sampling Point: Southeast

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth	Matrix		Redox Features					
(inches)	Color (moist)	%	Color (moist)	%	Type[1]	Loc[2]	Texture	Remarks
0-3	10YR 2/1	100					Loamy/Clayey	
3-16	10YR 3/1	90	10YR 4/3	10			Loamy/Clayey	

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains.

[2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

- ___ Histosol (A1)
- ___ Histic Epipedon (A2)
- ___ Black Histic (A3)
- ___ Hydrogen Sulfide (A4)
- ___ Stratified Layers (A5)
- ___ 2 cm Muck (A10)
- ___ Depleted Below Dark Surface (A11)
- ___ Thick Dark Surface (A12)
- ___ Sandy Mucky Mineral (S1)
- ___ 5 cm Mucky Peat or Peat (S3)
- ___ Sandy Gleyed Matrix (S4)
- ___ Sandy Redox (S5)
- ___ Stripped Matrix (S6)
- ___ Dark Surface (S7)
- ___ Loamy Mucky Mineral (F1)
- ___ Loamy Gleyed Matrix (F2)
- ___ Depleted Matrix (F3)
- ___ Redox Dark Surface (F6)
- ___ Depleted Dark Surface (F7)
- ___ Redox Depressions (F8)

Indicators for Problematic Hydric Soils[3]:

- ___ Coast Prairie Redox (A16)
- ___ Iron-Manganese Masses (F12)
- ___ Red Parent Material (F21)
- ___ Very Shallow Dark Surface (F22)
- ___ Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if observed):

Type: _____

Depth (inches): _____

Hydric Soil Present? **Yes** ___ **No** X

Remarks:

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one is required; check all that apply)

- ___ Surface Water (A1)
- ___ High Water Table (A2)
- ___ Saturation (A3)
- ___ Water Marks (B1)
- ___ Sediment Deposits (B2)
- ___ Drift Deposits (B3)
- ___ Algal Mat or Crust (B4)
- ___ Iron Deposits (B5)
- ___ Inundation Visible on Aerial Imagery (B7)
- ___ Sparsely Vegetated Concave Surface (B8)
- ___ Water-Stained Leaves (B9)
- ___ Aquatic Fauna (B13)
- ___ True Aquatic Plants (B14)
- ___ Hydrogen Sulfide Odor (C1)
- ___ Oxidized Rhizospheres on Living Roots (C3)
- ___ Presence of Reduced Iron (C4)
- ___ Recent Iron Reduction in Tilled Soils (C6)
- ___ Thin Muck Surface (C7)
- ___ Gauge or Well Data (D9)
- ___ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ___ Surface Soil Cracks (B6)
- ___ Drainage Patterns (B10)
- ___ Dry-Season Water Table (C2)
- ___ Crayfish Burrows (C8)
- ___ Saturation Visible on Aerial Imagery (C9)
- ___ Stunted or Stressed Plants (D1)
- X Geomorphic Position (D2)
- X FAC-Neutral Test (D5)

Field Observations:

Surface Water Present? Yes ___ No X Depth (inches): ___

Water Table Present? Yes ___ No X Depth (inches): ___

Saturation Present? (includes capillary fringe) Yes ___ No X Depth (inches): ___

Wetland Hydrology Present? **Yes** X **No** ___

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

Exhibit D – Fleis & VandenBrink Traffic Response

MEMO

FLEIS&VANDENBRINK
DESIGN. BUILD. OPERATE.

VIA EMAIL Jordan@sequelcos.com

To:	**Jordan Sasson, CEO** **Sequel Companies**
From:	**Julie M. Kroll, PE, PTOE** **Fleis & VandenBrink**
Date:	**Revised May 17, 2024**
Re:	**Society Hill, Multi-Family Residential Development** **Novi, Michigan** **Trip Generation Analysis**

1 INTRODUCTION

This memorandum presents the results of the Trip Generation Analysis (TGA) for the proposed multi-family residential development in Novi, Michigan. The project site is located generally in the southwest quadrant of the Novi Road & 12-½ Mile Road intersection, as shown in **Figure 1**. The project site is currently undeveloped and will include the construction of a multi-family residential development that includes both apartment and townhome units. There is an approved site plan for this property from 1999 (the "1999 Final Site Plan") that continues to be extended annually as per the 2001 consent judgement (the "Consent Judgement").

The purpose of this study is to provide a comparison of the trip generation that was included as part of the 1999 Final Site Plan approval and the revised site plan for Society Hill (the "Revised Preliminary Site Plan"). This TGA memo will also provide a comparison to the City of Novi's thresholds for requiring a traffic study as outlined in the *City of Novi Site Plan and Development Manual*, *Chapter 5 – Section 1*.

FIGURE 1: SITE LOCATION MAP

27725 Stansbury Boulevard, Suite 195
Farmington Hills, MI 48334
P: 248.536.0080
F: 248.536.0079
www.fveng.com

2 TRIP GENERATION

A trip generation comparison was performed to evaluate the Revised Preliminary Site Plan as compared to the trip generation performed as part of the 1999 Final Site Plan. The unit type and bedrooms for both the 1999 Final Site Plan and the Revised Preliminary Site Plan are summarized below.

2.1 1999 FINAL SITE PLAN

As part of the 1999 Final Site Plan approval, a Traffic Impact Study (TIS) was performed for the proposed development plan. The TIS was performed by Reid, Cool & Michalski, Inc. and is dated February 12, 1996. The TIS included a projected trip generation for a 300 unit apartment complex development. The 1999 Final Site Plan was approved in the Consent Judgement with 312 units. As part of this approval, the TIS was not updated to reflect this increase in trip generation. For purposes of this analysis the trip generation analysis performed in the 1996 TIS and the projected trip generation associated with the approved 1999 Final Site Plan are summarized in **Table 1**.

TABLE 1: 1999 FINAL SITE PLAN TRIP GENERATION

Scenario	Land Use	ITE Code	Amount	Units	Average Daily Traffic (vpd)	AM Peak Hour (vph)			PM Peak Hour (vph)		
						In	Out	Total	In	Out	Total
1996 Traffic Impact Study	*Apartments*	*220*	*300*	*DU*	*1,902*	*36*	*115*	*151*	*113*	*64*	*177*
Calculated ITE Trip Generation Rates (1996 Study)					*6.34 trips/DU*	*24% In*	*76% Out*	*0.503 trips/DU*	*64% In*	*36% Out*	*0.590 trips/DU*
1999 Final Site Plan	Apartments	220	312	DU	1,978	37	120	157	117	67	184

2.2 MULTI-FAMILY TRIP GENERATION ANALYSIS

The projected trip generation for the proposed development plan was calculated based on the data published by the Institute of Transportation Engineers (ITE) in *Trip Generation Manual, 11th Edition*. The number of weekday peak hour (AM and PM) and daily vehicle trips that would be generated by the proposed townhome units is summarized in **Table 2**.

TABLE 2: REVISED PRELIMINARY SITE PLAN TRIP GENERATION

Land Use	ITE Code	Amount	Units	Average Daily Traffic (vpd)	AM Peak Hour (vph)			PM Peak Hour (vph)		
					In	Out	Total	In	Out	Total
Multi-Family Residential (Mid-Rise)	221	463	DU	2,162	44	148	192	110	71	181

2.3 TRIP GENERATION COMPARISON SUMMARY

The resulting trip generation comparison of the 1999 Final Site Plan and the Revised Preliminary Site Plan summarized in **Table 3** and show that the two development plans show a negligible trip generation difference. Additionally, the trip generation difference between the two site plans is below the City of Novi Threshold for either a Traffic Impact Assessment or a Traffic Impact Study.

TABLE 3: TRIP GENERATION COMPARISON SUMMARY

Scenario	Land Use	ITE Code	Amount	Units	Average Daily Traffic (vpd)	AM Peak Hour (vph)			PM Peak Hour (vph)		
						In	Out	Total	In	Out	Total
1999 Final Site Plan	Apartments	220	312	DU	1,978	37	120	157	117	67	184
Revised Preliminary Site Plan	Multi-Family Residential (Mid-Rise)	221	463	DU	2,162	44	148	192	110	71	181
				Difference	184	8	33	41	-3	7	4
City of Novi TIA Threshold					*500*	*75*			*75*		
City of Novi TIS Threshold					*750*	*100*			*100*		

3 CONCLUSIONS

- The results of the trip generation analysis indicates that the projected trip generation difference associated with the Revised Preliminary Site Plan is *below* the City of Novi's threshold for additional traffic analysis.
- The results of the trip generation comparison indicates that there is expected to be a negligible difference in number of trips generated between the 1999 Final Site Plan and the Revised Preliminary Site Plan.

Any questions related to this memorandum should be addressed to Fleis & VandenBrink Engineering.

I hereby certify that this engineering document was prepared by me or under my direct personal supervision and that I am a duly licensed Professional Engineer under the laws of the State of Michigan.

Attachments: 1996 TIS Trip Generation Summary

Exhibit E – Soil Borings

SOILS INVESTIGATION
PROPOSED SOCIETY HILLS APARTMENTS
NOVI & 12½ MILE ROADS
NOVI, MICHIGAN

SOLOMON GROUP
32605 WEST 12 MILE ROAD
SUITE 290
FARMINGTON HILLS, MI 48334

JANUARY 31, 1997
BY
McDOWELL & ASSOCIATES

McDOWELL & ASSOCIATES
21355 Hatcher Avenue
Ferndale, Michigan 48220
Phone: (810) 399-2066
Fax: (810) 399-2157

January 31, 1997

Solomon Group
32605 West 12 Mile Road
Suite 290
Farmington Hills, MI 48334

Job No. 96-597

Attention: Mr. Sasson

Subject: Soils Investigation
Proposed Society Hills Apartments
Novi & 12½ Mile Roads
Novi, Michigan

Gentlemen:

In accordance with your request, we have made a Soils Investigation on the subject project.

Twenty-two (22) Soil Test Borings, designated 1002 through 1023, have been made in the approximate locations staked in the field by your engineers and surveyors. The elevations shown on the boring logs were provided by your engineers and surveyors. Considerable difficulty was encountered in getting to most of the boring locations and it was necessary to utilize light weight equipment. All of the borings were terminated at twenty feet (20'). If it is necessary to extend the two (2) desired borings to forty feet (40'), it will be necessary to provide access for heavier drilling equipment.

Soil descriptions, groundwater observations and the results of field and laboratory test data are to be found on the accompanying Logs of Soil Test Borings.

The soils on this site were predominantly clays. Generally, there was approximately six inches (6") to one foot (1') of topsoil at the surface. At Boring 1011, there was approximately two feet (2') of topsoil at the surface. The clay soils on this site contained varying amounts of silt, sand and pebbles, and often contained seams or layers of granular soils. Identifiable strata of dry granular soils were encountered in Borings 1004, 1009, 1018, 1019 and 1020. Identifiable layers of wet granular soils were encountered in Borings 1002, 1011, 1016, 1017 and 1022.

Groundwater was noted in the majority of the borings and it was noted at depths varying from two feet six inches (2'6") to eighteen feet six inches (18'6"). No groundwater was noted in several of the borings. Where the borings were made in clay soils, the short-term groundwater observations do not provide a reliable indicator of the static water table.

Standard Penetration Tests made during sampling indicate the soils on this site generally have good strengths; however, there are some locations where the strengths are low to moderate. Tests taken at a depth of two feet six inches (2'6") gave results varying from five (5) to thirty (30) blows per foot. The five foot (5') test values ranged from six (6) to sixty (60) blows per foot. At a depth of seven feet six inches (7'6"), the results varied from six (6) to sixty-six (66) blows per foot. At ten feet (10') and below, penetration indices varied from seven (7) to forty-three (43) blows per foot.

It is understood that two story apartment buildings with basements will be constructed on this site. Some of the basements will be of a walkout variety.

The borings indicate the proposed construction can be supported on conventional strip or spread footings. All exterior footings should be constructed at, or below, a frost penetration depth of three feet six inches (3'6") and all footings should be extended through non-engineered fill soils, soils containing appreciable content of organic substances or excessively soft or loose soils.

In the boring locations, foundations placed below a depth of about two feet (2') could generally be proportioned utilizing a design soil pressure of three thousand pounds per square foot (3000 psf). Higher design soil pressures are available at various borings and would be detailed, if desired. At the location of Boring 1012, foundations constructed above a depth of four feet six inches (4'6") should be limited to a design soil pressure of two thousand five hundred pounds per square foot (2500 psf). In the location of Boring 1013, the three thousand pound per square foot (3000 psf) design soil pressure is not available until a depth of about two feet six inches (2'6"). In the location of Boring 1018, foundations constructed above a depth of six feet (6') should be limited to a design soil pressure of one thousand five hundred pounds per square foot (1500 psf). In the location of Boring 1019, foundations constructed above a depth of three feet (3') should be limited to a design soil pressure of one thousand five hundred pounds per square foot (1500 psf). In the location of Boring 1020, foundations constructed above a depth of about six feet six inches (6'6") should be limited to a design soil pressure of two thousand pounds per square foot (2000 psf).

In general, foundations constructed below the topsoil and above the approximate two foot (2') depth should be limited to a design soil pressure of one thousand five hundred pounds per square foot (1500 psf).

It is recommended that all continuous footings be suitably reinforced to minimize or eliminate any noticeable effects of differential settlement.

In areas where fill is required, if an engineered fill is placed to suitably support footings, the footings placed on the engineered fill could be proportioned for a design soil pressure of one thousand five hundred pounds per square foot (1500 psf), or an analysis of individual conditions could be made to evaluate the thickness of the fill, the supporting capacity of the underlying soils and determine if a higher design soil pressure could be used.

Groundwater generally does not appear to present a problem with building construction. Boring 1011 was made at approximately four feet six inches (4'6") above finished basement grade. In this location, wet sand was found at a depth of four feet (4'). A swamp condition exists north of this building at an elevation of about 940. Thus, it seems likely that the groundwater in this layer can readily be drained away. It is recommended that all below grade structures be provided with an adequate drainage system to protect the floors and walls from the possible effects of hydrostatic pressure.

Where concrete floors or floor supporting backfill is to be placed at, or near, the present grade, the topsoil should be removed and the subgrade thoroughly proof-compacted. Where fill or backfill is required to raise the subgrade for concrete floors, it is suggested that clean, well-graded granular soils be used. If clay material is used, it should be placed within three percent (3%) of its optimum moisture content. The fill should be deposited in horizontal lifts not to exceed nine inches (9") in thickness with each lift being compacted uniformly to a minimum density of ninety-five percent (95%) of its maximum value as determined by the Modified Proctor Test (A.A.S.H.T.O. T-180 or A.S.T.M. D-1557). Where relatively shallow fills are placed for the support of lightly loaded floor slabs, the density requirement could be reduced to ninety percent (90%) Modified Proctor.

The upper soils on this site are generally clays and test results indicate them to be well above their probable optimum moisture content. Thus, it should be expected that some drying will be required if this material is to be placed as an engineered fill. It would be highly desirable to do the earthmoving work in the dry summer months.

It is recommended that the services of McDowell & Associates be engaged to observe the soils in the footing excavations prior to concreting in order to test the soils for the required bearing capacities. Testing should be performed to check that suitable materials are being used for controlled fills and that they are properly placed and compacted.

If we can be of any further service, please feel free to call.

Very truly yours,

McDOWELL & ASSOCIATES

Robert McDowell, P.E.

RM/dc

LOG OF SOIL BORING NO. 1002

McDOWELL & ASSOCIATES
Geotechnical Engineers

PROJECT Proposed Society Hill Apartments

JOB NO. 96-597

LOCATION Novi & 12½ Mile Roads

SURFACE ELEV. 966.0

DATE 1-29-97

Novi, Michigan

Sample & Type	Depth	Legend	SOIL DESCRIPTION	Penetration Blows For 6"	Moisture %	Natural Wt. P.C.F.	Dry Den Wt. P.C.F.	Unc. Comp. Strength PSF.	Str. %
	1		0'10" Moist black clayey sandy TOPSOIL						
A	2		Stiff moist brown CLAY with few sand seams	3					
UL				4	16.0	132			
	3			6			*	(3500)	
	4								
B			4'6"	4					
UL	5		Compact wet brown medium SAND	5	12.8				
			5'6"	8					
	6								
C	7			11					
UL				16					
	8		Extremely stiff moist brown CLAY with some silt	23					
	9								
D				9					
UL	10			16					
				22					
	11								
	12		12'0"						
	13								
	14								
E				5					
UL	15			9					
			Stiff moist blue CLAY with trace of silt and pebbles	11					
	16								
	17								
	18								
	19								
F				5					
UL	20		20'0"	8					
				10					
	21								
	22								
	23								
	24								
	25								

TYPE OF SAMPLE
D - DISTURBED
UL - UNDIST LINER
ST - SHELBY TUBE
SS - SPLIT SPOON
RC - ROCK CORE
( ) - PENETROMETER

REMARKS:
*Calibrated penetrometer

Standard Penetration Test - Driving 2" OD Sampler 1' With 140# Hammer Falling 30"; Count Made At 6" Intervals

GROUND WATER OBSERVATIONS

G.W. ENCOUNTERED AT	4	FT.	6	INS.
G.W. ENCOUNTERED AT		FT.		INS.
G.W. AFTER COMPLETION	17	FT	0	INS.
G.W. AFTER	HRS.	FT		INS.
G.W VOLUMES	Light			

LOG OF SOIL BORING NO. 1003

McDOWELL & ASSOCIATES
Geotechnical Engineers

PROJECT Proposed Society Hill Apartments

JOB NO. 96-597

LOCATION Novi and 12½ Mile Roads

SURFACE ELEV. 968.0 DATE 1-21-97

Novi, Michigan

Sample & Type	Depth	Legend	SOIL DESCRIPTION	Penetration Blows For 6"	Moisture %	Natural Wt. P.C.F.	Dry Den Wt. P.C.F.	Unc. Comp. Strength PSF.	Str %
	1		Moist to frozen dark brown sandy clayey TOPSOIL						
			1'0"						
A UL	2		Stiff moist brown CLAY with trace of silt	2					
	3			4	27.4	119		1665	
			3'0"	8			*	(2000)	
	4		Firm moist brown CLAY with some sand and trace of silt						
B UL	5			2					
				3	22.6				
	6			4			*	(1000)	
			6'0"						
C UL	7			8					
	8			12					
			Extremely stiff moist brown CLAY with trace of sand and pebbles	16					
	9								
D UL	10			8					
				15					
	11			18					
	12		12'0"						
	13		Extremely stiff moist blue CLAY with trace of sand and pebbles and occasional wet sand seams						
	14								
E UL	15			7					
				17					
	16		16'0"	22					
	17		Extremely stiff moist blue CLAY with some sand and trace of silt						
	18								
	19								
F UL	20		20'0"	7					
				13					
	21			21					
	22								
	23								
	24								
	25								

TYPE OF SAMPLE
- O - DISTURBED
- UL - UNDIST LINER
- ST - SHELBY TUBE
- SS - SPLIT SPOON
- RC - ROCK CORE
- ( ) PENETROMETER

REMARKS:
*Calibrated penetrometer

Standard Penetration Test - Driving 2" OD Sampler 1' With 140# Hammer Falling 30"; Count Made At 6" Intervals

GROUND WATER OBSERVATIONS

G.W. ENCOUNTERED AT	12	FT.	0	INS.
G.W. ENCOUNTERED AT		FT.		INS.
G.W. AFTER COMPLETION	15	FT.	0	INS.
G.W. AFTER HRS.		FT.		INS.
G.W VOLUMES	medium			

LOG OF SOIL BORING NO. L004

McDOWELL & ASSOCIATES
Geotechnical Engineers

PROJECT Proposed Society Hill Apartments

JOB NO. 96-597

LOCATION Novi and 12½ Mile Roads

SURFACE ELEV. 959.0 DATE 1-21-97

Novi, Michigan

Sample & Type	Depth	Legend	SOIL DESCRIPTION	Penetration Blows For 6"	Moisture %	Natural Wt. P.C.F.	Dry Den Wt. P.C.F.	Unc. Comp. Strength PSF.	Str. %
			Moist to frozen black sandy clayey TOPSOIL						
	1		1'0"						
			Stiff moist brown CLAY with trace of silt						
A	2			3					
UL				3	20.7	125		3300	
	3		3'0"	6			*	(5000)	
	4								
B				7					
UL	5			11	16.4	134		7070	
			Extremely stiff moist brown CLAY with trace of sand and pebbles	16			*	(9000+)	
	6								
C	7			12					
UL				23	9.7	148			
	8			30					
	9								
D			9'6"	15					
UL	10			13					
				18					
	11								
	12								
			Extremely compact moist brown medium SAND						
	13								
	14								
E				5					
UL	15			12					
				15					
	16								
	17								
	18		18'0"						
			Stiff moist blue CLAY with some sand						
	19								
F				10					
UL	20		20'0"	8					
				10					
	21								
	22								
	23								
	24								
	25								

TYPE OF SAMPLE
D - DISTURBED
UL - UNDIST LINER
ST - SHELBY TUBE
SS - SPLIT SPOON
RC - ROCK CORE
( ) - PENETROMETER

REMARKS:
*Calibrated penetrometer

Standard Penetration Test - Driving 2" OD Sampler 1' With 140# Hammer Falling 30"; Count Made At 6" Intervals

GROUND WATER OBSERVATIONS

G.W. ENCOUNTERED AT		FT	INS
G.W. ENCOUNTERED AT		FT	INS
G.W. AFTER COMPLETION	none	FT	INS
G.W. AFTER	HRS.	FT	INS
G.W. VOLUMES			

LOG OF SOIL BORING NO. 1005

McDOWELL & ASSOCIATES
Geotechnical Engineers

PROJECT Proposed Society Hill Apartments

JOB NO. 96-597

LOCATION Novi and 12½ Mile Roads

SURFACE ELEV. 956.0 DATE 1-21-97

Novi, Michigan

Sample & Type	Depth	Legend	SOIL DESCRIPTION	Penetration Blows For 6"	Moisture %	Natural Wt. P.C.F.	Dry Den Wt. P.C.F.	Unc. Comp. Strength PSF.	Str. %
	1		Moist to frozen black sandy clayey TOPSOIL						
			1'0"						
A UL	2		Compact moist brown fine to medium SAND with trace of silt	3					
	3			5	14.6				
			3'0"	8					
	4		Stiff moist brown CLAY with trace of silt						
B UL	5			6					
				8	19.3				
	6			12			*	(4000)	
			6'0"						
C UL	7			11					
	8			20	16.5	132			
				30					
	9		Extremely stiff moist brown CLAY with trace of sand and pebbles						
D UL	10			13					
				18					
	11			25					
	12								
			12'0"						
	13								
	14								
E UL	15		Extremely stiff moist blue CLAY with trace of sand and pebbles	12					
				15					
	16			22					
	17								
	18								
	19								
F UL	20			7					
			20'0"	15					
	21			22					
	22								
	23								
	24								
	25								

TYPE OF SAMPLE
D - DISTURBED
U L - UNDIST LINER
S T - SHELBY TUBE
S S - SPLIT SPOON
R C - ROCK CORE
( ) PENETROMETER

REMARKS:

*Calibrated penetrometer

Standard Penetration Test - Driving 2" OD Sampler 1' With 140# Hammer Falling 30"; Count Made At 6" Intervals

GROUND WATER OBSERVATIONS

G.W. ENCOUNTERED AT		FT.	INS.
G.W. ENCOUNTERED AT		FT.	INS.
G.W. AFTER COMPLETION	none	FT.	INS.
G.W. AFTER	HRS.	FT.	INS.
G.W. VOLUMES			

LOG OF SOIL BORING NO. 1006

McDOWELL & ASSOCIATES
Geotechnical Engineers

PROJECT Proposed Society Hill Apartments

JOB NO. 96-597 LOCATION Novi & 12½ Mile Roads

SURFACE ELEV. 967.5 DATE 1-29-97 Novi, Michigan

Sample & Type	Depth	Legend	SOIL DESCRIPTION	Penetration Blows For 6"	Moisture %	Natural Wt. P.C.F.	Dry Den Wt. P.C.F.	Unc. Comp. Strength PSF.	Str. %
			0'6" Moist dark brown clayey TOPSOIL						
	1								
A	2		Stiff moist brown CLAY with trace of silt and pebbles	3					
UL				4	23.5	120			
	3		3'0"	6			*	(4000)	
	4								
B				5					
UL	5			12	13.1	133			
				15			*	(6500)	
	6								
C	7			8					
UL				15					
	8		Extremely stiff moist brown CLAY with some sand and few wet sand seams	22					
	9								
D				10					
UL	10			15					
				20					
	11								
	12		12'0"						
	13								
	14								
E				6					
UL	15		Extremely stiff moist blue CLAY with trace of sand and pebbles	10					
				15					
	16								
	17								
	18								
	19								
F				8					
UL	20		20'0"	16					
				20					
	21								
	22								
	23								
	24								
	25								

TYPE OF SAMPLE
D - DISTURBED
UL - UNDIST LINER
ST - SHELBY TUBE
SS - SPLIT SPOON
RC - ROCK CORE
( ) - PENETROMETER

REMARKS:
*Calibrated penetrometer

Standard Penetration Test - Driving 2" OD Sampler 1' With 140# Hammer Falling 30"; Count Made At 6" Intervals

GROUND WATER OBSERVATIONS

G.W. ENCOUNTERED AT	5	FT.	6	INS.
G.W. ENCOUNTERED AT		FT.		INS.
G.W. AFTER COMPLETION	dry	FT.		INS.
G.W. AFTER	HRS.	FT.		INS.
G.W. VOLUMES	light			

LOG OF SOIL BORING NO. 1007

McDOWELL & ASSOCIATES
Geotechnical Engineers

PROJECT Proposed Society Hill Apartments

JOB NO. 96-597 LOCATION Novi & 12½ Mile Roads

SURFACE ELEV. 969.5 DATE 1-29-97 Novi, Michigan

Sample & Type	Depth	Legend	SOIL DESCRIPTION	Penetration Blows For 6"	Moisture %	Natural Wt. P.C.F	Dry Den Wt. P.C.F.	Unc. Comp. Strength PSF.	Str. %
			0'6" Moist dark brown clayey TOPSOIL						
	1								
A	2		Stiff moist brown CLAY with trace of silt	4					
UL				5	15.4	133			
	3		3'0"	8			*	(8000)	
	4								
B				10					
UL	5			15	10.9	136			
				20			*	(9000)	
	6								
C	7			7					
UL				14					
	8		Extremely stiff moist brown CLAY with trace of sand and pebbles	22					
	9								
D				9					
UL	10			15					
				25					
	11								
	12								
	13								
			13'6"						
	14								
E				7					
UL	15			9					
				14					
	16		Very stiff moist blue CLAY with trace of gravel						
	17								
	18								
	19								
F				7					
UL	20		20'0"	10					
				12					
	21								
	22								
	23								
	24								
	25								

TYPE OF SAMPLE
D - DISTURBED
UL - UNDIST LINER
ST - SHELBY TUBE
SS - SPLIT SPOON
RC - ROCK CORE
( ) PENETROMETER

REMARKS:
*Calibrated penetrometer

Standard Penetration Test - Driving 2" OD Sampler 1' With 140# Hammer Falling 30"; Count Made At 6" Intervals

GROUND WATER OBSERVATIONS

G.W. ENCOUNTERED AT		FT.	INS
G.W. ENCOUNTERED AT		FT.	INS
G.W. AFTER COMPLETION		FT.	INS
G.W. AFTER	HRS.	FT	INS
G.W. VOLUMES	none		

LOG OF SOIL BORING NO. 1008

McDOWELL & ASSOCIATES
Geotechnical Engineers

PROJECT Proposed Society Hill Apartments

JOB NO. 96-597 LOCATION Novi & 12½ Mile Roads

SURFACE ELEV. 965.0 DATE 1-29-97 Novi, Michigan

Sample & Type	Depth	Legend	SOIL DESCRIPTION	Penetration Blows For 6"	Moisture %	Natural Wt. P.C.F.	Dry Den Wt. P.C.F.	Unc. Comp. Strength PSF.	Str. %
			0'6" Moist black sandy clayey TOPSOIL						
	1								
A	2		Firm moist brown CLAY with trace of silt and sand	2					
UL				3	17.2				
	3			5					
	4								
			4'0"						
B			Very stiff moist brown CLAY with trace of sand and silt	5					
UL	5			9	11.0	143			
				12			*	(9000)	
	6		6'0"						
C	7		Very stiff moist blue CLAY with few wet sand seams	10					
UL				10	14.4	106			
	8		8'0"	14					
	9								
D				7					
UL	10			12					
				14					
	11								
	12								
	13		Extremely stiff moist blue CLAY with some sand and trace of silt						
	14								
E				7					
UL	15			10					
				14					
	16								
	17								
	18								
	19								
F				7					
UL	20		20'0"	11					
				16					
	21								
	22								
	23								
	24								
	25								

TYPE OF SAMPLE
D - DISTURBED
UL - UNDIST LINER
ST - SHELBY TUBE
SS - SPLIT SPOON
RC - ROCK CORE
( ) PENETROMETER

REMARKS: *Calibrated penetrometer

Standard Penetration Test - Driving 2" OD Sampler 1' With 140# Hammer Falling 30". Count Made At 6" Intervals

GROUND WATER OBSERVATIONS

G.W. ENCOUNTERED AT	6	FT	6	INS.
G.W. ENCOUNTERED AT		FT		INS.
G.W. AFTER COMPLETION	10	FT	0	INS.
G.W. AFTER	HRS.	FT		INS.
G.W. VOLUMES	light			

LOG OF SOIL BORING NO. 1009

McDOWELL & ASSOCIATES
Geotechnical Engineers

PROJECT Proposed Society Hill Apartments

JOB NO. 96-597 LOCATION Novi & 12½ Mile Roads

SURFACE ELEV. 961.5 DATE 1-29-97 Novi, Michigan

Sample & Type	Depth	Legend	SOIL DESCRIPTION	Penetration Blows For 6"	Moisture %	Natural Wt. P.C.F.	Dry Den Wt. P.C.F.	Unc. Comp. Strength PSF.	Str. %
	1		0'10" Moist black sandy clayey TOPSOIL						
A UL	2		Stiff moist brown CLAY with trace of silt	3					
	3			4	17.1	127			
				6			*	(5000)	
	4		3'6" Very compact moist brown fine SAND with occasional coarse sand seams						
B UL	5			6					
				10	11.4	95			
			5'6"	14					
	6								
C UL	7			9					
				14	13.0	143			
	8			18			*	(9000)	
	9		Extremely stiff moist brown CLAY with few pebbles						
D UL	10			9					
				12					
	11			18					
	12								
	13								
	14		14'0"						
E UL	15			7					
				9					
	16			13					
	17		Very stiff moist blue CLAY with few pebbles						
	18								
	19								
F UL	20		20'0"	7					
				10					
	21			12					
	22								
	23								
	24								
	25								

TYPE OF SAMPLE
D - DISTURBED
UL - UNDIST LINER
ST - SHELBY TUBE
SS - SPLIT SPOON
RC - ROCK CORE
( ) PENETROMETER

REMARKS:
*Calibrated penetrometer

Standard Penetration Test - Driving 2" OD Sampler 1' With 140# Hammer Falling 30"; Count Made At 6" Intervals

GROUND WATER OBSERVATIONS

G.W. ENCOUNTERED AT		FT	INS.
G.W. ENCOUNTERED AT		FT	INS
G.W. AFTER COMPLETION		FT	INS
G.W AFTER	HRS.	FT	INS
G.W VOLUMES	none		

LOG OF SOIL BORING NO. 1010

McDOWELL & ASSOCIATES
Geotechnical Engineers

PROJECT Proposed Society Hills Apartment

JOB NO. 96-597

LOCATION Novi and 12½ Mile Roads

SURFACE ELEV. 968.0 DATE 1-20-97

Novi, Michigan

Sample & Type	Depth	Legend	SOIL DESCRIPTION	Penetration Blows For 6"	Moisture %	Natural Wt. P.C.F.	Dry Den Wt. P.C.F.	Unc. Comp. Strength PSF.	Str. %
	1		0'9" Moist black organic silty sandy clayey TOPSOIL						
A	2			7					
UL				8	24.3	121			
	3		Very stiff moist brown silty sandy CLAY with pebbles, some gravel and occasional cobbles	9			*	(4000)	
	4								
B				33/	2"				
UL	5		5'0"		19.9				
	6								
C	7			13					
UL				21					
	8		Extremely stiff moist brown silty sandy CLAY with fine to medium sand seams	21					
	9								
D				12					
UL	10			15					
	11			26					
	12								
	13		12'9"						
	14								
E				13					
UL	15			16					
	16			21					
	17		Extremely stiff moist blue silty sandy CLAY with trace of pebbles and wet fine to medium sand seams @ 18'6"						
	18								
	19								
F				13					
UL	20			20					
	21		20'6"	22					
	22								
	23								
	24								
	25								

TYPE OF SAMPLE
D - DISTURBED
UL - UNDIST LINER
ST - SHELBY TUBE
SS - SPLIT SPOON
RC - ROCK CORE
( ) PENETROMETER

REMARKS:
*Calibrated penetrometer

Standard Penetration Test - Driving 2" OD Sampler 1' With 140# Hammer Falling 30"; Count Made At 6" Intervals

GROUND WATER OBSERVATIONS

G.W. ENCOUNTERED AT	18	FT.	6	INS.
G.W. ENCOUNTERED AT		FT.		INS.
G.W. AFTER COMPLETION	18	FT.	6	INS.
G.W. AFTER	HRS.	FT.		INS.
G.W. VOLUMES	medium			

LOG OF SOIL BORING NO. 1011

McDOWELL & ASSOCIATES
Geotechnical Engineers

PROJECT Proposed Society Hills Apartments

JOB NO. 96-597

LOCATION Novi and 12½ Mile Roads

SURFACE ELEV. 977.8 DATE 1-20-97

Novi, Michigan

Sample & Type	Depth	Legend	SOIL DESCRIPTION	Penetration Blows For 6"	Moisture %	Natural Wt. P.C.F.	Dry Den Wt. P.C.F.	Unc. Comp. Strength PSF	Str. %
	1		Slightly compact moist dark brown sandy silty TOPSOIL with roots						
A	2		2'0"	2					
UL				4	18.5	118			
	3		Firm to stiff moist brown silty sandy CLAY with fine sand seams	4					
	4		4'0"						
B				3					
UL	5		Compact wet to moist brown fine SAND with traces of silt, pebbles and gravel	3	19.2	128		385	
				4					
	6								
C	7		7'0"	9					
UL				12	13.1	137		12300	
	8			12			*	(9000+)	
	9								
D			Extremely stiff moist variegated silty sandy CLAY with pebbles and some gravel	19					
UL	10			27					
				38					
	11								
	12								
	13								
			13'6"						
	14		Extremely stiff moist variegated silty sandy CLAY						
E				13					
UL	15		14'9"	23					
				28					
	16		Extremely stiff moist blue silty sandy CLAY						
	17								
			17'6"						
	18		Very compact wet brown fine to medium SAND						
	19								
F				9					
UL	20			11					
			20'6"	13					
	21								
	22		* Boring offset 9' east due truck access, trees and limbs.						
	23								
	24								
	25								

TYPE OF SAMPLE
D - DISTURBED
UL - UNDIST LINER
ST - SHELBY TUBE
SS - SPLIT SPOON
RC - ROCK CORE
( ) - PENETROMETER

REMARKS:
*Calibrated penetrometer

Standard Penetration Test - Driving 2" OD Sampler 1' With 140 # Hammer Falling 30". Count Made At 6" Intervals

