

MEMORANDUM



TO: MEMBERS OF THE PLANNING COMMISSION
FROM: DAN COMMER, AICP – PLANNER
SUBJECT: 21111 MEADOWBROOD ROAD WOODLAND PERMIT
DATE: OCTOBER 22, 2024

The applicant, Barina Opong-Owusu, is seeking a Woodland Use Permit, PWD24-0024, for 21 regulated woodland trees that were impacted in the process of building a single-family home located at 21111 Meadowbrook Road. The site is located west of Meadowbrook Road, and north of Eight Mile Road in Section 35 of the city.

The City's Woodland Consultant reviewed the request and prepared a review letter dated July 22, 2024. Based on the plans provided, and a post-inspection review conducted by the City's Landscape Architect, the applicant is requesting relief from the standards of Section 37-9 (b) that prohibits work within the critical-root-zone of any tree, including placement of soil or construction material in those areas. Inspections revealed encroachment on the critical-root-zone of 21 regulated woodland trees within an area mapped as city-regulated woodland. Replacement calculations require 31 replacement credits. The City's Landscape Architect created a spreadsheet, which is attached, that provides a detailed count and explanation of the required replacements.

The applicant is asking for a delay in the implementation of the standards of Woodland Section 37-9 which calls for immediate woodland replacement or payment into the tree fund for trees that were negatively impacted by the encroachments into the critical root zones of the woodland trees. The City's Woodland consultant and Landscape Architect are unable to predict the severity of the impact on trees immediately, but their best judgment indicates that the impacts to the remaining woodland trees were severe. This type of encroachment to the root zone is likely to negatively impact the health of the trees, and it sometimes takes years for the trees to show signs of damage.

Previously, the applicant suggested that it was his desire to place a financial guarantee with the City for the impacted trees until the impacts could truly be determined, instead of paying into the tree fund or replacing the trees immediately. The applicant's proposed solution is for the City to release 75% of the existing bond and hold 25% until a subsequent inspection is conducted in 2 years. The ordinance does not currently allow that change.

Per the City of Novi's Woodland Ordinance, where a proposed activity (i.e., home construction) does not otherwise require site plan or plat approval, the granting or denying of the (woodland) use permit shall be the responsibility of the Planning Commission. The applicant shall obtain approval of the Plan from the Planning Commission prior to issuance of any permits. The Planning Commission is asked to hold the public hearing and either approve or deny the requested woodland permit.

SUGGESTED MOTION:

Approval (Applicant Requested)

To approve a Woodland Use Permit, PWD24-0024, for 21 regulated woodland trees that were impacted in the process of building a single-family home located at 21111 Meadowbrook Road, subject to the payment of all associated fees and bonds as required by the City's ordinances.

- OR -

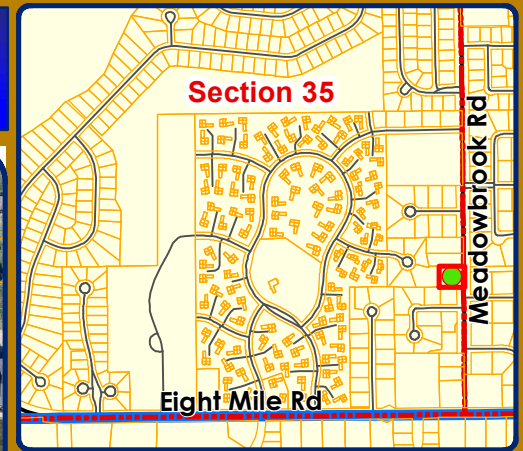
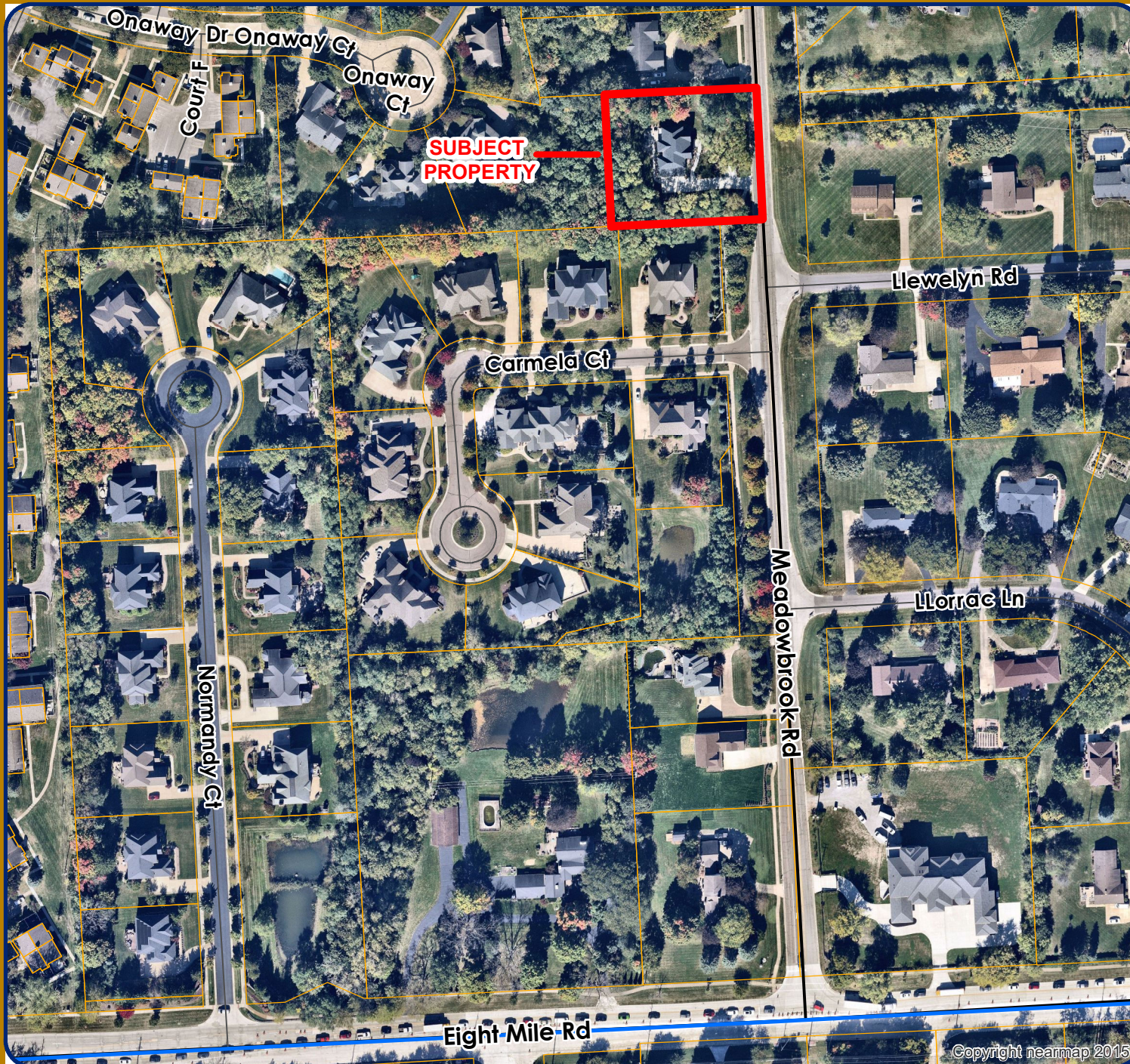
Denial

