



BOLINGBROKE JSP17-34

BOLINGBROKE JSP 17-34

Public hearing at the request of Singh Development, LLC for approval of Preliminary Site Plan, Site Condominium, Woodland Permit, and Stormwater Management Plan. The subject property is located in Section 10 at the intersection of Novi and Old Novi Roads, north of 12½ Mile Road and is zoned R-4, **One Family Residential**. The applicant is proposing to develop the 19.78 acre parcel to 46 single-family, detached residential site condominiums.

Required Action

Hold and adjourn the public hearing then postpone the consideration of the Preliminary Site Plan, Site Condominium, Woodland Permit, and Stormwater Management Plan until the next Planning Commission meeting.

REVIEW	RESULT	DATE	COMMENTS
Planning	Approval recommended for Preliminary Site Plan Not recommended for Final Site Plan	04-19-17	<ul style="list-style-type: none"> • Items to be addressed by the applicant with a revised Final Site Plan
Engineering	Approval recommended	05-04-17	<ul style="list-style-type: none"> • Items to be addressed by the applicant prior to Electronic Stamping Set approval
Landscaping	Approval recommended	05-03-17	<ul style="list-style-type: none"> • Items to be addressed by the applicant prior to Electronic Stamping Set approval
Wetlands	Approval recommended	05-01-17	<ul style="list-style-type: none"> • Items to be addressed by the applicant prior to Electronic Stamping Set approval
Woodlands	Approval recommended	05-03-17	<ul style="list-style-type: none"> • Items to be addressed by the applicant prior to Electronic Stamping Set approval
Traffic	Approval recommended	05-02-17	<ul style="list-style-type: none"> • Items to be addressed by the applicant prior to Electronic Stamping Set approval
Fire	Approval recommended with conditions	04-24-17	<ul style="list-style-type: none"> • Items to be addressed by the applicant with a revised Final Site Plan

MOTION SHEET

Postpone

In the matter of Bolingbroke JSP 17-34, motion to **postpone the consideration of the Preliminary Site Plan, Site Condominium, Woodland Permit, and Stormwater Management Plan** to the next Planning Commission meeting based on applicant's request.

Maps
Location
Zoning
Future Land Use
Natural Features

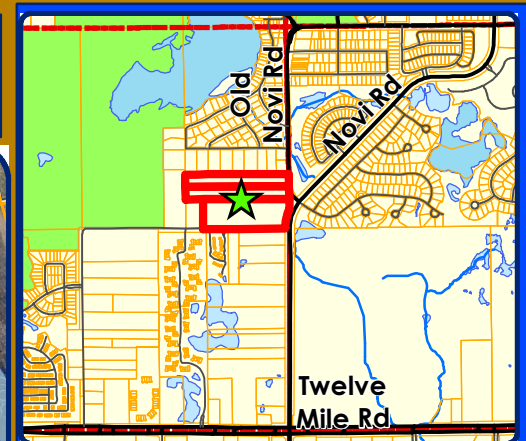
JSP17-34: Bolingbroke

Location Map



**Subject
Property**

Section 10



LEGEND

 Sections



City of Novi

Community Development Department
Civic Center
45175 W Ten Mile Road
Novi, MI 48375
www.cityofnovi.org

Map Author: Kirsten Mellem
Date: 05/30/2017
Project: JSP17-34 Bolingbroke
Version #: 3

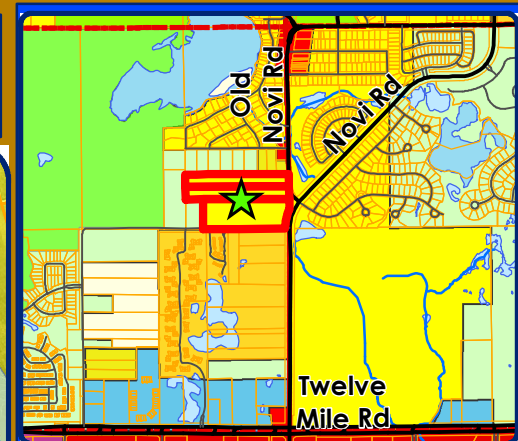
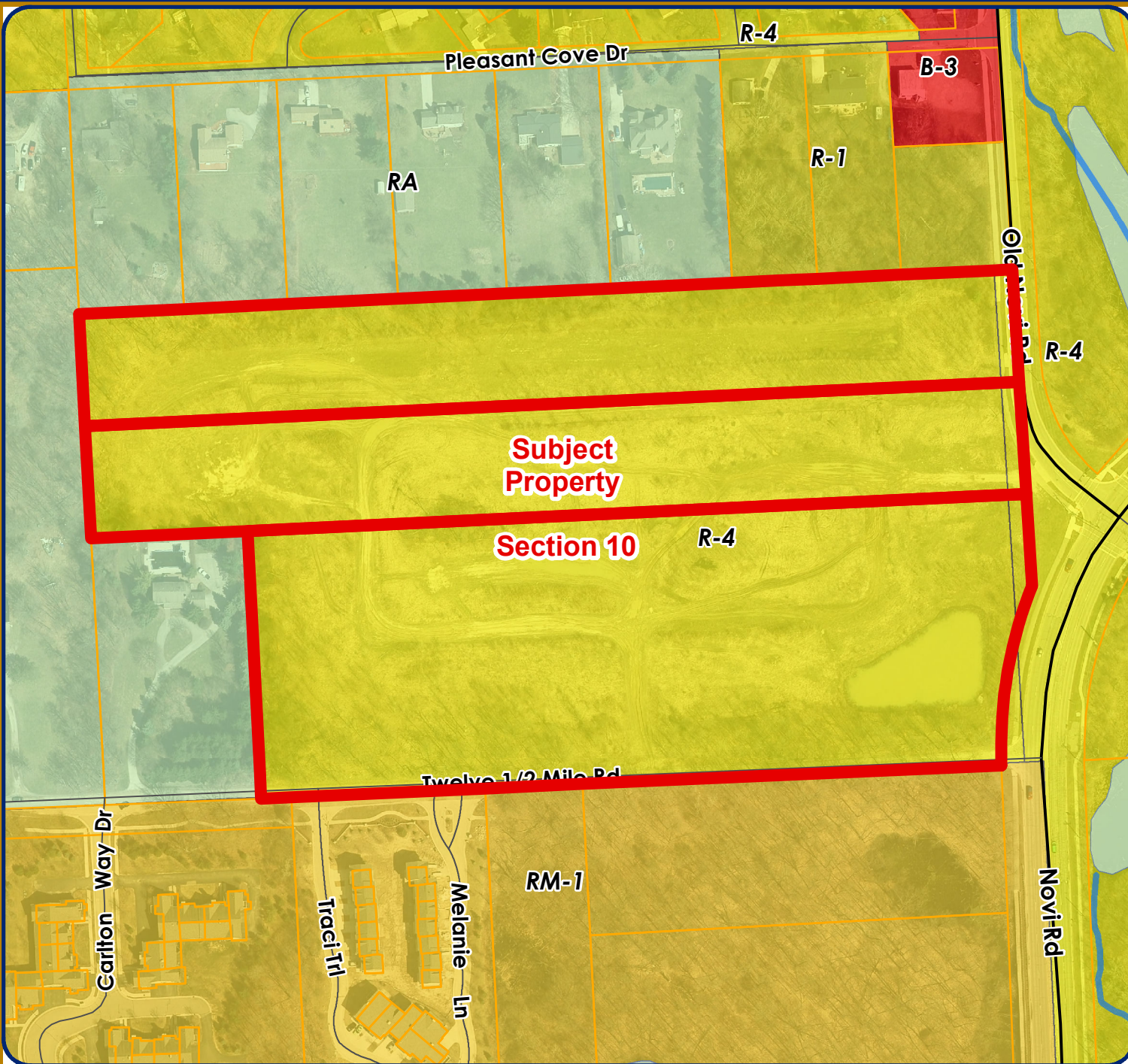


MAP INTERPRETATION NOTICE

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 of Novi GIS Manager to confirm source and accuracy information related to this map.