GROUND WATER OBSERVATIONS

G.W ENCOUNTERED AT	4	FT	0	INS.
G.W ENCOUNTERED AT	17	FT	6	INS.
G.W AFTER COMPLETION	17	FT	6	INS.
G.W AFTER HRS.		FT		INS.
G.W VOLUMES	medium	cave in		

LOG OF SOIL BORING NO. 1012

McDOWELL & ASSOCIATES
Geotechnical Engineers

PROJECT Proposed Society Hills Apartment

JOB NO. 96-597

LOCATION Novi and 12½ Mile Roads

SURFACE ELEV. 979.5 DATE 1-20-97

Novi, Michigan

Sample & Type	Depth	Legend	SOIL DESCRIPTION	Penetration Blows For 6"	Moisture %	Natural Wt. P.C.F.	Dry Den Wt. P.C.F.	Unc. Comp. Strength PSF.	Str. %
			0'8" Moist dark brown sandy clayey TOPSOIL						
	1								
A	2			2					
UL			Firm moist brown silty sandy CLAY	3	16.3	129		2465	
	3			4			*	(4000)	
	4								
B				3					
UL	5		5'0"	8	11.6	139		9000	
				18			*	(9000+)	
	6		Extremely stiff moist brown silty CLAY with pebbles and occasional fine sand seams						
C	7			16					
UL				34	11.8	139		14990	
	8			32			*	(9000+)	
			8'6"						
	9								
D				10					
UL	10			24					
				27					
	11								
	12		Extremely stiff moist variegated silty CLAY with sand and pebbles						
	13								
	14								
E				12					
UL	15			24					
				36					
	16								
	17								
	18		17'9"						
	19		Very stiff moist blue silty sandy CLAY with trace of pebbles						
F				9					
UL	20			10					
			20'6"	13					
	21								
	22								
	23								
	24								
	25								

TYPE OF SAMPLE
- O - DISTURBED
- UL - UNDIST LINER
- ST - SHELBY TUBE
- SS - SPLIT SPOON
- RC - ROCK CORE
- ( ) - PENETROMETER

REMARKS:
*Calibrated penetrometer

Standard Penetration Test - Driving 2" OD Sampler 1' With 140# Hammer Falling 30"; Count Made At 6" Intervals

GROUND WATER OBSERVATIONS

G.W. ENCOUNTERED AT		FT	INS.
G.W. ENCOUNTERED AT		FT	INS.
G.W. AFTER COMPLETION	none	FT	INS.
G.W. AFTER	HRS	FT	INS.
G.W. VOLUMES			

LOG OF SOIL BORING NO. 1013

McDOWELL & ASSOCIATES
Geotechnical Engineers

PROJECT Proposed Society Hills Apartment

JOB NO. 96-597 LOCATION Novi and 12½ Mile Roads

SURFACE ELEV. 969.0 DATE 1-17-97 Novi, Michigan

Sample & Type	Depth	Legend	SOIL DESCRIPTION	Penetration Blows For 6"	Moisture %	Natural Wt. P.C.F.	Dry Den Wt. P.C.F.	Unc. Comp. Strength PSF.	Str. %
	1		0'9" Moist dark brown clayey TOPSOIL with roots						
A	2		Firm moist brown silty sandy CLAY with some organics and fine sand seams	2					
UL			2'6"	3	18.6	128			
	3			10					
	4		4'0" Very stiff moist brown silty CLAY with sand and pebbles and occasional wet fine sand seams	9					
B									
UL	5			10	14.6	136		12375	
				13			*	(9000+)	
	6								
C	7			6					
UL			Very stiff moist variegated silty sandy CLAY with pebbles	9	13.8	138		3070	
	8			11			*	(6000)	
	9								
D				7					
UL	10		9'10"	10					
				22					
	11		Extremely stiff moist variegated silty sandy CLAY with pebbles and wet fine sand lenses						
	12								
	13		12'6"						
	14								
E				12					
UL	15			15					
			Extremely sitff moist blue silty sandy CLAY with pebbles	24					
	16								
	17								
	18								
	19								
F				7					
UL	20			13					
			20'6"	19					
	21								
	22								
	23								
	24								
	25								

TYPE OF SAMPLE
D - DISTURBED
UL - UNDIST LINER
ST - SHELBY TUBE
SS - SPLIT SPOON
RC - ROCK CORE
( ) PENETROMETER

REMARKS:
*Calibrated penetrometer

Standard Penetration Test - Driving 2" OD Sampler 1' With 140# Hammer Falling 30". Count Made At 6" Intervals

GROUND WATER OBSERVATIONS

G.W. ENCOUNTERED AT	3	FT	6	INS.
G.W. ENCOUNTERED AT		FT		INS.
G.W. AFTER COMPLETION	dry	FT		INS.
G.W. AFTER	HRS.	FT		INS.
G.W. VOLUMES	light			

LOG OF SOIL BORING NO. 1014

McDOWELL & ASSOCIATES
Geotechnical Engineers

PROJECT Proposed Society Hills Apartment

JOB NO. 96-597 LOCATION Novi and 12½ Mile Roads

SURFACE ELEV. 966.5 DATE 1-17-97 Novi, Michigan

Sample & Type	Depth	Legend	SOIL DESCRIPTION	Penetration Blows For 6"	Moisture %	Natural Wt. P.C.F.	Dry Den Wt. P.C.F.	Unc. Comp. Strength PSF.	Str. %
			0'6" Moist dark brown clayey TOPSOIL						
	1								
A	2		Stiff moist brown silty	4					
UL			sandy CLAY with fine to	9	17.7	128			
	3		medium sand seams	20					
			3'6"						
	4								
B				18					
UL	5		Extremely stiff moist	19	12.0	139			
			variegated silty CLAY with	41					
	6		trace of sand and pebbles						
			and some gravel						
C	7			21					
UL			7'6"	31	11.8	134			
	8			33			*	(9000+)	
	9		Extremely stiff moist blue						
D			silty CLAY with trace of	18					
UL	10		sand and pebbles	19					
				24					
	11								
			11'6"						
	12								
	13								
	14								
E			Extremely stiff moist blue	9					
UL	15		silty CLAY with sand and	18					
			pebbles and occasional wet	26					
	16		fine to medium sand seams						
	17								
	18								
	19								
F				13					
UL	20			18					
			20'6"	15					
	21								
	22								
			* Existing pipe approximately						
	23		5' east of boring. Appears						
			to be an old well casing.						
	24								
	25								

TYPE OF SAMPLE
D - DISTURBED
UL - UNDIST LINER
ST - SHELBY TUBE
SS - SPLIT SPOON
RC - ROCK CORE
( ) PENETROMETER

REMARKS: *Calibrated penetrometer

Standard Penetration Test - Driving 2" OD Sampler 1' With 140# Hammer Falling 30", Count Made At 6" Intervals

GROUND WATER OBSERVATIONS

G.W. ENCOUNTERED AT	14	FT	0	INS.
G.W. ENCOUNTERED AT		FT		INS.
G.W. AFTER COMPLETION	18	FT	6	INS
G.W. AFTER	HRS	FT		INS.
G.W. VOLUMES	Light			

LOG OF SOIL BORING NO. 1015

McDOWELL & ASSOCIATES
Geotechnical Engineers

PROJECT Proposed Society Hills Apartment

JOB NO. 96-597

LOCATION Novi and 12½ Mile Roads

SURFACE ELEV. 958.5 DATE 1-17-97

Novi, Michigan

Sample & Type	Depth	Legend	SOIL DESCRIPTION	Penetration Blows For 6"	Moisture %	Natural Wt. P.C.F.	Dry Den Wt. P.C.F.	Unc. Comp. Strength PSF.	Str. %
			0'6" Moist dark brown sandy clayey TOPSOIL with roots						
	1								
A	2			9					
UL				14	14.8	137		2165	
	3			16			*	(3500)	
	4		Extremely stiff moist variegated silty sandy CLAY with pebbles						
B				10					
UL	5			16	11.2	137		9000	
				18			*	(9000+)	
	6								
C	7			8					
UL				13					
	8			15					
	9		9'0"						
D				8					
UL	10		Very stiff moist brown silty sandy CLAY	10					
				14					
	11								
	12								
			12'6"						
	13								
	14		Stiff moist blue silty sandy CLAY						
E				5					
UL	15			5					
				9					
	16								
	17		17'0"						
	18		Very stiff moist blue silty sandy CLAY with wet fine sand seams						
	19								
F				8					
UL	20			11					
				10					
			20'6"						
	21								
	22								
	23								
	24								
	25								

TYPE OF SAMPLE
U - DISTURBED
UL - UNDIST LINER
ST - SHELBY TUBE
SS - SPLIT SPOON
RC - ROCK CORE
( ) PENETROMETER

REMARKS:
*Calibrated penetrometer

Standard Penetration Test - Driving 2" OD Sampler 1' With 140# Hammer Falling 30", Count Made At 6" Intervals

GROUND WATER OBSERVATIONS

G.W. ENCOUNTERED AT	17	FT	0	INS.
G.W. ENCOUNTERED AT		FT		INS.
G.W. AFTER COMPLETION	17	FT	6	INS.
G.W. AFTER	HRS.	FT		INS.

G.W. VOLUMES light to medium

LOG OF SOIL BORING NO. 1016

McDOWELL & ASSOCIATES
Geotechnical Engineers

PROJECT Proposed Society Hill Apartments

JOB NO. 96-597 LOCATION Novi & 12½ Mile Roads

SURFACE ELEV. 960.0 DATE 1-29-97 Novi, Michigan

Sample & Type	Depth	Legend	SOIL DESCRIPTION	Penetration Blows For 6"	Moisture %	Natural Wt. P.C.F.	Dry Den Wt. P.C.F.	Unc. Comp. Strength PSF.	Str. %
	1		Moist dark brown sandy clayey TOPSOIL						
			1'0"						
A	2		Stiff moist brown CLAY with trace of silt	3					
UL				5	28.1	120			
	3			9			*	(4500)	
			3'0"						
	4		Firm moist variegated CLAY						
B				3					
UL	5			3	21.8				
			5'6"	4					
	6								
C	7		Loose wet brown medium SAND with pebbles	2					
UL				3	28.9	116			
	8		8'0"	3			*	(3000)	
	9								
D			Stiff moist brown sandy CLAY with few coarse sand seams	3					
UL	10			4					
				6					
	11								
	12								
			12'6"						
	13								
	14		Stiff moist blue CLAY with trace of sand and gravel						
E				4					
UL	15			6					
				8					
	16								
	17		17'0"						
	18		Very stiff moist blue CLAY with trace of sand and gravel						
	19								
F				6					
UL	20		20'0"	10					
				14					
	21								
	22								
	23								
	24								
	25								

TYPE OF SAMPLE
- D - DISTURBED
- UL - UNDIST LINER
- ST - SHELBY TUBE
- SS - SPLIT SPOON
- RC - ROCK CORE
- ( ) PENETROMETER

REMARKS:
*Calibrated penetrometer

Standard Penetration Test - Driving 2" OD Sampler 1' With 140# Hammer Falling 30". Count Made At 6" Intervals

GROUND WATER OBSERVATIONS

G.W. ENCOUNTERED AT	5	FT.	6	INS
G.W. ENCOUNTERED AT		FT.		INS
G.W. AFTER COMPLETION	5	FT.	6	INS
G.W. AFTER HRS.		FT.		INS
G.W. VOLUMES	heavy			

LOG OF SOIL BORING NO. 1017

McDOWELL & ASSOCIATES
Geotechnical Engineers

PROJECT Proposed Society Hill Apartments

JOB NO. 96-597 LOCATION Novi & 12½ Mile Roads

SURFACE ELEV. 960.5 DATE 1-29-97 Novi, Michigan

Sample & Type	Depth	Legend	SOIL DESCRIPTION	Penetration Blows For 6"	Moisture %	Natural Wt. P.C.F.	Dry Den Wt. P.C.F.	Unc. Comp. Strength PSF.	Str %
			0'8" Moist black sandy clayey TOPSOIL						
	1								
A	2		Stiff moist brown CLAY with trace of silt	4					
UL				5	16.6	120			
	3			8					
	4		4'0"						
B				4					
UL	5			7	20.8	128			
			Very stiff moist variegated CLAY with trace of silt	9			*	(9000)	
	6								
C	7			5					
UL				7					
	8		8'0"	10					
	9								
D			Firm moist variegated CLAY with some silt	3					
UL	10			3	27.6				
				4					
	11								
	12		12'0"						
			Compact wet brown coarse SAND & GRAVEL						
	13								
	14		14'0"						
E				6					
UL	15			4					
				7					
	16		Very stiff moist blue CLAY with some sand						
	17								
	18								
	19								
F				5					
UL	20		20'0"	10					
				12					
	21								
	22								
	23								
	24								
	25								

TYPE OF SAMPLE
D - DISTURBED
UL - UNDIST. LINER
ST - SHELBY TUBE
SS - SPLIT SPOON
RC - ROCK CORE
( ) PENETROMETER

REMARKS:
*Calibrated penetrometer

Standard Penetration Test - Driving 2" OD Sampler 1' With 140 # Hammer Falling 30", Count Made At 6" Intervals

GROUND WATER OBSERVATIONS

G.W. ENCOUNTERED AT	12	FT	0	INS.
G.W. ENCOUNTERED AT		FT		INS.
G.W. AFTER COMPLETION	7	FT	0	INS.
G.W. AFTER HRS.		FT		INS.
G.W. VOLUMES	heavy			

LOG OF SOIL BORING NO. 1018

McDOWELL & ASSOCIATES
Geotechnical Engineers

PROJECT Proposed Society Hill Apartments

JOB NO. 96-597 LOCATION Novi & 12½ Mile Roads

SURFACE ELEV. 960.5 DATE 1-29-97 Novi, Michigan

Sample & Type	Depth	Legend	SOIL DESCRIPTION	Penetration Blows For 6"	Moisture %	Natural Wt. P.C.F.	Dry Den Wt. P.C.F.	Unc. Comp. Strength PSF.	Str. %
			0'8" Moist black sandy clayey TOPSOIL						
	1								
A	2		Slightly compact moist brown fine to medium SAND with trace of clay	3					
UL				3	11.1				
	3		3'0"	3					
	4		Soft moist brown CLAY with few silty sand seams						
B				3					
UL	5			2	18.5				
				6					
	6		6'0"						
C	7			4					
UL				7	16.5				
	8			9					
			Firm moist brown sandy CLAY with trace of silt and few wet sand seams						
	9								
D				4					
UL	10			7					
				9					
	11								
	12								
			12'6"						
	13								
	14								
E				4					
UL	15		Stiff moist blue CLAY with trace of sand and pebbles	6	10.3	150			
				8			*	(1500)	
	16								
	17								
	18								
	19								
F				4					
UL	20		20'0"	6					
				8					
	21								
	22								
	23								
	24								
	25								

TYPE OF SAMPLE
D - DISTURBED
UL - UNDIST LINER
ST - SHELBY TUBE
SS - SPLIT SPOON
RC - ROCK CORE
( ) PENETROMETER

REMARKS:
*Calibrated penetrometer

Standard Penetration Test - Driving 2" OD Sampler 1' With 140 # Hammer Falling 30", Count Made At 6" Intervals

GROUND WATER OBSERVATIONS

G.W. ENCOUNTERED AT	8	FT	0	INS.
G.W. ENCOUNTERED AT		FT		INS.
G.W. AFTER COMPLETION	10	FT	0	INS.
G.W. AFTER HRS.		FT		INS.
G.W. VOLUMES cave In				

LOG OF SOIL BORING NO. 1019

McDOWELL & ASSOCIATES
Geotechnical Engineers

PROJECT Proposed Society Hill Apartments

JOB NO. 96-597 LOCATION Novi & 12½ Mile Roads

SURFACE ELEV. 962.0 DATE 1-29-97 Novi, Michigan

Sample & Type	Depth	Legend	SOIL DESCRIPTION	Penetration Blows For 6"	Moisture %	Natural Wt. P.C.F.	Dry Den Wt. P.C.F.	Unc. Comp. Strength PSF.	Str. %
	1		Moist black sandy clayey TOPSOIL						
			1'0"						
A	2		Medium compact moist brown medium SAND	2					
UL			2'6"	2	16.3				
	3			3					
	4								
B				6					
UL	5			13	11.6	140		9540	
				18			*	(9000)	
	6								
			Extremely stiff moist brown CLAY with trace of sand and gravel and occasional wet sand seams						
C	7			9					
UL				16					
	8			20					
	9								
D				7					
UL	10			10					
				17					
	11								
	12								
			12'0"						
	13								
	14								
E			Stiff moist blue CLAY with trace of sand and silt	4					
UL	15			7					
				11					
	16								
	17								
	18								
	19								
F				4					
UL	20			7					
			20'0"	9					
	21								
	22								
	23								
	24								
	25								

TYPE OF SAMPLE
O - DISTURBED
UL - UNDIST LINER
ST - SHELBY TUBE
SS - SPLIT SPOON
RC - ROCK CORE
( ) PENETROMETER

REMARKS:

*Calibrated penetrometer

Standard Penetration Test - Driving 2" OD Sampler 1' With 140# Hammer Falling 30"; Count Made At 6" Intervals

GROUND WATER OBSERVATIONS

G.W. ENCOUNTERED AT	11	FT.	0	INS.
G.W. ENCOUNTERED AT		FT.		INS.
G.W. AFTER COMPLETION	6	FT.	0	INS.
G.W. AFTER HRS.		FT		INS.
G.W. VOLUMES	heavy			

LOG OF SOIL BORING NO. 1020

McDOWELL & ASSOCIATES
Geotechnical Engineers

PROJECT Proposed Society Hill Apartments

JOB NO. 96-597

LOCATION Novi & 12½ Mile Roads

SURFACE ELEV. 962.5 DATE 1-29-97

Novi, Michigan

Sample & Type	Depth	Legend	SOIL DESCRIPTION	Penetration Blows For 6"	Moisture %	Natural Wt. P.C.F.	Dry Den Wt. P.C.F.	Unc. Comp. Strength PSF.	Str. %
			0'8" Moist black sandy clayey TOPSOIL						
	1								
A	2		Very stiff moist brown CLAY with trace of sand	2					
UL				6	12.7	137			
	3			9			*	(9000)	
			3'6"						
	4								
B			Medium compact moist brown coarse SAND with trace of clay	3					
UL	5			3	16.5				
				3					
	6								
			6'6"						
C	7		Stiff moist brown CLAY with trace of pebbles	3					
UL				5	13.1	137		8465	
	8		8'0"	7			*	(9000)	
	9								
D			Stiff moist brown CLAY with trace of sand and silt and occasional wet sand seams	3					
UL	10			5	11.6	146			
				8			*	(4500)	
	11								
	12		12'0"						
	13		Stiff moist blue CLAY with few wet coarse sand seams						
	14								
E				3					
UL	15			6					
				12					
	16		16'0"						
	17		Extremely stiff moist blue silty CLAY with trace of gravel						
	18								
	19								
F				7					
UL	20		20'0"	13					
				18					
	21								
	22								
	23								
	24								
	25								

TYPE OF SAMPLE
O - DISTURBED
UL - UNDIST LINER
ST - SHELBY TUBE
SS - SPLIT SPOON
RC - ROCK CORE
( ) PENETROMETER

REMARKS:
*Calibrated penetrometer

Standard Penetration Test - Driving 2" OD Sampler 1' With 140# Hammer Falling 30". Count Made At 6" Intervals

GROUND WATER OBSERVATIONS

G.W. ENCOUNTERED AT	12	FT	0	INS.
G.W. ENCOUNTERED AT		FT		INS.
G.W. AFTER COMPLETION	12	FT	0	INS.
G.W. AFTER HRS.		FT		INS.
G.W. VOLUMES	medium			

LOG OF SOIL BORING NO. 1021

McDOWELL & ASSOCIATES
Geotechnical Engineers

PROJECT Proposed Society Hill Apartments

JOB NO. 96-597

LOCATION Novi & 12½ Mile Roads

SURFACE ELEV. 961.0 DATE 1-29-97

Novi, Michigan

Sample & Type	Depth	Legend	SOIL DESCRIPTION	Penetration Blows For 6"	Moisture %	Natural Wt. P.C.F.	Dry Den Wt. P.C.F.	Unc. Comp. Strength PSF.	Str. %
	1		Moist black sandy clayey TOPSOIL						
			1'0"						
A	2		Stiff moist brown CLAY with trace of sand	2					
UL				5	24.2	118			
	3		3'0"	6			*	(3000)	
	4		Extremely stiff moist brown CLAY with trace of silt						
B				7					
UL	5			10	15.2	138			
				18			*	(9000)	
	6		6'0"						
C	7			5					
UL				10	13.4	134			
	8			15			*	(9000)	
	9								
D			Very stiff moist brown CLAY with trace of sand and pebbles	9					
UL	10			17					
				22					
	11								
	12								
	13								
	14								
E				4					
UL	15		15'0"	6					
				15					
	16								
	17		Stiff moist blue CLAY with trace of sand						
	18								
	19								
F				5					
UL	20		20'0"	9					
				11					
	21								
	22								
	23								
	24								
	25								

TYPE OF SAMPLE
D - DISTURBED
UL - UNDIST LINER
ST - SHELBY TUBE
SS - SPLIT SPOON
RC - ROCK CORE
( ) PENETROMETER

REMARKS:
*Calibrated penetrometer

Standard Penetration Test - Driving 2" OD Sampler 1' With 140 # Hammer Falling 30", Count Made At 6" Intervals

GROUND WATER OBSERVATIONS

G.W. ENCOUNTERED AT		FT	INS.
G.W. ENCOUNTERED AT		FT	INS.
G.W. AFTER COMPLETION		FT	INS.
G.W. AFTER	HRS.	FT	INS.
G.W. VOLUMES	none		

LOG OF SOIL BORING NO. 1022

McDOWELL & ASSOCIATES
Geotechnical Engineers

PROJECT Proposed Society Hills Apartments

JOB NO. 96-597 LOCATION Novi and 12½ Mile Roads

SURFACE ELEV. 959.5 DATE 1-16-97 Novi, Michigan

Sample & Type	Depth	Legend	SOIL DESCRIPTION	Penetration Blows For 6"	Moisture %	Natural Wt. P.C.F.	Dry Den Wt. P.C.F.	Unc. Comp. Strength PSF.	Str %
			0'6" Moist dark brown clayey sandy TOPSOIL with roots						
	1								
				3					
A	2			3	16.2	133		600	
UL				5			*	(1000)	
	3		Stiff moist brown silty sandy CLAY with pebbles and wet silty fine to medium sand seams						
	4								
B			4'6"	10					
UL	5			8	15.1	136		3120	
			Very compact wet brown SILT	10			*	(8000)	
	6		6'0"						
				8					
C	7		Extremely stiff moist brown	10	16.9	135		7885	
UL			silty sandy CLAY with wet	10			*	(6000)	
	8		fine to medium sand seams						
	9								
D				9					
UL	10		9'10"	25					
			Extremely stiff moist	24					
	11		variegated silty sandy CLAY with trace of pebbles						
	12		12'0"						
	13								
			Very compact wet brown						
	14		fine to medium SAND with						
E			trace of pebbles	6					
UL	15			12					
				11					
	16								
	17								
			17'6"						
	18		Very stiff moist blue silty						
			sandy CLAY with wet fine to						
	19		medium sand seams						
F				6					
UL	20			12					
			20'6"	8					
	21								
	22								
	23								
	24								
	25								

TYPE OF SAMPLE
D - DISTURBED
UL - UNDIST LINER
ST - SHELBY TUBE
SS - SPLIT SPOON
RC - ROCK CORE
( ) - PENETROMETER

REMARKS:
*Calibrated penetrometer

Standard Penetration Test - Driving 2" OD Sampler 1' With 140# Hammer Falling 30", Count Made At 6" Intervals

GROUND WATER OBSERVATIONS

G.W. ENCOUNTERED AT	2	FT	6	INS.
G.W. ENCOUNTERED AT		FT		INS.
G.W. AFTER COMPLETION	7	FT	0	INS.
G.W. AFTER HRS.		FT		INS.
G.W. VOLUMES	medium			

LOG OF SOIL BORING NO. 1023

McDOWELL & ASSOCIATES
Geotechnical Engineers

PROJECT Proposed Society Hills Apartment

JOB NO. 96-597

LOCATION Novi and 12½ Mile Roads

SURFACE ELEV. 960.0 DATE 1-17-97

Novi, Michigan

Sample & Type	Depth	Legend	SOIL DESCRIPTION	Penetration Blows For 6"	Moisture %	Natural Wt. P.C.F.	Dry Den Wt. P.C.F.	Unc. Comp. Strength PSF.	Str. %
			0'8" Moist dark brown sandy clayey TOPSOIL with roots						
	1								
			Firm moist brown silty sandy CLAY with fine sand seams						
A	2			2					
UL			2'6"	3	18.3	128		405	
	3			5			*	(1000)	
			Stiff moist variegated silty sandy CLAY with pebbles 3'9"						
	4								
B				13					
UL	5		Very stiff moist variegated silty sandy CLAY with trace of pebbles 5'0"	14	13.5	139		5005	
				18			*	(5000)	
	6								
			Extremely stiff moist brown silty sandy CLAY with pebbles						
C	7			18					
UL				22	12.2	134			
	8			24					
	9		9'0"						
D				16					
UL	10		Extremely stiff moist brown silty sandy CLAY with trace of pebbles	22					
				35					
	11								
	12								
			12'6"						
	13								
	14								
E				12					
UL	15			18					
				24					
	16		Extremely stiff moist blue silty sandy CLAY with pebbles						
	17								
	18								
	19								
F				13					
UL	20			14					
			20'6"	21					
	21								
	22								
	23								
	24								
	25								

TYPE OF SAMPLE
D - DISTURBED
UL - UNDIST. LINER
ST - SHELBY TUBE
SS - SPLIT SPOON
RC - ROCK CORE
( ) - PENETROMETER

REMARKS:
*Calibrated penetrometer

Standard Penetration Test - Driving 2" OD Sampler 1' With 140# Hammer Falling 30". Count Made At 6" Intervals

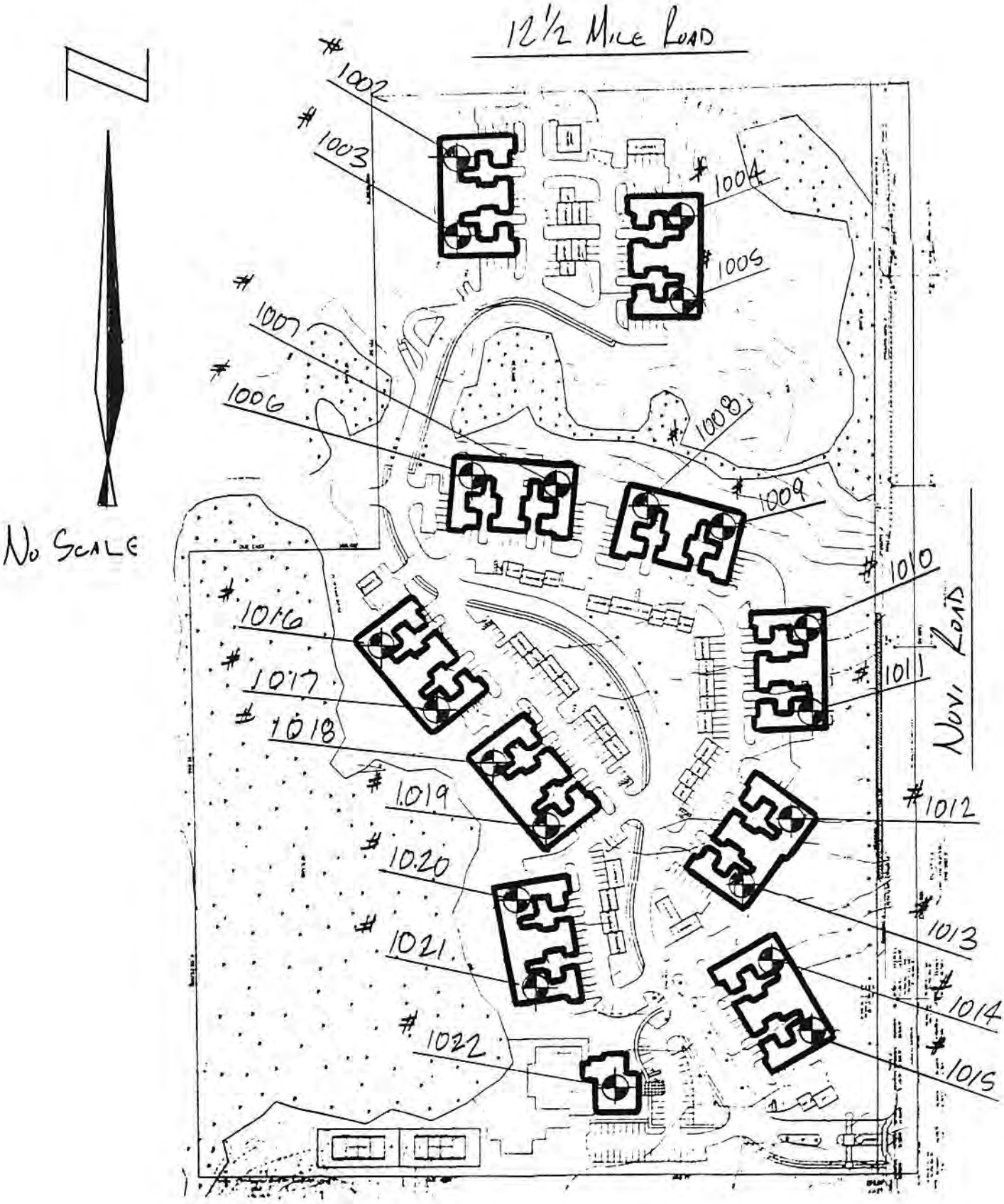
GROUND WATER OBSERVATIONS

G.W. ENCOUNTERED AT		FT	INS
G.W. ENCOUNTERED AT		FT	INS
G.W. AFTER COMPLETION	none	FT	INS
G.W. AFTER	HRS.	FT	INS
G.W. VOLUMES			

Job No. 96-597

SIEVE ANALYSIS

Boring	Sample	%Passing #4 Sieve	%Passing #10 Sieve	%Passing #40 Sieve	%Passing #100 Sieve	%Passing #200 Sieve
1002	B	93.2	85.0	62.1	30.5	25.5
1005	A	99.2	97.9	94.0	40.7	34.9
1008	A	97.1	91.1	74.4	39.9	36.6
	C	87.2	82.0	69.5	27.8	23.4
1009	B	91.1	82.3	66.7	36.9	34.0
1016	B	99.1	97.5	92.3	61.5	55.8
1017	A	94.9	89.2	67.5	20.6	17.2
1018	A	98.1	94.6	84.1	40.1	34.9
	B	98.7	96.2	92.3	59.1	50.5
	C	99.6	97.7	92.3	59.7	55.9
1019	A	95.0	88.6	66.9	19.1	15.7
1020	B	94.8	87.6	72.2	26.2	21.5



Soil Boring Location Plan

#96-597

Exhibit F – Planting Overview

Society Hill

Woodland

Replacement

Summary

Consent Judgment

D. Replacement of Trees - The City has constructed dirt berming along Arena Drive within the City of Novi adjacent to the River Oaks West apartment development. The River Oaks West Limited Partnership shall have the right to place landscaping and trees on such berming, provided that it shall be responsible for the maintenance of any such landscaping and trees. The City shall otherwise be responsible for the maintenance of the berm. E & M

may place any required replacement trees, which cannot be placed on the Society Hill Land or the River Oaks West berm on other land within the City. If replacement trees are to be planted upon other land within the City, E & M shall be responsible for obtaining permission from the underlying property owner.

Letter from City

CITY OF NOVI
45175 West Ten Mile Road
Novi, MI 48375

FORESTRY DEPARTMENT
(248) 347-0585

RECEIVED
JUL 2 = 1998

July 22,1998

Henry Sasson
The Solomon Group
32605 W. 12 Mile, Suite 290
Farmington Hills, MI 48334

Dear Mr,. Sasson,

In our recent conversation, you mentioned the possibility of planting trees on your River Oaks project and receiving Woodland replanting credits for The Society Hills project. This office is in full support of this process, which would be permissible under the Woodlands Ordinance Section 37-8 (e). Since I will be out of town until August 15,1998 and you requested that the City move as quickly as possible to approve this process, I would recommend you meet with David Bluhm of J.C.K. and Linda Lemke of Linda Lemke & Associates in my absence .

Again I would like to support the process of "tree banking" at River Oaks for Woodland replacement at Society Hill.

Yours truly,
Chris B. Pargoff
City Forester

cc. David Bluhm, J.C.K.
Linda Lemke, Linda Lemke & Associates

1999 Site Plan Approval

Woodland Impact Summary

Total Regulated Trees			1,849 Trees
Removal Breakdown			
Size	Total	Ratio	Replacement Req
8"-11.0"	533 Trees	1:1	533 Trees
11.1"-20.0"	458 Trees	2:1	916 Trees
20.1"+	71 Trees	3:1	213 Trees
Trees Removed			1,062 Trees
Replacement Trees Required			1,662 Trees
Replacement Trees Shown			-0- Trees
Interior Street Planting Requirements			
Total Lineal Feet			5,652 l.f.
Trees Required	5,652 ÷ 35		162 Trees
Trees Shown			162 Trees
Novi Road R.O.W. Planting Requirements			
Total Lineal Feet			465 l.f.
Trees Required	465÷ 35		13 Trees
Trees Shown			13 Trees
Unit Planting Requirements			
Total 1st Floor Units			147 Units
Trees Required	147 x 3		441 Trees
Trees Shown			441 Trees
15% Diversity Requirements			
Total Number of Deciudous Trees			437 Trees
Maximum Number of One Species (438 x 15%)			65.7 Trees
Maximum Shown (Linden)			66 Trees
Total Number of Evergreen Trees			166 Trees
Maximum Number of One Species (166 x 15%)			24.9 Trees
Maximum Shown			24 Trees

Notes:

- Planting Will Occur Between April 1, 1999 to November 15, 1999 or April 1, 2000 to November 2000.
- Beds Shall have 4" Bark Mulch.
- All Landscaped Areas Shall be Irrigated with an Automatic Irrigation System.
- All Islands Shall be Sod.
- All Lawn Areas Shall be Sod.
- Plantings Shall be Installed in Accordance with Ordinance #97-18.133 Section 2509
- No Large Trees, Deciduous and Evergreen, Shall be Planted Within 15' of Closest Overhead Wire.
- Plant Material Shall be Guaranteed for 2 Years.
- All Lawn Trees Shall have 4' Diameter of Mulch 3" from Trunk.
- See Engineering Drawings for Soil Erosion Fencing Locations and Parking Lot Island Drainage Detail.
- Tree Protection Fencing Shall be Installed Prior to Construction Activity.
- Tree and Wetland Identification Performed by Robert Leighton Associates, Inc.
- Remaining Replacement Trees Shall be Planted in the Solomon Group's other Two Novi Projects. The Monetary Value of any Remaining Trees Which cannot be Planted will be Donated to the City.