To deny a Woodland Use Permit, PWD24-0024, for 21 regulated woodland trees that were impacted in the process of building a single-family home located at 21111 Meadowbrook Road, subject to the payment of all associated fees and bonds as required by the City's ordinances.

MAPS
Location
Zoning
Future Land Use
Natural Features

21111 MEADOWBROOK ROAD WOODLAND PERMIT

LOCATION



Legend

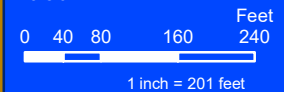
 Subject Area



City of Novi

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

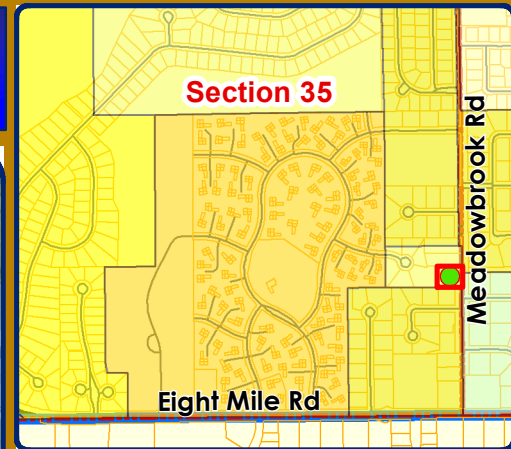
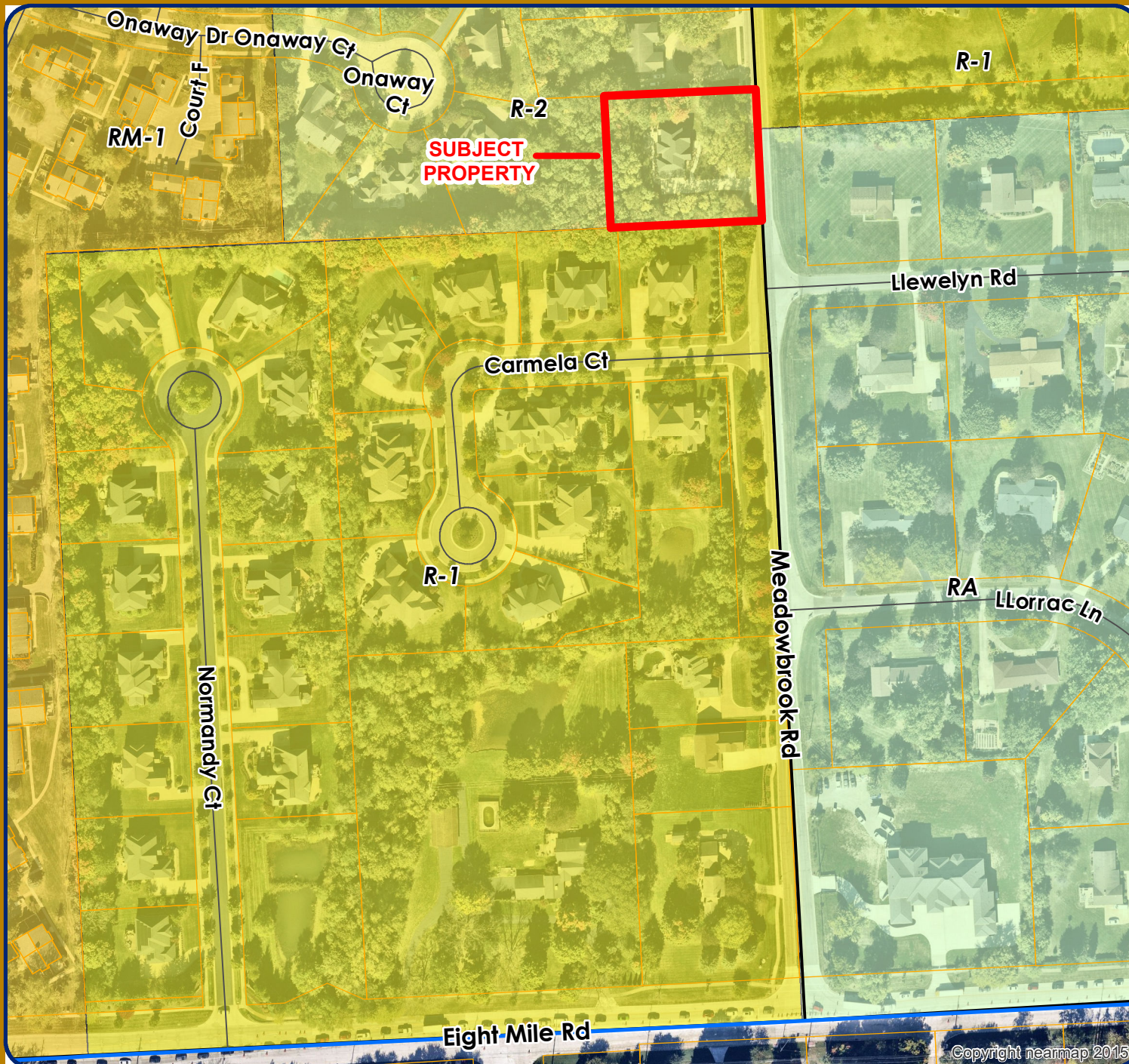
Map Author: Dan Commer
Date: 10/18/24
Project: 21111 Meadowbrook Road Woodland Permit
Version #: 1



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.