JSP17-34: Bolingbroke

Zoning Map



LEGEND

- Sections
- 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

CITY OF NOVI
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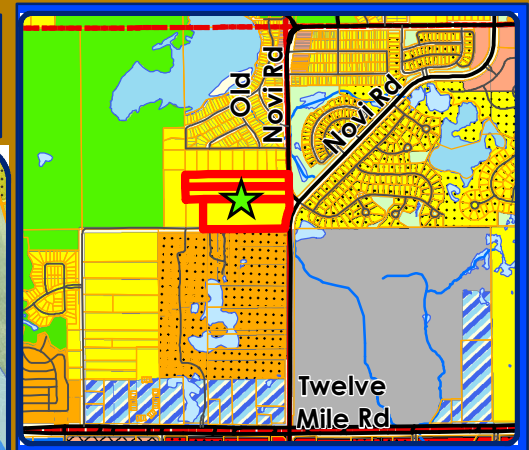
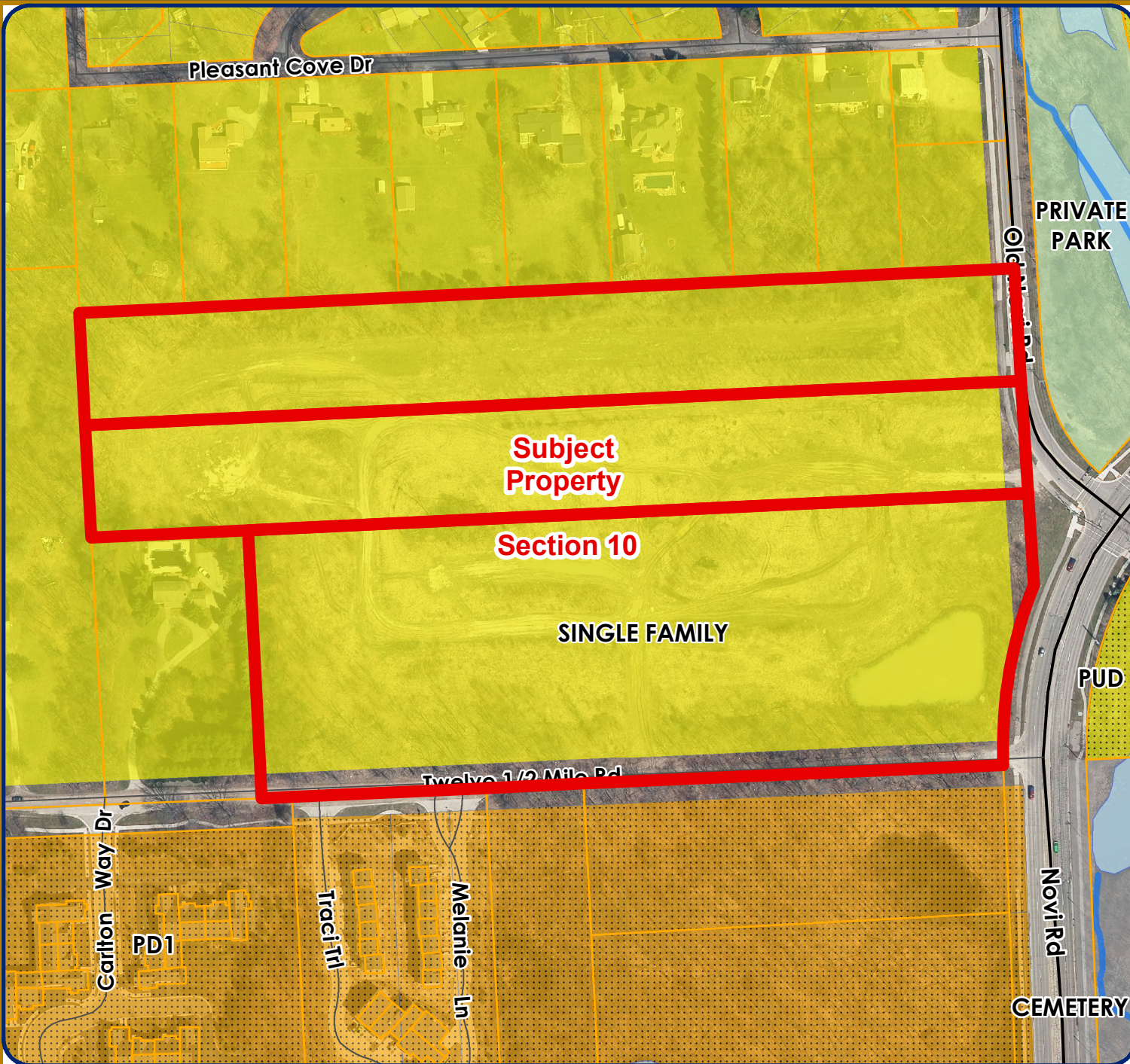
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0 50 100 200 300 Feet
 1 inch = 208 feet

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JSP17-34: Bolingbroke

Future Land Use Map



LEGEND

- Sections
- FUTURE LAND USE**
- Single Family
- PUD
- Multiple Family
- PD1
- Community Office
- Office RD Tech
- Local Commercial
- Regional Commercial
- PD2
- Public Park
- Private Park
- Cemetery

CITY OF NOVI
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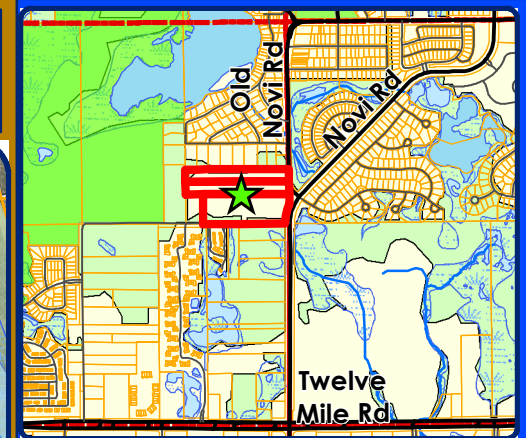
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JSP17-34: Bolingbroke

Natural Features Map



LEGEND

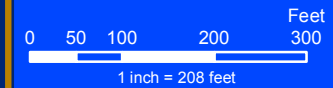
- Sections
- WETLANDS
- WOODLANDS



City of Novi

Community Development Department
Civic Center
45175 W Ten Mile Road
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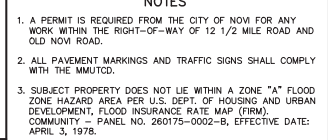
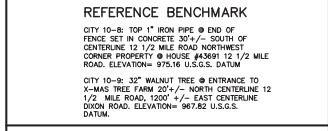
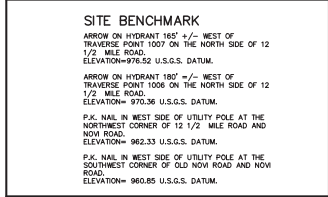
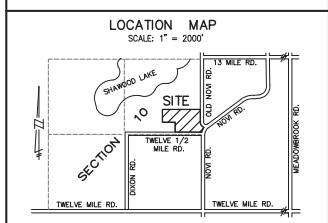
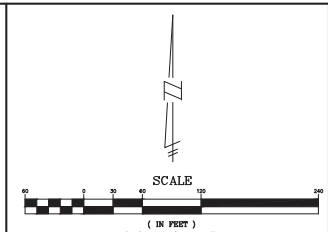
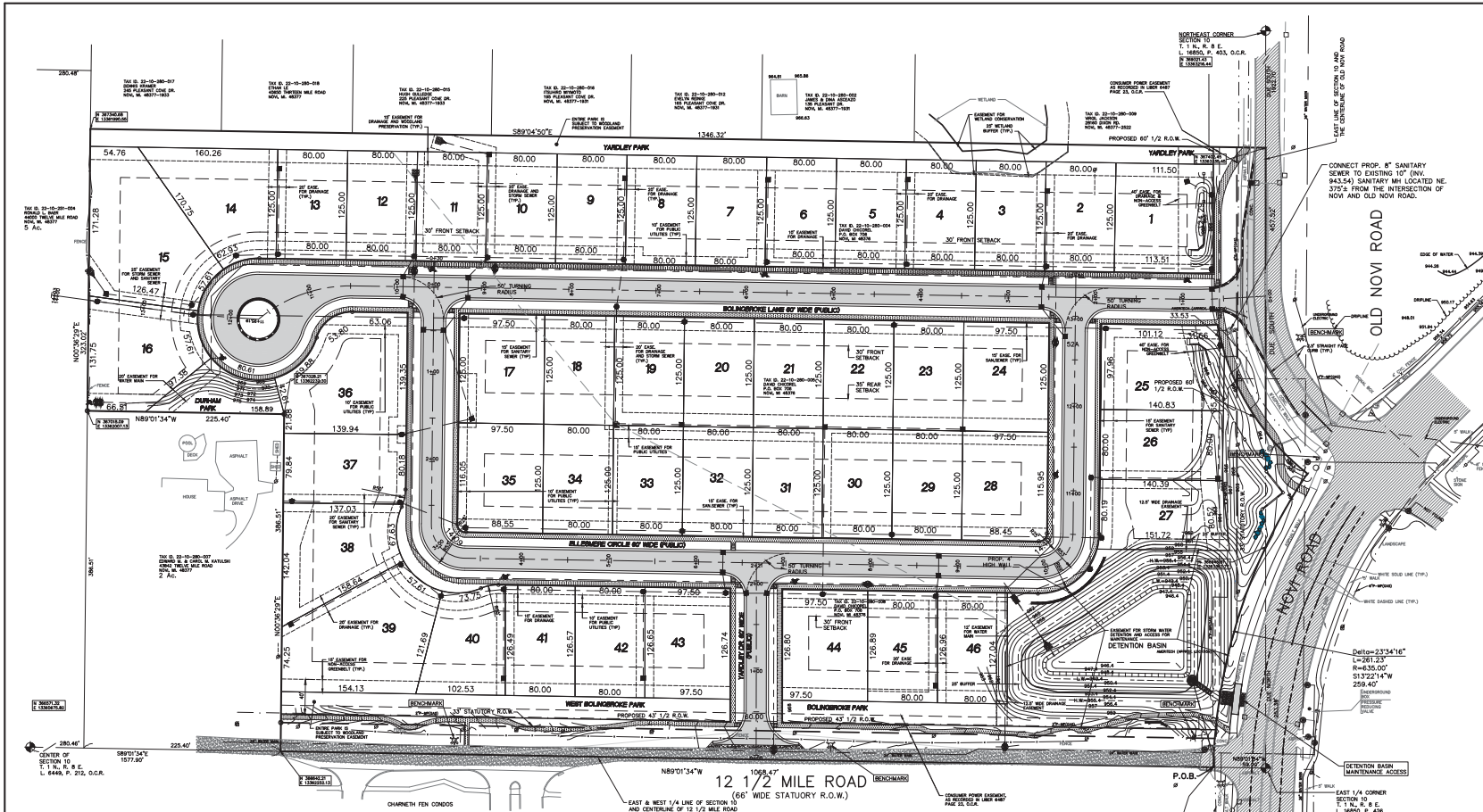