Summary of Woodland Mitigation Provided to Date

**Note that additional mitigation may be provided off-site*

Replacement Location	Count	Size	Size Multiplier	Building Count	Tree Replacement
Arena Drive/Nick Lidstrom Drive	73	>14'	2.5		183
River Oaks West Interior Planting					
2005	231	Min	1		231
2007					
Pear Trees	82	4"	1.5		123
Focal Pt Evergreens	47	>14'	2.5		118
Building Entry Trees (Per Building)					
River Birch	2	>14'	2	33	132
Red Maple	3	4"	1.5	33	149
Arborvitae	2	10-12'	1.5	33	99
Pear	2	4"	1.5	33	99
Crab	2	2.5"	1	33	66
Highline Club Interior Planting					
Crab	3	4"	1.5		5
Magnolia	2	14'	2		4
Pear	5	3.5"	1.25		6
Spruce	6	14'	2.5		15
Arborvitae	36	Min	1		36
Amalanchier	1	14'	2		2
Total					**1266**

River Oaks West

2002 Aerial Map

- Phase 1

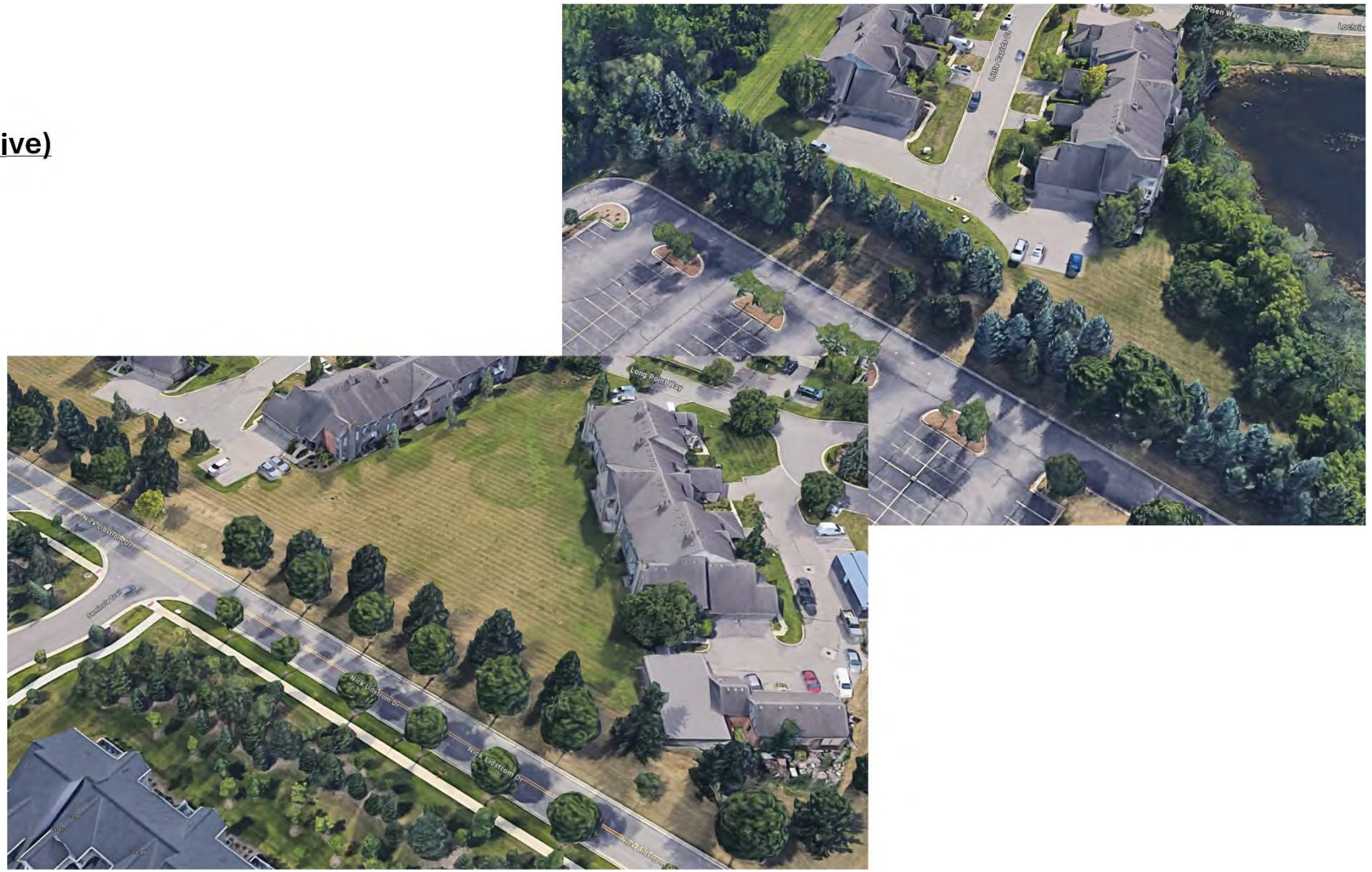
River Oaks West

2002 Aerial Map

- Phase 2

Arena Drive Berm
(Nick Lidstrom Drive)

- 73 trees
- >14’ height
- Site survey



River Oaks West Interior Planting

2005 Aerial Map

- Compared to 2002 Map
- Phase 1
- 120 trees
- Orange dots only.
- Blue dots are focal pt trees – see next slides

River Oaks West Interior Planting

2005 Aerial Map

- Compared to 2002 Map
- Phase 2
- 111 trees
- Orange dots only.
- Blue dots are focal pt trees – see next slides

River Oaks West
Interior Planting

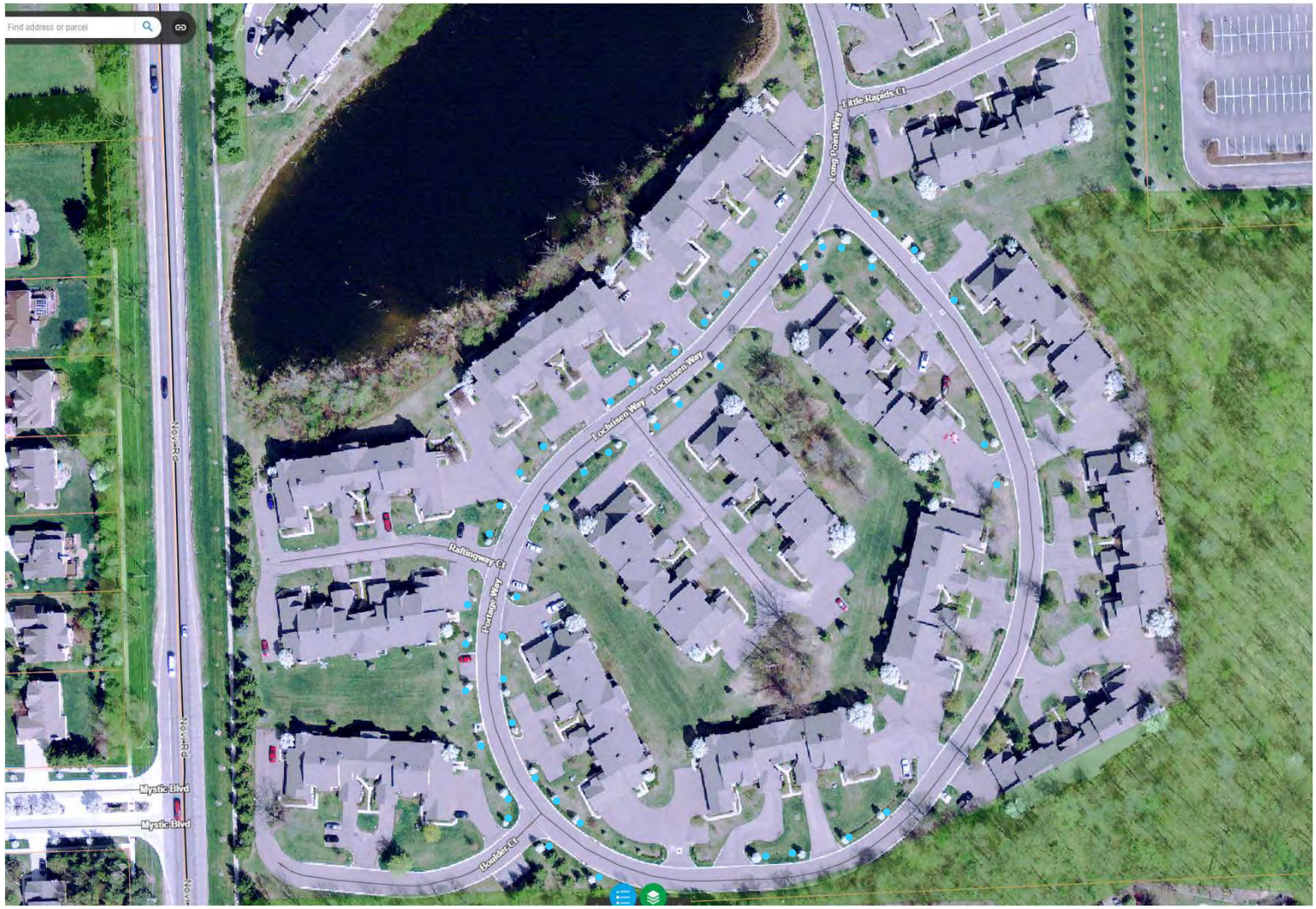
2007 Boulevard
Pear Trees

- 38 Trees
- 4’ caliper
- Phase 1

River Oaks West
Interior Planting

2007 Boulevard
Pear Trees

- 44 Trees
- 4’ caliper
- Phase 2

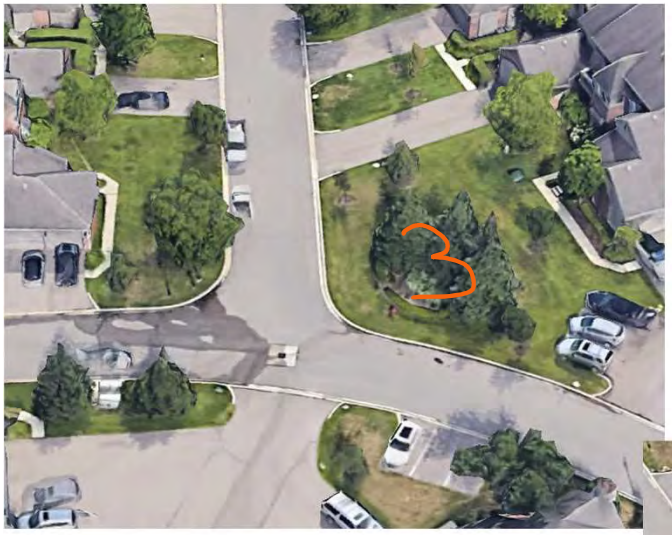


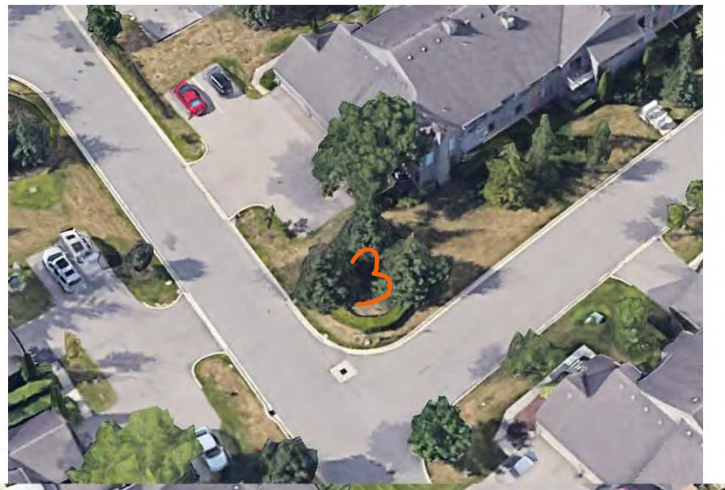
River Oaks West
Interior Planting

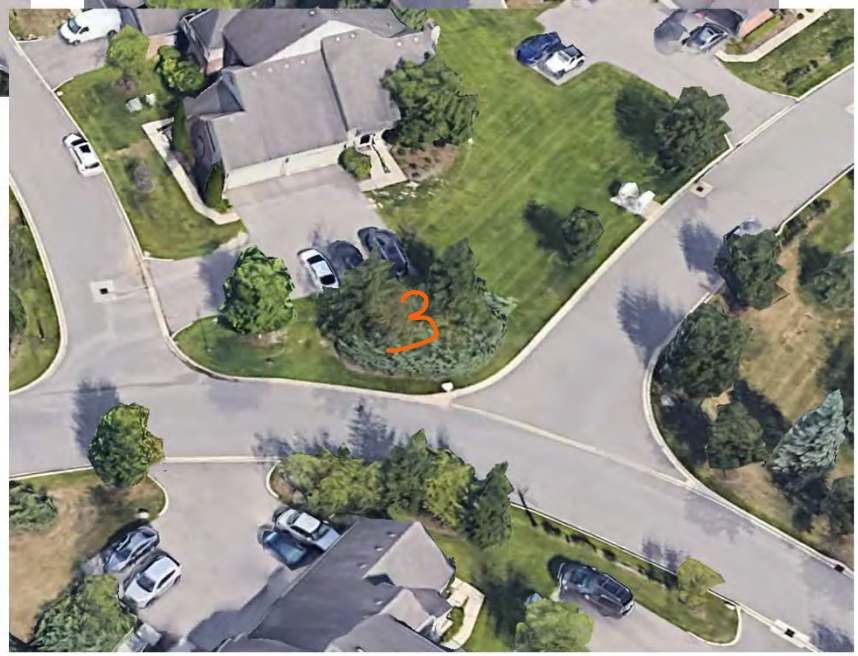
2007 Focal Point Trees
- 35 Trees
- >14' size
- Blue dots on prior page identify locations

River Oaks West
Interior Planting

2007 Focal Point Trees
- 12 Trees
- >14' size
- Blue dots on prior page identify locations







River Oaks West Interior Planting

2006/2007 Building Entry Trees
- 11 trees x 33 buildings
- 363 trees

Send To:
RO MANAGEMENT, INC
32605 WEST TWELVE MILE RSUITE 290
FARMINGTON HILLS, MI 48334

Project Name:
RIVER OAKS - MODEL
43355 CLIFFSIDE COURT
NOVI, MI 48374

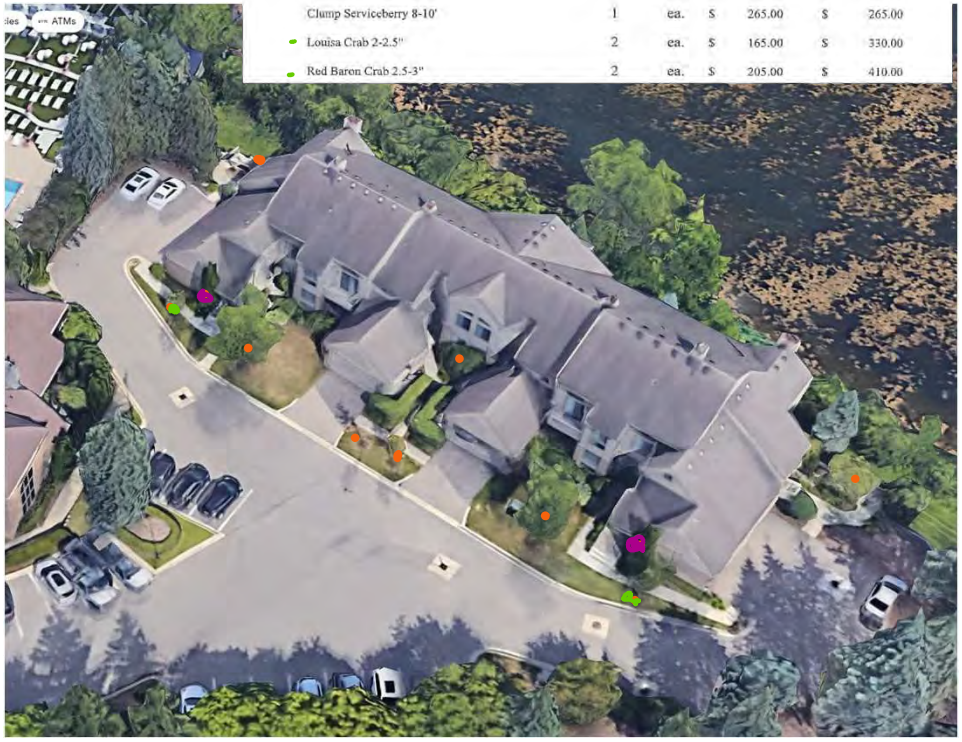
Bid Description: MODEL LANDSCAPE

Pear

Arborvitae

Description	Qty		Unit Price	Total
PLANTINGS				
Autumn Blaze Red Maple 4-4.5"	2	ea.	$ 550.00	$ 1,100.00
River Birch Clump 12-14'	2	ea.	$ 275.00	$ 550.00
River Birch Clump 14-16'	4	ea.	$ 340.00	$ 1,360.00
Clump Serviceberry 8-10'	1	ea.	$ 265.00	$ 265.00
Louisa Crab 2-2.5"	2	ea.	$ 165.00	$ 330.00
Red Baron Crab 2.5-3"	2	ea.	$ 205.00	$ 410.00

oversized



Highline Club Interior Planting

- 53 trees

HIGHLINE CLUB
COMPARISON PRICING ON PLANT MATERIALS AND LABOR

QTY	ITEM	COM Size
3	Crabapple - Lancelot	4-4.5"
2	Magnolia - Dr. Merrill	12-14'
5	Bradford Pear	3.5"
6	Colarado Spruce	12-14'
18	Emerald Green Arborvitae	5-6'
18	Emerald Green Arborvitae	6-7'
1	Amalanchier	14-15'
40	Boxwood - Green Mountain	5 gal 24-30"
19	Boxwood - Green Velvet	5 gal 24-30"
46	Hicksi Yew	24-30"
49	Densiformas Yew	24-30"
7	Roses	3 gal
4	Rhododendron	24-30"
55	Pachysandra	48 per flat
- -	Labor, Mobilization, Guarantee	- -
	SUBTOTAL	
26	Top Soil (including labor)	cy
3	Spagnum Peat (including labor)	cy
35	Double Shredded Bark (including labor)	cy
60	Edging (including labor)	lf
50	Sod (including labor	yard
3	Egg Rock (including labor)	cy [1cy=1.3tons]
2.5	Shannon Stone (including labor)	cy [1cy=1.3tons]
4	Plastic Weed Barrier (including labor)	
6	Pansy (including labor)	flat
- -	Finish Grade, Debris Removal	- -
	SUBTOTAL	
	TOTAL	

City of Novi Size Chart

ii. To encourage a mixture of sizes, additional landscape credit can be given for larger-sized deciduous canopy trees and large evergreen trees as follows for Right-of-Way Greenbelt trees and Parking Lot Perimeter trees. (Upsizing credit is not allowed for woodland replacement trees, street trees or interior parking lot trees.)

Table 11.b.(2)(a).ii

Size	Total Tree Credits *
Large Evergreen Trees	
8' height	1.0
> 8' to 10' height	1.25
>10' to 12' height	1.5
>12' to 14' height	2.0
>14' height	2.5
Deciduous Canopy Trees	
3" caliper	1.0
>3" to 3.5" caliper	1.25
>3.5" to 4.5" caliper	1.5
>4.5" to 5" caliper	1.75
>5" caliper	2.0

* Where greater than minimum size listed above (Table 10.b.(2)(a).i).

Example: a 4" caliper deciduous canopy tree would count as 1.5 required landscape trees. A 13' high evergreen canopy tree would count as 2 required landscape trees.

The total number of trees required may be reduced through the use of these credits by a maximum of 33% (per category) (i.e. the total number of trees provided must be at least 67% of the total number of trees required based on the standard tree size, per category)

PLANNING REVIEW
(Revised 6/11/24)

PLAN REVIEW CENTER REPORT

May 2, 2024
Revised June 11, 2024

Planning Review

Society Hill

JSP24-04

PETITIONER

E & M Holdings, LLC c/a - Sequel

REVIEW TYPE

Revised Consent Judgment Concept Plan

PROPERTY CHARACTERISTICS

Section	10	
Site Location	West of Novi Road, South of 12 ½ Mile Road;	
Site School District	Novi Community School District	
Site Zoning	RM-1 Low Density Multiple Family with PD-1 Option	
Adjoining Zoning	North	R-1 One Family Residential
	East	R-1 One Family Residential
	West	RM-1 Low Density Multiple Family
	South	RA – Residential Acreage
Current Site Use	Vacant	
Adjoining Uses	North	Single Family Subdivision
	East	Cemetery
	West	Multiple Family Residential
	South	Vacant
Site Size	33.89 acres	
Plan Date	March 25, 2024	

PROJECT SUMMARY & HISTORY

The applicant is proposing changes to the Society Hill development that was originally approved in 1999. Society Hill is associated with a 2001 Consent Judgment with the City. The Consent Judgment states that the site plan approved in 1999 was to remain in effect for 5 years from the date of execution, after which time the applicant would need to seek approval annually from City Council to extend the final Site Plan approval. Each year since 2006 the applicant has requested, and City Council has granted, the site plan extension, so the 1999 site plan remains an approved project that could be built.

The applicant has submitted a new Concept plan for review by City Council to consider amending the Consent Judgment. Like the 1999 Plan, the new proposal for the development of the 33.89-acre property west of Novi Road and south of 12 ½ Mile Road is proposed to utilize the existing RM-1 Low Density Multiple Family zoning with the available Planned Development Option (PD-1) as designated on the Future Land Use Map. The current Concept Plan includes 463 units in mid-rise apartment buildings and attached townhouses. The five apartment buildings would each be 5-stories tall (including ground level parking), with a total of 363 apartments ranging in size from 617 square foot studios to 1,329 square foot three-bedroom units. Sixteen townhome buildings on the north side of the site would have 100 residences with garages – 80 of those in three-story buildings and 20 in 2.5-story buildings. Sixteen of the townhome units would provide a ground floor primary bedroom suite.

Indoor and outdoor amenities are proposed for the residents of the site. The central building (E) contains 15,000 square feet of indoor space for a fitness center, spa facilities, café/bistro, community lounge, co-working space, conference rooms, community kitchen with dining area, library, and an indoor/outdoor terrace on the top floor overlooking the outdoor space. The outdoor amenities consist of two pools, a turf soccer field, tennis courts, sports court, pickleball courts, playground areas, dog park, and over two miles of walking path through the site.

COMPARISON OF 1999 PLAN TO CURRENT PLAN

The following chart gives a side-by-side comparison of the 1999 Plan to the Current Plan.

	1999 Plan (Existing Development Approval)	**Current Plan (Proposed Development)**
Zoning	RM-1 Low Density Multiple Family with PD-1 Option	RM-1 Low Density Multiple Family with PD-1 Option
Land Area	33.89 acres	33.89 acres
Number of Buildings	23	21
Number of Units	312	463
Room Count	1,264	1,359
Average Unit Size	1,758 square feet	1,220 square feet
Lot Coverage	Not known	14.84%
Building Height	2 and 3 story	5 stories
Number of Parking Spaces	693	942
Parking Ratio	2.22 spaces/unit	2.03 spaces/unit
Wetland Impacts	0 acres	0.847 acres
Wetland Mitigation	N/A	0.923 acres on-site Some off-site/payment (needs clarification)
Woodland Impacts	1,062 trees	1,338 trees (82 are off-site on City-owned parcel)
Stormwater Management	All on-site	On-site and Use of City-owned parcel 22-10-400-005
Usable Open Space	~ 1 acre programmed outdoor 0% of units had private outdoor space	6.64 acres programmed outdoor 98% of units have private outdoor space
Traffic Impact	1,978 trips per day (Adjusted baseline of 1996 Traffic Study)	2,162 trips per day (per 5/24/24 F&V Trip Generation Analysis)
Curb cuts	1 on Novi Road, 1 on Twelve ½ Mile Road	2 on Novi Road, 1 on Twelve ½ Mile + 2 emergency access points

STATEMENT REGARDING PROCESS, APPLICABLE ORDINANCES, AND PROPOSED DEVIATIONS

This review uses the standards and requirements of the current ordinances throughout. It also follows the language of the most recent "process" document that Community Development Department received from the City Attorney's office, which indicated that it is the "last round" of revisions circulated between the City Attorney's office and the applicant's counsel. (That document, we are told, fully took into consideration the existence of the 2001 Consent Judgment between the applicant and the City.)

Under that process, what has been submitted by the applicant is not considered to be an "amendment" to the existing site plan but a new preliminary site plan. That is not only because it includes some significant changes in the basic use, layout, access, and engineering/environmental features of the plan such that any plan on any other property would be processed by the city as a "new" plan as opposed to just an amended plan. It is also because, as a practical matter, there is no mechanism to grant the relief requested by the applicant in the 1997-era zoning and land use ordinances through just a "site plan amendment."

When the applicant got its site plan approved in 1999, it also secured various Planning Commission waivers and ZBA variances. This new site plan includes some of the aspects that got such relief. However, it also includes several **new** aspects that now require new relief, or new deviations. These include, for example: the maximum length of buildings; building setbacks; parking setbacks; yard setback area; number of parking spaces; building setbacks from parking; and landscaping requirements. (There may also be others.) The new plan also does not include aspects that were stated conditions of approval for the 1999 Plan, specifically the animal crossing culvert.

According to the City Attorney's office, the Planning Commission did not have authority in 1997 to grant any of that relief. The ZBA *could* grant that relief, theoretically, but we understand from the applicant that they prefer not to go to any board or commission other than the City Council.

So, if the applicant is looking for relief from the *City Council* as part of a plan review process, that could presumably only come through a revision to the Consent Judgment (or possibly the authority under the PD option to grant such deviations, which was added to the PD Ordinance in 2005). Assuming that is the case, it only makes sense for the overall application to be reviewed under the current ordinance standards, so that the City Council can know the full extent of the requested deviations.

This also seems appropriate since the 1999 site plan had no wetlands impacts, and now there are some, and because the new site plan requests to use a significant area of City-owned land, which was not part of the previous site plan.

RECOMMENDATION

Staff recommends conditional approval of the Concept Plan to move forward. As noted, under the above process, the plan will not go to the Planning Commission but will be reviewed by the City Council, and the granting of any deviations will be part of the Consent Judgment amendment process (following a public hearing). Staff recommends that the plan move forward to an initial review by the City Council, subject to conditions/comments as noted below and in the staff and consultant reports.

ORDINANCE REQUIREMENTS/DEVIATIONS

This project was reviewed for conformance with the Zoning Ordinance with respect to Article 3 (RM-1 Low Density Low-Rise Multiple-Family Residential District, Planned Development Options), Section 3.6 (Notes to District Standards), Article 5 and Article 6 and any other applicable provisions of the Zoning Ordinance. Items in **bold** below must be addressed by the applicant or the City Council.

1. Maximum Length of Buildings (Sec. 3.8.2.C): The ordinance states building lengths cannot exceed 180 feet. If exceeded, the ordinance allows the Planning Commission to modify the length requirement up to 360 feet if there are recreational or social common areas with a minimum capacity of 50 persons within the building and if building setbacks are increased an additional foot for each 3 foot of building length over 180. Buildings A, B, C, D, E, 3 and 4 each exceed 180 feet. No additional building setbacks are proposed to offset the building lengths. Building E, at 492 feet, also exceeds the maximum length of 360 feet. Only building E appears to have the recreational or social common areas with a minimum capacity of 50 persons. All buildings in the 1999 Plan complied with maximum length. **City Council approval of the deviation in building lengths would be required.**

2. Shoreline Setbacks (Sec 3.31.6.B.iv.e): "A minimum yard setback of 100 feet shall be provided from any lake shoreline including natural or manmade water bodies. Stormwater retention facilities shall be considered as shoreline when they are designed and developed as an integral part of the site's landscaped open space." The site plan locates several buildings, drive aisles and parking areas within about 50 feet of Wetland A and the northeastern stormwater basin. **City Council would need to approve the deviations from this requirement, or the site layout would need to be reconfigured to comply.**

3. Building Setbacks (Sec. 3.1.7.D): Along the western property line, buildings are 50 to 60-feet from the property line rather than the required 75 feet. It appears that all buildings in the 1999 Plan complied with building setbacks. **City Council would need to approve the deviations for the 5 buildings near the western property line.**

4. Parking Setbacks (Sec. 3.6.2.B): A minimum parking setback of 20 feet is required from interior side and rear lot lines, and front/exterior parking setbacks are to comply with the minimum building setback. For Novi Road, that would be 75 feet. In the 1999 Plan the parking complied with setback requirements. **City Council would need to approve the deviations to allow parking within 14.4 feet along the south side of the property, and 20 feet along Novi Road.**

5. Building Orientation *(Sec. 3.8.2.D):* A Zoning Ordinance deviation is requested to revise the required minimum orientation for buildings along the perimeter of the property from 45 degrees for Buildings A, 12 and 15. In the 1999 Plan, it appears 4 buildings would not have met the minimum required orientation to the property line. **This deviation is supported as it allows a more efficient use of space, and therefore potentially less disturbance of natural features. City Council would need to approve the deviations.**

6. Yard Setback Area *(Sec. 3.8.2.D)*: "Within any required front, side or rear yard setback from any property line in an RM-1 or RM-2 district, not more than 30% of such yard area shall be used for off-street parking, maneuvering lanes, service drives or loading areas." The applicant has provided an overall calculation for the entire site rather than treating each yard separately. **Please revise the calculations to indicate whether each front, side and rear yard complies.**

7. Distance Between Buildings (*Sec. 3.8.2.H*): A Zoning Ordinance deviation is requested to allow the calculated minimum distance between buildings to be less than required in seven locations. This calculation is made using a formula measuring the height and length between adjacent buildings, with a minimum distance of 30 feet required. **Based on the information provided by the applicant, the deviations for the seven locations range from 32.47 feet to 1.7 feet. City Council would need to approve the deviations.**

8. Number of Parking Spaces (Sec. 5.2.12.A)*:* Given the unit mix proposed, the number of required parking spaces is 964 according to the standards for a multifamily development (2 spaces per studio/1- and 2-bedroom unit, 2.5 per each 3+ bedroom units). The site plan proposes 942 spaces in both garage and surface lots. The applicant requests a deviation for the deficiency of 22 spaces. **Staff supports the relatively minor deviation to reduce impervious surface area on the site. City Council would need to approve the deviation.**

9. Wetland Impacts: Delineated wetlands are not consistently labeled and/or indicated on all sheets within the plan set. Updated documentation from the applicant was provided since the first review letters were finalized. The City's consultant has noted that the type of wetland is now indicated and quantified: Emergent 0.292 acre; Scrub-shrub 0.058 acres; and Forested 0.497 acre.

   The City's ordinance provides minimum required mitigation ratios, and the calculation for required mitigation for all impacted wetlands on-site is 1.519 acres. On Sheet 15, the plan indicates 0.922 acre of mitigation is proposed to be provided on-site. **The applicant's response letter further states that the remaining 0.597 acres of required mitigation is "to be provided through purchase of credits from an EGLE approved wetland mitigation bank" and notes that the proposed mitigation on-site is more than a 1:1 replacement. This, however, is not consistent with the City's Wetland and Watercourse Protection ordinance (Chapter 12 of the Code), which requires mitigation on-site, or off-site within the City's jurisdiction. The applicant also states they will not provide conservation easements for preservation of the wetland mitigation areas constructed on-site.**

   Additionally, the City's wetland consultant stated in their initial review letter that the wetland delineation seems to have missed both individual wetland areas and stream swale connections between wetlands on-site (comments 2, 3 and 4 in the initial letter). The applicant's wetland consultant conducted additional study and documentation regarding the wetlands onsite, and the City's wetland consultant has now concurred with the applicant's assessment of the regulated wetland areas on-site (pending any final determination by EGLE). **Please see the Wetland Review addendum dated June 11, 2024.**

10. Wetland Buffer Impacts (Sec. 3.6.2.M): The ordinance states that a 25-foot setback from wetlands shall be maintained, which is known as a wetland buffer. Any impacts to the buffer area require an Authorization to Encroach from the City's wetland consultant. Clear indications of both temporary and permanent impacts are needed. The applicant has stated 1.92 acres of temporary buffer impact is proposed, however much of the impacts are associated with wetlands that are being permanently removed for construction, and therefore the impacts to the buffers are also permanent as no restoration is proposed. **Temporary vs. permanent impacts shall be clarified in future submittals.**

11. Stormwater Management: The applicant's response letter states "The City informed the Property Owner it acquired (through tax foreclosure) the City Parcel with the intention of utilizing it for the development of Society Hill." Staff is not able to verify the accuracy of this information as it was not the stated intention of the purchase in the public documents available. However, we do note this would appear unusual for City Council to purchase with public funds a piece of property for the benefit of a private developer**. It will be up to the current City Council to determine whether or not to grant an easement or sell the property for the developers use.**

12. Traffic Study (Sec. 3.31.4.A.iii): The PD-1 Option requires a Traffic Study to be provided, regardless of site size, in accordance with the requirements set forth in the Site Plan and Development Manual. The applicant has provided a Trip Generation Analysis (TGA) to show that when compared to the 1999 proposal, the number of trips generated by the new proposal does not meet the threshold for requiring a Traffic Study. The City's Traffic consultant does not support a waiver of the Traffic

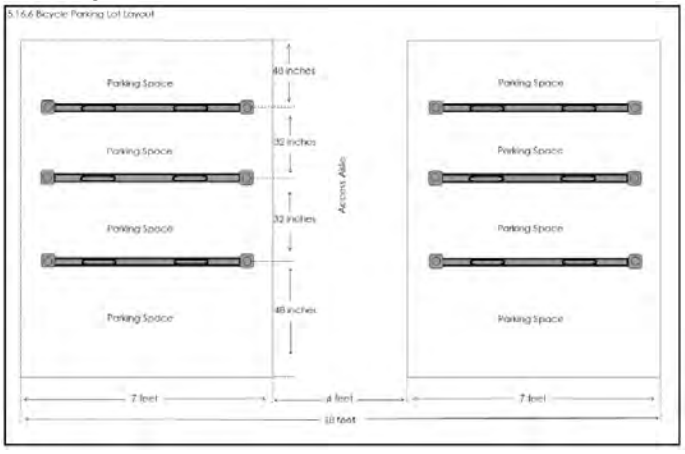
Impact Study since traffic conditions in the project area have changed considerably since 1999 – both the number of developments and the roadway networks are significantly different than they were 25 years ago. Peak hour trips in both the AM and PM are almost 2-times the threshold for study, and daily one-directional trips are nearly 3-times the threshold for study. The most recent Traffic Study found in our files from 1996 (with an assumption of 300 units) had estimated daily trips to be approximately 1,900. The initial estimate from the applicant's consultant estimated 2,900 daily trips.