21111 MEADOWBROOK ROAD WOODLAND PERMIT ZONING



Legend

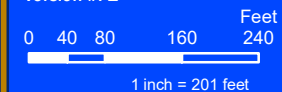
- R-A: Residential Acreage
- R-1: One-Family Residential District
- R-2: One-Family Residential District
- R-3: One-Family Residential District
- R-4: One-Family Residential District
- RM-1: Low-Density Multiple Family
- Subject Area



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 Date: 10/18/24
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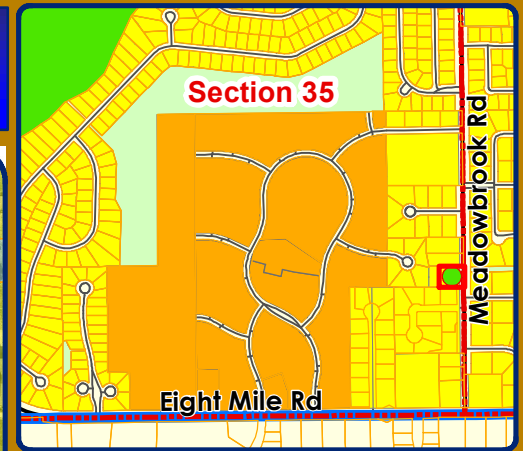


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21111 MEADOWBROOK ROAD WOODLAND PERMIT

FUTURE LAND USE



Legend

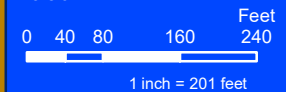
- Single Family
- Multiple-Family Residential
- Public Park
- Private Park
- Subject Area



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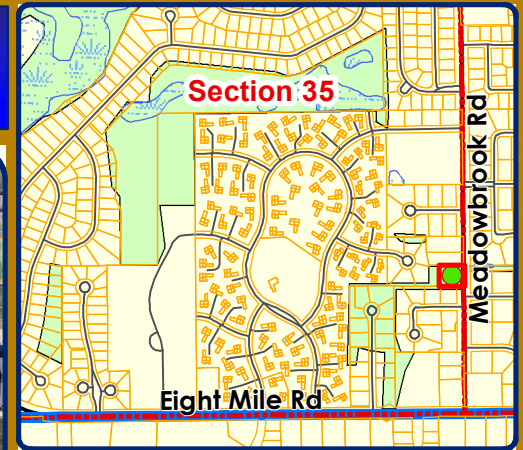


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21111 MEADOWBROOK ROAD WOODLAND PERMIT

NATURAL FEATURES



Legend

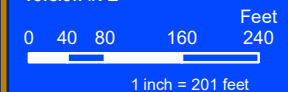
-  WETLANDS
-  WOODLANDS
-  Subject Area



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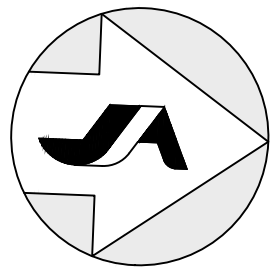
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PLOT PLAN



Know what's below.
Call before you dig.