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SITE PLAN

(Full plan set available for viewing at the Community Development Department)



LEGAL DESCRIPTION
 TAX ID. 22-10-280-004, -005 ABD -008

A PART OF THE NORTHEAST 1/4 OF SECTION 10, TOWN 1 NORTH, RANGE 8 EAST, CITY OF NOWI, OAKLAND COUNTY, MICHIGAN, BEING MORE PARTICULARLY DESCRIBED AS COMMENCING AT THE EAST 1/4 CORNER OF SAID SECTION 10; THENCE NORTH 89°04' WEST, 58.00 FEET, ALONG THE EAST AND WEST 1/4 LINE OF SAID SECTION 10; AND THE CENTERLINE OF 12 1/2 MILE ROAD, TO THE POINT OF BEGINNING, THENCE CONTINUING NORTH 89°04' WEST, 1068.47 FEET, ALONG THE EAST AND WEST 1/4 LINE OF SAID SECTION 10; THENCE NORTH 02°02'20\"/>

LOT DATA (46 LOTS)

LOT NO.	WIDTH	AREA SQ. FT.	LOT NO.	WIDTH	AREA SQ. FT.
1	113.02	12697	25	97.50	10187
2	80.00	10000	26	97.50	10187
3	80.00	10000	27	80.58	11659
4	80.00	10000	28	80.00	10000
5	80.00	10000	29	80.00	10000
6	80.00	10000	30	80.00	10000
7	80.00	10000	31	80.00	10000
8	80.00	10000	32	80.00	10000
9	80.00	10000	33	80.00	10000
10	80.00	10000	34	80.00	10000
11	80.00	10000	35	80.00	10000
12	80.00	10000	36	80.00	10000
13	80.00	10000	37	80.00	10000
14	80.00	10000	38	80.00	10000
15	80.00	10000	39	80.00	10000
16	80.00	10000	40	80.00	10000
17	80.00	10000	41	80.00	10000
18	80.00	10000	42	80.00	10000
19	80.00	10000	43	80.00	10000
20	80.00	10000	44	80.00	10000
21	80.00	10000	45	80.00	10000
22	80.00	10000	46	80.00	10000
23	80.00	10000			
24	80.00	10000			
25	80.00	10000			
26	80.00	10000			
27	80.00	10000			
28	80.00	10000			
29	80.00	10000			
30	80.00	10000			
31	80.00	10000			
32	80.00	10000			
33	80.00	10000			
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35	80.00	10000			
36	80.00	10000			
37	80.00	10000			
38	80.00	10000			
39	80.00	10000			
40	80.00	10000			
41	80.00	10000			
42	80.00	10000			
43	80.00	10000			
44	80.00	10000			
45	80.00	10000			
46	80.00	10000			

* LOT WIDTH MEASURED AS STRAIGHT LINE DISTANCE BETWEEN TWO POINTS AT WHICH FRONT SETBACK INTERSECTS SIDE LOT LINE.

MINIMUM SETBACKS

FRONT YARD	30 FEET
REAR YARD	35 FEET
MINIMUM SIDE YARD	10 FEET
MINIMUM TOTAL 2 SIDE YARDS	25 FEET

PROPRIETOR
 SINGH DEVELOPMENT
 7125 ORCHARD LAKE ROAD, SUITE 200
 WEST BLOOMFIELD, MI 48325-3005
 PHONE: 248.865.1600

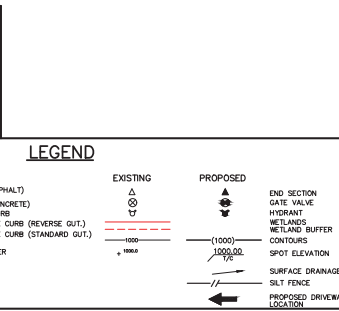
PARK AREAS

BOLINGBROKE PARK	= 1.42 AC.
WEST BOLINGBROKE PARK	= 0.30 AC.
YARDLEY PARK	= 0.59 AC.
DURHAM PARK	= 0.13 AC.
TOTAL PARK AREA	= 2.44 AC.

SITE DATA

GROSS AREA= 19.85 ACRES
 PROPOSED DEDICATED R.O.W.= 1.645 ACRES
 REGULATED WETLAND= 0.02 ACRES

NET AREA= 18.185 ACRES
 PROPOSED DENSITY= 46/UNITS
 18,185 ACRES
 =2.53 UNITS/AC.



REVISIONS

NO.	DATE	DESCRIPTION
1	08-10-17	UTILITY WARNING
2	08-10-17	UTILITY WARNING

UTILITY WARNING
 UNDERGROUND UTILITY LOCATIONS AS SHOWN ON THE PLAN WERE OBTAINED FROM UTILITY COMPANY AND NOT FIELD LOCATED.
 Know what's below. Call before you dig.

CONTRACTOR SHALL BE RESPONSIBLE FOR THE PROTECTION OF AND/OR RESTORATION OF ALL UTILITIES THAT MAY INTERFERE WITH CONSTRUCTION.