Following the initial review and completion of the review letter, the City's Traffic Engineering Consultant attended a meeting and conferred with the applicant's Traffic Engineering Consultant to determine if there could be a resolution to this issue. Following that meeting, the City's Traffic Engineering Consultant provided the following comments: As per the Trip Generation Analysis (Table 2), 2,162 new trips are estimated to be added to the surrounding road network daily over and above today's traffic. Therefore, the City would want to know the impact/mitigation on the surrounding road network. However, the conclusion of the study can consider it is already approved for 1902 trips (TGA Table 1) if the City is considering the 1999 approved site plan as a base (ultimately reduced impact on their part) across all the disciplines. **City Council will need to decide whether to waive the requirement for a Traffic Impact Study.**

13. Parking on Major Drive (Sec. 5.10.1.B): Based on the ordinance definition nearly all private drives through the site would be classified as Major Drives if they exceed 600 feet (currently shown as Reserve Blvd, Society Hill Drive, Society Hill Blvd)**.** "Angled and perpendicular parking spaces may be accessed directly from a minor drive or parking lot aisle, but not from a major drive." Perpendicular parking is shown throughout the site on major drives. The 1999 Plan had some areas of visitor parking that were perpendicular to the major drives. **City Council would need to approve the deviation.**

14. Building Setbacks from Parking (Sec. 3.8.2.F & Sec. 5.10.1.B.vi): Both ordinance sections prohibit parking spaces to be within 25 feet of any wall of a dwelling structure. In several locations parking is closer than 25 feet from the building, and in some cases as close as 12 or 14 feet. It is unclear if the 1999 Plan had parking within 25 feet of the buildings as dimensions were not indicated clearly, and the scale is not accurate. **City Council would need to approve the deviation.**

15. Bicycle Parking (Sec. 5.16): Outdoor bicycle parking spaces are indicated in 3 areas on the site plan. Distributing the spaces throughout the site should be considered for greater convenience to users. The ordinance states that they must be accessible from adjacent streets and pathways via a paved route with a minimum 6-foot width. Currently each is accessed via a 5-foot sidewalk. **The applicant shall provide the 6-foot path from the nearest street. The bike parking layout was recently revised in a text amendment as shown below.**



16. Other Reviews:
    a. Engineering Review: **Engineering does not recommend approval at this time.** See review letter for several issues to be addressed, including concerns with the Stormwater Management Plan.
    b. Landscape Review: Landscape **does not recommend approval at this time.**
    c. Wetland Review: Wetlands **does not recommend approval at this time.** See review letter for several issues to be addressed, including incomplete wetland delineation and insufficient wetland mitigation.
    d. Woodland Review: Woodlands **does not recommend approval at this time**. See review letter for several issues to be addressed, including an incomplete tree survey.
    e. Traffic Review: Traffic **does not recommend approval at this time**. See review letter for issues to be addressed, including need for Traffic Impact Study.
    f. Facade Review: Façade recommends approval. Section 9 waivers for Horizontal Fiber Cement Siding are recommended for approval on Buildings A-E. The townhome buildings are in full compliance with the ordinance.
    g. Fire Review: Fire recommends approval with conditions to be addressed in future submittal. See comments in Fire Review letter.

SPECIAL LAND USE CONSIDERATIONS

When the PD-1 Option is utilized, all uses fall under the Special Land Use requirements (Section 3.31). Section 6.1.2.C of the Zoning Ordinance outlines specific factors the approving body shall consider in the review of the Special Land Use Permit request:

- Whether, relative to other feasible uses of the site, the proposed use will cause any detrimental impact on existing thoroughfares in terms of overall volumes, capacity, safety, vehicular turning patterns, intersections, view obstructions, line of sight, ingress and egress, acceleration/deceleration lanes, off-street parking, off-street loading/unloading, travel times and thoroughfare level of service.
- Whether, relative to other feasible uses of the site, the proposed use will cause any detrimental impact on the capabilities of public services and facilities, including water service, sanitary sewer service, storm water disposal and police and fire protection to service existing and planned uses in the area.
- Whether, relative to other feasible uses of the site, the proposed use is compatible with the natural features and characteristics of the land, including existing woodlands, wetlands, watercourses and wildlife habitats.
- Whether, relative to other feasible uses of the site, the proposed use is compatible with adjacent uses of land in terms of location, size, character, and impact on adjacent property or the surrounding neighborhood.
- Whether, relative to other feasible uses of the site, the proposed use is consistent with the goals, objectives and recommendations of the City's Master Plan for Land Use.
- Whether, relative to other feasible uses of the site, the proposed use will promote the use of land in a socially and economically desirable manner.
- Whether, relative to other feasible uses of the site, the proposed use is (1) listed among the provision of uses requiring special land use review as set forth in the various zoning districts of this Ordinance, and (2) is in harmony with the purposes and conforms to the applicable site design regulations of the zoning district in which it is located.

PLANNED DEVELOPMENT OPTION

Section 3.31.4 of the ordinance outlines the review procedures for Site Plans using the PD Option. This (normally) requires the Preliminary Site Plan to receive a recommendation for approval or denial from the Planning Commission, with City Council ultimately approving or denying the proposed plan. Here, again, given the Consent Judgment provisions, the City Council will be undertaking the review.

Section 3.31.5: Deviations From Area, Bulk, Yard, and Dimensional Requirements. (Current version of PD Option Ordinance)
As part of approval of a Preliminary Site Plan, the City Council is authorized to grant deviations from the strict terms of the zoning ordinance governing area, bulk, yard, and dimensional requirements applicable to the property; provided, however, that such authorization to grant deviations shall be conditioned upon the Council finding:

A. That each zoning ordinance provision from which a deviation is sought would, if the deviation were not granted, prohibit an enhancement of the development that would be in the public interest;
B. That approving the proposed deviation would be compatible with the existing and planned uses in the surrounding area;
C. That the proposed deviation would not be detrimental to the natural features and resources of the affected property and surrounding area, or would enhance or preserve such natural features and resources;
D. That the proposed deviation would not be injurious to the safety or convenience of vehicular or pedestrian traffic; and
E. That the proposed deviation would not cause an adverse fiscal or financial impact on the City's ability to provide services and facilities to the property or to the public as a whole.

In determining whether to grant any such deviation, the Council shall be authorized to attach reasonable conditions to the Preliminary Site Plan, in accordance with Section 3.31.4.B.

NEXT STEP: CITY COUNCIL MEETING

Because amendments to the 2001 Consent Judgment will be required, and because the City has indicated that the City Council will be the body to undertake all reviews, the Concept Plans will be forwarded to City Council for their initial review. Staff will work with the applicant to select an available date. We will need the following at least 10 days before the scheduled meeting:

1. Original Concept Plan submittal in PDF format (maximum of 10MB). **NO CHANGES MADE. (This has been received)**
2. A response letter addressing ALL the comments from ALL the review letters and **indicate any changes you intend to make to future submittals.**
3. A color rendering of the Site Plan, if any. (*Renderings of buildings have been received*)

Alternatively, if you wish to submit revisions to the Concept Plan for review prior to going to City Council for their initial review, please contact Lindsay Bell for further instructions on submittal requirements.

CITY COUNCIL PUBLIC HEARING

At the request of the applicant, this project is to be scheduled for public hearing before City Council for approval of the PD-1 Preliminary Site Plan, Woodland and Wetland Permits, and Stormwater Management Plan, and proposed Amendment of the Consent Judgment. Applicant has elected to move forward to City Council consideration and action even with disagreement with a negative recommendations by City Staff/Consultants.

If City Council approves the Preliminary Site Plan and proposed amendment to the Consent Judgment, counsel for the parties will finalize the amendment and submit it to the Court for entry.

FINAL SITE PLAN SUBMITTAL

If the Preliminary Site Plan and Consent Judgment amendment is granted approval, the following shall be submitted for administrative Final Site Plan review and approval:

1. Seven copies of Final Site Plan addressing all comments from Preliminary review
2. Response letter **addressing all comments and refer to sheet numbers where the change is reflected**
3. Final Site Plan Application
4. Final Site Plan Checklist
5. Engineering Cost Estimate
6. Landscape Cost Estimate
7. Other Agency Checklist
8. Hazardous Materials Packet (Non-residential developments)
9. Non-Domestic User Survey (Non-residential developments)
10. No Revision Façade Affidavit (if no changes are proposed to building elevations)
11. Legal Documents as required
12. Drafts of any legal documents (note that off-site easements need to be executed and any on-site easements need to be submitted in draft form before stamping sets will be stamped)

ELECTRONIC STAMPING SET SUBMITTAL AND RESPONSE LETTER

After receiving Final Site Plan approval, please submit the following for Electronic Stamping Set approval:

1. Plans addressing the comments in all of the staff and consultant review letters in PDF format.
2. Response letter addressing all comments in ALL letters and ALL charts and **refer to sheet numbers where the change is reflected.**

STAMPING SET APPROVAL

Stamping sets will be required for this project. After having received all the ESS review comments from City staff the applicant should make the appropriate changes on the plans and submit **10 size 24" x 36" copies with original signature and original seals,** to the Community Development Department for final Stamping Set approval.

SITE ADDRESSING

The applicant should contact the Building Division for an address prior to applying for a building permit. Building permit applications cannot be processed without a correct address. The address application can be found on the Internet at www.cityofnovi.org under the forms page of the Community Development Department.

Please contact Brian Riley [248.347.0438] in the Community Development Department with any specific questions regarding addressing of sites.

PRE-CONSTRUCTION MEETING

A Pre-Construction meeting is required for this project. Prior to the start of any work on the site, Pre-Construction (Pre-Con) meetings must be held with the applicant's contractor and the City's consulting engineer. Pre-Con meetings are generally held after Stamping Sets have been issued and prior to the start of any work on the site. There are a variety of requirements, fees and permits that must be issued before a Pre-Con can be scheduled. If you have questions regarding the checklist or the Pre-Con itself, please contact Sarah Marchioni [248.347.0430 or smarchioni@cityofnovi.org] in the Community Development Department.

CHAPTER 26.5

Chapter 26.5 of the City of Novi Code of Ordinances generally requires all projects be completed within two years of the issuance of any starting permit. Please contact Sarah Marchioni at 248-347-

0430 for additional information on starting permits. The applicant should review and be aware of the requirements of Chapter 26.5 before starting construction.

If the applicant has any questions concerning the above review or the process in general, do not hesitate to contact me at 248.347.0484 or lbell@cityofnovi.org.

Lindsay Bell

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Lindsay Bell, *AICP,* Senior Planner

PLANNING REVIEW CHART: PD-1/RM-1 with Consent Judgement

Review Date: April 19, 2024 (rev. 6/6/24)
Review Type: Revised Consent Judgment Plan Review
Project Name: **JSP24-04 Society Hill**
West of Novi Road, South of 12.5 Mile Road
Plan Date: March 25, 2024
Prepared by: Lindsay Bell, Senior Planner
E-mail: lbell@cityofnovi.org; **Phone:** (248) 347-0484

Items in **Bold** need to be addressed by the applicant with next submittal. **Bold Underline** items are possible deviations. *Italicized* items should be noted.

Item	Required Code	Proposed	Meets Code	Comments
Zoning and Use Requirements				
Master Plan	Multiple family residential, with PD-1 Option	Multiple family residential, PD-1 Option	Yes	
Zoning	RM-1 Low Density Multiple Family (with Consent Judgement)	PD-1 Option with multiple family	Yes	
Uses Permitted (Sec 3.31.6.B)	RM-1 Uses permitted listed in Section 3.1.7, Mid-rise multiple family, accessory retail and office	463 mid-rise Multiple-Family Residential units	**Yes***	***CJ allowed for 312 units, so the new site plan would need to be approved by City Council and amendment of the consent judgment will be required.**
PD-1 Option *(Sec. 3.31.4 & 6)*				
Community Impact Statement		Provided	Yes	
Traffic Study		Trip Generation Analysis provided	**TBD**	**Applicant seeks waiver of Traffic Study requirement with justification that the incremental increase in units from 1999 approved plan would not meet threshold for study**
Special Land Use (Sec. 6.1.2.C)	Provisions met?		**TBD**	**See Planning Review for detailed comments**
Applicable Standards Met? (Sec. 3.31.4.A)	See section 3.31.4.A for full list of conditions to be considered by City Council for approval		**TBD**	**See Planning Review for detailed comments**
Building Height (Sec 3.31.6.B.iv.a)	- No less than 3 nor more than 5 stories - 2.5 story Low-rise low-density dwellings may also be permitted if at least 1 complete wall with windows shall be fully exposed	Bldgs A-E: 5 stories Townhouses: 3 stories Cottages: 2.5 stories	Yes	
Room Count (Sec 3.31.6.B.iv.b)	Total number of rooms (not including dining, kitchen, sanitary rooms) shall not be more than area of parcel (sf)	1,359 rooms proposed.	Yes	**Consent Judgment plan from 1999 had 1,264 rooms (7.5% increase), but the current proposal is**

Item	Required Code		Proposed	Meets Code	Comments
	(gross area minus wetland over 2 acres) divided by 700 *1,0436,262 SF/700 = 1,490*				**under the maximum number allowed in PD-1**
Public Utilities (Sec 3.31.6.B.iv.b)	Community water and sewer must be available				**See Engineering Review**
Shoreline setback (Sec 3.31.6.B.iv.e)	Minimum 100-foot setback from any lake shoreline, including natural or manmade water bodies. The area of setback may not be used for off-street parking or accessory buildings.		Wetland A has parking and drive aisles just over 25 feet; North detention basin needs 25-foot buffer shown, and buildings appear to be within 100 feet	**No**	**Wetland areas and detention basins are included in this definition** **Deviation required for several locations**
Residential: Height, Bulk, Density, and Area Limitations *(Sec. 3.1.7.D)*					
Frontage on a Public Street *(Sec. 5.12)*	Frontage on a Public Street is required		Frontage on Novi Road and 12 ½ Mile Road	Yes	
Minimum Zoning Lot Size for each Unit: in Acres (Sec 3.8.1)	RM-1 Required Conditions See below		33.89 acres		
Minimum Zoning Lot Size for each Unit: Width in Feet (Sec 3.8.1)					
Open Space Area *(Sec. 3.1.7.D)*	200 sf Minimum usable open space per dwelling unit For a total of 463 dwelling units, required: 92,600 SF		Sheet 14 shows total of 165,963 sf proposed (3.81 acres)	Yes	
Maximum % of Lot Area Covered (By All Buildings)	25%		14.84%	Yes	
Minimum Floor Area per Unit *(Sec. 3.1.7.D)*	Efficiency	400 sf	617 sf	Yes	
	1 bedroom	500 sf	777 sf	Yes	
	2 bedroom	750 sf	1,051 sf	Yes	
	3 bedroom	900 sf	1,601 sf	Yes	
	4 bedroom	1,000 sf		NA	
Residential Building Setbacks *(Sec. 3.1.7.D, Sec. 3.6.2.B, and Sec. 3.8.2.C - if applicable)*					
Front (East)	75 feet		89 feet	Yes	
Exterior Side (North)	50 feet		50 feet	Yes	
Side (South)	75 feet		75 feet	Yes	
Rear (West)	75 feet		50.8 – 60.4 feet	**No**	**Deviation required if not corrected for Buildings 11, 12, 13, 14, and 15**

Item	Required Code	Proposed	Meets Code	Comments
Parking Setbacks *(Sec. 3.1.7.D) Refer to applicable notes in Sec. 3.6.2*				
Front (East)	75 feet (Street frontage)	20 feet	**No**	**Deviation required**
Exterior Side (North)	75 feet (Street frontage)		NA	
Side (South)	20 feet	14.4 feet	**No**	**Deviation required**
Rear (West)	20 feet	Exceeds 20 feet	Yes	
RM-1: Note to District Standards *(Sec. 3.6.2)*				
Lot Area Requirements *(Sec. 3.6.2.A)*	Lot width shall be measured between the two points where the front setback line intersects the side lot lines. Within the residential districts, where a main building is placed behind the front setback line, the distance between the side lot lines shall not be reduced below 90% of the required minimum lot width at any point between the front set back line and such main building.		NA	
Setback Requirements *(Sec. 3.6.2.B)*	- For all off-street parking lots serving any use other than single-family residential, the setback from any interior side or rear lot line shall be not less than twenty (20) feet, and the setback from the front and any exterior side lot line shall comply with the building setback required for such uses specified above.	75-foot parking setback from front/exterior side yard required. Proposed parking setbacks are noted above	**No**	**Off-street parking lots shall not be setback less than 20 feet from any interior side or rear lot line. Deviation would be required for the front (east) and side (south) property lines.**
Exterior Side Yard Abutting a Street (Sec 3.6.2.C)	All exterior side yards abutting a street shall be provided with a setback equal to front yard.	Complies	Yes	
Wetland/Watercourse Setback (Sec 3.6.2.M)	A setback of 25ft from wetlands and from high watermark course shall be maintained	Sheet 15 shows wetland buffer impacts to 1.918 acres – the response letter says they are temporary, however no restoration is proposed which means they are permanent	**No**	**Authorization to Encroach into Wetland Buffer Area will be required. Clearly indicate both temporary and permanent impacts (in area and fill quantity) proposed to each wetland buffer in the next submittal.**
RM-1 District Required Conditions *(Sec. 3.8 & 3.10)*				
Maximum Number of Units	Efficiency < 10 percent of the units	2%	Yes	

Item	Required Code		Proposed	Meets Code	Comments
(Sec. 3.8.1.B.ii)	1 bedroom units < 33 percent of the units		26% proposed	Yes	
	Balance should be at least 2 bedroom units		Rest are 1 bd + den or larger	Yes	
Room Count per Dwelling Unit Size *(Sec. 3.8.1.C)* *An extra room such as den, library or other extra room count as an additional bedroom*	**Dwelling Unit Size**	**Room Count ***			
	Efficiency	1	8	NA	*Total of 1,359 rooms.*
	1 bed*	2	120 units – 240 rooms	Yes	
	2 bedroom (or 1 +den)	3	229 units – 687 rooms	Yes	
	3 or more bedrooms (incl 2+ den)	4	106 units – 424 rooms	Yes	
For the purpose of determining lot area requirements and density in a multiple-family district, a room is a living room, dining room or bedroom, equal to at least eighty (80) square feet in area. A room shall not include the area in kitchen, sanitary facilities, utility provisions, corridors, hallways, and storage. Plans presented showing one (1), two (2), or three (3) bedroom units and including a "den," "library," or other extra room shall count such extra room as a bedroom for the purpose of computing density.					
Structure frontage *(Sec. 3.8.2.B)*	Each structure in the dwelling group shall front either on a dedicated public street or approved private drive.		Drives will be private.	Yes	
Maximum length of the buildings *(Sec. 3.8.2.C)*	A single building or a group of attached buildings cannot exceed 180 ft.		Building A: **218.5 ft** Building B: **218.5 ft** Building C: **218.5 ft** Building D: **218.5 ft** Building E: **492 ft** Building 1: 134.3 ft Building 2: 134.3 ft Building 3: **194.5 ft** Building 4: **194.5 ft** Building 5: 77.3 ft Building 6: 77.3 ft Building 7: 134.3 ft Building 8: 134.3 ft Building 9: 151.3 ft Building 10: 117.3 ft Building 11: 151.3 ft Building 12: 151.3 ft Building 13: 140 ft Building 14: 140 ft Building 15: 134.3 ft Building 16: 134.3 ft	**No**	**<u>Buildings A, B, C, D, E, 3 and 4 all require deviations</u>**
Modification of maximum length *(Sec. 3.8.2.C)*	Planning Commission may modify the extra length up to 360 ft if common areas with a minimum capacity of 50 persons for recreation or social purposes. Additional setback of 1 ft. for every 3 ft.		Building E exceeds 360 feet allowed; additional setback of 104 feet required (not met) – Other buildings do not contain	**No**	*Buildings do not meet requirements for modification of length requirement*

Item	Required Code	Proposed	Meets Code	Comments
	in excess of 180 ft. from all property lines.	common areas for recreation/social purposes		
Building Orientation *(Sec. 3.8.2.D)*	Where any multiple dwelling structure and/ or accessory structure is located along an outer perimeter property line adjacent to another residential or nonresidential district, said structure shall be oriented at a minimum angle of 45 degrees to property line.	Some buildings along perimeter not angled, required to be angled min. 45°	**No**	**Deviation required for Buildings A, 12, and 15**
Yard setback restrictions *(Sec. 3.8.2.E)*	Within any front, side or rear yard, off-street parking, maneuvering lanes, service drives or loading areas cannot exceed 30% of yard area	Overall calculation provided	**TBD**	**Provide yard setback calculations for East and South yard areas separately**
Off-Street Parking or related drives *(Sec. 3.8.2.F)* *Off-street parking and related drives shall be…*	No closer than 25 ft. to any wall of a dwelling structure that contains openings involving living areas	Parking located along buildings appears as close as 12.4 feet in some locations	**No**	**Deviation required for several areas**
	No closer than 8 ft for other walls		**TBD**	**Deviation may be required**
	No closer than 20 ft from ROW and property line	20 ft	Yes	
Pedestrian Connectivity *(Sec. 3.8.2.G)*	5 feet sidewalks on both sides of the Private drive are required to permit safe and convenient pedestrian access.	Sidewalks and pathways appear to be provided throughout the site, 5' minimum	Yes	
	Where feasible sidewalks shall be connected to other pedestrian features abutting the site.	Connection to sidewalk to west on 12 ½ Mile, into site	**Yes?**	**Make sure proposed sidewalk aligns with existing sidewalk along 12 ½ Mile (Charneth Fen) – appears to be offset**
	All sidewalks shall comply with barrier free design standards	Barrier free markings shown	**TBD**	**See Traffic Review for more information.**
Minimum Distance between the buildings *(Sec. 3.8.2.H)*	**(**Total length of building A **+** total length of building B **+** 2(height of building **+** height of building B)**)/**6	Provided in response letter – calculation indicates 7 instances of non-compliance	**No**	**Applicant requests deviation for distance between A-E, D-E, 1-2, 3-4, 9-11, 15-16 and 14-13.**
Minimum Distance between the buildings *(Sec. 3.8.2.H)*	In no instance shall this distance be less than thirty (30) feet unless there is a corner-to-corner relationship in which case the minimum distance shall be fifteen (15) feet.	All buildings are greater than 30 feet apart except for corner to corner	Yes	Complies

Item	Required Code	Proposed	Meets Code	Comments
Number of Parking Spaces Residential, Multiple-family *(Sec. 5.2.12.A)*	Two (2) for each dwelling unit having two (2) or less bedrooms and two and one-half (2 ½) for each dwelling unit having three (3) or more bedrooms 2 x (178 1-bed + 256 2-bed) = 868 | 2.5 x 38 3-bed = 95 **Spaces Required: 964**	942 spaces provided	**No**	**Applicant requests deviation to permit deficiency of 22 parking spaces**
Parking Space Dimensions and Maneuvering Lanes *(Sec. 5.3.2)*	- 90° Parking: 9 ft. x 19 ft. - 24 ft. two way drives - 9 ft. x 17 ft. parking spaces allowed along 7 ft. wide interior sidewalks as long as detail indicates a 4" curb at these locations and along landscaping			**See Traffic Review**
End Islands *(Sec. 5.3.12)*	- End Islands with landscaping and raised curbs are required at the end of all parking bays that abut traffic circulation aisles. - The end islands shall generally be at least 8 ft. wide, have an outside radius of 15 ft., and be constructed 3 ft. shorter than the adjacent parking stall			**See Traffic Review**
Parking stall located adjacent to a parking lot entrance (public or private) (Sec. 5.3.13)	Shall not be located closer than twenty-five (25) feet from the street right-of-way (ROW) line, street easement or sidewalk, whichever is closer		Yes	
Barrier Free Spaces Barrier Free Code	With 963 spaces required, 16 standard BF and 4 van-accessible BF spaces required	2 van accessible, 2 standard	**No**	**Review ADA laws and comply with requirements**
Barrier Free Space Dimensions Barrier Free Code	- 8' wide with an 8' wide access aisle for van accessible spaces - 8' wide with a 5' wide access aisle for regular accessible spaces	8' wide with curb, 8' access	TBD	
Barrier Free Signs Barrier Free Code	One sign for each accessible parking space.	Not shown	**No**	**See Traffic Review.**
Corner Clearance (Sec. 5.9)	No fence, wall plant material, sign or other obstruction shall be permitted within the clear view zone above a height of	Shall comply	Yes	**See Landscape Review.**

Item	Required Code	Proposed	Meets Code	Comments
	2 feet from established street grade			
Minimum number of Bicycle Parking (Sec. 5.16.1) Multiple-family residential	One (1) space for each five (5) dwelling units **Required: 93 Spaces**	24 surface spaces 70 interior spaces	Yes	
Bicycle Parking General requirements *(Sec. 5.16)*	No farther than 120 ft. from the entrance being served		Yes	
	When 4 or more spaces are required for a building with multiple entrances, the spaces shall be provided in multiple locations	3 locations shown	**TBD**	**Consider providing bike parking in more locations convenient to more units**
	Spaces to be paved and the bike rack shall be inverted "U" design Shall be accessible via 6 ft. paved sidewalk	5' sidewalks shown	**No**	**6-ft sidewalk pathway leading to bike racks required**
	Bike parking facilities shall be located along the principal building entrance approach, clearly visible		Yes	
	When 20 or more spaces are required, 25% shall be provided in covered locations	70 interior spaces	Yes	19 bike spaces must be covered
Bicycle Parking Lot layout *(Sec 5.16.6)*	Parking space width: 7 ft. One tier width: 11 ft. Two tier width: 18 ft. Maneuvering lane width: 4 ft. Parking space depth: 32 in		**No**	**The ordinance has recently been updated to require new dimensions please correct on future submittals**
Additional Road Design, Building Setback, And Parking Setback Requirements, Multiple-Family Uses *(Sec. 5.10)*				
Road standards *(Sec. 5.10)*	A private drive network within a cluster, two -family, multiple-family, or non-residential uses and developments shall be built to City of Novi Design and Construction Standards for local street standards (28 feet back-to-back width)	Generally, 28 feet wide	**No**	**See Traffic/Engineering Review**
Major Drives	Width: 28 feet	Generally, 24-28 feet wide	**No**	
Minor Drive	- Cannot exceed 600 feet - Width: 24 feet with no on-street parking - Width: 28 feet with parking on one side - Parking on two sides is not allowed - Needs turn-around if longer than 150 feet			

Item	Required Code	Proposed	Meets Code	Comments
Parking on Major and Minor Drives	- Angled and perpendicular parking, permitted on minor drive, but not from a major drive; - minimum centerline radius: 100 feet - Adjacent parking and on-street parking shall be limited near curves with less than two-hundred thirty (230) feet of centerline radius - Minimum building setback from the end of a parking stall shall be 25 feet in residential districts.	Perpendicular parking proposed on major drives Parking setback is less than 25 feet from residential structures in multiple locations	**No**	**<u>Deviations requested</u>**
Accessory and Rooftop Structures *(Sec. 4.19)*				
Dumpster *(Sec 4.19.2.F)*	- Located in rear yard - Attached to the building or no closer than 10 ft. from building if not attached - Not located in parking setback - If no setback, then it cannot be any closer than 10 ft, from property line. - Away from Barrier free Spaces	Each apt building will have a dedicated chute/trash room for collection by maintenance staff, brought to trash compactor; townhome units will have individual bins for service collection	Yes	Trash compactor located 34 feet from southern property line
Dumpster Enclosure *(Sec. 21-145. (c) Chapter 21 of City Code of Ordinances)*	- Screened from public view - A wall or fence 1 ft. higher than height of refuse bin - And no less than 5 ft. on three sides - Posts or bumpers to protect the screening - Hard surface pad. - Screening Materials: Masonry, wood or evergreen shrubbery	Proposed garbage compactor located on south side of property, adjacent to wetland A mitigation area; Detail indicates masonry veneer to match buildings	Yes?	
Roof top equipment and wall mounted utility equipment *(Sec. 4.19.2.E.ii)*	All roof top equipment must be screened, and all wall mounted utility equipment must be enclosed and integrated into the design and color of the building	Not visible from street view	Yes	
Roof top appurtenances screening	Roof top appurtenances shall be screened in accordance with applicable facade regulations, and shall not be visible from any street, road or adjacent property.	Parapets shown	Yes	

Item	Required Code	Proposed	Meets Code	Comments
Sidewalks and Other Requirements				
Non-Motorized Plan	No additional pathways shown.	Sidewalk on 12 ½ Mile	Yes	
Sidewalks *(Subdivision Ordinance: Sec. 4.05)*	Sidewalks are required on both sides of proposed drives	Appear to be provided	Yes	
Public Sidewalks *(Chapter 11, Sec.11-276(b), Subdivision Ordinance: Sec. 4.05)*	Connection to sidewalks on adjacent roads required.	Connection provided to 12 ½ Mile sidewalk, from Novi Road into site	Yes	
Entryway lighting *(Sec. 5.7.N)*	One streetlight is required per entrance.			
Building Code and Other Requirements				
Woodlands *(City Code Ch. 37)*	Replacement of removed trees		**TBD**	**See Woodland Review**
Wetlands *(City Code Ch. 12, Art. V)*	Mitigation of removed wetlands at ratio of 1.5:1 emergent wetland, 2:1 for forested wetlands	Mitigation calculations in response letter – not on plans	**TBD**	**See Wetland Review. <u>Clarification of mitigation plans is needed.</u>**
Design and Construction Standards Manual	Land description, Sidwell number (metes and bounds for acreage parcel, lot number(s), Liber, and page for subdivisions).	Generally provided	**TBD**	
General layout and dimension of proposed physical improvements	Location of all existing and proposed buildings, proposed building heights, building layouts, (floor area in square feet), location of proposed parking and parking layout, streets and drives, and indicate square footage of pavement area (indicate public or private).	Generally provided	Yes	**See reviews for requested information**
Economic Impact Information	- Total cost of the proposed building & site improvements - Number of anticipated jobs created (during construction & after building is occupied, if known)	See Community Impact statement		
Building Exits	Building exits must be connected to sidewalk system or parking lot.		**TBD**	
Phasing	All projects must be completed within two years of the issuance of any starting	If proposed, Phasing plans are required to be	**TBD**	**Clarify if project will be phased – provide a clear phasing plan to be able to determine what will be**

Item	Required Code	Proposed	Meets Code	Comments
	permit or phasing plan should be provided	approved with PSP submittal		**completed at end of each phase for inspection purposes and CofOs**
Other Permits and Approvals				
Development/ Business Sign *(City Code Sec 28.3)*	The leading edge of the sign structure shall be a minimum of 10 ft. behind the right-of-way. Entranceway shall be a maximum of 24 square feet, measured by completely enclosing all lettering within a geometric shape. Maximum height of the sign shall be 5 ft.		**TBD**	**Show the location of any entranceway signs if proposed;** *Contact Ordinance Enforcement at 248.735.5678, for sign ordinance questions.*
Project & Street Naming Committee	Project will need approval from the Street & Project Naming Committee	See letter from Diana Shanahan	**TBD**	*Contact Diana Shanahan at 248.347.0475 or via email dshanahan@cityofnovi.org*
Parcel Split or Combination or Condominium Approval	Any parcel splits or combinations or condominium approvals must be completed before Stamping Set approval.			
Other Legal Requirements				
Master Deed/Covenants and Restrictions	Applicant is required to submit this information for review with the Final Site Plan submittal	Single ownership proposed for rental community	NA	
Conservation easements	Conservation easements may be required for woodland impacts	Wetland and woodland easements likely required	**TBD**	Draft documents would be required prior to stamping set approval.
Lighting and Photometric Plan *(Sec. 5.7)*				
Intent *(Sec. 5.7.1)*	Establish appropriate minimum levels, prevent unnecessary glare, reduce spillover onto adjacent properties & reduce unnecessary transmission of light into the night sky			
Lighting Plan *(Sec. 5.7.2.A.i)*	Site plan showing location of all existing & proposed buildings, landscaping, streets, drives, parking areas & exterior lighting fixtures	Provided	Yes	
Building Lighting *(Sec. 5.7.2.A.iii)*	Relevant building elevation drawings showing all fixtures, the portions of the walls to be illuminated, illuminance levels of walls and the aiming points of any remote fixtures.	Not shown	**No**	

Item	Required Code	Proposed	Meets Code	Comments
Lighting Specifications *(Sec. 5.7.A.2.ii)*	Specifications for all proposed & existing lighting fixtures	Shown	Yes	
	Photometric data	Shown	Yes	
	Fixture height	Shown	Yes	
	Mounting & design	Shown	Yes	
	Glare control devices *(Also see Sec. 5.7.3.D)*	Shown	Yes	
	Type & color rendition of lamps	Color not provided	**No**	
	Hours of operation	24 hrs/day	Yes	
Max Height *(Sec. 5.7.3.A)*	Height not to exceed 25 feet	25 ft max	Yes	
Standard Notes *(Sec. 5.7.3.B)*	- Electrical service to light fixtures shall be placed underground - Flashing light shall not be permitted - Only necessary lighting for security purposes & limited operations shall be permitted after a site's hours of operation	Notes provided	Yes	
Indoor Lighting *(Sec. 5.7.3.H)*	- Indoor lighting shall not be the source of exterior glare or spillover			
Security Lighting *(Sec. 5.7.3.I)* Lighting for security purposes shall be directed only onto the area to be secured.	- All fixtures shall be located, shielded and aimed at the areas to be secured. - Fixtures mounted on the building and designed to illuminate the facade are preferred	Shown	Yes	
Color Spectrum Management *(Sec. 5.7.3.F)*	Non-Res and Multifamily: For all permanent lighting installations - minimum Color Rendering Index of 70 and Correlated Color Temperature of no greater than 3000 Kelvin	Not shown		**Provide information to verify compliance**
Parking Lot Lighting *(Sec. 5.7.3.J)*	- Provide the minimum illumination necessary to ensure adequate vision and comfort. - Full cut-off fixtures shall be used to prevent glare and spillover.	0.2 fc min proposed	Yes	
Min. Illumination *(Sec. 5.7.3.L)*	Parking areas: 0.2 fc min	0.2 min	Yes	
	Loading & unloading areas: 0.4 fc min			
	Walkways: 0.2 fc min			

Item	Required Code	Proposed	Meets Code	Comments
	Building entrances, frequent use: 1.0 fc min			
	Building entrances, infrequent use: 0.2 min			
Average Light Level *(Sec.5.7.3.L)*	Average light level of the surface being lit to the lowest light of the surface being lit shall not exceed 4:1	Appears to comply	Yes	
Max. Illumination adjacent to Non-Residential *(Sec. 5.7.3.L)*	When site abuts a non-residential district, maximum illumination at the property line shall not exceed 1 foot candle		NA	
Max. Illumination adjacent to Residential *(Sec. 5.7.3.M)*	- Fixture height not to exceed 25 feet - Cut off angle of 90 degrees or less - No direct light source shall be visible at the property line adjacent to residential at ground level - Maximum illumination at the prop line not to exceed 0.5 fc.	At the southern and northern property lines levels exceed 0.5 fc	**No**	**Reduce lighting in these locations to meet requirement**
Residential Developments *(Sec. 5.7.3.O)*	- Provide sufficient illumination (0.2 fc min) at each entrance from major thoroughfare - Residential projects may deviate from the min. illumination levels and uniformilty requirements of 5.7.3.L so long as site lighting for parking lots, property lines and security lighting is provided	Lighting at entrances exceeds min	Yes	

NOTES:
1. This table is a working summary chart and not intended to substitute for any Ordinance or City of Novi requirements or standards.
2. The section of the applicable ordinance or standard is indicated in parenthesis. Please refer to those sections in Article 3, 4 and 5 of the zoning ordinance for further details.
3. Please include a written response to any points requiring clarification or for any corresponding site plan modifications to the City of Novi Planning Department with future submittals.