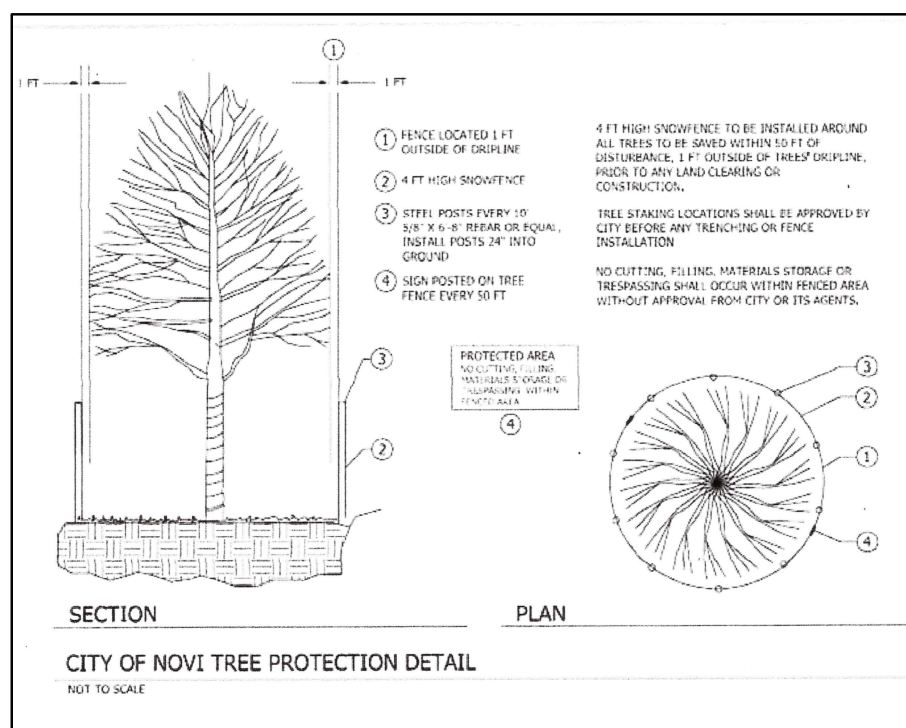


confirm minimum setbacks
with municipality

Zoning:
R-2 One-Family Residential

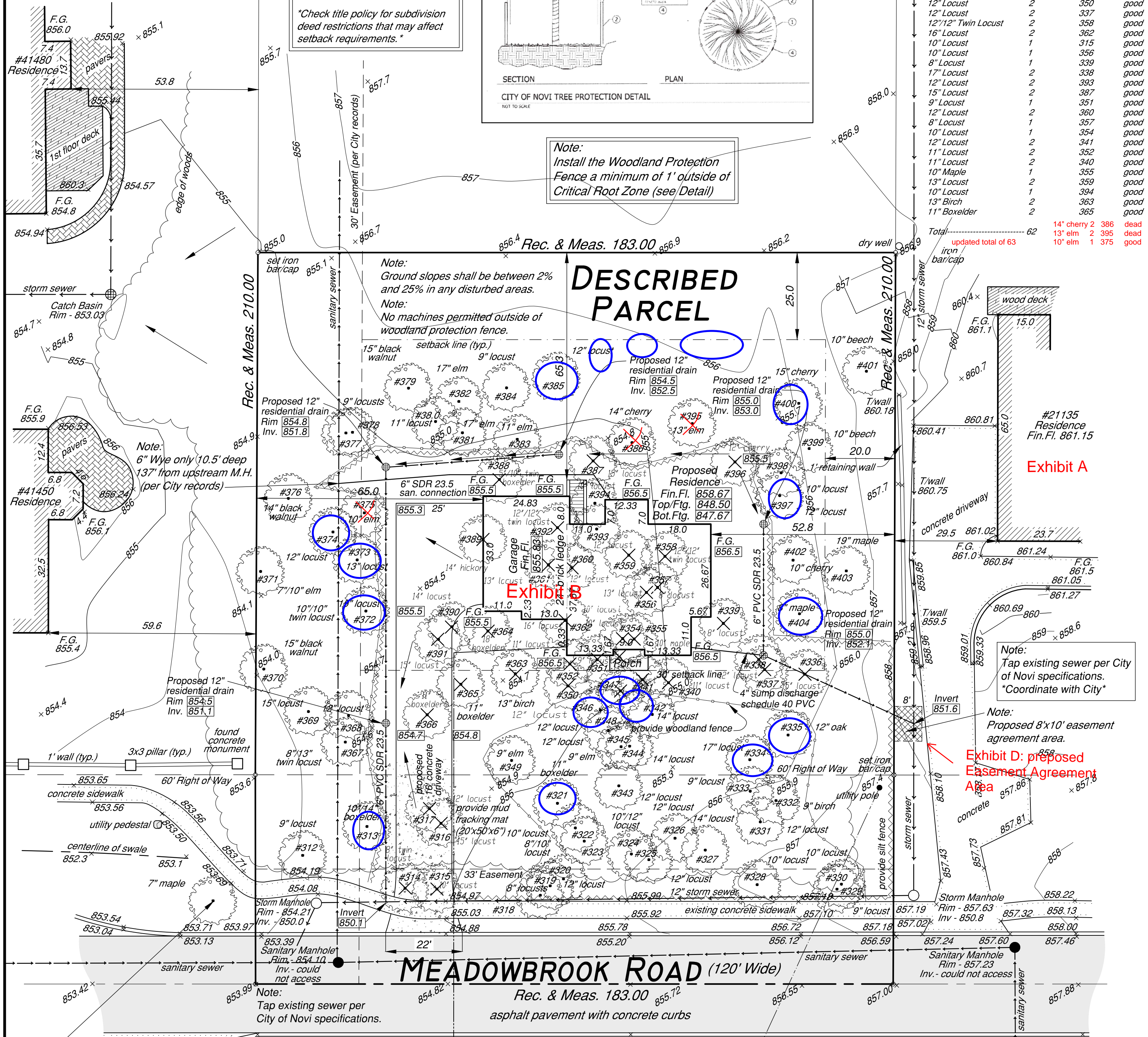
Setbacks:
Front - 30'
Side - 15'
Side total - 40'
Rear - 25'

Check title policy for subdivision deed restrictions that may affect setback requirements.



Note:
Install the Woodland Protection Fence a minimum of 1' outside of Critical Root Zone (see Detail)

Tree List	Replacements	Tag #	Condition
8" Twin Locust	2	314	good
10" Locust	2	347	good
15" Locust	2	391	good
12" Locust	2	317	good
11" Boxelder	2	366	good
18" Boxelder	2	364	good
14" Locust	2	390	good
15" Locust	2	316	good
14" Hickory	2	389	good
5 1/2" Twin Boxelder	2	388	good
12" Locust	2	336	good
12" Cherry	2	396	good
12 1/2" Twin Locust	2	392	good
13" Locust	2	361	good
12" Locust	2	350	good
12" Locust	2	337	good
12 1/2" Twin Locust	2	358	good
16" Locust	2	362	good
10" Locust	1	315	good
10" Locust	1	356	good
8" Locust	1	339	good
17" Locust	2	338	good
12" Locust	2	393	good
15" Locust	2	387	good
9" Locust	1	351	good
12" Locust	2	360	good
8" Locust	1	357	good
10" Locust	1	354	good
12" Locust	2	341	good
11" Locust	2	352	good
11" Locust	2	340	good
10" Maple	1	355	good
13" Locust	2	359	good
10" Locust	1	394	good
13" Birch	2	363	good
11" Boxelder	2	365	good
Total	62		
14" cherry	2	386	dead
13" elm	2	395	dead
10" elm	1	375	good



DESCRIBED PARCEL

Note:
Ground slopes shall be between 2% and 25% in any disturbed areas.
Note:
No machines permitted outside of woodland protection fence.

Exhibit B

Exhibit A

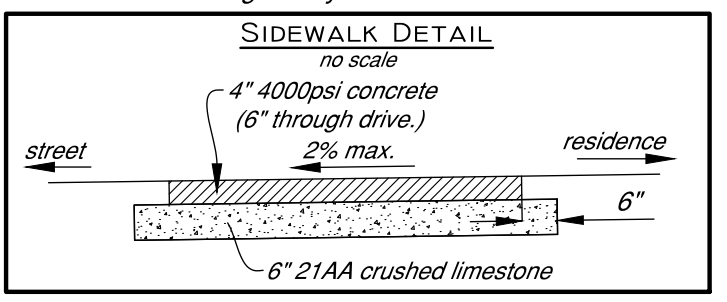
Exhibit D: proposed Easement Agreement Area

CITY OF NOVI DATUM
NAIL IN WEST FACE OF 7" MAPLE
ELEVATION = 855.02
REFERENCE BENCHMARK ID# 3633

Note:
The Builder is responsible for resolving any drainage problems on adjacent properties that are the result of construction activities.