DATE: 1-26-15 DESIGNED BY: T.B. CHECKED BY: P.C.
 JOB NUMBER: 01-016

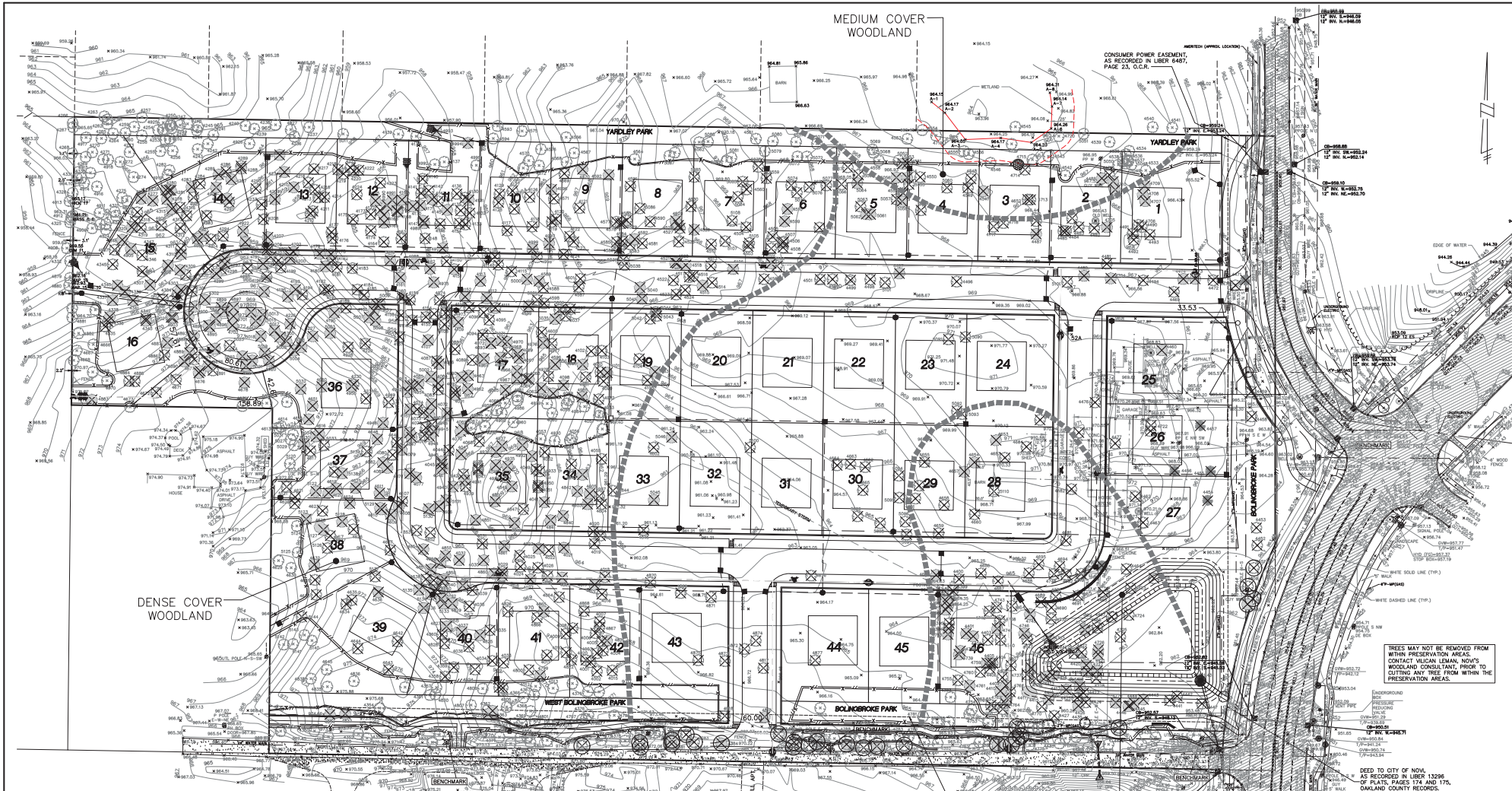
BOLINGBROKE

SECTION 10, TOWN 1 NORTH, RANGE 8 EAST
 CITY OF NOWI, OAKLAND COUNTY, MICHIGAN

FINAL SITE PLAN

SEIBER, KEAST ENGINEERING, L.L.C.
 CONSULTING ENGINEERS
 100 MANCINI DRIVE • SUITE 104 NORTHVILLE, MI 48167
 PHONE: 248.308.3331

SHEET 1



REGULATED Woodlands

All Vegetation in Woodlands is Regulated. Contact The Planning Department For Further Information (248)347-0475.

WORK ON PLANS

REGULATED WOODLAND SIGN

WETLAND SUMMARY

ON-SITE WETLAND = 774 S.F. (0.02 Ac.)
 ON-SITE WETLAND FILL = ZERO
 ENVIRONMENTAL SETBACK = 25'
 ON-SITE WETLAND BUFFER = 3,796 S.F. (0.09 Ac.)
 ON-SITE WETLAND BUFFER DISTURBANCE = ZERO
 EXISTING DRAINAGE TO WETLAND AREA

	AREA(AC.)	"C"	"T"	Q(cfs)=CIA
TRIBUTARY FROM BOLINGBROKE	1.50	0.15	3.89	0.88
TRIBUTARY FROM OFF-SITE	0.90	0.15	3.89	0.53
TOTAL TRIBUTARY AREA	2.40	0.15	3.89	1.40

PROPOSED DRAINAGE TO WETLAND

	AREA(AC.)	"C"	"T"	Q(cfs)=CIA
TRIBUTARY FROM BOLINGBROKE	0.73	0.30	3.89	0.88
TRIBUTARY FROM OFF-SITE	0.90	0.15	3.89	0.53
TOTAL TRIBUTARY AREA	1.63	0.22	3.89	1.39

- LEGEND**
- ⊗ EXISTING TREES TO BE REMOVED - 18
 - ⊗ EXEMPT STATUS TREES TO BE REMOVED - 10
 - ⊗ EXISTING TREES TO BE SAVED
 - ⊗ EXISTING TREES REMOVED IN 2005
 - ⊗ EXEMPTION STATUS TREES NOT REMOVED TREE RECOMMENDED FOR REPLACEMENT EXEMPTION PER WOODLAND ORDINANCE SECTION 37-27 (3) EXEMPTIONS
 - ⊗ EXEMPTION STATUS TREES REMOVED IN 2005 TREE RECOMMENDED FOR REPLACEMENT EXEMPTION PER WOODLAND ORDINANCE SECTION 37-27 (3) EXEMPTIONS

NOTE:

WOODLANDS LINE LOCATED PER CITY OF NOVI WOODLANDS MAP

SCALE

(IN FEET)

Scale: 1 inch = 50 ft.

REVISIONS

NO.	DATE	DESCRIPTION
1	04-15-05	REV. PER CITY OF NOVI
2	06-16-05	REV. PER CITY OF NOVI
3	08-30-05	REV. PER CITY OF NOVI
4	09-28-05	UPDATE ROAD LAYOUT

UTILITY WARNING

UNDERGROUND UTILITY LOCATIONS AS SHOWN ON THE PLAN WERE OBTAINED FROM UTILITY OWNER AND NOT FIELD LOCATED.

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

THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE PROTECTION OF AND/OR RELOCATION OF ALL UTILITIES THAT MAY INTERFERE WITH CONSTRUCTION.

DATE: 1-5-05 DESIGNED BY: T.B. CHECKED BY: P.R.C. JOB NUMBER: 01-016

BOLINGBROKE

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

WOODLAND/WETLAND & TREE PROTECTION PLAN

SEIBER, KEAST ENGINEERING, L.L.C.

CONSULTING ENGINEERS
 100 MANICENTRE • SUITE 104 WOODHURST, MI 48167
 PHONE: 248.308.3331

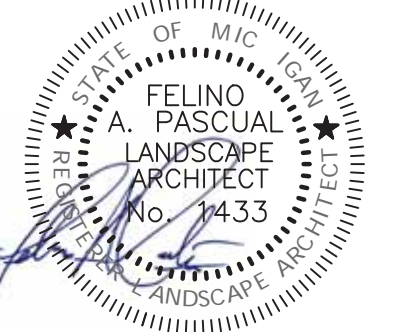
SHEET 4

TREES MAY NOT BE REMOVED FROM WITHIN PRESERVATION AREAS. CONTACT WILSON LEAMAN, NOVI'S WOODLAND CONSULTANT, PRIOR TO CUTTING ANY TREE FROM WITHIN THE PRESERVATION AREAS.

DEED TO CITY OF NOVI, AS RECORDED IN LIBER 13296 OF PLATS, PAGES 174 AND 175, OAKLAND COUNTY RECORDS.

NOTE: "EXISTING" TOPOGRAPHY SHOWN IS FROM THE PREVIOUSLY APPROVED PLANS DATED 8-30-05 TO SHOW THE PREVIOUSLY APPROVED TREES TO BE REMOVED. NOT ALL REMOVALS HAVE OCCURRED TO DATE.

seal:



client:

Singh Development, LLC
 7125 Orchard Lake Rd, Suite 200
 West Bloomfield, Michigan 48325
 ph: (248) 865-1600

project:

BOLINGBROKE

project location:

Novi, Michigan
 Novi Road &
 12 1/2 Mile Road

sheet title:

Street Tree Planting Plan

job no./issue/revision date:

LS15.001.02 / SPA / 2-1-2015
 LS17.037.03 SPA 3-30-2017

drawn by:

JP

checked by:

FP

date:

3-10-2017

notice:

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Do Not scale drawings. Use figured dimensions only.



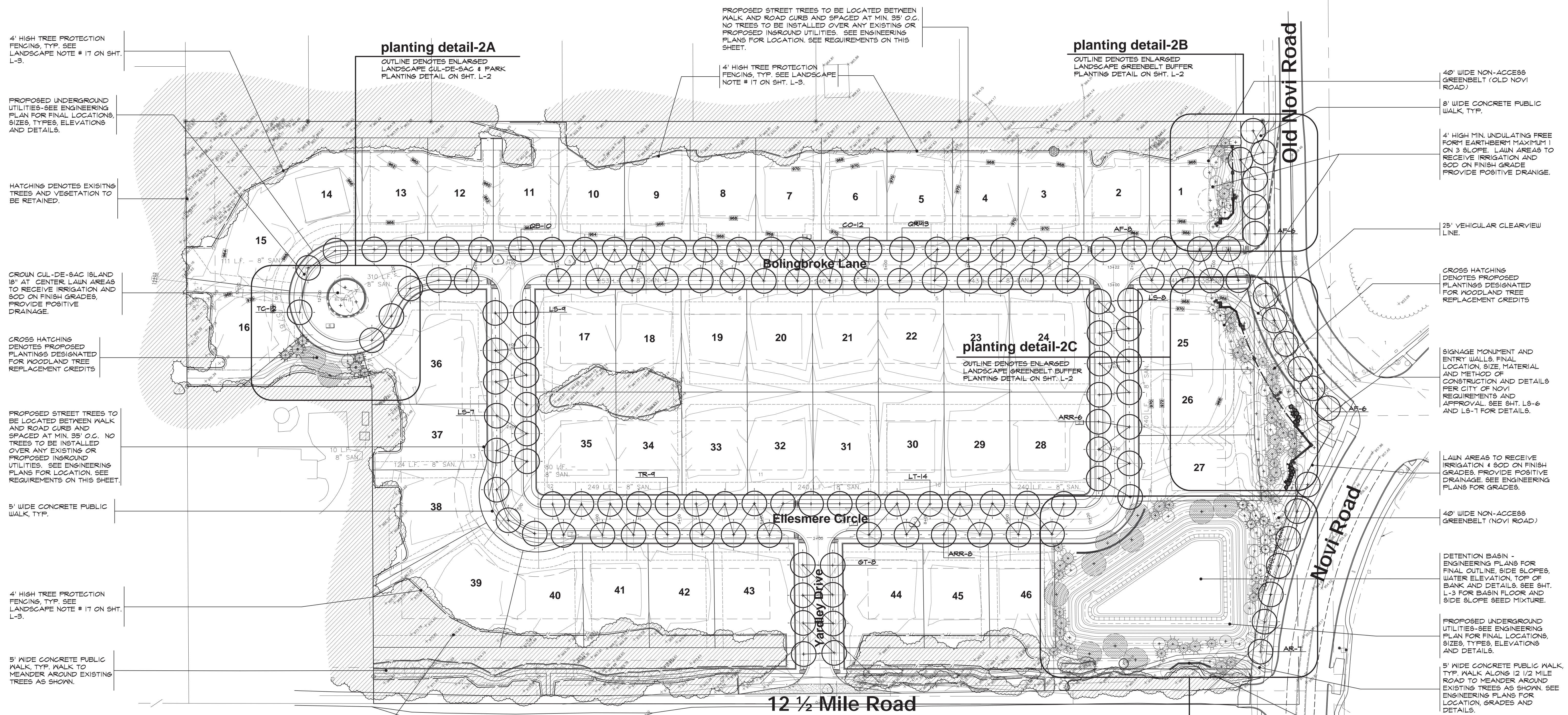
The location and elevations of existing underground utilities as shown on this drawing are only approximate. No guarantee is either expressed or implied as to the completeness of accuracy. Contractor shall be exclusively responsible for determining the exact location and elevation prior to the start of construction.