ENGINEERING REVIEW
(Revised 6/11/12)

PLAN REVIEW CENTER REPORT

6/11/2024

Engineering Review

Society Hill
JSP24-0004

APPLICANT

Seiber Keast Engineering

REVIEW TYPE

Concept Plan

PROPERTY CHARACTERISTICS

- Site Location: Located west of Novi Road and south of 12 ½ Mile Road.
- Site Size: 35 acres
- Plan Date: 3-25-2024
- Design Engineer: Seiber Keast Lehner Engineering

PROJECT SUMMARY

- Construction of 21 multi-family residential buildings, a total of 472 units with a clubhouse. Site access would be provided via Novi Road and 12 ½ Mile Road.
- Connect to existing 24" water main on 12 ½ Mile Road and connect to 36" water main on Novi Road.
- Sanitary sewer service would be provided by an extension from the existing 12-inch sanitary sewer off-site. Sanitary leads will be provided for each building, along with a monitoring manhole for the Club house building.
- Storm water would be collected by two storm sewer collection systems, one proposed onsite, the other proposed on an off-site parcel.

RECOMMENDATION

Approval of the Preliminary Site Plan is NOT recommended until the following items are addressed.

Comments:

The Preliminary Site Plan does **NOT** meet the general requirements of Chapter 11 of the City of Novi Code of Ordinances, the Storm Water Management Ordinance and the Engineering Design Manual. The following items must be addressed at time of resubmittal:

Approval of the Preliminary Site Plan is not recommended until the following items are addressed:

1. A new traffic impact study MUST be provided for this site, the traffic impact study from 1996 is no longer valid:
    a. Per the Site Plan Development Manual, traffic count data shall not be more than 2 to 3 years old.
    b. There has been significant change in traffic conditions over the last 25 years. There have been multiple developments and roadway improvements since 1996, including the widening of 12 Mile Road and the development of Carlton Forest and Bolingbrooke.

2. Applicant has requested to submit the soil borings at time of Final Site Plan submittal, Engineering supports this contingent upon the applicant acknowledging if the groundwater elevation is too high, they will revise the detention basin plans to meet the city standards. Typically, this information is requested at the time of preliminary site plan submittal to ensure the applicant will not need to redesign basins at time of Final Site Plan.
    a. Soil borings will be required for both the off-site and on-site detention basin to ensure groundwater is not within the basin storage volume.
    b. Soil borings must not be more than 5 years old, as old soil borings would not accurately show the current groundwater elevation.
    c. The ground water elevation shall be at least 3 feet below the bottom of the basin or the permanent pool elevation. If the ground water elevation is too high, applicant must redesign basin.

The following items shall be addressed at time of the next submittal:

1. A Right-of-Way Permit will be required from the City of Novi.
2. The dedication of the master-planned right-of-way is requested for the project. Label the additional right-of-way width to be dedicated along 12 ½ as "proposed" right-of-way.
3. A opposite-side driveway spacing waiver is requested for the 12 ½ Mile Road approach. The speed on 12 ½ Mile Road is 30 mph so the driveway spacing requirement is 125 feet, current driveway spacing is 41 feet.
4. Generally, all proposed trees shall remain outside utility easements. Where proposed trees are required within a utility easement, the trees shall maintain a minimum 5-foot horizontal separation distance from watermain and 10-foot horizontal clearance from sanitary. All utilities and easements shall be shown on the landscaping plan at time of site plan submittal.
5. Show the locations of all light poles and bike rack on the utility plan. Light poles, bike racks, or mailboxes within utility easement require a license agreement.

6. Provide hydrant table, utility crossing table, utility structure tables with final site plan submittal.
7. The city has a project planned for 2025 for the rehabilitation of the Novi Road islands, coordinate with the Engineering Department at time of construction.

Water Main

8. Provide water main basis of design with final site plan submittal.
9. A tapping sleeve, valve and well is required at the connection to the existing water main.
10. Per current EGLE requirement, provide a profile for all proposed water main 8-inch and larger.
11. In the general notes and on the profile, add the following note: "Per the Ten States Standards Article 8.8.3, one full 20-foot pipe length of water main shall be used whenever storm sewer or sanitary sewer is crossed, and the pipe shall be centered on the crossing, in order to ensure 10-foot separation between water main and sewers."
12. Additionally, show the 20-foot full section of pipe under every crossing and label top of pipe and bottom of pipe elevations.
13. 6-inch hydrant leads are allowed for leads less than or equal to 25 feet in length. 8-inch leads are required for leads greater than 25 feet in length.
14. All gate valves 6" or larger shall be placed in a well with the exception of a hydrant shut off valve. A valve shall be placed in a box for water main smaller than 6".
15. Valves should be arranged so that no single line failure will require more than eight hundred (800) feet of main to be out of service.
16. Show riser room and stop-box locations with final site plan submittal.
17. A sealed set of utility plans along with the Michigan Department of Environment, Great Lakes & Energy (EGLE) permit application for water main construction, the Streamlined Water Main Permit Checklist, Contaminated Site Evaluation Checklist, and an electronic version of the utility plan should be submitted to the Engineering Division for review, assuming no further design changes are anticipated. Utility plan sets shall include only the cover sheet, any applicable utility sheets, and the standard detail sheets.

Irrigation Comments

18. Irrigation plans must be reviewed and approved prior to stamping set approval. Provide plans with final site plan submittal.

Sanitary Sewer

19. Provide a sanitary sewer monitoring manhole, unique to this site, within a dedicated access easement or within the road right-of-way. If not in the right-of-way, provide a 20-foot-wide access easement to the monitoring manhole from the right-of-way (rather than a public sanitary sewer easement). This will be needed for the club house building only.
20. Provide a sanitary sewer basis of design with site plan submittal. (Calculations should use peaking factor of 4.0 and 3.2 People/REU).

21. Provide profiles for sanitary sewer and illustrate all pipes intersecting with manholes on the sanitary profiles.

Storm Sewer

22. A minimum cover depth of 3 feet shall be maintained over all proposed storm sewer. Currently, a few pipe sections do not meet this standard. Grades shall be elevated, and minimum pipe slopes shall be used to maximize the cover depth. In situations where the minimum cover cannot be achieved, Class V pipe must be used with an absolute minimum cover depth of 2 feet. An explanation shall be provided where the cover depth cannot be provided.
23. Provide a four-foot-deep sump and an oil/gas separator in the last storm structure prior to discharge off- site/to the storm water basin.
24. An easement is required over the storm sewer accepting and conveying off-site drainage (this will only be needed if storm sewer is outside of right-of-way).
25. Provide a schedule listing the casting type, rim elevation, diameter, and invert sizes/elevations for each proposed, adjusted, or modified storm structure on the utility plan. Round castings shall be provided on all catch basins except curb inlet structures.

Storm Water Management Plan

26. The Storm Water Management Plan (SWMP) for this development shall be designed in accordance with the Storm Water Ordinance and Chapter 5 of the Engineering Design Manual.
27. Provide calculations verifying the post-development runoff rate directed to the proposed receiving drainage course does not exceed the pre-development runoff rate for the site.
28. As part of the Storm Drainage Facility Maintenance Easement Agreement, provide an access easement for maintenance over the storm water detention system and the pretreatment structure. Also, include an access easement to the detention area from the public road right-of-way.
29. SDFMEA will be needed for both the off-site basin and the on-site basin.
30. Provide pretreatment structure prior to discharge into each proposed detention basin.
31. Provide a soil boring in the vicinity of each storm water detention basin to determine soil conditions and to establish the high-water elevation of the groundwater table.
32. Provide supporting calculations for the runoff coefficient determination.
33. A runoff coefficient of 0.35 shall be used for all turf grass lawns (mowed lawns) and 0.95 shall be used for all impervious surfaces.
34. A 4-foot-wide safety shelf is required one foot below the permanent water surface elevation within the basin.
35. A 25-foot vegetated buffer shall be provided around the perimeter of each storm water basin where impervious area is directed to the basin via surface flow. A 25-foot vegetate buffer has not been provided on the west side of the

off-site basin. 25-foot vegetated buffer should be shown beyond the freeboard elevation.

36. Landscaping sheets should be updated to show proposed basin grades more clearly, proposed trees are shown located at high water elevation.
37. Trees cannot be planted at the highwater elevation, trees should be outside of the freeboard elevation.
38. Provide additional grades for the asphalt walkway next to off-site detention basin.
39. Indicate if forebay are proposed for northern detention basin, grades should be shown if this is proposed.
40. Low water elevations on the northern detention basin are incorrect, on the north side LW elevation is 942 and on southern side it is 946.

Paving & Grading

41. Provide a construction materials table on the Paving Plan listing the quantity and material type for each pavement cross-section being proposed.
42. Provide an emergency access gate at both ends of the proposed emergency access drive. The City's break-away gate detail (Figure VIII-K) can be found in Section 11-194 of the Code of Ordinances.
43. If gravel roads are proposed they must meet the minimum 35-ton requirement for firetruck, this must be noted on plans.
44. Provide existing and proposed contours on the Grading Plan at the time of the Final Site Plan submittal.
45. Provide at least 3-foot of buffer distance between the sidewalk and any fixed objects, including hydrants and irrigation backflow devices. Include a note on the plan where the 3-foot separation cannot be provided.
46. Site grading shall be limited to 1V:4H (25-percent), excluding landscaping berms.
47. The sidewalk within the right-of-way shall continue through the drive approach. If like materials are used for each, the sidewalk shall be striped through the approach. The sidewalk shall be increased to 6-inches thick along the crossing or match the proposed cross-section if the approach is concrete. The sidewalk should also be 6-inches thick where the emergency access drive is located.
48. No more than 15 consecutive parking spaces are allowed, plans show 17 consecutive spaces. Adjust parking island locations so that there are no mor than 15 spaces.
49. The end islands shall conform to the City standard island design, or variations of the standard design, while still conforming to the standards as outlined in Section 2506 of Appendix A of the Zoning ordinance (i.e. 2' minor radius, 15' major radius, minimum 8' wide, 3' shorter than adjacent 19' stall).
50. Provide top of curb/walk and pavement/gutter grades to indicate height of curb adjacent to parking stalls or drive areas.
51. Dimensions of parking stalls abutting a curb or sidewalk are to the face of curb or walk. All other dimensions are to back of curb unless otherwise indicated.
52. Curbing and walks adjacent to the end of 17-foot stalls shall be reduced to 4-inches high (rather than the standard 6-inch height to be provided adjacent to

19-foot stalls). Additionally, 2-foot overhang should be provided adjacent to 17-foot parking stalls (show 2-foot overhang on paving sheets).

53. Label the actual usable length of the proposed angled parking stalls. This is done by measuring between parallel lines representing the position at the front and rear of the car, without the rear of the car conflicting with the maneuvering aisle.
54. Soil borings along the proposed road will be required at 500-foot intervals per Section 11-195(d) of the Design and Construction Standards.
55. Retaining walls that are 48-inches or larger shall need a permit from Building Department.
56. A retaining wall that has a grade change of 30" or more within a 3' horizontal distance will require a guardrail.

Off-Site Easements

57. Any off-site utility easements anticipated must be executed **prior to final approval of the plans**. If you have not already done so, drafts of the easements and a recent title search shall be submitted to the Community Development Department as soon as possible for review and shall be approved by the Engineering Division and the City Attorney prior to executing the easements.

58. Off-Site SDFMEA and Off-Site Temporary Construction Easement will be needed.

To the extent this review letter addresses items and requirements that require the approval of or a permit from an agency or entity other than the City, this review shall not be considered an indication or statement that such approvals or permits will be issued.

Please contact Humna Anjum at (248)735-5632 or email at hanjum@cityofnovi.org with any questions.

Humna Anjum,
Project Engineer

cc: Lindsay Bell, Community Development
Ben Nelson, Engineering
Ben Croy, City Engineer

LANDSCAPE REVIEW

PLAN REVIEW CENTER REPORT

April 5, 2024

Society Hill

Concept Site Plan - Landscaping

Review Type	**Job #**
Concept Plan Landscape Review	JSP24-0004

Property Characteristics

- Site Location: Southwest corner of 12.5 Mile Road and Novi Road
- Site Acreage: 34.9 ac.
- Site Zoning: RM-1
- Adjacent Zoning: North: RA & R-4, East: R-4, South: RA, West: RM-1
- South parcel zoning: Site: OS-1, North: RA, East: R-4, South: B-3 & OS-1, West: OS-1
- Plan Date: 3/25/2024

Ordinance Considerations

This project was reviewed for conformance with Chapter 37: Woodland Protection, Zoning Article 5.5 Landscape Standards, the Landscape Design Manual and any other applicable provisions of the Zoning Ordinance. Items in **bold** below must be addressed and incorporated as part of the revised Preliminary Site Plan submittal. Underlined items must be addressed on the Final Site Plans. Please follow guidelines of the Zoning Ordinance and Landscape Design Guidelines. This review and the accompanying Landscape Chart are summaries and are not intended to substitute for any Ordinance.

RECOMMENDATION:

This project is **not recommended for approval**. Significant waivers are required by the proposed layout and landscaping that are not supported by staff.

LANDSCAPE DEVIATIONS THAT ARE REQUIRED FOR PROPOSED LAYOUT:

- Lack of screening berm along south property line – *not supported by staff*
- Lack of greenbelt berms – *supported by staff.*
- Lack of greenbelt landscaping and street trees for sections of both roads that are being preserved – *supported by staff*
- *Shortage in greenbelt landscaping for 12. 5 Mile Road and Novi North beyond the above – not supported by staff.*
- *Shortage in greenbelt subcanopy trees in Novi South – supported by staff*
- *Shortage in street trees in Novi South - supported by staff*
- Two bays are 16 spaces long without a landscape island – *not supported by staff*
- Shortage of foundation landscaping for multiple buildings – *supported by staff for some of the buildings.*
- Several areas of deficiencies from Landscape Design Manual requirements (tree diversity, native species makeup, too many evergreen woodland replacements) – *not supported by staff*

PLEASE REVISE THE LAYOUT, UTILITIES AND LANDSCAPING TO ELIMINATE OR REDUCE THE ABOVE DEVIATIONS.

PLEASE ADD THE CITY PROJECT NUMBER, JSP24-0004, TO THE BOTTOM RIGHT CORNER OF THE SET COVER SHEET.

Ordinance Considerations

Existing Trees (Sec 37 Woodland Protection, Preliminary Site Plan checklist #17 and LDM 2.3 (2))

1. Tree survey is provided.
2. Wetland survey is provided.
3. **Please include the original approved plans for off-site plantings for review by the City.**
4. **Please see the Landscape Chart for detailed comments regarding the species composition of the woodland replacement plantings.**
5. **See the Merjent letter for a complete discussion of the woodlands and wetlands.**
6. **As a general comment, it is disappointing that the proposed layout is even more destructive to the high quality woodlands than the original approved plan was. It appears that no effort has been made to preserve much of the natural habitat except where development would be extremely difficult or expensive anyway.**

Adjacent to Residential - Buffer (Zoning Sec. 5.5.3.B.ii and iii)

1. The project is adjacent to RA property to the south, so a 6-8 foot landscaped berm is required along the south property line.
2. The plan proposes a single line of densely planted evergreen trees along most of the frontage. **This requires a landscape waiver**. *It is not supported at this time.*
3. **Please add information showing the sound buffering of the proposed landscaping and extend the evergreens to beyond the maintenance area and garbage compactor to at least provide visual buffering for the RA property.**

Adjacent to Public Rights-of-Way – Berm/Wall, Buffer and Street Trees (Zoning Sec. 5.5.3.B.ii, iii)

1. No berms or trees are proposed in areas to be preserved as natural areas. **This requires a landscape waiver** that is *supported by staff.*
2. No berms are proposed in the developed sections of Novi Road. **This requires a landscape waiver that** *is supported by staff as significant screening landscaping in addition to what is required is proposed instead between the parking and the roads, and there is only the detention basin in the south section***.**
3. **Landscape waivers are also required for shortages in greenbelt trees provided.** *Some of these are supported by staff, and others are not. Please see the landscape chart for a detailed discussion of these waivers.*

Parking Lot Landscaping (Zoning Sec. 5.5.3.C.)

1. It appears that all of the required parking lot interior area, interior trees and perimeter trees are provided. **Please see the landscape chart for additional information required.**
2. The Multifamily housing landscaping ordinance allows multifamily unit canopy trees to be used to meet the parking requirements. **If this is done, please note that on the calculations.**

Multi-family Residential Landscaping (Zoning Sec 5.5.3.F.iii)

1. **Multi-family unit trees**
   a. 188 first floor units are proposed, so 564 trees are required. 25% of those can be subcanopy trees.
   b. All of the required multi-family unit trees are provided, but 29% are subcanopy trees. **This would require a waiver** that *would not be supported by staff*. **Please reduce the number of subcanopy trees by 20 to meet the 25% maximum.**
2. **Interior roadway trees**
   a. All of the required interior roadway trees appear to be provided. **As noted above, please see the landscape chart regarding what is needed to confirm that the correct number of trees required was calculated correctly.**
3. **Foundation landscaping**

a. Landscape waivers are required for a deficiency in foundation landscaping for Buildings A, B, C, D, 8, 9, 10, 11, 12 and 13. *They are supported for Buildings D, 8, 9, 10, 11 and 12 for different reasons, but not for 11, 12 or 13.* **Please see the landscape chart for a detailed discussion of these waivers and make the recommended corrections to eliminate or reduce the extent of the waivers required.**

Plant List (LDM 4, 10)

1. Only 23 of 49 (47%) non-woodland replacement species used are native to Michigan. **Please add more native species or replace some non-native species with native species. The current makeup would require a landscape waiver that** *would not be supported by staff.*
2. The tree diversity maximums are exceeded by flowering crabapples and red maples**. Please reduce the numbers of those to meet the 10% species/15% genus maximums. The current makeup would require a landscape waiver that** *would not be supported by staff.*
3. Evergreens make up 36% of the credits to be planted on site. The maximum percentage evergreens can compose of the credits planted is 10%. **The current configuration would also require a landscape waiver** that *would not be supported by staff*. **Please reduce the number of evergreens planted to not exceed the requirement.**
4. **See the landscape chart for other suggestions regarding woodland replacements.**

Planting Notations and Details (LDM 10)

Provided

Storm Basin Landscape (Zoning Sec 5.5.3.E.iv and LDM 3)

1. All required detention basin landscaping is proposed.
2. A note states that there is no *Phragmites australis* or Japanese Knotweed on the site, but I'm quite sure there is *Phragmites* in the northwest corner of the site. **Please check the entire site again and note any populations of either weed found on the existing conditions or demolition plan and provide plans for their complete eradication.**

Irrigation (LDM 10)

1. If an irrigation system will be used, a plan for it must be provided with Final Site Plans, not the Stamping Set.
2. If an alternative means of providing water to the plants for their establishment and long-term survival, information regarding that is also required with Final Site Plans.

If the applicant has any questions concerning the above review or the process in general, do not hesitate to contact me at 248.735.5621 or rmeader rmeader@cityofnovi.org.

Rick Meader – Landscape Architect

LANDSCAPE REVIEW SUMMARY CHART – Concept Plan

Review Date: April 5, 2024
Project Name: JSP24 – 0004: SOCIETY HILL
Project Location: SW Corner of Novi Road and 12.5 Mile Road
Plan Date: March 25, 2024
Prepared by: Rick Meader, Landscape Architect E-mail: rmeader@cityofnovi.org; Phone: (248) 735-5621

Items in **Bold** need to be addressed by the applicant before approval of the Preliminary Site Plan.
Underlined items need to be addressed for Final Site Plan.

LANDSCAPE DEVIATIONS THAT ARE REQUIRED FOR PROPOSED LAYOUT:

- Lack of screening berm along south property line – *not supported by staff*
- Lack of greenbelt berms – *supported by staff.*
- Lack of greenbelt landscaping and street trees for sections of both roads that are being preserved – *supported by staff*
- Shortage in greenbelt landscaping for 12. 5 Mile Road and Novi Road North – *not supported by staff.*
- Shortage in greenbelt subcanopy trees in Novi Road South – *supported by staff*
- Shortage in street trees in Novi Road *South - supported by staff*
- Two bays are 16 spaces long without a landscape island – *not supported by staff*
- Shortage of foundation landscaping for multiple buildings – *supported by staff for some of the buildings.*
- Several areas of deficiencies from Landscape Design Manual requirements (tree diversity, native species makeup, too many evergreen woodland replacements) – *not supported by staff*

PLEASE ADD THE CITY PROJECT NUMBER, JSP24-0004, TO THE BOTTOM RIGHT CORNER OF THE SET COVER SHEET.

Item	Required	Proposed	Meets Code	Comments
Landscape Plan Requirements – Basic Information (LDM (2))				
Landscape Plan *(Zoning Sec 5.5.2, LDM 10)*	• New commercial or residential developments • Addition to existing building greater than 25% increase in overall footage or 400 SF whichever is less. • 1"-20' minimum with proper North. Variations from this scale can be approved by LA	• Scale 1" = 40' • Detail scales: 1'=20'	Yes	
Owner/Developer Contact Information *(LDM 10)*	Name, address and telephone number of the owner and developer or association	Yes	Yes	
Project Information *(LDM 10)*	Name and Address	Vicinity map on Sheet L-1	Yes	
Survey information *(LDM 10)*	Legal description or boundary line survey	Survey and description on	Yes	

Item	Required	Proposed	Meets Code	Comments
		Sheet 2		
Landscape Architect contact information *(LDM 10)*	Name, Address and telephone number of RLA/PLA/LLA who created the plan	Jim Allen – Allen Design	Yes	
Sealed by LA. *(LDM 10)*	Requires original signature	No	No	Final stamping sets must be signed and sealed by LA
Miss Dig Note (800) 482-7171 *(LDM 10)*	Show on all plan sheets	On Title block	Yes	
EXISTING CONDITIONS				
Existing plant material Existing woodlands or wetlands *(LDM 10.h)*	• Show location type and size. • Label to be saved or removed. • Plan shall state if none exists.	• Tree Survey on Sheets 3 and 4, L-8 – L-12. • Removals are indicated. • Woodland replacement calculation are provided, along with a summary table of replacements planted previously. • Wetlands on site are delineated on Sheet 2. • Wetland impacts are shown on Sheet 15 – mitigation will be required. • No wetland mitigation plan is provided	• Yes • Yes • Yes • Yes • No	**1. Please show the tree fence at the actual dripline on the plans, not just at the outside of the tree symbol, which may or may not accurately represent the dripline.** **2. See the Merjent letter for complete reviews of woodlands and wetlands** **3. Please include the original planting plans for the off-site trees from the original project submittal so they can be inspected by staff.** 4. Any new off-site plantings of replacements will need to be approved in advance by the City. Please add a note to this effect to the plans. **5. Please provide a wetland mitigation plan.** **6. See the Plant List section in this chart for a discussion regarding the composition of the woodland**

Item	Required	Proposed	Meets Code	Comments
				replacement species proposed.
Soil type *(LDM 10)*	As determined by Soils survey of Oakland county	Sheet 6	Yes	
Zoning *(LDM 10)*	**Site: RM-1** North: RA & R-4, East: R-4 South: RA West: RM-1 Off-site detention: South: B-3 & OS-1, West: OS-1, North: RA	Sheet L-1	Yes	
PROPOSED IMPROVEMENTS *(LDM 10)*				
Existing and proposed improvements	Existing and proposed buildings, easements, parking spaces, vehicular use areas, and R.O.W	Yes	Yes	
Existing and proposed utilities	• Overhead and underground utilities, including hydrants • Proposed light posts	• Proposed utilities are shown on the Landscape Plan • Light posts are also shown	• Yes • Yes	**1. Please resolve any tree/utility or tree/light pole conflicts by moving one or the other of them.** **2. Please indicate on a demolition plan whether the existing overhead wire crossing the site will be removed or not.**
Proposed topography - 2' contour minimum	Provide proposed contours at 2' interval	• Sheets 6-9 • Includes off-site detention pond	Yes	**It's not clear how the proposed southern detention basin contours will tie to the sloping existing contours. Please check that.**
Clear Zones	25 ft. corner clearance required. Refer to Zoning Sec 5.5.9	Yes	Yes	
LANDSCAPING REQUIREMENTS				
Berms and ROW Planting				
• All berms shall have a maximum slope of 33%. Gradual slopes are encouraged. Show 1ft. contours • Berm should be located on lot line except in conflict with utilities. • Berms should be constructed with 6" of topsoil.				
Residential Adjacent to Non-residential (Sec 5.5.3.A) & (LDM 1.a)				
Berm requirements *(Zoning Sec 5.5.3.A)*	• As the site to the west is also multi-family residential, no special	• Densely planted evergreens along the west side of	• Yes • No	*1.* **A landscape waiver is required for the proposed**

Item	Required	Proposed	Meets Code	Comments
	screening is required on the west side of the property • A 6-8 foot landscaped berm is required along the south property line of the main site area.	the property or a large wetland provide buffering for the Charneth Fen condominium development to the west • No berm is provided along the south property line but a line of densely planted evergreen trees is provided south of the southern drive and parking area. It is not clear what kind of sound buffering this would provide, versus the required berm. • The screening provided does not cover the entire developed area along the south property line		**configuration.** *At this time, it is not supported by staff because of two factors* *a. There is no assurance that vehicular noise from the drive and parking would be muffled sufficiently by the proposed screening* *b. The screening provided does not extend all the way to the west to screen the maintenance and trash compactor area.* **2. Please provide evidence of the sound buffering to the south, extend the buffering westward to completely screen the maintenance and compactor area.** **3. Please replace the white pines along the south border with a Norway spruce or other evergreen that will provide better long-term screening than white pine will.**
Adjacent to Public Rights-of-Way *(Sec 5.5.B) and (LDM 1.b) (RM-1)*				
Greenbelt width	• Adj to parking: 20 ft • Not adj to pkg: 34 ft	• 12.5 Mile Road: 50 ft • Novi Road: 20 ft	Yes	
Min. berm crest width	2 ft	0 ft	No	**1. Landscape waivers are required for the lack of berms along both roads.** **2. The required berm along 12.5 Mile Road is not being provided to save the existing**

Item	Required	Proposed	Meets Code	Comments
				natural features. *The waiver for this is supported by staff.* ***3.*** **The required berm along Novi Road is not provided along the northern frontage to preserve the natural area. South of that, the varied topography makes a berm impractical.** *As densely planted evergreens will shield Novi Road from the adjacent parking spaces, the waiver is supported for this area as well.* **4. The grading of the off-site detention basin does not allow a berm, but** *as it is just a heavily landscaped detention pond, the berm wouldn't serve any useful screening purpose, so the lack of the berm is also supported for that section of Novi Road.*
Min. berm height	3 ft	0 ft	Yes	**See above**
3' wall	(4)(7)	No walls are proposed in the greenbelts		
Canopy deciduous or large evergreen trees (7)(10)(11)	1 tree per 35 lf **12.5 Mile Rd:** • 490 lf not developed • (744-490-20-58)/35 = 5 trees **Novi Rd North:** • 680 lf not developed • (1640-680-67-30) lf/35 = 25 trees **Novi Rd South:** • 370lf/35 = 11 trees	• **12.5 Mile Rd**: 4 trees • **Novi Rd N**: 22 trees • **Novi Rd S**: 11 trees	• No • No • Yes	**1. A landscape waiver may be requested to not provide the required landscaping in the preserved areas.** *It would be supported by staff.* **2. As only one emergency access lane is required, only one emergency access lane may be deducted from the 12.5 Road frontage.** **3. Please revise the**

Item	Required	Proposed	Meets Code	Comments
				calculations and plant all required trees. *As there is room for the required trees (net of the protected areas and drive openings), a waiver for the missing trees would not be supported by staff.*
Sub-canopy deciduous trees Notes (5)(6)(10)(11)	1 tree per 25 lf **12.5 Mile Rd:** • 490 lf not developed • (744-490-20-58)/25 = 5 trees **Novi Rd North:** • 680 lf not developed • (1640-680-67-30) lf/25 = 35 trees **Novi Rd South:** • 370lf/25 = 15 trees	• **12.5 Mile Rd**: 4 trees • **Novi Rd N**: 28 trees • **Novi Rd S**: 7 trees	• No • No • No	*1. As noted above, the landscape waiver for the protected areas would be supported by staff.* **2. Please revise the calculations per the actual widths of the two drives (not including the width of the clear vision zones).** **3. Please revise the calculations and plant all required trees for 12.5 Mile Road and Novi Road North.** *As there is room for the required trees (net of the protected areas and drive openings), a waiver for the missing trees would not be supported by staff.* **4. A landscape waiver is required for the missing subcanopy trees in Novi Road South.** *It would be supported by staff since the required detention basin plantings and greenbelt canopy trees take up the room needed for the 8 additional subcanopy trees.*
Canopy deciduous trees in area between sidewalk and curb	1 tree per 35 lf **12.5 Mile Rd:**	• 12.5 Mile Rd: 4 trees • Novi Rd N: 22	• Yes • Yes • Yes	**1. Please show all existing street trees along Novi Road,**

Item	Required	Proposed	Meets Code	Comments
(10)	• 490 lf not developed • (744-490-150)/35 = 3 trees **Novi Rd North:** • 680 lf not developed • (1640-680-150-125) lf/35 = 20 trees **Novi Rd South:** • 370lf/35 = 11 trees	trees • Novi Rd S: 8 trees including 3 existing		**even if they are less than 8" dbh.** 2. Existing trees to remain may be counted toward the requirement. *3. A landscape waiver to not provide trees where there are existing utility conflicts would be supported by staff.*
Multi-Family Residential (Sec 5.5.3.F.iii)				
Multi-family Unit Landscaping *(Zoning Sec 5.5.3.F.iii.b)*	• 3 deciduous canopy trees or large evergreen trees per dwelling unit on the first floor. • 188 units * 3 = 564 trees • Up to 25% of requirement can be subcanopy trees	**Total: 564 trees** • 403 canopy/large evergreen trees • 1651 subcanopy trees (29% of total)	No	**1.** The 25% maximum for subcanopy trees is exceeded by 20 trees. **2. This requires a waiver that** *would not be supported by staff.* **3. Please change 20 subcanopy trees to canopy trees or large evergreens.**
Interior Street Landscaping *(Zoning Sec 5.5.3.F.iii.b)*	• 1 deciduous canopy tree along interior roads for every 35 lf (both sides), excluding driveways, interior roads adjacent to public rights-of-way and parking entry drives. • 2095/35 = 60 trees	60 trees	Yes	**1. Please indicate what roads were used for the calculation.** **2. Except where the line passes through areas highlighted in blue (parking lots), the roads highlighted in green on the image below should be used.** **3. Please revise the calculation as required.** **4. Unlike parking lot interior and perimeter trees, multifamily trees may not be used for this requirement (the plan shows that correctly now – just confirming that).** **5. Trees in boulevard islands may not count as interior roadway trees, but multifamily unit trees**

Item	Required	Proposed	Meets Code	Comments
				may be used there.
Foundation Landscaping (Zoning Sec 5.5.3.F.iii.b)	35% of building façades facing road must be landscaped	Based on the layout and the foundation details, these buildings are short of the requirement: A, B, C, D, 8, 9, 10, 11, 12 and 13	No	**1. A landscape waiver is required for buildings where the landscaping of the building facing an interior drive does not cover 35% of the building.** ***2.*** *The waiver is supported by staff for buildings 8 and 9 as they have double frontage and one side meets or exceeds the requirement.* ***3.*** *The waiver is supported for Building D as the long island softens the view of most of the north side of the building.* ***4.*** *The waiver is supported for Buildings 10, 11 and 12 as they face a minor traffic road and appear to have landscaped as much of the garage side of the buildings as possible.* **5. If additional landscaping was added between the drive and the entries in the center island of Building 13, enough frontage would be covered to meet the 35% requirement.** **6.** *The waiver is not supported for Buildings A, B and C as no effort was made to soften the appearance of those buildings from*

Item	Required	Proposed	Meets Code	Comments
				the drive. **Please convert the central island to a landscaped island with a canopy tree, add as much landscape area to the road side of the buildings, and add canopy trees to the islands on either end of the buildings' parking area.** *With these done, the waiver may be supported by staff.*
Parking Area Landscape Requirements (Zoning Sec 5.5.3.C & LDM 5)				
General requirements	• Clear sight distance within parking islands • No evergreen trees	No plantings will block vision within the parking areas		
Name, type and number of ground cover	As proposed on planting islands	Based on the plant list, it appears that sod will be used.		
Parking lot Islands *(Zoning Sec 5.5.3.c.ii, iii)*	• A minimum of 200 SF to qualify • 200sf landscape space per tree planted in island. • 6" curbs • Islands minimum width 10' BOC to BOC	All islands with trees are labeled and are sized correctly for the number of trees in them	Yes	
Curbs and Parking stall reduction *(Zoning Sec 5.5.3.c.ii)*	Parking stall can be reduced to 17' with 4" curb adjacent to a sidewalk of minimum 7 ft.	Where possible, spaces are 17' long	Yes	
Contiguous space limit *(Zoning Sec 5.5.3.c.ii.o))*	Maximum of 15 contiguous spaces	Buildings B and C have bays with 16 consecutive spaces without a landscaped island.	No	**The central islands west of buildings B and C should be converted into landscape islands with a canopy tree since those bays are greater than 15 spaces.**
Category 1: For OS-1, OS-2, OSC, OST, B-1, B-2, B-3, NCC, EXPO, FS, TC, TC-1, RC, Special Land Use or non-residential use in any R district *(Zoning Sec 5.5.3.C.iii)*				
A = Total square footage of vehicular use areas x 7.5%	• A = x SF x 7.5% • A = 50,000 x 7.5% = 3750sf			**1. Please indicate on a separate exhibit the areas that are included in the calculation. All of the areas highlighted in**

Item	Required	Proposed	Meets Code	Comments
				blue on the attached image should be included. **2. If they didn't include those areas, please revise the calculation to include them.**
B = Total square footage of additional paved vehicular use areas over 50,000 SF x 1 %	• B = (VUA-50000) SF x 1% • B = (50384-50000) x 1% = 4 sf	NA		**See above**
All Categories				
C = A+B Total square footage of landscaped islands	C = A + B C = 3750 + 4 = 3754sf	5253sf	Yes	
D = C/200 Number of canopy trees required	• D = C/200 • D = 3754/200 = 19 trees	19 trees	TBD	**1. If necessary, please revise the calculation based on the above.** **2. Parking lot interior and perimeter tree requirement may be met with multifamily unit trees** but please indicate on the calculation whether all of the tree requirement has been met with multifamily trees (a total of 98 trees are separately provided as interior parking or perimeter trees)
Parking Lot Perimeter Trees *(Zoning Sec 5.5.3.c.ii)*	• 1 Canopy tree per 35 lf • 2760/35 = 79 trees	79 trees	TBD	**Please show the perimeter line used for the calculation on the requested image showing the parking lot areas and interior roadways bases for calculations.**
Parking land banked	NA	None		
Miscellaneous Landscaping Requirements				
Plantings around Fire Hydrant *(Zoning Sec 5.5.3.c.ii.j)*	• No plantings with matured height greater than 12' within 10 ft. of fire hydrants, manholes, catch basins or other utility	• No tree/utility conflicts are noted. • A note regarding required spacing for trees from	Yes	