LEGEND

- 000.00 = Existing elevation
- 000.00 = Proposed elevation
- - - = Drainage course
- ~ ~ ~ = Silt fence
- = Woodland fence
- F.G. = Finish Grade
- - - = Existing contour
- Tree X = To Be Removed



LEGAL DESCRIPTION
PART OF THE SOUTHEAST 1/4 OF SECTION 35, TOWN 1 NORTH, RANGE 8 EAST, CITY OF NOVI, OAKLAND COUNTY, MICHIGAN, DESCRIBED AS:
COMMENCING AT THE EAST 1/4 CORNER OF SECTION 35; THENCE ALONG THE EAST LINE OF SECTION 35 SOUTH 02°14'28" EAST, 1349.66 FEET TO THE POINT OF BEGINNING; THENCE CONTINUING ALONG THE EAST LINE OF SECTION 35 SOUTH 02°14'28" EAST 183.00 FEET; THENCE SOUTH 87°57'04" WEST 210.00 FEET; THENCE NORTH 02°14'28" 182.92 FEET; THENCE NORTH 87°55'42" EAST, 210.00 FEET TO THE POINT OF BEGINNING. CONTAINING 38,421 SQUARE FEET GROSS AND 27,442 SQUARE FEET NET. SUBJECT TO THE RIGHTS OF THE PUBLIC OVER MEADOWBROOK ROAD. SUBJECT TO EASEMENTS AND RESTRICTIONS OF RECORD.

Revised 13 Feb 23 (per City)



GRADING PLAN

Prepared For: Barima Opong-Owusu
51248 E. Bourne Terrace
Novi, MI 48374
(248)943-6101

Jekabson & Associates, P.C.
Professional Land Surveyors
1320 Goldsmith, Plymouth, MI 48170
(734) 414-7200 (734) 455-8000

Revisions
19 JAN 2023

Date	20 Nov 2022
Job no.	22-07-008
Scale	1" = 20'
Drawn	AAH
Checked	JGE
Sheet	1 OF 1

LANDSCAPE REVIEW

21111 Meadowbrook

Tree #	Size (dbh)	Description	ORIGINAL REPLACEMENTS		ADDITIONAL REPLACEMENTS		Notes	
			Replacements required	Original List	Allowed removal per Keith Salowich	Encroachment - 11/30		
313	24	boxelder	3			x	3	10"/14" twin
314	16	locust	2	x	2			8" twin
315	10	locust	1	x	1			
316	15	locust	2	x	2			
317	12	locust	2	x	2			
321	11	boxelder	1			x	1	
334	17	locust	2			x	2	
335	12	oak	2			x	2	
336	15	locust	2	x	2			
337	12	locust	2	x	2			
338	17	locust	2	x	2			
339	8	locust	1	x	1			
340	11	locust	1	x	1			
341	12	locust	2	x	2			Not removed, okay
342	14	locust	2			x	2	
346	12	locust	2			x	2	
347	10	locust	1	x	1			
348	12	locust	2			x		
349	9	elm	1			x	1	
350	12	locust	2	x	2			
351	9	locust	1	x	1			
352	11	locust	1	x	1			
354	10	locust	1	x	1			
355	10	maple	1	x	1			
356	10	locust	1	x	1			
357	8	locust	1	x	1			
358	24	locust	3	x	3			12"/12" twin
359	13	locust	2	x	2			
360	12	locust	2	x	2			
361	13	locust	2	x	2			
362	16	locust	2	x	2			
363	13	birch	2	x	2			
364	18	locust	2	x	2			
365	11	boxelder	1	x	1			
366	11	locust	2	x	2			
372	15	locust	2			x	2	
373	13	locust	2			x	2	
374	12	locust	2			x	2	
375	10	elm	1			x	1	
381	17	elm	2			x		
383	11	elm	1			x		
385	12	locust	2			x	2	
386	14	cherry	2			x	2	
387	15	locust	2	x	2			
388	15	boxelder	2	x	2			5"/10" twin
389	14	hickory	2	x	2			
390	14	locust	2	x	2			
391	15	locust	2	x	2			
392	24	locust	3	x	3			12"/12" twin
393	12	locust	2	x	2			
394	10	locust	1	x	1			
396	12	cherry	2	x	2			
397	12	locust	2			x	2	
404	8	maple	1			x	1	
New #1	10	locust	1			x	1	
New #2	10	locust	1			x	1	
New #3	8	locust	1			x	1	
New #4	8	maple	1			x	1	
TOTAL					62		31	
					\$ 24,800.00		\$ 12,400.00	

WOODLAND REVIEW

July 22, 2024

Nina Schaffrath
Account Clerk – Community Development
City of Novi
45175 Ten Mile Road
Novi, MI 48375

Submitted electronically to nschaffrath@cityofnovi.org

Re: 21111 Meadowbrook Road – Woodland Review (PBR22-0569)

Dear Nina,

Merjent, Inc. (Merjent) has conducted a post-inspection review of the single-family residential plot plan for 21111 Meadowbrook Road (site; dated 1/19/2023 and February 14, 2023) prepared by Jakobson and Associates, P.C. Merjent reviewed the plan for conformance with the City of Novi's (City) Woodland Protection Ordinance, Chapter 37. The site (parcel 50-22-35-400-071) contains City-regulated woodlands (Figure 1). The applicant removed trees prior to Merjent's site visit on July 12, 2024. Merjent conducted an additional review at the request of the City and the applicant for conformance with Section 37-9 of the City's Woodland Protection Ordinance. In conducting this review, Merjent reviewed additional correspondence between the City's Landscape Architect, Rick Meader, and the applicant as well as previous reviews conducted by the Davey Resource Group (DRG). DRG conducted three reviews prior to recommending approval of the plot plan on February 17, 2023.