project no.:

LS17.037.03

sheet no.:

LS-1 of 7



4' HIGH TREE PROTECTION FENCING, TYP. SEE LANDSCAPE NOTE # 11 ON SHT. L-3.

PROPOSED UNDERGROUND UTILITIES-SEE ENGINEERING PLAN FOR FINAL LOCATIONS, SIZES, TYPES, ELEVATIONS AND DETAILS.

HATCHING DENOTES EXISTING TREES AND VEGETATION TO BE RETAINED.

CROWN CUL-DE-SAC ISLAND 18" AT CENTER LAWN AREAS TO RECEIVE IRRIGATION AND SOD ON FINISH GRADES, PROVIDE POSITIVE DRAINAGE.

CROSS HATCHING DENOTES PROPOSED PLANTINGS DESIGNATED FOR WOODLAND TREE REPLACEMENT CREDITS.

PROPOSED STREET TREES TO BE LOCATED BETWEEN WALK AND ROAD CURB AND SPACED AT MIN. 35' O.C. NO TREES TO BE INSTALLED OVER ANY EXISTING OR PROPOSED INGROUND UTILITIES. SEE ENGINEERING PLANS FOR LOCATION. SEE REQUIREMENTS ON THIS SHEET.

5' WIDE CONCRETE PUBLIC WALK, TYP.

4' HIGH TREE PROTECTION FENCING, TYP. SEE LANDSCAPE NOTE # 11 ON SHT. L-3.

5' WIDE CONCRETE PUBLIC WALK, TYP. WALK TO MEANDER AROUND EXISTING TREES AS SHOWN.

40' WIDE NON-ACCESS GREENBELT (1/2 MILE ROAD)

40' WIDE NON-ACCESS GREENBELT (OLD NOVI ROAD)

8' WIDE CONCRETE PUBLIC WALK, TYP.

4' HIGH MIN. UNDULATING FREE FORM EARTHBERM MAXIMUM 1 ON 3 SLOPE. LAWN AREAS TO RECEIVE IRRIGATION AND SOD ON FINISH GRADE. PROVIDE POSITIVE DRAINAGE.

25' VEHICULAR CLEARVIEW LINE.

CROSS HATCHING DENOTES PROPOSED PLANTINGS DESIGNATED FOR WOODLAND TREE REPLACEMENT CREDITS.

SIGNAGE MONUMENT AND ENTRY WALLS. FINAL LOCATION, SIZE, MATERIAL AND METHOD OF CONSTRUCTION AND DETAILS PER CITY OF NOVI REQUIREMENTS AND APPROVAL. SEE SHT. LS-6 AND LS-7 FOR DETAILS.

LAWN AREAS TO RECEIVE IRRIGATION & SOD ON FINISH GRADES. PROVIDE POSITIVE DRAINAGE. SEE ENGINEERING PLANS FOR GRADES.

40' WIDE NON-ACCESS GREENBELT (NOVI ROAD)

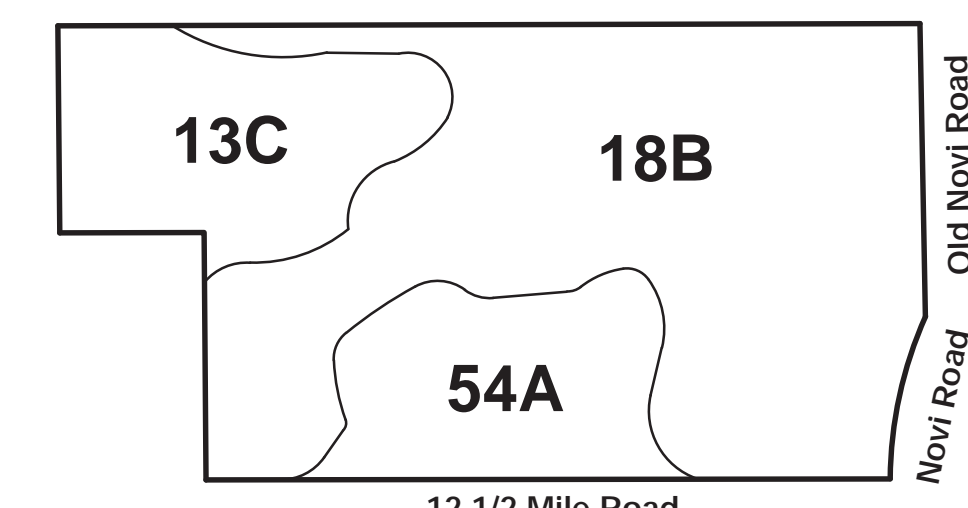
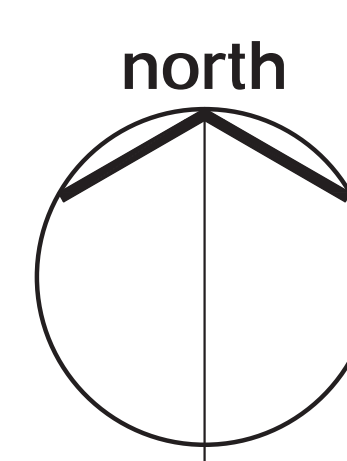
DETENTION BASIN - ENGINEERING PLANS FOR FINAL OUTLINE, SIDE SLOPES, WATER ELEVATION, TOP OF BANK AND DETAILS. SEE SHT. L-3 FOR BASIN FLOOR AND SIDE SLOPE SEED MIXTURE.

PROPOSED UNDERGROUND UTILITIES-SEE ENGINEERING PLAN FOR FINAL LOCATIONS, SIZES, TYPES, ELEVATIONS AND DETAILS.

5' WIDE CONCRETE PUBLIC WALK, TYP. WALK ALONG 12 1/2 MILE ROAD TO MEANDER AROUND EXISTING TREES AS SHOWN. SEE ENGINEERING PLANS FOR LOCATION, GRADES AND DETAILS.

PROPOSED ENGINEERED BLOCK RETAINING WALL - SEE ENGINEERING PLANS FOR LOCATION, HEIGHT, GRADES, DETAILS AND SPECIFICATIONS.

(1A) street tree plan



soil classification:

SOIL CLASSIFICATIONS WERE DETERMINED BY THE SOIL SURVEY OF OAKLAND COUNTY, MICHIGAN PUBLISHED BY THE UNITED STATES DEPARTMENT OF AGRICULTURE, SOIL CONSERVATION SERVICE.

SOIL TYPES:
 13C OSHTIMO-BOYER LOAMY SANDS, 6-12% SLOPES
 18B FOX SANDY LOAM, 1-6% SLOPES
 54A MATHERTON SANDY LOAM, 0-3% SLOPES

MINIMUM TREE SIZE REQUIRED 3" CALIPER.

general street tree notes:

STREET TREES SHALL BE PLANTED 10' FROM ANY DRIVEWAYS, 4' FROM ANY CURBS AND SIDEWALKS (2' FOR SUBCANOPY TREES), 15' FROM OVERHEAD UTILITY LINES, 10' FROM ANY MAN HOLE, CATCH BASIN, OR FIRE HYDRANTS, AND 35' FROM THE INTERSECTION OF CURB LINES ON CORNER LOTS. THE BRANCHES ON CANOPY TREES SHALL BE LIMBED UP 14' ON THE SIDE OF THE STREET AND 10' ON THE NON-STREET SIDE.