Item	Required	Proposed	Meets Code	Comments
	structures. • Trees should not be planted within 5 feet of underground lines.	utilities is on Sheet L-1		
Landscaped area *(g)*	Areas not dedicated to parking use or driveways exceeding 100 sq. ft. shall be landscaped	Yes		
Name, type and number of ground cover (LDM 5)	As proposed on planting islands	Although not called out, based on the plant list it appears sod will be used	TBD	Please indicate groundcovers on landscape plan with a typical call-out
Snow deposit *(LDM 10)*	Show leave snow deposit areas on plan in locations where landscaping won't be damaged	No	No	**Please show areas for the parking lots, as the parking lots will need somewhere for the plows to put the snow (along the drives will not be sufficient area).**
Transformers/Utility boxes *(LDM 6)*	• A minimum of 2 ft. separation between box and the plants • Ground cover below 4" is allowed up to pad. • No plant materials within 8 ft. from the doors	A note indicates that all utility boxes will be screened per the city detail	TBD	**1.** Please show transformers and other utility boxes when their locations are determined. **2.** If box locations are not determined by final site plans, add a note to plan stating that all utility boxes are to be landscaped per the detail. **3.** Please add an allowance of 10 shrubs per box on the plant list and label as such
Detention/Retention Basin Planting requirements *(Sec. 5.5.3.e, LDM 3)*	• Clusters of large native shrubs shall cover 70-75% of the basin rim area at 10 ft away from the permanent water line. • Canopy trees must be located at 1 per 35lf of the pond rim 10 feet away from the permanent water level • 10" to 14" tall grass along sides of basin • Refer to wetland for basin mix	• Seed mixes are proposed for the detention pond • The correct shrub coverage is provided • Canopy woodland replacement trees are proposed around both ponds, as required and allowed	• Yes • Yes • Yes	**Please make it clearer with hatching what areas will receive the stormwater mix and indicate with a different hatching what will be done with the areas outside of that seed mix.**

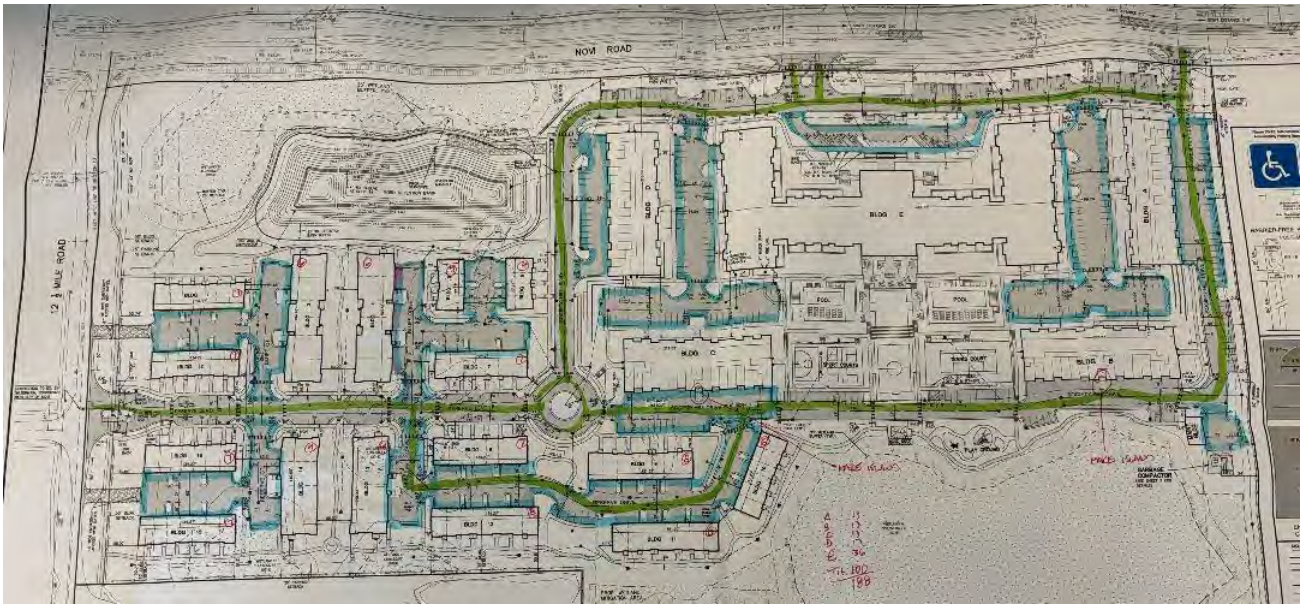
Item	Required	Proposed	Meets Code	Comments
	• Include seed mix details on landscape plan			
Landscape Notes and Details– Utilize City of Novi Standard Notes				
Plant List (LDM 4,11) – Include all cost estimates				
Quantities and sizes		Yes	Yes	
Root type		Yes	Yes	
Botanical and common names	• At least 50% of plant species used, not including seed mixes or woodland replacement trees, must be species native to Michigan. • The non-woodland replacement tree diversity must meet the standards of the Landscape Design Manual section 4 (max 10% species and 15% genus).	• 23 of 49 species used (47%) are native to Michigan. • The number of red maples of various cultivars exceeds the 10% species limit • The number of crabapples, in total, exceeds the genus limit • Evergreens are not supposed to make up more than 10% of the total number of woodland replacements planted on the site but 36% of the trees (24% of the credits) are evergreens	• No • No • No • No	1. Breakdowns of the non-woodland replacements and woodland replacements are provided at the end of this chart. **2. Please use more native species in the plant mix and increase the number of plants of the swamp white oaks, sugar maples and American lindens, which are basically token quantities.** **3. Please reduce the number of crabapples to meet the 15% maximum for a genus. Adirondack and Radiant crabs are especially heavily used.** **4. Please reduce the number of red maples used for non-woodland replacements to only 10% for the species.** **5.** Bowhall maples do not have a sufficiently large mature canopy width to count as a canopy tree. **Please use a larger selection.** **6. Please reduce the total number of evergreen trees used**

Item	Required	Proposed	Meets Code	Comments
				as replacements to 10% or less. 7. Woodland replacements are not required to follow the same diversity requirements as non-woodland replacements, in order to more closely resemble what was removed. The applicant is encouraged to use more species such as sugar maple, American elm (Dutch elm resistant varieties), oaks, American beech, hickories (undersized trees could be used in order to obtain them) in place of some of the replacement species selected that don't appear on the tree survey).
Type and amount of lawn		Sod	Yes	
Cost estimate (LDM 10.h.(11))	For all new plantings, mulch and sod as listed on the plan	Yes	Yes	Please use a unit cost of $375 ea for all subcanopy trees and $3.00/syd for seed.
Planting Details/Info (LDM Part III) – Utilize City of Novi Standard Details				
Canopy Deciduous Tree	Refer to LDM for detail drawings	Yes	Yes	
Evergreen Tree		Yes	Yes	
Shrub		Yes	Yes	
Multi-stem tree		Yes	Yes	
Perennial/ Ground Cover		Yes	Yes	
Tree stakes and guys	Wood stakes, fabric guys.	Yes	Yes	
Cross-Section of Berms *(LDM 1.a.(1))*				
Slope, height and width	• Label contour lines • Maximum 33% slope • Constructed of loam	A standard berm cross section detail is provided	Yes	As no berms are proposed, this detail can be removed from

Item	Required	Proposed	Meets Code	Comments
	• 6" top layer of topsoil			the plan set if desired.
Type of Ground Cover		Lawn is indicated	Yes	
Setbacks from Utilities	Overhead utility lines and 15 ft. setback from edge of utility or 20 ft. setback from closest pole, 10 feet from structures, hydrants	• There are no overhead utilities along Novi Road • An overhead wire slants across the north end of the property, mostly south of the property line and greenbelt.	No	**1. Show all utilities on landscape plan.** **2. Space all trees appropriately from utility lines, poles and utility structures**
Walls *(LDM 10 & Zoning Sec 5.5.3.vi)*				
Material, height and type of construction footing	Freestanding walls should have brick or stone exterior with masonry or concrete interior	A number of walls short in height are proposed	TBD	Provide dimensioned wall details and TW/BW elevations.
Walls greater than 3 ½ ft. should be designed and sealed by an Engineer		TBD	TBD	If walls are taller than 3 ½ feet, please have engineer design, sign and seal.
Notes *(LDM 10) – Utilize City of Novi Standard Details*				
Installation date *(LDM 2.l. & Zoning Sec 5.5.5.B)*	• Provide intended date • Between Mar 15 – Nov 15	Yes	Yes	
Maintenance & Statement of intent *(LDM 2.m & Zoning Sec 5.5.6)*	• Include statement of intent to install and guarantee all materials for 2 years. • Include a minimum one cultivation in June, July and August for the 2-year warranty period.	Yes	Yes	
Plant source *(LDM 2.n & LDM 3.a.(2))*	Shall be northern nursery grown, No.1 grade.	Yes	Yes	
Establishment period *(Zoning Sec 5.5.6.B)*	**2 yr. Guarantee**	Yes	Yes	
Approval of substitutions. *(Zoning Sec 5.5.5.E)*	City must approve any substitutions in writing prior to installation.	Yes	Yes	
General Landscape Requirements (LDM)				
General Conditions *(LDM 11)*	Plant materials shall not be planted within 4 ft. of property line	No	No	**Please add note along the south property lines of both parcels.**
Irrigation *(LDM 10.l.)*	A fully automatic irrigation system and a	A note indicates that an irrigation	No	**1.** Please add an irrigation plan or

Item	Required	Proposed	Meets Code	Comments
	method of draining is required with Final Site Plan	system plan will be provided in the stamping sets		information as to how plants will be watered sufficiently for establishment and long- term survival with the Final Plans, not the Stamping Set **2.** The plan should meet the requirements listed at the end of this chart. **3.** If xeriscaping is used, please provide information about plantings included.
Other information *(LDM 10.n)*	Required by Planning Commission	NA		
Landscape tree credit *(LDM11.b.(d))*	• Substitutions to landscape standards for preserved canopy trees outside woodlands/ wetlands should be approved by LA. • Refer to Landscape tree Credit Chart in LDM	No		
Plant Sizes for ROW, Woodland replacement and others (*LDM 11.b)*	• Canopy Deciduous shall be 3" and sub-canopy deciduous shall be 2.5" caliper. • Refer to LDM section 11.b for more details	Correct sizes are shown on the plant lists	Yes	
Plant size credit *(LDM11.b)*	NA	None taken		
Prohibited Plants *(LDM 11.b)*	Do not use any plants on the Prohibited Species List	No prohibited plants are proposed	Yes	
Recommended trees for planting under overhead utilities *(LDM 3.e)*	Label the distance from the overhead utilities	There is an overhead line crossing the northern end of the site.	TBD	**1. Clearly show any overhead lines on the landscape plan.** **2. If they will remain, use appropriately sized trees near and under them.** **3. If they will be removed, please note that.**
Collected or Transplanted trees *(LDM 11.b.(2)(c)*		None		

Item	Required	Proposed	Meets Code	Comments
Nonliving Durable Material: Mulch *(LDM 12)*	• Trees shall be mulched to 3" depth and shrubs, groundcovers to 2" depth • Specify natural color, finely shredded hardwood bark mulch. • Include in cost estimate.	Included in planting details	Yes	



Irrigation System Requirements

- Any booster pump installed to connect the project's irrigation system to an existing irrigation system must be downstream of the RPZ.
- The RPZ must be installed in accordance with the 2015 Michigan Plumbing Code.
- The RPZ must be installed in accordance with the manufacture installation instructions for winterization that includes drain ports and blowout ports.
- The RPZ must be installed a minimum of 12-inches above FINISHED grade.
- Attached is a handout that addresses winterization installation requirements to assist with this.
- A plumbing permit is required.
- The assembly must be tested after installation with results recorded on the City of Novi test report form.

Non-Woodland Replacement Tree Diversity					
Society Hill			4/4/2024	MAX PER LDM 4	
				10%	15%
Symbol	**Count**	**Native**	**Species Ct**	**%species**	**%genus**
ABU	47	1	1	6%	6%
AFU/AP/AF/AR	126	1	1	15%	16%
AS	4	1	1	0%	
ACU	41		1	5%	5%
APU	4		1	0%	0%
BNU	29		1	4%	8%
BP	38	1	1	5%	
CAU/CA	21	1	1	3%	8%
CFU/CF	42	1	1	5%	
GTU	56	1	1	7%	7%
LS	10		1	1%	1%
LTU/LT	34	1	1	4%	4%
MAU	53		1	7%	18%
MPU	32		1	4%	
MRU	58		1	7%	
PGU	35	1	1	4%	4%
PSU	27	1	1	3%	3%
QB	3	1	1	0%	7%
QMU	20	1	1	2%	
QRU/QR	35	1	1	4%	
TAU	7	1	1	1%	3%
TC	15		1	2%	
ZJU	77		1	9%	9%
Subtotal	814			100%	100%
OTHER					
CR		1	1		
CS		1	1		
LB		1	1		
PO		1	1		
TS			1		
IT			1		
IV		1	1		
HP			1		
HQ			1		
HO			1		
HE			1		
SE			1		
HP			1		
LM			1		
IG			1		
AM		1	1		
CI			1		
SH		1	1		
PD			1		
LE			1		
RF		1	1		
VP			1		
VT		1	1		
WF			1		
AL			1		
CA			1		
PV		1	1		
Total		23	49		
		47%			

Woodland Replacements Breakdown			
Society Hill			
Symbol	**Count**	**% species**	
ARR	33	11%	
ASR	16	5%	
BP	16	5%	
CO	16	5%	
GTR	3	1%	
LTR	29	9%	
QBR	44	14%	
QMR	15	5%	
QRR	5	2%	
TAR	22	7%	
ABR	52	17%	36%
PGR	28	9%	
PSR	32	10%	
Subtotal	311	100%	36%

WOODLAND & WETLAND REVIEW
Original Review 4/18/24
Updated Wetland 6/11/24

merjent

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1 Main Street SE ▪ Suite 300 ▪ Minneapolis, Minnesota ▪ 55414

April 18, 2024

Lindsay Bell
Planner – Community Development
City of Novi
45175 Ten Mile Road
Novi, MI 48375

Submitted electronically to lbell@cityofnovi.org

Re: Society Hill – Woodland/Wetland Review (JSP24-04)

Dear Lindsay,

Merjent, Inc. (Merjent) has conducted a review of the preliminary site plan (PSP) for the Society Hill (also referred to as West Side of Novi Road Between 12 Mile Road and 12 ½ Mile Road; site) prepared by Seiber Keast Lehner and Allen Design (date 3/25/2024). Merjent reviewed the plan for conformance with the City of Novi's (City) current Woodland Protection Ordinance, Chapter 37, and Wetlands and Watercourse Protection Ordinance, Chapter 12 Article V. The site is located southwest of the intersection of 12 ½ Mile Road and Novi Road and is proposed within parcels 50-22-10-400-020 through 50-22-10-400-028 with an additional parcel located further south at parcel number 50-22-10-400-055. The site contains City-regulated woodlands and City-regulated wetlands (**Figure 1** and **Figure 2**).

Woodlands

Woodland Recommendation: Merjent **does not recommend approval** of the Society Hill PSP. A list of comments is provided below to meet the requirements of the Woodland Protection Ordinance. The following Woodland Regulations apply to this site:

Woodland Regulation	Required
Woodland Permit (Chapter 37, Section 37-26)	Yes
Tree Replacement (Chapter 37, Section 37-8)	Yes
Tree Protection (Fence; Chapter 37, Section 37-9)	Yes
Woodland Conservation Easement (Chapter 37-30[e])	Yes, if feasible

Woodland Review Comments

1. City-regulated woodlands, as identified on the City of Novi Woodlands interactive map website, are present onsite. **Note that both the woodlands and property limits depicted on the City map are considered approximations** (**Figure 1**)**.** Pursuant to Section 37-2 and Section 37-4 of Chapter 37, Woodlands Protection, woodland areas can be identified by additional features such as soil quality, habitat quality, tree species and diversity, health and vigor of tree stand, understory species and quality, presence of wildlife, and other factors such as the value of the woodland area as a scenic asset, wind block, noise buffer, healthy environment, and the value of historic or specimen trees. A site visit was performed on April 12 and 15, 2024 to verify and review the extent of woodlands on-site. Merjent has

determined that the majority of the trees on-site should be considered regulated woodland due to the stand density and connectivity to other larger regulated woodland areas. Additionally, various wildlife such as raccoons (*Procyon lotor*), wild turkeys (*Meleagris gallopavo*), and mallard ducks (*Anas platyrhynchos*) were seen throughout the site. **Figure 1** (attached) has a modified polygon showing the additional approximate woodland areas onsite. Select photos from the site visits are included in **Attachment A**.

a. Some trees have been noted to be outside of the "regulated woodland line." These trees are considered to be within a regulated woodland due to the stand composition and connectivity to a larger woodland area. The PSP should be revised to include these trees to be counted as regulated woodland removals and should be assigned replacement values.
b. Accordingly, additional trees may need to be surveyed in the southern portion of the site to account for the expanded regulated woodland.

2. When a proposed site plan is located within a regulated woodland, any tree proposed for removal with a diameter at breast height (DBH) greater than or equal to eight inches will require tree replacement and a Woodland Use Permit per Section 37-8. This also applies to any tree that will be preserved, but where impacts to critical root zones are proposed.

3. Regardless of the presence of regulated woodlands onsite, a Woodland Use Permit is required to perform construction on any site containing the removal of trees larger than 36 inches in diameter at breast height (DBH).

4. The plan has proposed the removal of 1,338 trees. A **Woodland Use Permit** is required to perform construction on any site containing regulated woodlands. The permit for this site would require Planning Commission approval because there are more than three trees proposed to be impacted/removed by construction. Comment five (below) may affect the total number of proposed trees for removal.

5. **Woodland Replacement**. Based on review of the plan, the following woodland replacements are currently listed:

Tree Size (DBH, inches)	Number of Trees	Ratio Replacement/Removed Tree	Total Replacements Required
8-11	610	1	610
12-20	598	2	1,196
21-29	125	3	375
30+	1*	4	4*
Multi-stem	4	Sum of Stem DBH/8 (rounded up)*	17
Total	**1,338**	**-**	**2,202**

*Current PSP does not have many of these trees counted and should be adjusted accordingly (see below).

After reviewing the tree survey, the following trees appear to have incorrect replacement values:

- 1952
- 9132
- 264
- 266
- 317
- 1171
- 1172
- 1421
- 1487
- 1488
- 1533
- 1536

The trees above should have their replacement values reviewed and fixed accordingly. Additionally, the inclusion of some trees currently listed as "Exempt" will affect the total replacements required.

6. A replacement plan and cost estimate for the tree replacement will be necessary prior to final site plan approval by the City. Woodland replacement credits can be provided by:
    a. Planting the woodland tree replacement credits on-site.
    b. Payment to the City of Novi Tree Fund at a rate of $400/woodland replacement credit.
    c. Combination of on-site tree planting and payment into the City of Novi Tree Fund ($400/woodland replacement credit).

    For tree replacement credits that will be planted on site, a financial guarantee of $400/tree replacement credit is required to ensure the planting of the on-site woodland replacement credits. The financial guarantee will be released after trees have been planted and approved by the City of Novi. The applicant must request a tree planting inspection.

    Woodland replacements shall be guaranteed for two growing seasons after the applicant's installation and the City's acceptance. A two-year maintenance bond in the amount of 25% of the value of the trees, but in no case less than $1,000, shall be required to ensure the continued health of the trees following acceptance. Based on a successful inspection two years after installation of the on-site Woodland Replacement trees, the Woodland Replacement Performance Guarantee shall be returned to the Applicant. The Applicant is responsible for requesting this inspection. See Chapter 26.5, Section 26.5-37 for additional information.

    While not necessary for PSP approval, sheet L-4 does provide a list of species that are proposed be planted. It should be noted that non-native species such as *Malus* spp., *Tilia cordata*, and *Thuja standishii* x *plicata* will not be counted as viable woodland replacement species. Section 37-8 of the City of Novi Woodlands Protection Ordinance and the City of Novi Landscape Design Manual provide guidelines for replacement trees, should they be planted.

7. **Critical root zone**. Accurate critical root zones must be depicted on the site plan for all regulated trees within 50 feet of the proposed grading or construction activities. Tree symbols are present on the plan but are relatively small. Additionally, it is unclear whether the tree symbol on the plan represents the trunk, dripline, or critical root zone of the tree. The tree symbol should be clarified in the legend or elsewhere on the plan. Critical root zones should be identified using a separate symbol on the site plans.

8. Regulated woodland disturbance includes impacts to the critical root zone of regulated trees, including but not limited to encroachment by grading, landscaping, and construction. If impacts to the critical root zone of regulated woodland trees are proposed – woodland replacements are required. Revised woodland replacement calculations or plan revisions may be necessary to address any unclear encroachments into the critical root zone.

9. Based on a site visit performed on April 12 and 15, 2024, the trees depicted in the site plan for the parcel boundary are partially accurate and the tree survey matches what is within the parcel boundary. **However**, per Section 37-28, all such trees shall be identified in the field by the painting of identifying numbers in nontoxic paint of a white, yellow, or orange color, or by a tree identification tag affixed loosely with a single nail and should accompany a tree survey with matching numbers. Many of the trees onsite were not marked via any of the aforementioned methods or had tree tags that did not match the numbers in the survey. Prior to recommending PSP approval, trees equal to or larger than eight

inches DBH should be tagged in the field and accurately identified on site plans (with matching tags). Due to the inconsistencies in tree survey identifiers and onsite conditions, an additional review will be performed after the trees have been correctly tagged with matching values in a tree survey.

Photographs of the site visit are enclosed in **Attachment A**. Select photos are included that compare approximate trees with values listed in the PSP.

Wetlands

Wetland Recommendation: Merjent **does not recommend approval** of the Society Hill PSP based on the comments provided below.

Upon review of published resources, the Site appears to contain or immediately borders:

- ☒ City-regulated wetlands, as identified on the City of Novi interactive map website. Note that both wetland and property limits depicted on the City's map are considered approximations (**Figure 2**).
- ☒ Wetlands that are regulated by the Michigan Department of Environment, Great Lakes, and Energy (EGLE).
- ☒ Wetlands as identified on National Wetland Inventory (NWI) and Michigan Resource Inventory System (MIRIS) maps, as identified on the EGLE Wetlands Viewer interactive map website (**Attachment B**). NWI and MIRIS wetlands are identified by the associated governmental bodies' interpretation of topographic data and aerial photographs.
- ☒ Hydric (wetland) soil as mapped by the U.S. Department of Agriculture, Natural Resources Conservation Service, as identified on the EGLE Wetlands Viewer interactive map website (**Attachment B**).

Permits and Regulatory Status

Due to the comments below, the following wetland-related items will be required for this project:

Item	Required/Not Required
Wetland Permit (specify Non-minor or Minor)	Required
Wetland Mitigation	Required
Environmental Enhancement Plan	Required, Mitigation Plan
Wetland Buffer Authorization	Required
EGLE Wetland Permit	Required
Wetland Conservation Easement	Required

Wetland Review Comments

1. PSP sheet number two depicts six wetlands (Wetlands A through F) but subsequent sheets in the PSP depict seven wetlands onsite. Additionally, sheet two and sheets three and four depict the wetlands with differing identifiers. For a consistent review, the applicant should depict all wetlands onsite with unique identifiers, classification, and sizes that are consistent throughout the site plan.

2. Merjent reviewed a Wetland Boundary Determination conducted by the Mannik and Smith Group (MSG) on November 28, 2023. Merjent concurs with their review, however, Merjent conducted additional site visits on April 12 and 15, 2024 and found additional areas that may be considered

wetlands and/or streams onsite (see comments below). For the purposes of this review, wetlands will be addressed using the identifiers on sheets three and four. The photographs provided in **Attachment A** may be labeled using identifiers from sheet two, but captions will address any inconsistencies.

a. Although one of the site visits was performed during rain, an additional site visit was conducted during drier conditions; both site visits were conducted during normal antecedent precipitation conditions (**Attachment B**). The wetland boundaries depicted on the site plans semi-accurately depict the wetlands onsite. Four potential wetland areas may have been missed during previous reviews. Additionally, Wetlands D and C may have potential connections that were identified in a previous delineation that appear to still be present. Photos of each subsequent area with GPS coordinates are provided in **Attachment A**, additional attachments/maps of these areas are provided in **Attachment B**, and brief explanations are provided below addressing each area from north to south throughout the site.
    - Potential Missed Wetland 1 – identified in **Attachment B** as "Potential Missed Wetland." This area contained standing water, water-stained leaves, and a dominant cover of green ash (*Fraxinus pennsylvanica*) saplings and young trees during both site visits. This area is in proximity to Tree 99 (green ash) identified in the tree survey. Inundation is visible on various aerial imagery photographs.
    - Potential Missed Wetland 2 – identified in **Attachment B** as "Potential Missed Vernal Pool." This area was flooded during both site visits and displays characteristics typical of a vernal pool. Inundation is visible on various aerial imagery photographs.
    - Potential connection between Wetlands C, D, and B – identified in **Attachment B** as "Potential Connection Between Wetlands." Portions of this area exhibited characteristics of a stream and contained water-stained leaves and various wetland grasses, sedges, and skunk cabbage (*Symplocarpus foetidus*). Water was present during both site visits. A stream like connection can be seen in this area on aerial imagery.
    - Potential Wetland Extension – identified as "Potential Wetland E Extension" in **Attachment B**. This area exhibited water-stained leaves, standing water, and is proximal to wetland trees such as green ash and American elm (*Ulmus americana*) as identified by Trees 910, 754, and 761-764 in the tree survey.
    - Potential Missed Wetland 3 – identified as "Potential Hillslope Wetland and Associated Stream" in **Attachment B**. This area exhibited a groundwater seep or perched spring atop a hillslope with spikerushes (*Eleocharis* sp.), sedges, and sweet woodreed (*Cinna arundinacea*). The area drained into a swale that empties into Wetland B.
    - Potential Missed Wetland 4 – identified as "Potential Southeastern Wetland Missed" in **Attachment B**. This area is a concave depression and contained water-stained leaves. This area is dominated by wetland trees identified as Trees 1676-1682 and 1735-1738 in the tree survey.
    - MSG noted an area identified as Wetland G on sheets 3 and 4 but is absent from sheet 2. As previously mentioned, all sheets related to wetlands should consistently identify all wetlands.

b. Due to the numerous wetlands potentially missed by the applicant in both MSG's and this review, it is recommended that the applicant provide a wetland delineation report detailing why the aforementioned areas may or may not be wetlands. Additionally, it is recommended that the applicant conduct U.S. Army Corps of Engineers (USACE) wetland data forms at each of

these areas to verify the presence/absence of all three wetland criteria. Alternatively, the applicant can request a Level 3 Wetland Identification Program (WIP) through EGLE to verify the presence/absence of additional wetlands onsite.

c. The City of Novi Code of Ordinances, Chapter 12, Article V defines an essential wetland as meeting one or more of the criteria listed in subsections 12-174(b)(1) through (10). Any additional wetlands found onsite will likely meet one or more of the essentiality criteria due to the presence of flooding found onsite and multiple mallards, turkeys, and raccoons seen throughout the site during the site visits.

3. EGLE is the final authority of the location and regulatory status of state-regulated wetlands in Michigan. It has been discovered that different variations of the site plan have been provided to EGLE and permits have been granted by EGLE for differing site plans.

   To ensure consistent reviews between both the City and EGLE, this review letter may be provided to EGLE for their review associated with site *63-12 ½ Mile Road & Novi Road-Novi* in the MiEnviro Portal.

   As mentioned above, EGLE is the final authority of the location and regulatory status of state-regulated wetlands in Michigan. Upon review of the MiEnviro Portal site *63-12 ½ Mile Road & Novi Road-Novi*, a Pre-application Meeting appears to have been conducted in June 2023 under a different site plan design. Typically, EGLE Pre-application Meeting results are bound for two years provided project locations and plans are not altered.

4. In addition to wetlands, the City of Novi regulates wetland and watercourse buffers/setbacks. Article 24 of the Zoning Ordinance, Schedule of Regulations, states: "There shall be maintained in all districts a wetland and watercourse setback, as provided herein, unless and to the extent, it is determined to be in the public interest not to maintain such a setback. The intent of this provision is to require a minimum setback from wetlands and watercourses". The established wetland and watercourse buffer/setback limit is 25 horizontal feet, regardless of grade change.

   Because of the potentially missed wetlands, Merjent is unable to determine if additional 25-foot setbacks will be impeded. An updated delineation/site plan verifying the presence or absence of the potentially missed wetlands will be required prior to making this determination.

5. When a project permanently impacts 0.25 acre or more of essential wetland, the City of Novi requires mitigation at a ratio of 2:1 for forested wetlands and 1.5:1 for emergent and scrub-shrub wetlands. As previously mentioned, onsite wetlands types should be individually quantified on site plans to determine if mitigation will be required. Additionally, MSG noted in their review (Comment 1) that wetland types be individually quantified on the PSP. As currently presented, a conservative mitigation ratio of 2:1 will need to be utilized for all wetland impacts due to the uncertainty of wetland types onsite.

   Current wetland impacts are proposed to be 0.85 acre in size. Utilizing a mitigation ratio of 2:1, approximately 1.69 acres of wetland mitigation are required for this project. Sheet 15 states that 0.92 acre of mitigation will be provided onsite. The applicant needs to account for the additional 0.77 acre of mitigation whether that be on-site or off-site. Per Section 12-176 “Mitigation shall be provided onsite where practical and beneficial to the wetland resources. If onsite mitigation is not practical and beneficial, mitigation in the immediate vicinity, within the same watershed, may be considered.

Mitigation at other locations within the city will only be considered when the above options are impractical."

Due to the need for an additional 0.77 acre of mitigation, the applicant should provide a feasible location on-site. If on-site mitigation cannot be provided, the applicant must provide an off-site conceptual mitigation plan that contains the following information:

- The location of the proposed wetland mitigation site in relation to the proposed Society Hill site. A location map for the mitigation site should be provided with the nearest crossroads and/or identifiable landmarks.
- The total acreage and ecological type of the wetland that will be created and/or expanded.
- A brief description of existing conditions at the proposed mitigation site. Existing conditions include but are not limited to, general topography, soils, vegetation, and any existing hydrology.
- A brief description of the method with which the mitigated wetland will be created and/or expanded. A detailed engineering design is not required, but the source of water for the mitigated wetland should be identified.

For final site plan approval, the applicant will need to provide all required criteria stated in Section 12-176 in the final site plan or appended to the final site plan review submission.

Should you have any questions or concerns with this review, please contact me via email at jason.demoss@merjent.com or via phone at (619) 944-3835.

Sincerely,

Merjent, Inc.

Jason DeMoss, PWS
Environmental Consultant

Kyle Luther, MI Registered Forester # 47070
Environmental Consultant

Enclosures:

Figure 1 – City of Novi Woodlands Map
Figure 2 – City of Novi Wetlands Map
Attachment A – Site Photographs
Attachment B – Wetland Resource Documents

CC:

Diana Shanahan, City of Novi, dshanahan@cityofnovi.org
Rick Meader, City of Novi, rmeader@cityofnovi.org
Barbara McBeth, City of Novi, bmcbeth@cityofnovi.org
Kyle Luther, Merjent, kyle.luther@merjent.com
Robb Roos, Merjent, robb.roos@merjent.com

Figure 1. City of Novi Regulated Woodlands Map
Approximate Site boundary is shown in Red.
(Approximate) Regulated Woodland areas are shown in Green. Extended approximate woodland areas are shown in Orange.

Figure 1, Continued. **Site Oblique-angle Aerial Photography**
Oblique-angle overview of the site. Dense cover of trees and connectivity to other forested areas can be seen at the southern portion of the northern site and the southeastern corner of the southern site.

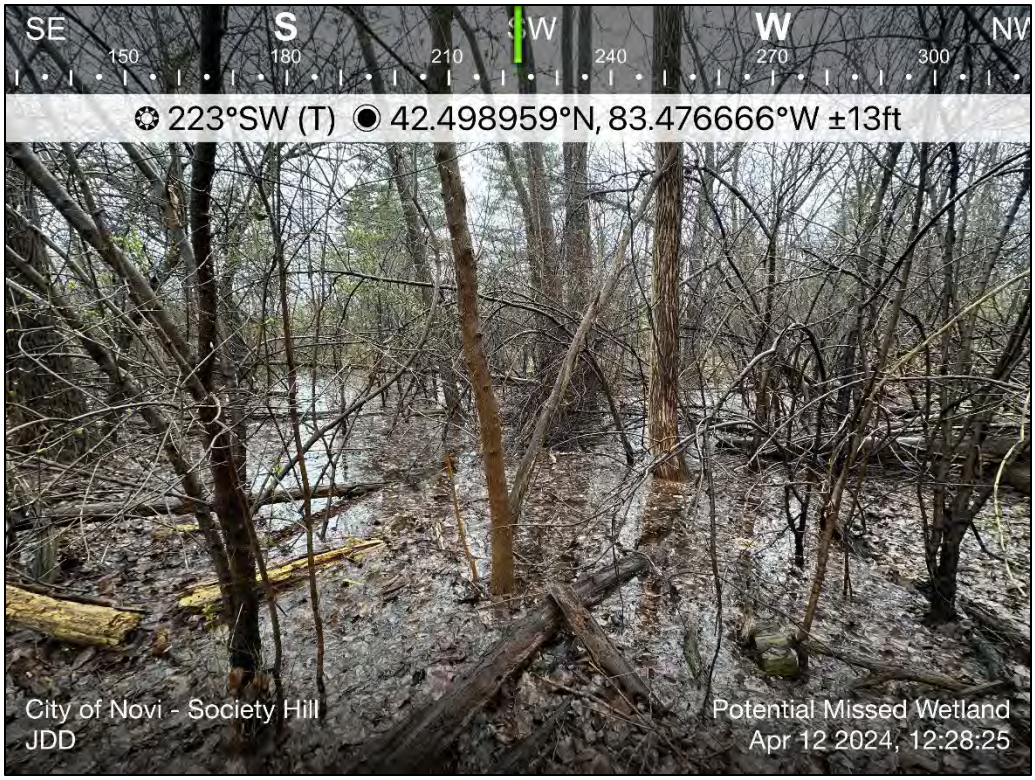
North arrows are at the top left corner of each image, and imagery dates are at the bottom left corner of each image.

Figure 2. City of Novi Regulated Wetlands Map
Approximate Site boundary is shown in red.
(Approximate) Regulated Wetland areas are shown in turquoise.

Attachment A
Site Photographs

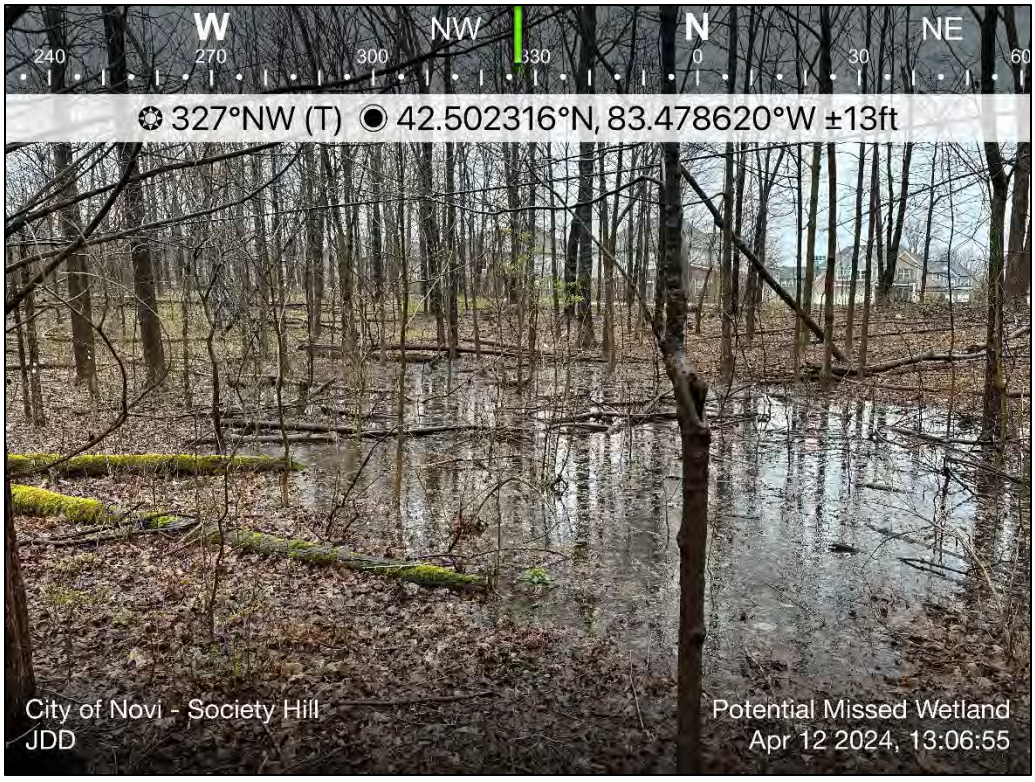
Overview of wetland flagged at south parcel

Overview of the potential hillslope wetland identified in **Attachment B**. Also identified in comments as Potential Missed Wetland 3.