Woodlands

Merjent understands that the City's Landscape Architect conducted an on-site inspection of the approved tree removal on April 10, 2023. Photographs were provided to Merjent that showed multiple trees containing fill (soil) stockpiled and construction equipment stored and working within the critical root zone. These trees were identified in the plot plan as being protected (not impacted) from proposed construction activities. Section 37-2 of the ordinance defines a critical root zone as a circular area around a tree with a radius measured to the tree's longest dripline radius plus one foot. As stated in Section 37-9, impacts to critical root zones, or areas where critical root zones cannot be protected, should be considered as tree replacements and paid to into the City of Novi Tree Fund.

Pursuant to Section 37-9 (b), Merjent's professional opinion is the City Landscape Architect conducted an accurate review based on the conditions on-site during the construction. Section 37-9 (b) states that it shall be unlawful for any person to conduct any activity within the critical root zone of any tree including placement of soil or construction machinery (among others). Although no active leaf growth was present during the April 2023 review, it could still be determined the actively alive and dead trees during the inspection.

The following comments summarize Merjent's on-site review:

1. Merjent met with the land owner, Barima Opong-Owusu, to review the noted additional encroachment areas throughout the property.

-
2. Trees on the south side of the property, for example Trees 313, 372, and 373, were found to have their northern critical root zones within the newly constructed driveway. Photos provided show the trees dripline being located directly above the newly constructed driveway.
 3. Trees on the north, west, and east side of property were shown to be free of soil stockpiling and construction equipment now that construction has ceased.
 4. Multiple tree diameter at breast height (DBH) measurements were collected and compared to the previous tree survey.

While Merjent understands that Section 37-9 (c) states that a determination shall be made as to trees which can reasonably be expected to survive the permitted activity, Merjent concurs with the City Landscape Architect's assessment. Merjent reviewed the International Society of Arboriculture's *A Review of the Effects of Soil Compaction and Amelioration Treatments on Landscape Trees* by Susan Day and Nina Bassuk (1994) and Michigan State University Extension's 2016 guidance on *Protect[ing] Tree Roots from Soil Compaction*. Because impacts to critical root zones can be hard to measure visually, above-ground, typically a conservative approach is taken when estimating critical root zone impacts. Additionally, impacts to critical root zones may not present themselves visually in tree growth and can only be measured using more advanced instruments not typically used in construction reviews. In Bassuk and Day's 1994 Article, they state that areas that are landscaped near new residential construction were typically found to be compacted to a soil bulk density that typically restricts root growth for many woody species.

During Merjent's on-site review, it was found that the remaining black locust (*Robinia pseudoacacia*) trees not associated with the driveway construction appeared to be growing normally. However, tree uptake of water (impacted by compaction), root growth, and overall oxygen availability to the tree cannot be measured visually. This may not directly kill a tree, but it may result in overall reduced efficiency of sequestering carbon dioxide into woody growth, among other primary functions of trees. Merjent understands the conservative approach to considering the impacts that these additional construction impacts may have had on the trees noted for encroachment.

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

Enclosures:

Figure 1 – City of Novi Woodlands Map
Attachment A – Site Visit Photos

CC:
Barb McBeth, City of Novi, bmcbeth@cityofnovi.org
Rick Meader, City of Novi, rmeader@cityofnovi.org



Robb Roos, Merjent, robb.roos@merjent.com
Charles Boulard, City of Novi, cboulard@cityofnovi.org