STREET TREES SHALL HAVE THE FOLLOWING CHARACTERISTICS: 2 1/2" CALIPER, NO. 1 GRADE B4B, NORTHERN GROWN PER CURRENT AAN STANDARDS, AND INSTALLED ACCORDING TO ACCEPTED PLANTING PROCEDURES.

STREET TREES SHALL HAVE A CENTRAL LEADER AND RADIAL BRANCHING STRUCTURE. ANY BRANCHES THAT MAY DEVELOP INTO "V" CROTCHES SHALL BE PRUNED SO AS NOT TO BECOME DOMINANT BRANCHES.

PER LOT WIDTH, THE FOLLOWING PLANTINGS SHALL OCCUR:

<10'	AT LEAST 1 TREE
10'-15'	AT LEAST 2 TREES
15'-20'	AT LEAST 3 TREES
20'-25'	AT LEAST 4 TREES
25'-30'	AT LEAST 5 TREES
30'-35'	AT LEAST 6 TREES
35'-40'	AT LEAST 7 TREES

street tree requirements:

	no. of lots	required	provided
LOTS WITH FRONTAGE <10'	5	5	5
LOTS WITH FRONTAGE 10'-15'	40	80	82
LOTS WITH FRONTAGE 15'-20'	8	24	28
LOTS WITH FRONTAGE 20'-25'	1	4	5
LOTS WITH FRONTAGE 25'-30'	0	0	0
LINEAL FRONTAGE OF NOVI & OLD NOVI ROAD (ONE (1) DECIDUOUS TREE PER 35')	682	19	19

landscape plan for:
"Bolingbroke"
 - a planned residential community
 City of Novi, Michigan

note:
 unless noted otherwise, numerical value on landscape quantities specified on plan take precedence over graphic representation.





client:
Singh Development, LLC
 7125 Orchard Lake Rd, Suite 200
 West Bloomfield, Michigan 48325
 ph: (248) 865-1600

project:

BOLINGBROKE

project location:
Novi, Michigan
 Novi Road &
 12 1/2 Mile Road

sheet title:

Entry Wall and Signage Plan

job no./issue/revision date:
 LS15.001.02 / SPA / 2-1-2015
 LS17.037.03 SPA 3-30-2017

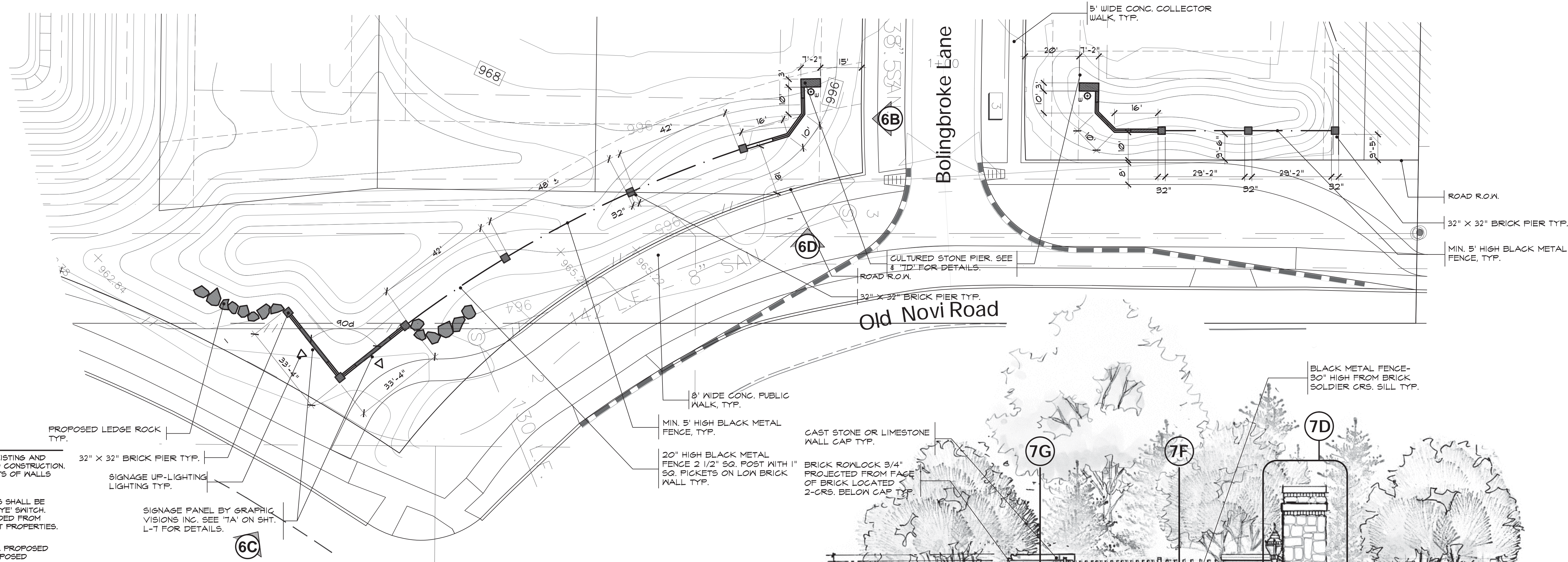
drawn by:
JP
 checked by:
FP
 date:
3-10-2017

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 Do Not scale drawings. Use figured dimensions only.



The location and elevations of existing underground utilities as shown on this drawing are only approximate. No guarantee is either expressed or implied as to the completeness of accuracy. Contractor shall be exclusively responsible for determining the exact location and elevation prior to the start of construction.