Overview of the potential southeastern wetland missed identified in **Attachment B**. Also identified in the comments as Potential Missed Wetland 4.

Overview of the potential missed vernal pool identified in **Attachment B**. Also identified in the comments as Potential Missed Wetland 2.



Overview of the potential missed wetland in **Attachment B**. Also identified in the comments as Potential Missed Wetland 1.

Stream/swale draining from Potential Missed Wetland 3.

Stream/swale draining from Potential Missed Wetland 3.

Tree tags at the southern parcel match the tree survey provided in the PSP. Tree tag 1974.

Overview of the expanded regulated woodland at the southern parcel.

Overview of the southern parcel.

Overview of the expanded regulated woodland at the southeastern portion of the northern parcel.

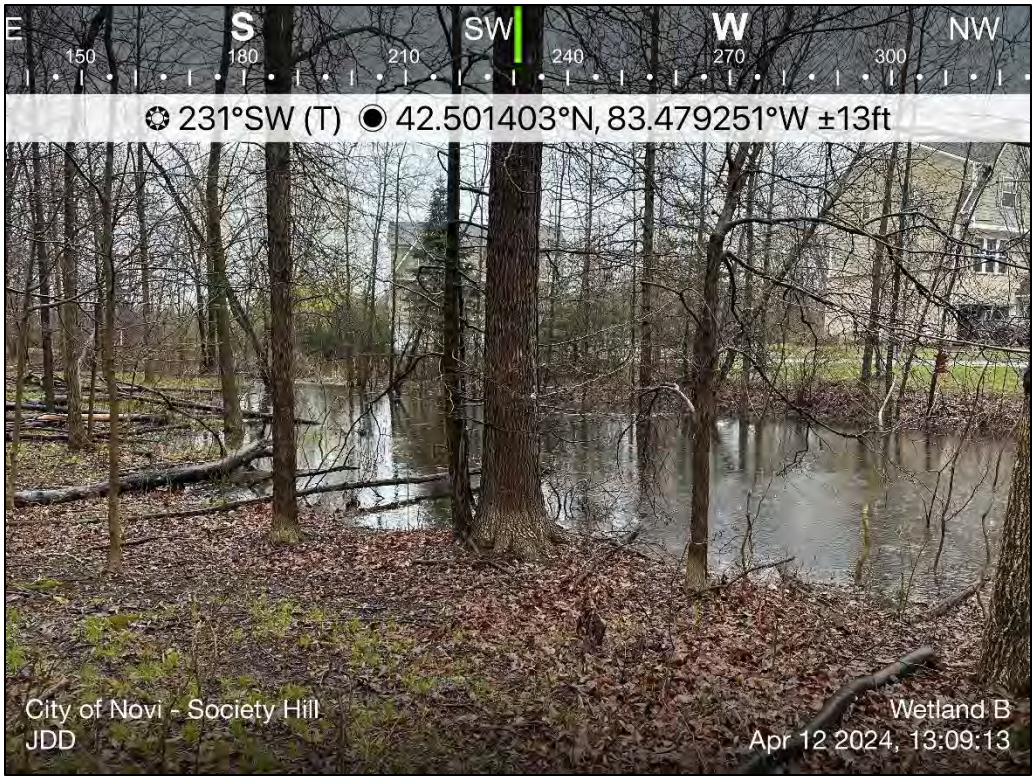
Overview of the expanded regulated woodland at the southern portion of the northern parcel.

Overview of a tree tag that does not match the survey. This tree is approximately located around Tree 679 identified in the PSP. Tree tag reads as 4339.

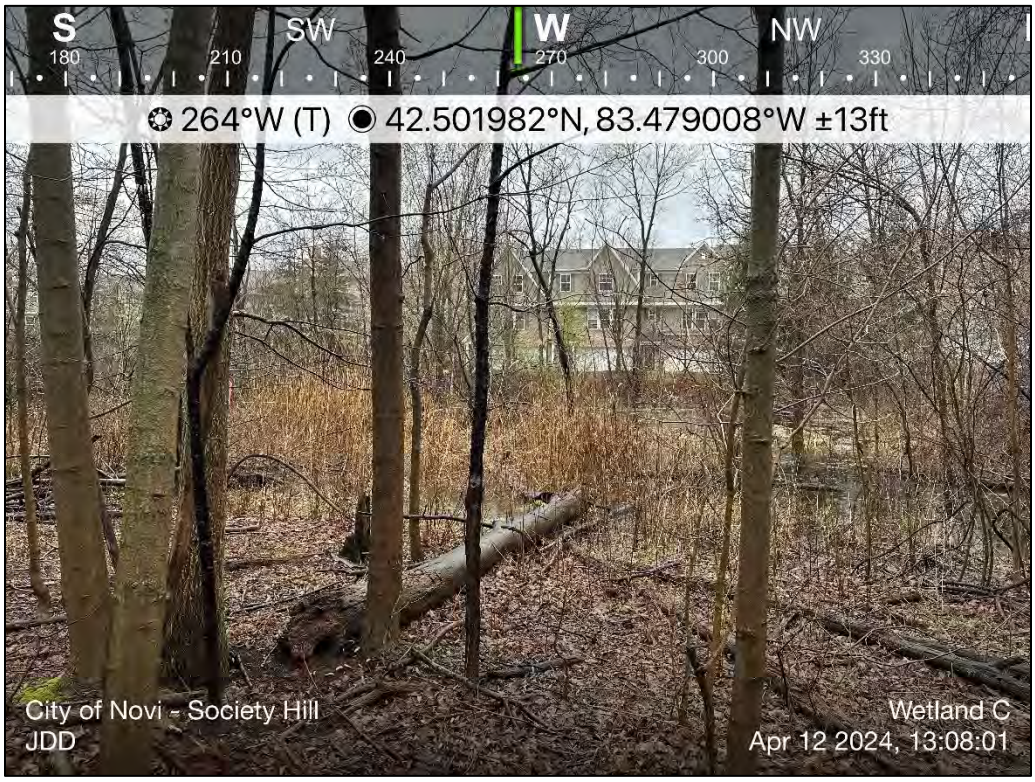
Overview of a tree tag that does not match the survey. This tree is approximately located around Tree 1104 identified in the PSP. Tree tag reads as 4367.

Many trees onsite did not contain any markings/tags. The trees photographed are proximal to Tree 1740 identified in the PSP.

Overview of Wetland A.



Overview of Wetland E (Wetland B on sheet two).



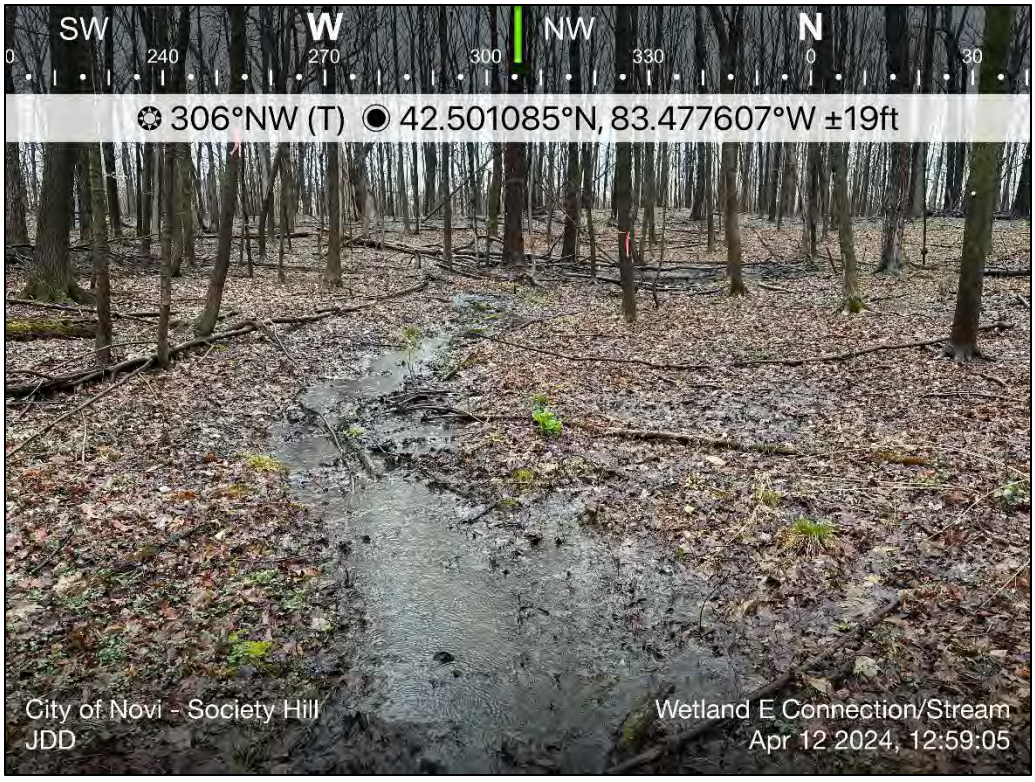
Overview of Wetland F (Wetland C on sheet two).

Overview of Wetland B (Wetland D on sheet two).

Overview of northern Wetland B (Wetland D on sheet two).

Overview of Potential connection between Wetlands C, D, and B (as identified in the comments). Area is near what is identified as Wetland E on sheet two.

Overview of Potential connection between Wetlands C, D, and B (as identified in the comments). Area is near what is identified as Wetland E on sheet two.



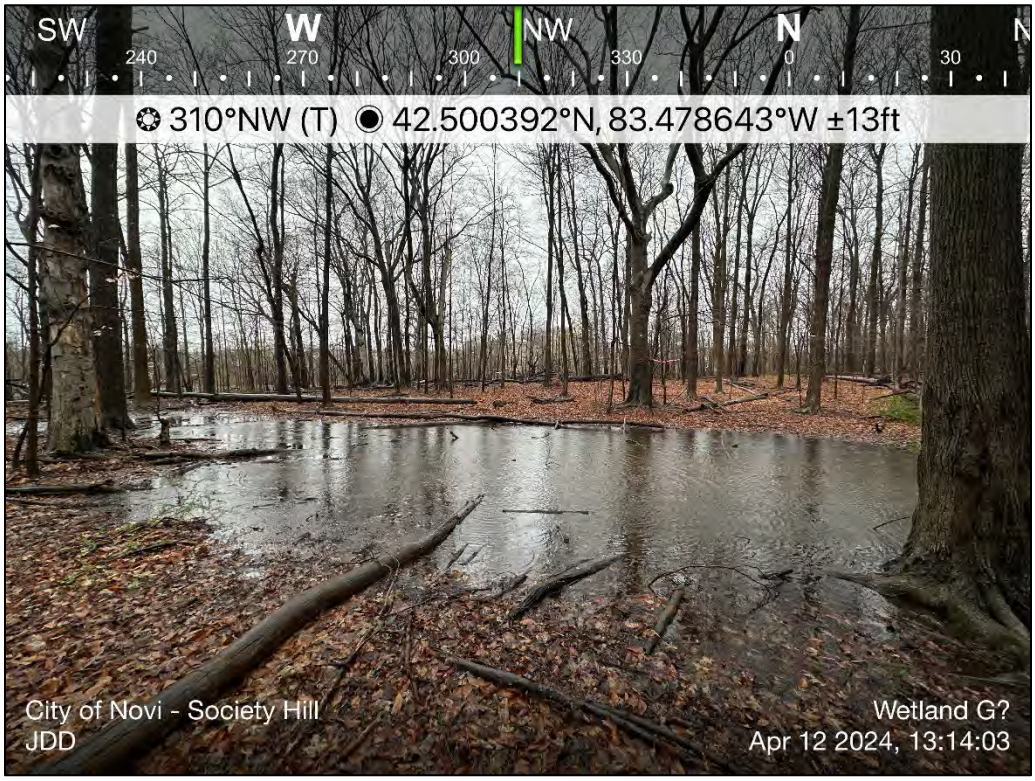
Overview of Potential connection between Wetlands C, D, and B (as identified in the comments). Area is near what is identified as Wetland E on sheet two.

Overview of Potential connection between Wetlands C, D, and B (as identified in the comments). Area is near what is identified as Wetland E on sheet two.

Overview of Potential connection between Wetlands C, D, and B (as identified in the comments). Area is near what is identified as Wetland F on sheet two.

Overview of Potential connection between Wetlands C, D, and B (as identified in the comments). Area is near what is identified as Wetland F on sheet two.

Overview of Wetland D (Wetland F on sheet two).

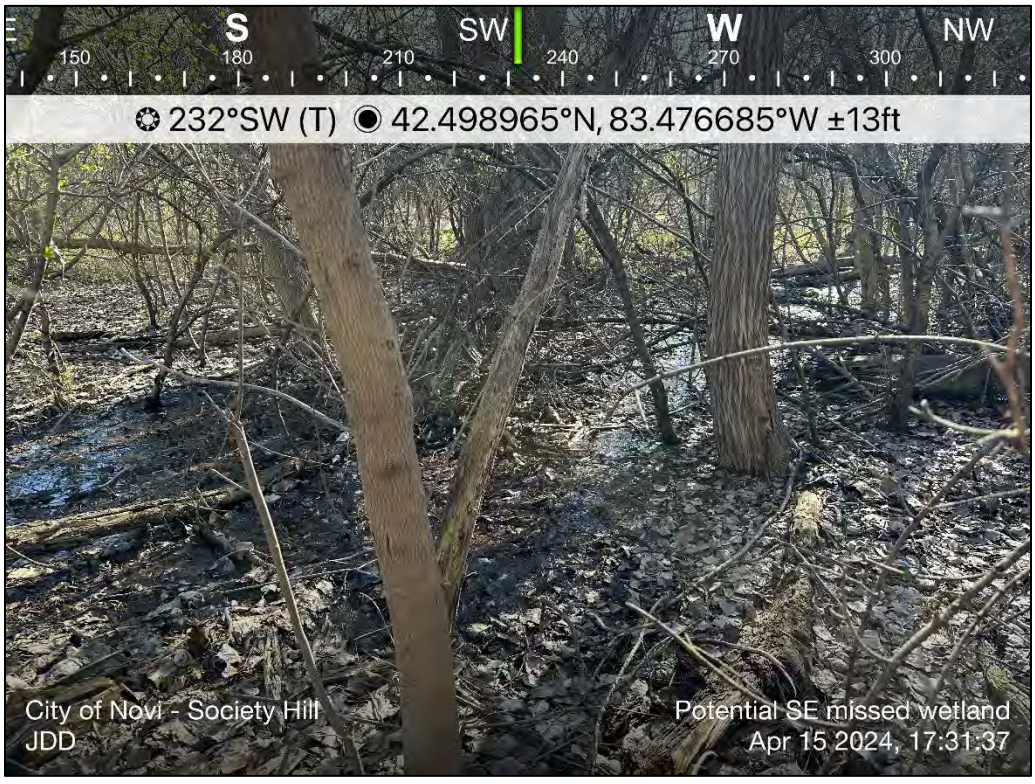


Overview of Wetland G, which is not identified on sheet two.

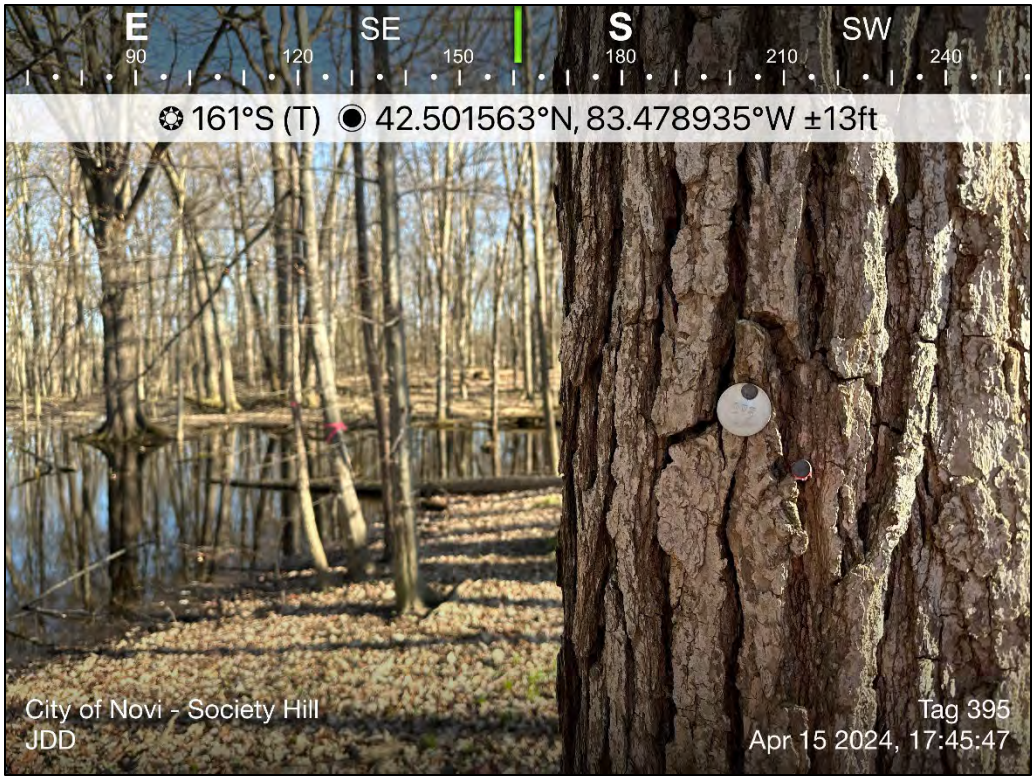
Overview of the central portion of the site. None of the trees in this area contained tree tags/markings.

Overview of Potential Missed Wetland 3.

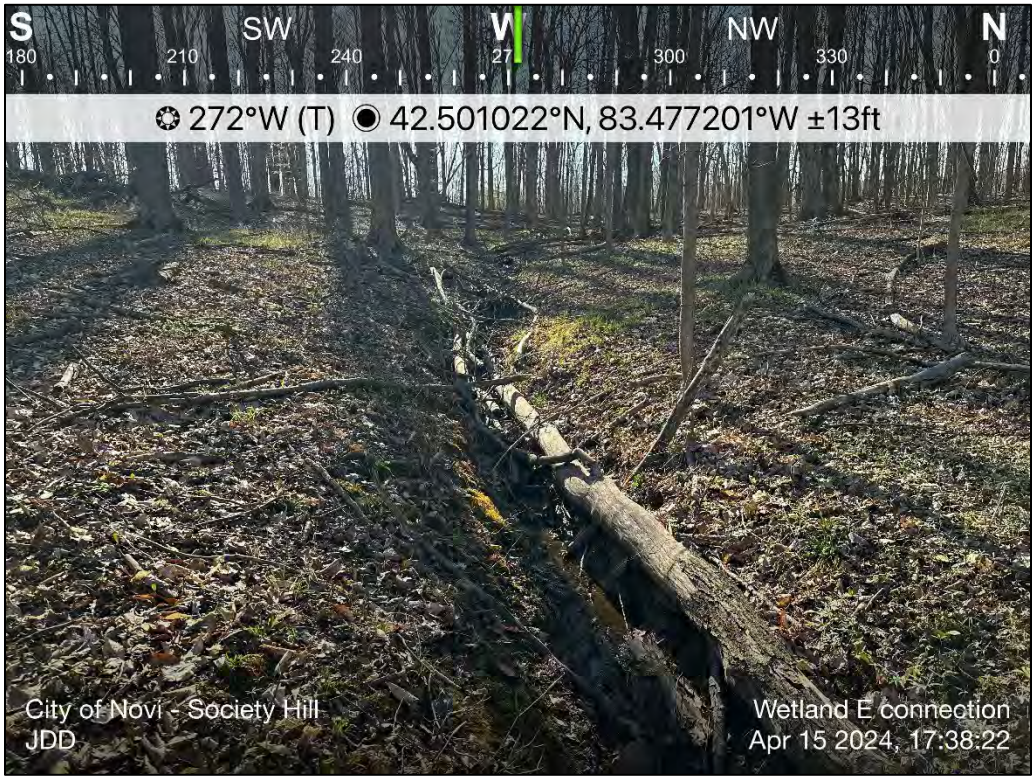
Overview of Potential Missed Wetland 1.



Overview of Potential Missed Wetland 4.



Overview of a tree tag that does not match the survey. This tree is approximately located around Tree 469 identified in the PSP. Tree tag reads as 395.

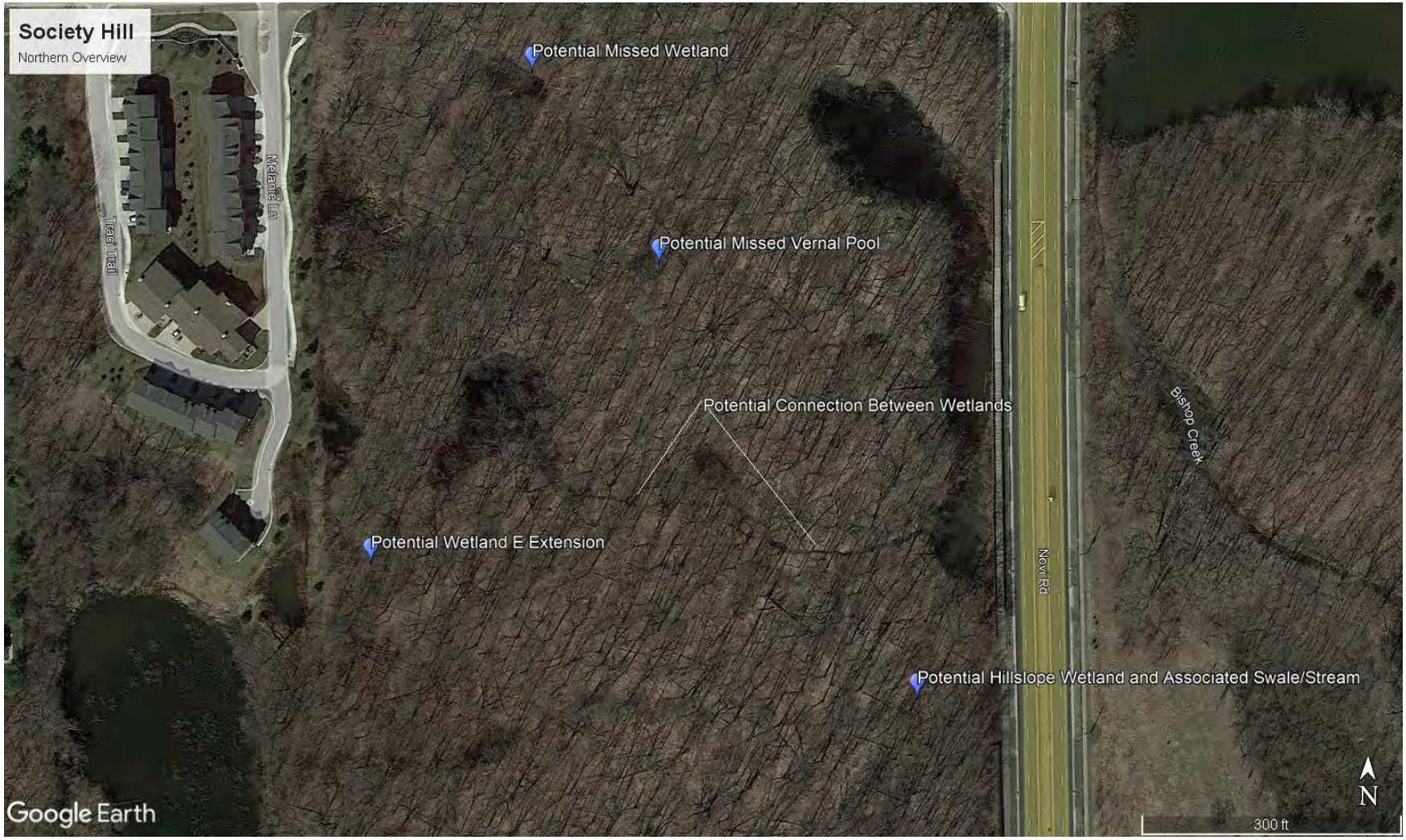


Overview of Potential connection between Wetlands C, D, and B (as identified in the comments). Area is near what is identified as Wetland E on sheet two.

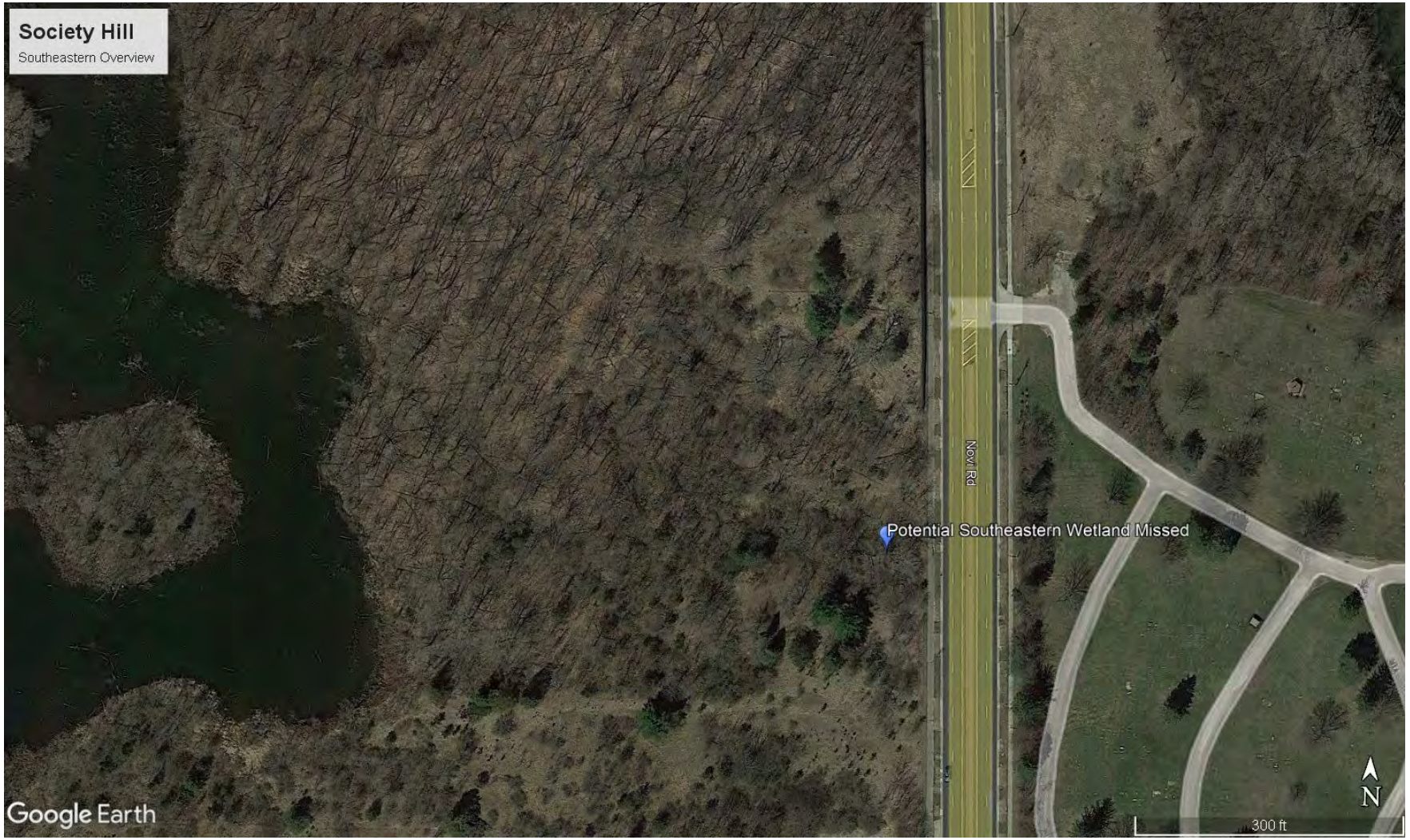
Potential Wetland Extension (as identified in comments).

Attachment B
Wetland Resource Documents

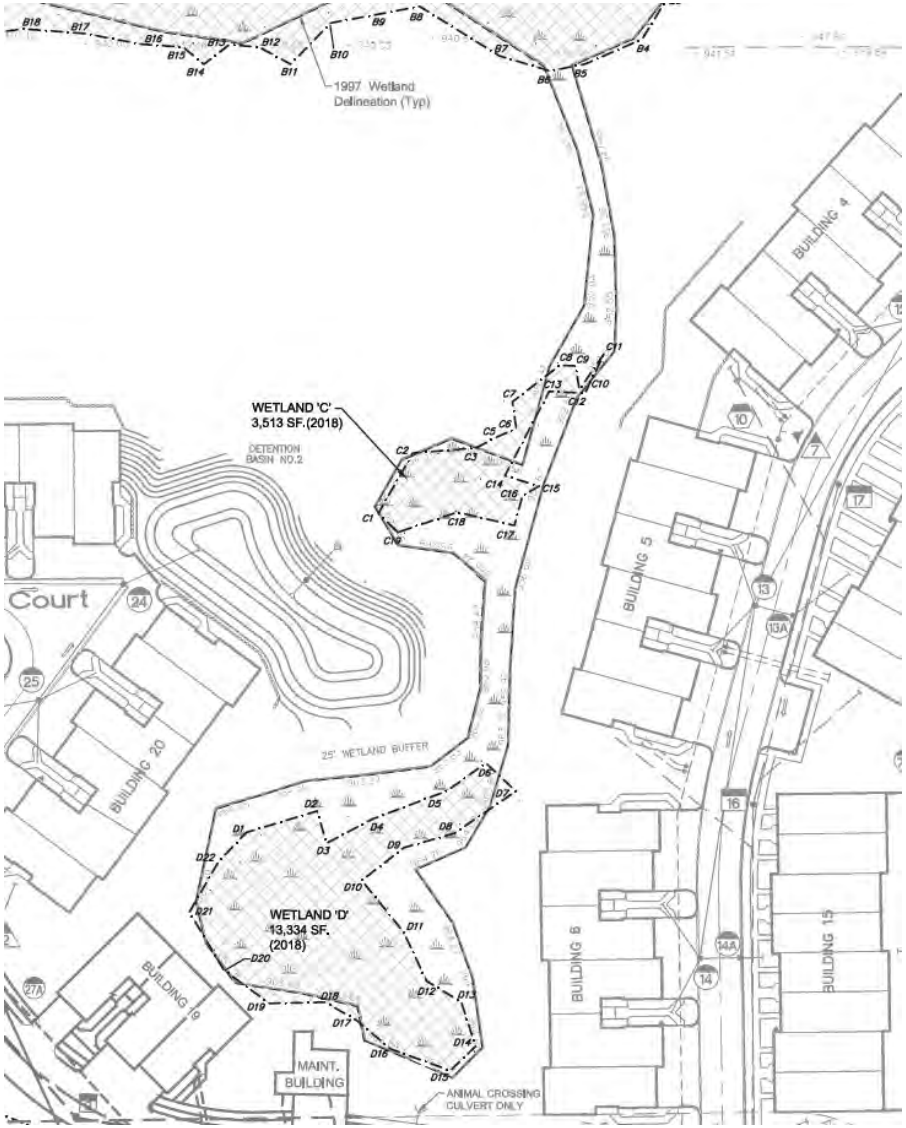
merjent



Overview of the northern portion of the site with potentially missed wetlands. Photographs of each area are included in **Attachment A**.



Overview of the southeastern portion of the northern parcel with a potentially missed wetland. Photographs of the area are included in **Attachment A**.



Plans submitted to EGLE in May 2023 showing a previous delineation with a connection between Wetlands C, D, and B. See **Attachment A** for photos of the connection. Document available via EGLE MiEnviro Portal Site Viewer, EGLE Permit WRP037494 v1.0.