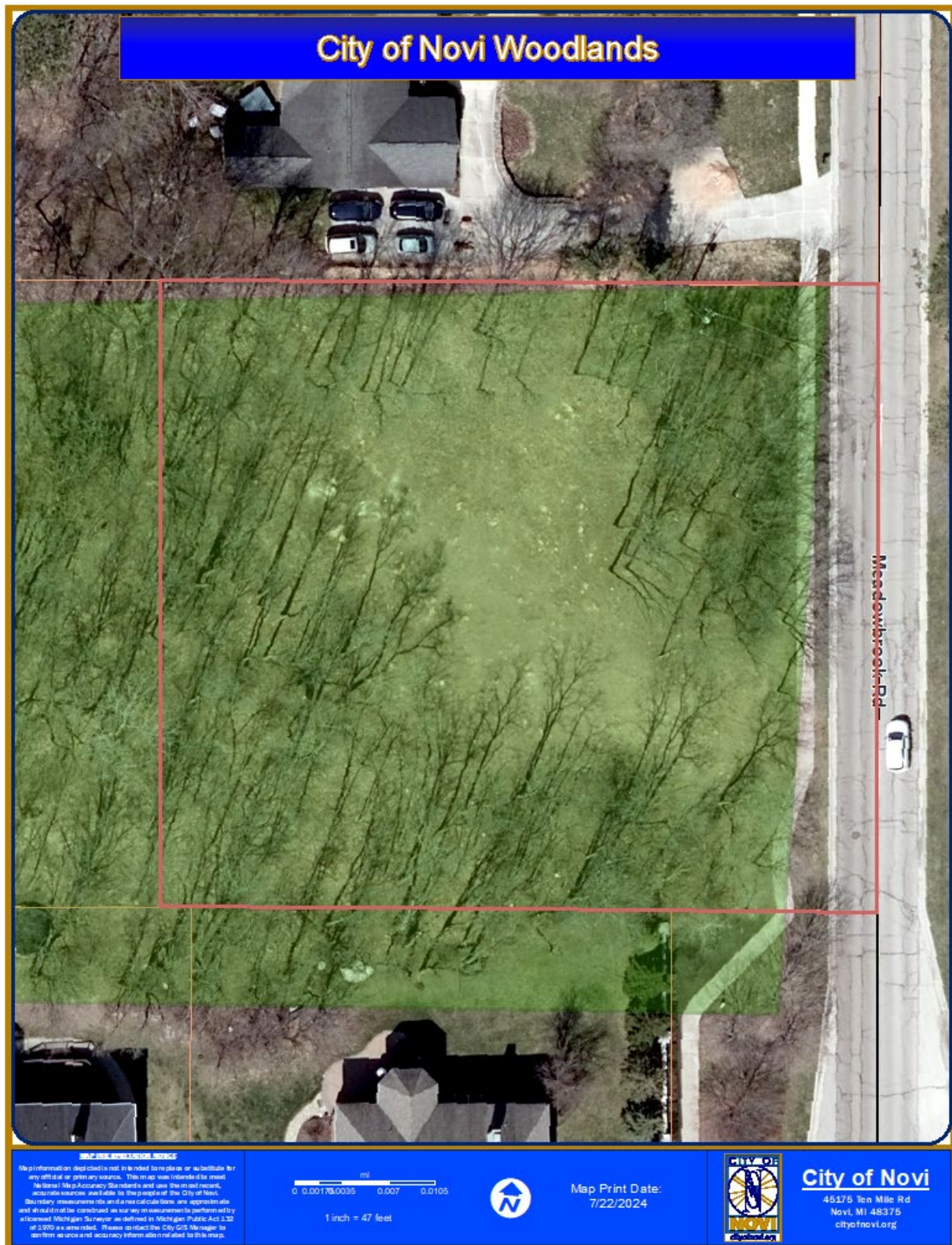
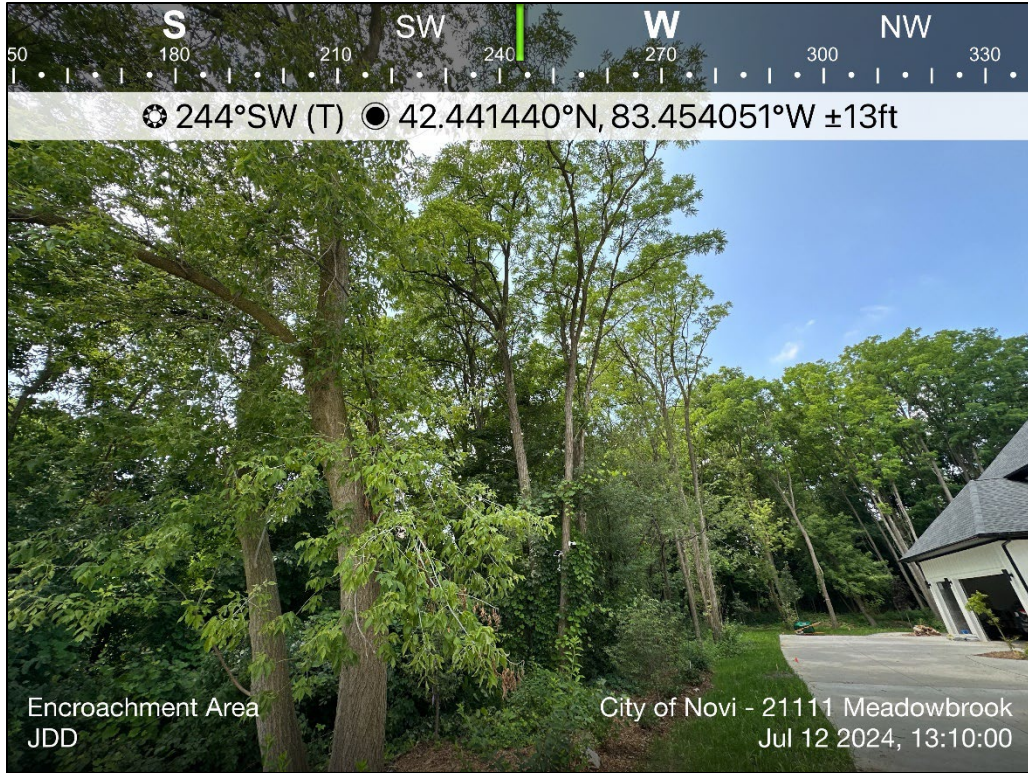


Figure 1. City of Novi Regulated Woodlands Map
Approximate site boundary is shown in Red.
Approximate Regulated Woodland areas are shown in Green.

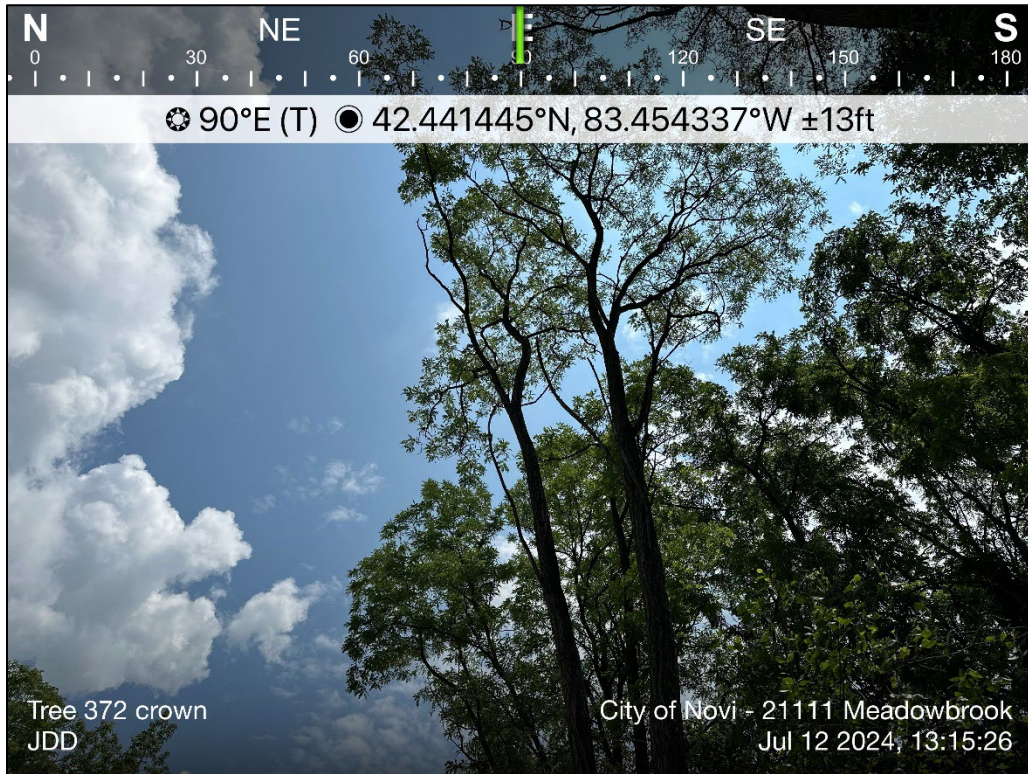
Attachment A
Site Visit Photos



Southern driveway encroachment area. The dripline of the black locust trees can be seen almost directly above the constructed driveway.