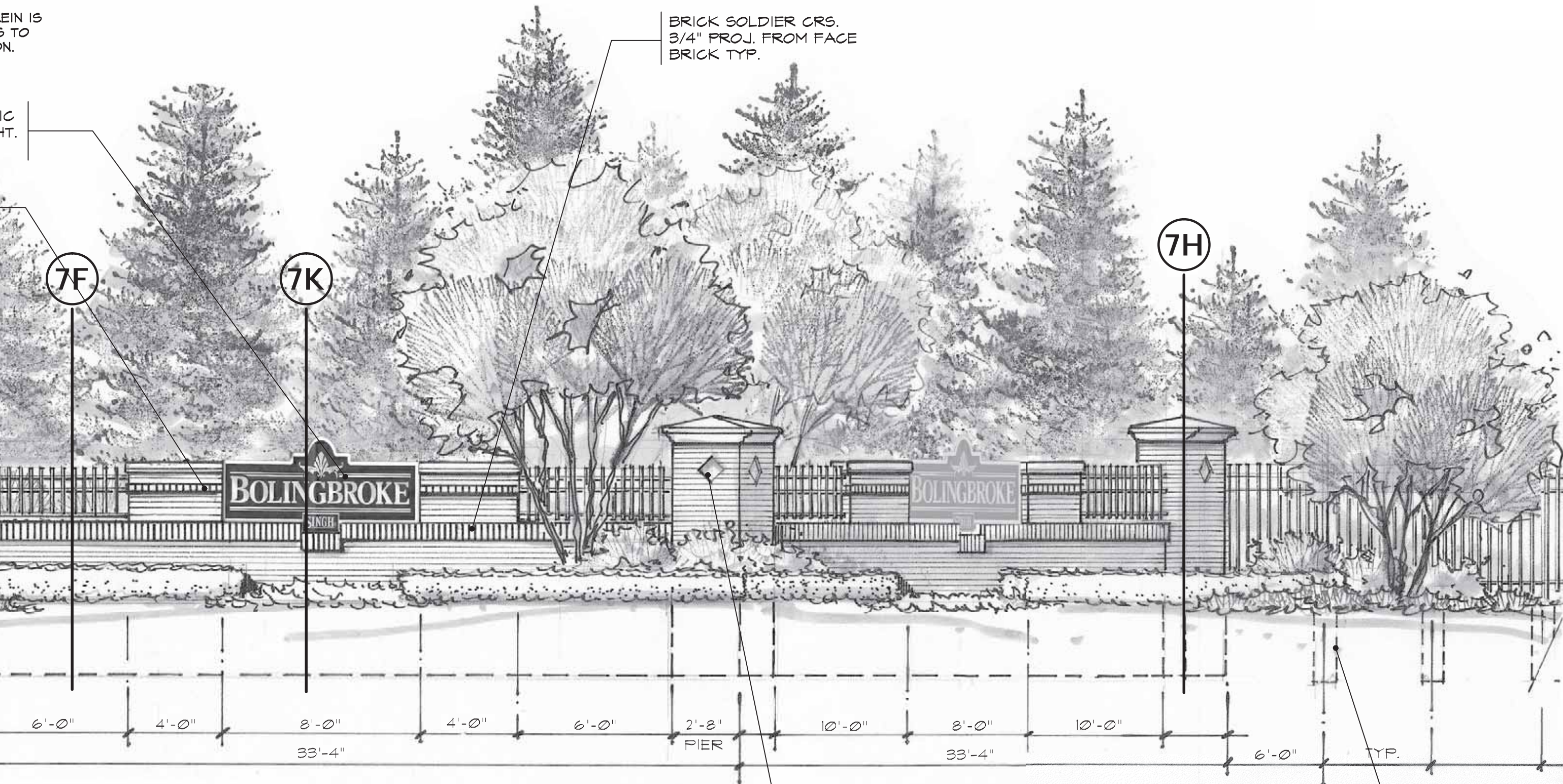
project no:
LS17.037.03



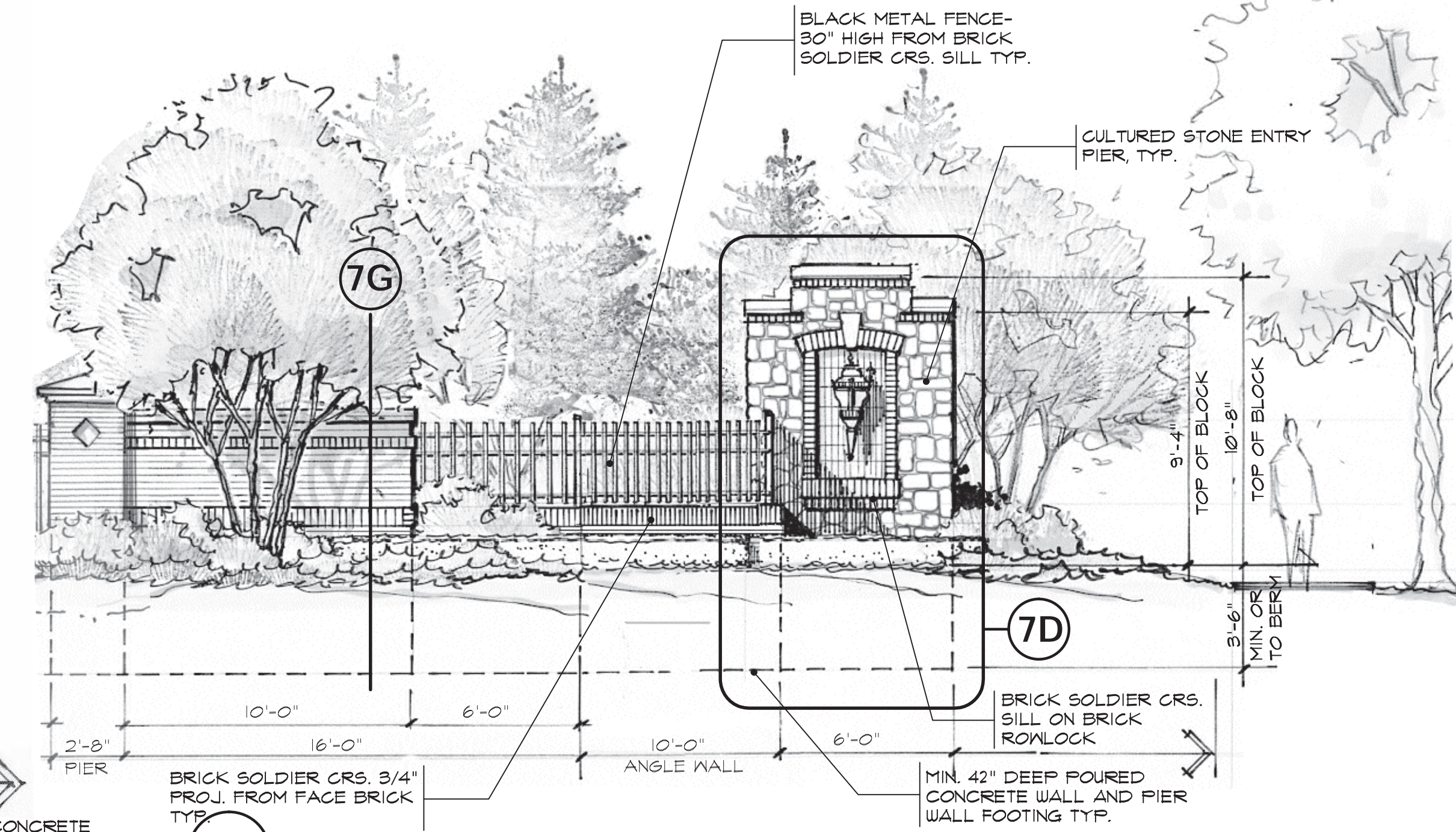
- entry notes:**
1. LOCATE AND STAKE ALL EXISTING AND PROPOSED UTILITIES PRIOR TO CONSTRUCTION. COORDINATE ANY ADJUSTMENTS OF WALLS WITH LANDSCAPE ARCHITECT.
 2. ALL ENTRY WALL LIGHTINGS SHALL BE CONTROLLED WITH A 'PHOTO-EYE' SWITCH. ALL LIGHTING SHALL BE SHIELDED FROM PUBLIC R.O.W.'S AND ADJACENT PROPERTIES.
 3. SEE LANDSCAPE PLAN FOR PROPOSED PLANTINGS ADJACENT TO PROPOSED ENTRY SIGNAGE AND WALLS.
 4. VERIFY SOIL BEARING CAPACITY PRIOR TO ENTRY SIGNAGE WALL, PIER AND WING WALL CONSTRUCTION. IF SOIL BEARING CAPACITY FALLS BELOW STANDARD REQUIREMENTS, CONSULT STRUCTURAL ENGINEER FOR RECOMMENDATION OF FINAL WALL/PIER, FOOTING DESIGN.
 5. SIGNAGE TEXT AND LOGO GRAPHIC BY GRAPHIC VISIONS INC. PRIOR TO SIGNAGE INSTALLATION PERMITS TO BE OBTAINED PER CITY OF NOVI REQUIREMENTS.
 6. ALL INFORMATION CONTAINED HEREIN IS SUBJECT TO APPROVAL, AND PERMITS TO BE OBTAINED PRIOR TO CONSTRUCTION.

6A entry wall site plan
 SCALE: 1" = 20'-0"

6B side entry wall elevation
 SCALE: 1/4" = 1'-0"



6C entry signage and wall elevation
 SCALE: 1/4" = 1'-0"



6D front entry wall elevation
 SCALE: 1/4" = 1'-0"

PLANNING REVIEW



PLAN REVIEW CENTER REPORT

April 19, 2017

Planning Review

Bolingbroke

JSP 17-34

Petitioner

Singh Development

Review Type

Preliminary/Final Site Plan

Property Characteristics

Section	10	
Site Location	North of 12 ½ Mile Road, West of Novi/Old Novi Road	
Site School District	Novi Community School District	
Site Zoning	R-4: One-Family Residential	
Adjoining Zoning	North	RA, R-1 – One-Family Residential; B-3, General Business
	East	R-4, One-Family Residential
	West	RA, On-Family Residential
	South	RM-1, Low-Density Multiple-Family
Current Site Use	Vacant	
Adjoining Uses	North	Single Family Residential
	East	Single Family Residential
	West	Single Family Residential
	South	Multiple Family and Vacant
Site Size	19.783	
Plan Date	March 30, 2017	

Project Summary

The applicant is proposing to construct a 46-unit site condominium with associated improvements. The plan was originally started in 2005 and approval expired. Then the plans were reviewed again in late 2014/early 2015 and were not brought to Planning Commission. The applicant has brought forth the same plans from 2015 and has asked for a combined Preliminary/Final site plan review since the plans have not significantly changed from what was approved in 2005.