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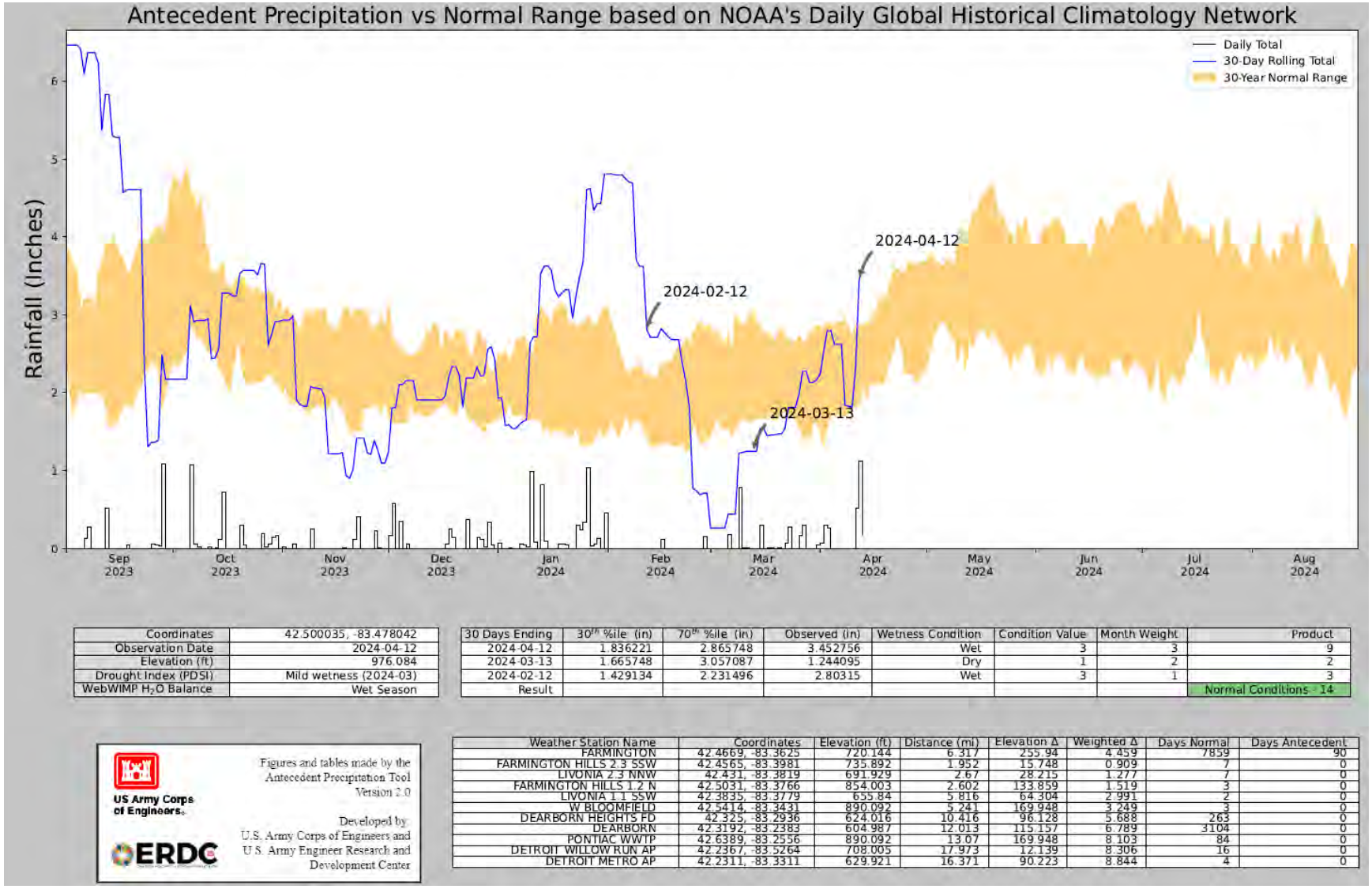


Coordinates	42.500035, -83.478042
Observation Date	2024-04-12
Elevation (ft)	976.084
Drought Index (PDSI)	Mild wetness (2024-03)
WebWIMP H_2O Balance	Wet Season

30 Days Ending	30th %ile (in)	70th %ile (in)	Observed (in)	Wetness Condition	Condition Value	Month Weight	Product
2024-04-12	1.836221	2.865748	3.452756	Wet	3	3	9
2024-03-13	1.665748	3.057087	1.244095	Dry	1	2	2
2024-02-12	1.429134	2.231496	2.80315	Wet	3	1	3
Result							Normal Conditions - 14

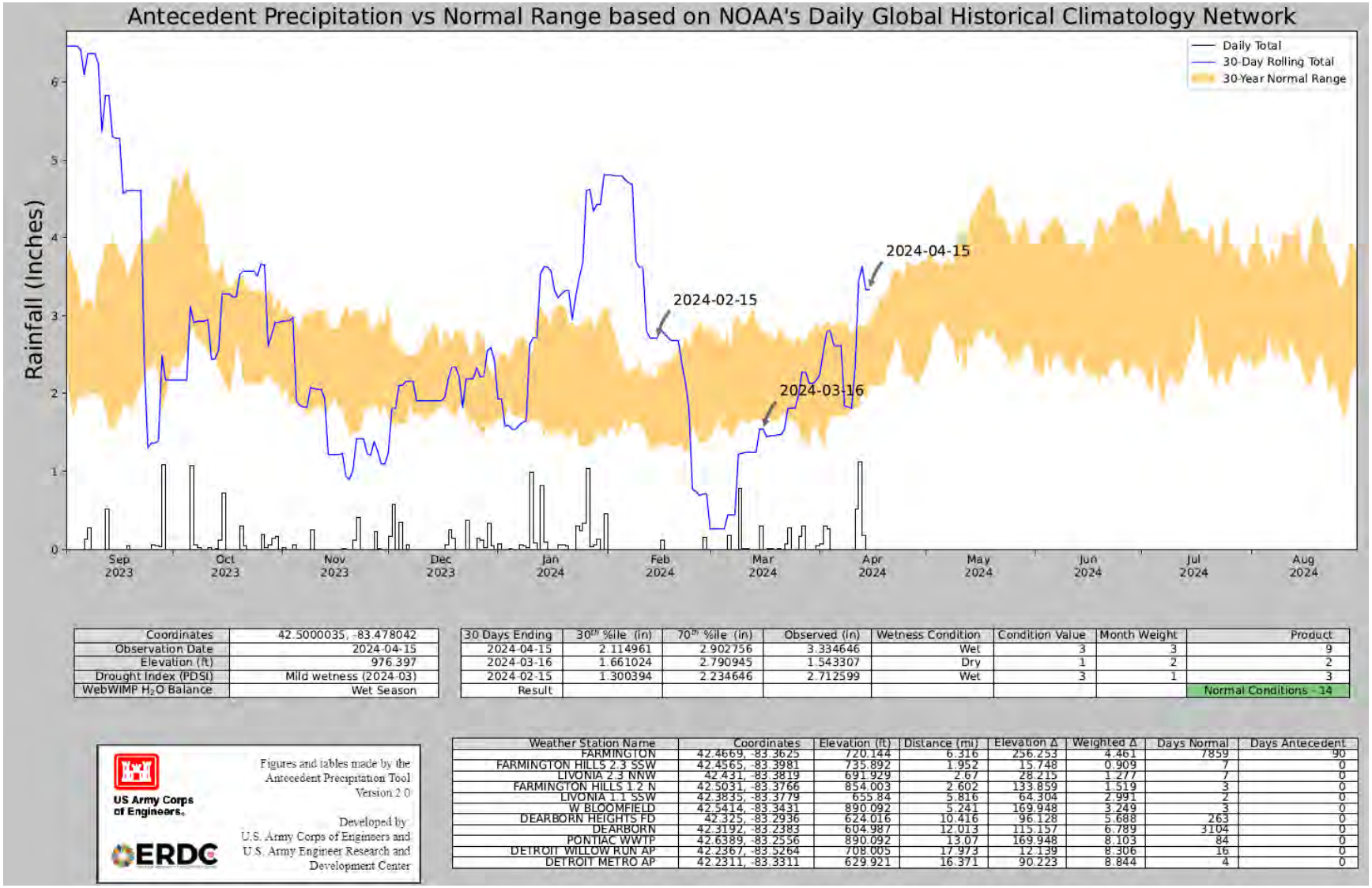
US Army Corps of Engineers.
ERDC

Figures and tables made by the Antecedent Precipitation Tool Version 2.0

Developed by U.S. Army Corps of Engineers and U.S. Army Engineer Research and Development Center

Weather Station Name	Coordinates	Elevation (ft)	Distance (mi)	Elevation Δ	Weighted Δ	Days Normal	Days Antecedent
FARMINGTON	42.4669, -83.3625	720.144	6.317	255.94	4.459	7859	90
FARMINGTON HILLS 2.3 SSW	42.4565, -83.3981	735.892	1.952	15.748	0.909	7	0
LIVONIA 2.3 NNW	42.431, -83.3819	691.929	2.67	28.215	1.277	7	0
FARMINGTON HILLS 1.2 N	42.5031, -83.3766	854.003	2.602	133.859	1.519	3	0
LIVONIA 1.1 SSW	42.3835, -83.3779	655.84	5.816	64.304	2.991	2	0
W BLOOMFIELD	42.5414, -83.3431	890.092	5.241	169.948	3.249	3	0
DEARBORN HEIGHTS FD	42.325, -83.2936	624.016	10.416	96.128	5.688	263	0
DEARBORN	42.3192, -83.2383	604.987	12.013	115.157	6.789	3104	0
PONTIAC WWTP	42.6389, -83.2556	890.092	13.07	169.948	8.103	84	0
DETROIT WILLOW RUN AP	42.2367, -83.5264	708.005	17.973	12.139	8.306	16	0
DETROIT METRO AP	42.2311, -83.3311	629.921	16.371	90.223	8.844	4	0

Antecedent precipitation output of the April 12, 2024 site visit showing the site visit was conducted during normal antecedent precipitation conditions.



Coordinates	42.5000035, -83.478042
Observation Date	2024-04-15
Elevation (ft)	976.397
Drought Index (PDSI)	Mild wetness (2024-03)
WebWIMP H_2O Balance	Wet Season

30 Days Ending	30th %ile (in)	70th %ile (in)	Observed (in)	Wetness Condition	Condition Value	Month Weight	Product
2024-04-15	2.114961	2.902756	3.334646	Wet	3	3	9
2024-03-16	1.661024	2.790945	1.543307	Dry	1	2	2
2024-02-15	1.300394	2.234646	2.712599	Wet	3	1	3
Result							Normal Conditions - 14

US Army Corps of Engineers.
ERDC

Figures and tables made by the Antecedent Precipitation Tool Version 2.0

Developed by U.S. Army Corps of Engineers and U.S. Army Engineer Research and Development Center

Weather Station Name	Coordinates	Elevation (ft)	Distance (mi)	Elevation Δ	Weighted Δ	Days Normal	Days Antecedent
FARMINGTON	42.4669, -83.3625	720.144	6.316	256.253	4.461	7859	90
FARMINGTON HILLS 2.3 SSW	42.4565, -83.3981	735.892	1.952	15.748	0.909	7	0
LIVONIA 2.3 NNW	42.431, -83.3819	691.929	2.67	28.215	1.277	7	0
FARMINGTON HILLS 1.2 N	42.5031, -83.3766	854.003	2.602	133.859	1.519	3	0
LIVONIA 1.1 SSW	42.3835, -83.3779	655.84	5.816	64.304	2.991	2	0
W BLOOMFIELD	42.5414, -83.3431	890.092	5.241	169.948	3.249	3	0
DEARBORN HEIGHTS FD	42.325, -83.2936	624.016	10.416	96.128	5.688	263	0
DEARBORN	42.3192, -83.2383	604.987	12.013	115.157	6.789	3104	0
PONTIAC WWTP	42.6389, -83.2556	890.092	13.07	169.948	8.103	84	0
DETROIT WILLOW RUN AP	42.2367, -83.5264	708.005	17.973	12.139	8.306	16	0
DETROIT METRO AP	42.2311, -83.3311	629.921	16.371	90.223	8.844	4	0

Antecedent precipitation output of the April 15, 2024 site visit showing the site visit was conducted during normal antecedent precipitation conditions.

merjent

p 612.746.3660 ▪ f 612.746.3679 ▪ www.merjent.com

1 Main Street SE ▪ Suite 300 ▪ Minneapolis, Minnesota ▪ 55414

June 11, 2024

Lindsay Bell and Barbara McBeth
Planner – Community Development
City of Novi
45175 Ten Mile Road
Novi, MI 48375

Submitted electronically to bmcbeth@cityofnovi.org and lbell@cityofnovi.org

Re: Society Hill – Wetland Response Review (JSP24-04)

Dear Lindsay and Barbara,

Merjent, Inc. (Merjent) has conducted a review of the preliminary site plan (PSP) response letter for the proposed Society Hill development (also referred to as West Side of Novi Road Between 12 Mile Road and 12 ½ Mile Road; site) prepared by Barr Engineering Company (Barr), dated 5/23/2024. The letter was sent in response to a PSP review conducted by Merjent for the site for conformance with Article V, Wetlands and Watercourse Protection, of Chapter 12, Drainage and Flood Damage Prevention, of the City of Novi Code of Ordinances. Hereafter, Merjent's April 18, 2024 PSP Review Letter will be referred to as the "PSP Review" and Barr's May 23, 2024 PSP Review Response Letter will be referred to as the "Response Letter." Barr submitted a response to PSP Review (Wetland) Comments two, three, four, and five.

The site in reference is located southwest of the intersection of 12 ½ Mile Road and Novi Road and is proposed within parcels 50-22-10-400-020 through 50-22-10-400-028 with an additional parcel located further south at parcel number 50-22-10-400-055. The site contains City-regulated wetlands.

In PSP Review comments two, three and four, Merjent highlighted potential missed wetlands that were previously identified in past iterations of the site design to the Michigan Department of Environment, Great Lakes, and Energy (EGLE). Barr conducted an additional site visit in response to the PSP Review and collected additional data at the site. The additional data confirmed that these areas in question do not meet the criteria to be wetlands (did not contain wetland hydrology, hydric soils, and dominant/prevalent hydrophytic vegetation). Merjent is aware that Barr conducted and on-site Pre-application Meeting with EGLE during the week of April 22. Pending response and concurrence from EGLE on these areas, Merjent accepts the submitted wetland locations and proposed impacts on the 3/25/2024 PSP. However, it should be noted that Comment one should still be addressed regarding the consistent depiction of different wetlands throughout future site plan submittals.

The Response Letter also addressed Comment five regarding the amount and location of proposed wetland mitigation on-site. As requested in the PSP Review, Barr refined the impacts to differing amounts of emergent, scrub-shrub, and forested wetlands. The impacts to emergent, scrub-shrub, and forested wetlands are 0.292 acre, 0.058 acre, and 0.497 acre, respectively. Per Section 12-176 (Mitigation) and standard mitigation ratios within the City of Novi, the total required mitigation for all impacted wetlands on-site is 1.519 acres. In the Response Letter, Barr requested that 0.922 acre of wetland mitigation be constructed on-site. Barr has noted that the proposed mitigation on-site is more than a 1:1 replacement and

that “no known suitable and available wetland mitigation sites within the City [of Novi] and the Rouge River watershed have been identified which is why purchase of EGLE approved wetland mitigation bank credits is proposed.”

Merjent reviewed Section 12-176 (Mitigation) of the Code of Ordinances and past projects approved by the City of Novi under the guidance of both the Mannik and Smith Group (MSG) and Environmental Consulting and Technology, Inc (ECT). Per Section 12-176 “Mitigation shall be provided onsite where practical and beneficial to the wetland resources. If onsite mitigation is not practical and beneficial, mitigation in the immediate vicinity, within the same watershed, may be considered. Mitigation at other locations within the city will only be considered when the above options are impractical.” Although wetland replacement ratios and locations shall be determined on a case-by-case basis, the replacement ratio of 1.5:1 for emergent and scrub-shrub wetlands and 2:1 for forested wetlands has been the standard for projects that were previously reviewed by both MSG and ECT. Merjent cannot recommend the deviation from this precedent due to the City’s embracement of the policy of no net loss to valuable wetlands. The wetlands on-site contain minimal invasive species and the overall site is of relatively high quality; the site contains a general lack of dense invasive species and contains undulating topography with vernal pools and undisturbed wetlands and uplands. A deviation of the standard mitigation ratio and/or purchase of EGLE Mitigation Bank Credits for a portion of the required mitigation would only be permitted if City Council grants an exception from the Code requirements.

Should you have any questions or concerns with this response, please contact me via email at jason.demoss@merjent.com or via phone at (619) 944-3835.

Sincerely,

Merjent, Inc.

Jason DeMoss, PWS
Environmental Consultant

CC:
Thomas Schultz, tschultz@rsjalaw.com
Robb Roos, Merjent, robb.roos@merjent.com

TRAFFIC REVIEW

AECOM
39575 Lewis Dr, Ste. 400
Novi
MI, 48377
USA
aecom.com

Project name:
JSP24-04 – Society Hill Concept Traffic Review

From:
AECOM

Date:
April 17, 2024

To:
Barbara McBeth, AICP
City of Novi
45175 10 Mile Road
Novi, Michigan 48375

CC:
Lindsay Bell, James Hill, Heather Zeigler, Humna Anjum, Diana Shanahan, Adam Yako

Memo

Subject: JSP24-04 – Society Hill Concept Traffic Review

The concept site plan was reviewed to the level of detail provided and AECOM recommends **denial** as long as the comments provided below are adequately addressed to the satisfaction of the City.

GENERAL COMMENTS

1. The applicant, E & M Holding, LLC, is proposing 21 buildings consisting of 463 residential units as well as a clubhouse.
2. The development is located on the southwest corner of Novi Road and 12 and ½ Mile Road. Novi Road and 12 and ½ Mile Road are both under the jurisdiction of the City of Novi.
3. The site is zoned RM-1 (Low-Density Multiple Family).
4. The following traffic related deviations were granted under the 1999 Final Site Plan:
    a. Access to a major thoroughfare deviation for entrance on 12 ½ Mile Road.
5. The following traffic related deviations will be required if changes are not made to the plans:
    a. Below standard entrance taper at 12 ½ Mile entrance.
    b. Lack of Traffic Impact Study.

TRAFFIC IMPACTS

1. AECOM performed an initial trip generation based on the ITE Trip Generation Manual, 11th Edition, as follows.

    ITE Code: 221 – Multifamily Housing (Mid-Rise)
    Development-specific Quantity: 463 Units
    Zoning Change: N/A

Trip Generation Summary	Estimated Trips	Estimated Peak-Direction Trips	City of Novi Threshold	Above Threshold?
AM Peak-Hour Trips	192	148	100	Yes
PM Peak-Hour Trips	181	110	100	Yes
Daily (One-Directional) Trips	2162	N/A	750	Yes

2. The City of Novi generally requires a traffic impact study/statement if the number of trips generated by the proposed development exceeds the City's threshold of more than 750 trips per day or 100 trips per either the AM or PM peak hour, or if the project meets other specified criteria.

Trip Impact Study Recommendation	
Type of Study:	**Justification**
Traffic Impact Study (TIS)	Estimated trips are above the City's threshold. The applicant provided a memo comparing the trip generation associated with the 1999 final site plan and the current revised plan and is requesting a waiver for a TIS. AECOM does not support this waiver based on the following: • Traffic Conditions today have changed significantly compared to 1999. • Background developments and roadway networks have also undergone significant changes over the last 25 years. • Per Site Plan and Development Manual, p. 46: "Traffic Impact Statements and Assessments are required for new phases to existing projects meeting the above thresholds and for substantial changes to projects with a Traffic Impact Statement or Assessment greater than two years old and where roadway conditions have changed……" • Per Site Plan and Development Manual, p. 47: "Traffic count data shall not be over two years old, except the City may permit counts up to three years old to ….."

TRAFFIC REVIEW

The following table identifies the aspects of the plan that were reviewed. Items marked O are listed in the City's Code of Ordinances. Items marked with ZO are listed in the City's Zoning Ordinance. Items marked with ADA are listed in the Americans with Disabilities Act. Items marked with MMUTCD are listed in the Michigan Manual on Uniform Traffic Control Devices.

The values in the 'Compliance' column read as 'met' for plan provision meeting the standard it refers to, 'not met' stands for provision not meeting the standard and 'inconclusive' indicates applicant to provide data or information for review and 'NA' stands for not applicable for subject Project. The 'remarks' column covers any comments reviewer has and/or 'requested/required variance' and 'potential variance'. A potential variance indicates a variance that will be required if modifications are not made or further information provided to show compliance with the standards and ordinances. The applicant should put effort into complying with the standards; the variances should be the last resort after all avenues for complying have been exhausted. Indication of a potential variance does not imply support unless explicitly stated.

EXTERNAL SITE ACCESS AND OPERATIONS				
No.	**Item**	**Proposed**	**Compliance**	**Remarks**
1	Driveway Radii | O Figure IX.3	35'	Met	
2	Driveway Width | O Figure IX.3	24' and 26' at boulevard entrances, 30'	Met	Label distance from island to edge of road at 12 ½ Mile Road entrance in future submittal.
3	Driveway Taper | O Figure IX.11			

EXTERNAL SITE ACCESS AND OPERATIONS				
No.	**Item**	**Proposed**	**Compliance**	**Remarks**
3a	Taper length	50’ entering and exiting	**Partially Met**	**50’ taper at entrance taper is not within the required range of 75’ to 100’ at the 12 ½ Mile entrance. A waiver is required if not revised, AECOM would support this waiver.**
3b	Tangent	0’	Met	Within required range.
4	Emergency Access | O 11-194.a.19	3 entrance/exits and 2 emergency access points	Met	
5	Driveway sight distance | O Figure VIII-E	510’	Met	
6	Driveway spacing			
6a	Same-side | O 11.216.d.1.d	>230’	Met	
6b	Opposite side | O 11.216.d.1.e	-	N/A	
7	External coordination (Road agency)	-	N/A	
8	External Sidewalk | Master Plan & EDM	5’ along 12 ½ Mile, 8’ along 12 Mile	Met	
9	Sidewalk Ramps | EDM 7.4 & R-28-K	Detail included, Indicated on plan	Met	**Update R-28 detail on sheet ND to latest R-28-K detail.**
10	Any Other Comments:	Details included for pulling back existing islands on Novi Road to allow for left turns. **Label yellow color and solid/broken proposed pavement markings on Novi Road.**		

INTERNAL SITE OPERATIONS				
No.	**Item**	**Proposed**	**Compliance**	**Remarks**
11	Loading zone | ZO 5.4	-	N/A	
12	Trash receptacle | ZO 5.4.4	Garbage compactor in southwest corner of site	Met	
13	Emergency Vehicle Access	Provided	Met	
14	Maneuvering Lane | ZO 5.3.2	Dimensioned	Met	
15	End islands | ZO 5.3.12			
15a	Adjacent to a travel way	Added end island details	Met	

INTERNAL SITE OPERATIONS				
No.	**Item**	**Proposed**	**Compliance**	**Remarks**
15b	Internal to parking bays	Not dimensioned	**Inconclusive**	**Provide dimensions (radius and width) in future submittal.** Note internal islands are not required to be 3' shorter than adjacent parking space.
16	Parking spaces | ZO 5.2.12	942 proposed (garage, behind garage, surface)		See Planning review letter.
17	Adjacent parking spaces | ZO 5.5.3.C.ii.i	<15 spaces in one bay	Met	
18	Parking space length | ZO 5.3.2	17', 17.5' and 19' perpendicular spaces, 19' angled and 23' parallel spaces	Met	
19	Parking space Width | ZO 5.3.2	8' parallel spaces, 9' all other spaces	Met	
20	Parking space front curb height | ZO 5.3.2	Details provided	Met	**Revise detail on sheet 6 to "Reduce to 4" in front of 17' long parking spaces".**
21	Accessible parking – number | ADA	13 proposed	Met	
22	Accessible parking – size | ADA	8' with 5' aisles, 8' with 8' aisles van accessible	Met	
23	Number of Van-accessible space | ADA	7 proposed (4 surface, 3 under ground)	Met	
24	Bicycle parking			
24a	Requirement | ZO 5.16.1	1 space for each 5 dwelling units required, 94 proposed (24 surface, 70 in buildings)	Met	
24b	Location | ZO 5.16.1	3 surface locations indicated	Met	
24c	Clear path from Street | ZO 5.16.1	6' shown only in front of bike rack, 5' leading up to bike rack	**Partially Met**	**Per the Zoning Ordinance "All bicycle parking facilities shall be accessible from adjacent street(s) and pathway(s) via a paved route that has a minimum width of six (6) feet."**
24d	Height of rack | ZO 5.16.5.B	Detail provided, height dimension not shown	**Inconclusive**	**Provide in future submittal, 3' required.**

INTERNAL SITE OPERATIONS				
No.	**Item**	**Proposed**	**Compliance**	**Remarks**
24e	Other (Covered / Layout) | ZO 5.16.1	Detail provided	**Partially Met**	**Dimensions on either side of racks don't meet requirements in Text Amendment 18.301.**
25	Sidewalk – min 5' wide | Master Plan	5' and 7' in front of 17' parking spaces	Met	
26	Sidewalk ramps | EDM 7.4 & R-28-K	Indicated and detail provided	Met	**Update R-28 detail on sheet ND to latest R-28-K detail.**
27	Sidewalk – distance back of curb | EDM 7.4	0' and 6'	Met	
28	Cul-De-Sac | O Figure VIII-F	-	N/A	
29	EyeBrow | O Figure VIII-G	-	N/A	
30	Turnaround | ZO 5.10	-	N/A	
31	Any Other Comments:			

SIGNING AND STRIPING				
No.	**Item**	**Proposed**	**Compliance**	**Remarks**
32	Signing: Sizes | MMUTCD	Indicated	Met	
33	Signing table: quantities and sizes	Provided	Met	**The quantities should reflect the R7-8 and R7-8p as separate signs, i.e., at the van accessible space there is 1 R7-8 sign and 1 R7-8p sign.**
34	Signs 12" x 18" or smaller in size shall be mounted on a galvanized 2 lb. U-channel post | MMUTCD	Indicated	Met	
35	Signs greater than 12" x 18" shall be mounted on a galvanized 3 lb. or greater U-channel post | MMUTCD	Indicated	Met	
36	Sign bottom height of 7' from final grade | MMUTCD	Indicated	Met	
37	Signing shall be placed 2' from the face of the curb or edge of the nearest sidewalk to the near edge of the sign | MMUTCD	Provided	Met	
38	FHWA Standard Alphabet series used for all sign language | MMUTCD	Indicated	Met	
39	High-Intensity Prismatic (HIP) sheeting to meet FHWA retro-reflectivity | MMUTCD	Indicated	Met	
40	Parking space striping notes	Indicated	Met	
41	The international symbol for accessibility pavement markings | ADA	Provided	Met	
42	Crosswalk pavement marking detail	Provided	Met	

SIGNING AND STRIPING				
No.	**Item**	**Proposed**	**Compliance**	**Remarks**
43	Any Other Comments:	The applicant indicated maintaining traffic details for entrance/exit work will be provided in final site plan submittal. **Could include a R4-7 sign at each boulevard island. Provide one-way/do not enter signs at one-way drive in front of building E.**		

Note: Hyperlinks to the standards and Ordinances are for reference purposes only, the applicant and City of Novi to ensure referring to the latest standards and Ordinances in its entirety.

Should the City or applicant have questions regarding this review, they should contact AECOM for further clarification.

Sincerely,

AECOM

Paula K. Johnson, PE
Senior Transportation Engineer

Saumil Shah, PMP
Project Manager

FAÇADE REVIEW

DRN & ASSOCIATES, ARCHITECTS, PC
Phone: (248) 880-6523
E-Mail: dnecci@drnarchitects.com
Web: drnarchitects.com
50850 Applebrooke Dr., Northville, MI 48167

April 15, 2024

City of Novi Planning Department
45175 W. 10 Mile Rd.
Novi, MI 48375- 3024

Façade Review Status Summary:
Approved – Section 9 Waiver Recommended for overage of Horizontal Fiber Cement Siding.

Re: FACADE ORDINANCE REVIEW
Society Hill Concept Plan, JSP24-04
Façade Region: 1, Zoning District: RM-1,

Dear Ms. McBeth;
This façade review is based on the drawings by Krieger Klatt Architects dated 3/25/24. The maximum and minimum percentage of façade materials required by the Façade Ordinance is shown in the right-hand column. Materials in non-compliance, if any, are highlighted in red. Colored renderings were provided. The Sample Board required by Section 5.15.4.D of the Ordinance was not provided.

Buildings A-D (4-Story)	Front	Left	Rear	Right	Ordinance Maximum (Minimum)
Brick	39%	59%	42%	59%	100% (30% Min)
Wood Siding (Horizontal Fiber Cement)	**14%**	0%	**20%**	0%	0%
Fiber Cement Panels (No Pattern, Similar to EIFS)	22%	19%	21%	19%	25%
Standing Seam Metal (Or EIFS?)	25%	22%	17%	22%	25%

Buildings E (4-Story)	Front	Left	Rear	Right	Ordinance Maximum (Minimum)
Brick	36%	49%	33%	48%	100% (30% Min)
Limestone	12%	0%	11%	0%	50%
Wood Siding (Horizontal Fiber Cement)	**23%**	**18%**	**26%**	**18%**	0%
Fiber Cement Panels (No Pattern, Similar to EIFS)	12%	12%	14%	12%	25%
Standing Seam Metal (Or EIFS?)	17%	21%	16%	22%	25%

Townhomes, 3-Story (Residential Style Architecture)	Front	Left	Rear	Right	Ordinance Maximum (Minimum)
Brick	46%	53%	31%	53%	100% (30% Min)
Wood Siding (Horizontal Fiber Cement)	15%	34%	24%	34%	50%*
Fiber Cement Panels (No Pattern, Similar to EIFS)	14%	1%	3%	1%	25%
Standing Seam Metal	13%	0%	30%	0%	25%
Asphalt Shingles	13%	12%	12%	12%	50% **
* Footnote 10 - Up to 50% Cement Fiber Siding allowed with residential style architecture in R Districts.					
** Footnote 14 - Up to 50% Asphalt Shingles allowed with residential style architecture in R Districts.					

Townhomes, 2-Story (Residential Style Architecture)	Front	Left	Rear	Right	Ordinance Maximum (Minimum)
Brick	32%	61%	50%	61%	100% (30% Min)
Wood Siding (Horizontal Fiber Cement)	7%	11%	9%	11%	50%*
Fiber Cement Panels (No Pattern, Similar to EIFS)	5%	6%	4%	6%	25%
Standing Seam Metal	24%	0%	3%	0%	25%
Asphalt Shingles	32%	22%	34%	22%	50% **
* Footnote 10 - Up to 50% Cement Fiber Siding allowed with residential style architecture in R Districts.					
** Footnote 14 - Up to 50% Asphalt Shingles allowed with residential style architecture in R Districts.					

Horizontal Fiber Cement Siding is considered Wood Siding for the purpose of the Façade Ordinance (Footnote 13). The Façade Ordinance allows up to 50% of this material on buildings considered to be "residential style architecture" (Footnote 10). The same material is not allowed on non-residential style buildings. For the purpose of the Façade Ordinance residential style architecture is characterized by 2-3 stories with sloped gable or hip roofs, punched window openings, attached garages, and individual entrances. On this project the townhomes are considered residential style whereas Buildings A through E, lacking these features are not. As shown above, the Townhomes are in full compliance with the Façade Ordinance. On Buildings A through E, the percentage of Horizontal Cement Fiber Siding exceeds the maximum amount allowed by the Ordinance (highlighted in red, above). As Section 9 Waiver would be required for this deviation.

In this case the Horizontal Fiber Cement Siding is used only on recessed balconies that are accessed by doorwalls and protected by guard rails and canopies. These areas are somewhat protected from the elements and are less visible than the remaining façade. We believe that the use of Horizontal Lap Fiber Cement Siding in this location will not be detrimental to aesthetic quality of the building or the long-term durability of the structure. Therefore, it is our recommendation the design is consistent with the intent and purpose of the Façade Ordinance and that a Section 9 Waiver be granted for the overage of Horizontal Fiber Cement Siding.

The drawing note that reads "Standing Seam Metal/EIFS" leaves some uncertainty as to which material is proposed. The applicant should clarify which material will be used. This will not affect compliance with the Façade Ordinance as both materials are allowed up to 25%.

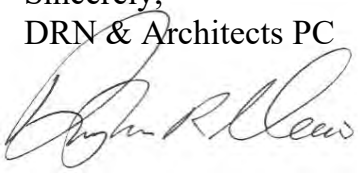
Notes to the Applicant:

1. Inspections – The Façade Ordinance requires inspection(s) for all projects. Materials displayed on the approved sample board will be compared to materials delivered to the site. It is the applicant's responsibility to request the inspection of each façade material at the appropriate time. Inspections may be requested using the Novi Building Department's Online Inspection Portal with the following link. Please click on "Click here to Request an Inspection" under "Contractors", then click "Façade". **http://www.cityofnovi.org/Services/CommDev/OnlineInspectionPortal.asp**.

2. RTU Screening - It should be noted that all roof top units must be screened from view from all vantage points both on-site and off-site using materials in compliance with the Façade Ordinance.

If you have any questions regarding this review, please do not hesitate to call.

Sincerely,
DRN & Architects PC



Douglas R. Necci, AIA

FIRE REVIEW

April 4, 2024

TO: Barbara McBeth - City Planner
Lindsay Bell - Plan Review Center
James Hill – Plan Review Center
Heather Zeigler – Plan Review Center
Diana Shanahan – Planning Assistant

RE: Society Hill – Concept plan

PSP#24-022
JSP#24-04

Project Description:

New Multifamily apartment residential complex.

Comments:

- **All** fire hydrants **MUST** be installed and operational prior to any combustible material is brought on site. **IFC 2015 3312.1**

- No part of a commercial, industrial, or multiple residential area shall be more than 300 feet from a hydrant. ***(D.C.S. Sec. 11-68 (f)(1)c.1)***

- There shall be no obstructions to the hydrant outlets. ***(Fire Prevention Ordinance Sec. 15-21(d)) – Landscape prints/sheets show several areas of possible obstructions to hydrants.***

- For new buildings and existing buildings, you **MUST** comply with the International Fire Code **Section 510** for Emergency Radio Coverage. This shall be completed by the time the final inspection of the fire alarm and fire suppression permits.

- **Plan Sheet(s) # 5 & 6 indicate - a secondary access driveway**. It shall be a minimum of twenty (20 feet in width and paved to provide all-weather access and shall be designed to support a vehicle of thirty-five (35) tons. **Sheet # 5 shows 18' and Sheet #6 shows 20'.**

- Item is shown on current plans 4/4/24 - Permanent "break-away" gate shall be provided at the secondary access driveway's intersection with the public roadway in accordance with Figure VIII-K of the Design and Construction Standards. To discourage non-emergency vehicles, emergency access roads shall be designated by signage as for emergency access only, shall be separated from the other roadways by mountable curbs, and shall utilize entrance radii designed to permit emergency vehicles while

Novi Public Safety Administration
45125 Ten Mile Road
Novi, Michigan 48375
248.348.7100
248.347.0590 fax

cityofnovi.org

discouraging non-emergency traffic. ***(D.C.S. Sec 11-194 (a)(19))***

- Fire lanes will be designated by the Fire Chief or his designee when it is deemed necessary and shall comply with the Fire Prevention Ordinances adopted by the City of Novi. The location of all "fire lane – no parking" signs are to be shown on the site plans. ***(Fire Prevention Ord.)***

- The minimum width of a posted fire lane is 20 feet. The minimum height of a posted fire lane is 14 feet. ***(D.C.S Sec. 158-99(a).)***

- **Correction needed for Sheet/Page #16** - Fire apparatus access drives to and from buildings through parking lots shall have a minimum fifty (50) feet outside turning radius and designed to support a minimum of thirty-five (35) tons. ***(D.C.S. Sec 11-239(b)(5)).*** *Correct graphic for current fire apparatus with correct turning radius and drive thru of property for any/all turns. .*

- All new multi-residential buildings shall be numbered. Each number shall be a minimum 10 inches high, 1 inch wide and be posted at least 15 feet above the ground on the building where readily visible from the street. ***(Fire Prevention Ord.)***

- The distribution system in all developments requiring more than eight hundred (800) feet of water main shall have a minimum of two (2) connections to a source of supply and shall be a looped system***. (D.C.S. Sec. 11-68(a))***

- For interior fire protection systems a separate fire protection line shall be provided in addition to a domestic service for each building. Individual shutoff valves for interior fire protection shall be by post indicator valve (P.I.V.) or by valve in well and shall be provided within a public water main easement. ***(D.C.S. Sec.11-68(a)(9))***

- **RECEIVED on 4/3/24** - A hazardous chemical survey is required to be submitted to the Planning & Community Development Department for distribution to the Fire Department at the time any Preliminary Site Plan is submitted for review and approval. Definitions of chemical types can be obtained from the Fire Department at (248) 735-5674.

GENERAL

To facilitate fire protection during site preparation and construction of buildings, the following are required:

- Water mains and fire hydrants shall be installed prior to construction above the foundation. Note this on all plans.

- The building address is to be posted facing the street throughout construction. The address is to be at least 3 inches high on a contrasting background. Note this on all plans.

- Street names on suitable poles shall be established and installed prior to construction above the foundation. Note this on all plans.

- Prior to construction above the foundation of all multi-residential buildings and single-family dwellings, all roads are to be paved. Note this on all plans.

- Prior to construction above the foundation of non-residential buildings, an all-weather access road capable of supporting 35 tons shall be provided. Note this on all plans.

- Free access (unobstructed) from the street to fire hydrants and to outside connections for standpipes, sprinklers, or other fire suppression equipment, whether permanent or temporary, shall be provided and maintained at all times.

Recommendation:

APPROVED w/Conditions - that the above comments be addressed for Preliminary site plan and review.

Sincerely,

Andrew Copeland – Acting Fire Marshal
City of Novi Fire Department

cc: file