Tree 313 with a measured DBH of ~14.55 inches.



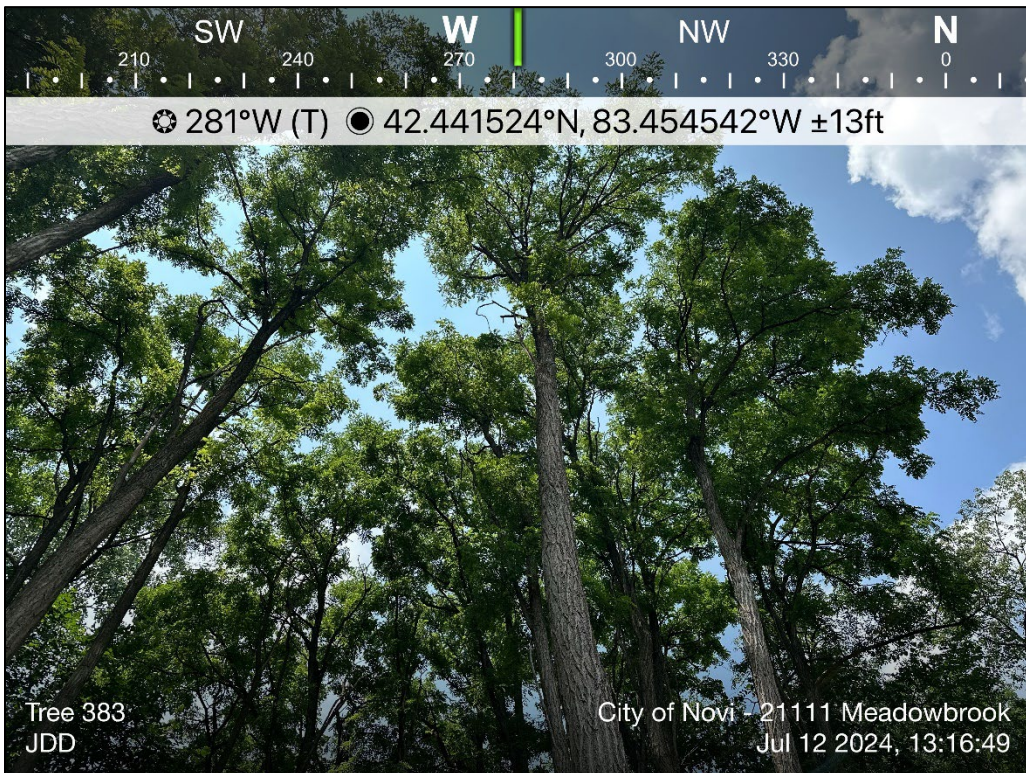
Overview of the crown of Tree 372.



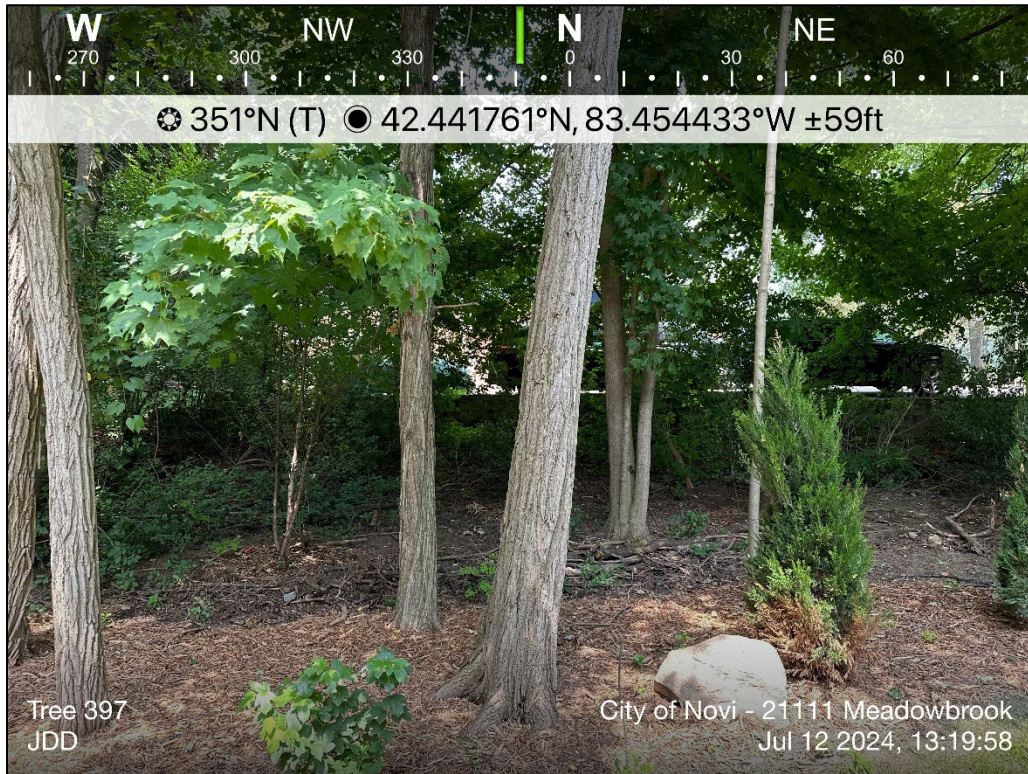
Tree 372 with a measured DBH of ~17.65 inches.



Western encroachment area showing Tree 383 with no machinery/soil present.



Crown of Tree 383.



Overview of Tree 397.



Overview of the crown of Tree 397.



Overview of Tree 397 with a measured DBH of ~13.6 inches.



General overview of the western trees of the property.