Recommendation

Approval of the *Preliminary/Final Site Plan is recommended*. The plan mostly conforms to the requirements of the Zoning Ordinance, with a few deviations listed in this and other review letters. **Planning Commission's approval for Preliminary Site Plan with Site Condominium, Woodland Permit, and Storm Water Management Plan is required.**

Ordinance Requirements

This project was reviewed for conformance with the Zoning Ordinance with respect to Article 3 (Zoning Districts), Article 4 (Use Standards), Article 5 (Site Standards), and any other applicable provisions of the Zoning Ordinance. **Deviations from the Zoning Ordinance are listed below.**

Ordinance Deviations

1. Planning Commission waivers
 - I. Landscape waiver for insufficient berm along Novi Road
 - II. Landscape waiver for insufficient berm along Twelve ½ Mile Road

- III. Landscape waiver for less street trees to preserve existing natural landscape along Twelve ½ Mile Road
2. Design and Construction Standards Variance
 - I. Variance for eyebrow design

Please see the attached chart for information pertaining to ordinance requirements. Items in **bold** below must be addressed and incorporated as part of the Stamping Set submittal:

1. Development Standards (Sec. 3.1.5/Sec. 3.6.2.A/Sec. 2.2/Subdivision Ordinance): Several items are required to be quantified on the site plan for review including the Maximum % of Lot Area Covered, Area Requirements, and Depth to Width Ratios. **Provide a table that includes for each lot: setbacks, lot depth, lot width, and depth to width ratio.**
2. Site Condominiums & Master Deed (Sec. 6.3.1): Public hearing required. Master deed required; provide with Stamping Set submittal.
3. Wetland Setback (Sec. 3.6.2.M): Lots cannot contain wetlands. If lots contain wetland setbacks then easements or deed restriction are required.
4. Non-Access Greenbelt Easements (Subdivision Ordinance): Non-access greenbelt easements are required along the rear and side property lines for reverse frontage lots. **Easements cannot be on proposed lots.**
5. Residential Entryway Lighting: A residential development entrance light must be provided at the entrances to the development off of Old Novi Road and 12 ½ Mile Road. **Please add location to site plan and coordinate with Engineering regarding installation.**
6. Development and Street Names: The previously approved project and street names have expired (2 years). **Please resubmit the names to the Project and Street Naming Committee for approval and confirmation that these names are still available for use.**
7. Conservation Easements: Conservation easements are required for wetland and woodland areas as conditions of the permit and consultant review letter. **Provide draft documents of the easements for legal review with Stamping Set submittal.**

Other Reviews

- a. Engineering Review: **Engineering recommends approval of the Preliminary Site Plan, but does not recommend approval of the Final Site Plan.** A revised final site plan will be required after Planning Commission consideration.
- b. Landscape Review: Landscape review has identified waivers that may be required. Refer to review letter for more comments. **Landscape recommends approval.**
- a. Wetlands Review: A Wetland Conservation Easement is required for the proposed impacts to wetlands and regulated wetland setbacks. **Wetlands recommend approval.**
- b. Woodlands Review: A City of Novi Woodland permit, Woodland fence, and Woodland Conservation Easement are required for the proposed impacts to regulated woodlands. Additional comments to be addressed with Revised Final Site Plan. **Woodlands recommend approval.**
- c. Traffic Review: Traffic identified a DCS variance. **Traffic recommends approval.**
- d. Fire Review: Additional comments to be addressed with Revised Final Site Plan. **Fire recommends approval with conditions.**

NEXT STEP:

Planning Commission Meeting

This Site Plan is scheduled to go before Planning Commission for public hearing on **June 14, 2017**. Please provide the following **no later than 12:00pm, June 7, 2017** if you wish to keep the schedule.

1. Original Site plan submittal in PDF format. **NO CHANGES MADE.**
2. A response letter addressing ALL the comments from ALL the review letters and **a request for waivers as you see fit.**
3. A color rendering of the Site Plan, if any.

Revised Final Site Plan

All reviews except Engineering are recommending approval of the final site plan. Refer to letters for more details. Please submit the following for reconsideration.

1. A [site plan revision application](#).
2. Three copies of revised site plan addressing pending comments from reviews which are currently not recommending approval.
3. Response letter **addressing all comments and refer to sheet numbers where the change is reflected.**

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 are still required for this project. After having received all of the review letters 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

A new address is required for this project. 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 by clicking on this [link](#). Please contact the Ordinance Division 248.735.5678 with any specific questions regarding addressing of sites.

Signage

Exterior Signage is not regulated by the Planning Division or Planning Commission. Sign permit applications that relate to construction of a new building or an addition to an existing building may be submitted, reviewed, and approved as part of a site plan application. Proposed signs shall be shown on the preliminary site plan. Alternatively, an applicant may choose to submit a sign application to the Building Official for administrative review. Following preliminary site plan approval, any application to amend a sign permit or for a new or additional sign shall be submitted to the Building Official. Please contact the Ordinance Division 248.735.5678 for information regarding sign permits.

Street and Project Name

This project will require re-approval from the Street and Project Naming Committee for the project and street names as they expire after two years. Please contact Richelle Leskun (248-347-0579) in the Community Development Department for additional information. The address application can be found by clicking on this [link](#).

Pre-Construction Meeting

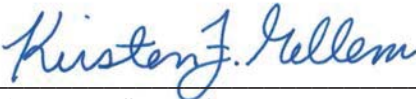
A Pre-Construction meeting is required for this project. Prior to the start of any work on the site, Pre-Construction (Pre-Con) meetings must be held with the applicant's contractor and the City's consulting engineer. Pre-Con meetings are generally held after Stamping Sets have been issued and prior 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 kmellem@cityofnovi.org.



Kirsten Mellem, Planner



PLANNING REVIEW CHART: R-4_One Family Residential

Review Date: April 19, 2017
Review Type: Preliminary/Final Site Plan
Project Name: JSP17-34 Bolingbroke
Plan Date: 3-30-2017
Prepared by: Kirsten Mellem, Planner
Contact: **E-mail:** kmellem@cityofnovi.org **Phone:** 248-347-0484

Bold To be addressed with the next submittal
Underline To be addressed with final site plan submittal
Bold and Underline Requires Planning Commission and/or City Council Approval
Italics To be noted

Item	Required Code	Proposed	Meets Code	Comments
Zoning and Use Requirements				
Master Plan <i>(adopt. 5-25-10)</i>	Single Family, with master planned 3.3 maximum DUA	46 unit single family development with 2.53 DUA (net site area: 18.185 acres)	Yes	
Zoning <i>(Eff. 12-25-13)</i>	R-4: One-Family Residential	R-4: One-Family Residential (Site Condo)	Yes	
Uses Permitted <i>(Sec. 3.1.5)</i>	One-family detached dwellings	One-family detached dwellings	Yes	
Phasing		Phasing is not proposed	NA	
Height, bulk, density and area limitations <i>(Sec. 3.1.5.D)</i>				
Maximum Dwelling Unit Density <i>(Sec. 3.1.5)</i>	3.3 DUA	2.53 DUA	Yes	
Minimum Lot Area <i>(Sec 3.1.5)</i>	10,000 square feet	10,000 sq. ft. minimum 20,013 sq. ft. maximum	Yes	
Minimum Lot Width <i>(Sec 3.1.5)</i>	80 ft.	80 ft. minimum 158.65 ft. maximum	Yes	
Development Standards (Sec 3.1.5.D)				
Front	30 ft.	30 ft.	Yes	
Sides	10 ft. one side 25 ft. total two sides	Not shown	No	
Rear	35 ft.	35 ft.	Yes	
Maximum % of Lot Area Covered <i>(Sec 3.1.5)</i>	25% <i>(By All Buildings)</i>	Unknown	No	Provide a lot table indicating area for each lot, setbacks, frontage, and depth to width ratio

Item	Required Code	Proposed	Meets Code	Comments
Minimum Floor Area (Sec 3.1.5)	1,000 sq. ft.	Information not provided	N/A	Individual buildings are reviewed as part of the building permit application
Building Height (Sec 3.1.5)	35 ft. or 2.5 stories whichever is less	Information not provided	N/A	
Frontage on a Public Street. (Sec. 5.12)	No lot or parcel of land shall be used for any purpose permitted by this Ordinance unless said lot or parcel shall front directly upon a public street, unless otherwise provided for in this Ordinance.	All units front on a proposed public road (Bolingbroke Lane, Ellesmere Circle, Yardley Drive) within the proposed condominium, with access to Novi Road and 12 ½ Mile Road	Yes	
Site Condominiums (Sec. 6.3)				
Approval (Sec. 6.3.1)	Public hearing to be held based on standards in Section 6.2		Yes	Planning Commission to hold public hearing on June 14, 2017
Master Deed (Sec. 6.3.1)	Master deed required with final site plan for review by legal counsel		No	<u>Provide master deed for review after Preliminary Site Plan approval</u>
Frontage (Sec. 6.3.2.A)	- Front on and have direct access to a public street - Provide 5 ft. concrete sidewalks on both sides of street	Fronts onto public streets within subdivision Provided	Yes	
Note to District Standards (Sec 3.6)				
Area Requirements (Sec 3.6.2.A & Sec. 2.2)	- Lot width shall be measured between two lines where a front setback line intersects with side setback lines. - Distance between side lot lines cannot be less than 90% between the front setback line and the main building.	Provided Determined at plot plan review	Yes	
Additional Setbacks (Sec 3.6.2.B)	NA	Single family development and no off-street parking	NA	
Exterior Side Yard Abutting Streets (Sec 3.6.2.C)	NA	Side yards abutting residential districts	NA	
Wetland/Water-course Setback (Sec 3.6.2.M)	25 ft. from boundary of a wetland and 25 ft. from the ordinary high water mark of a watercourse.	25ft. wetland buffer indicated. Lots 2-4 have wetland buffers in the rear yards.	No	See Wetland Review Letter for additional details. Provide easement over buffer.
Subdivision Ordinance				

Item	Required Code	Proposed	Meets Code	Comments
Blocks (Subdivision Ordinance: Sec. 4.01)	<ul style="list-style-type: none"> - Maximum length for all blocks shall not exceed 1,400 ft. - Widths of blocks shall be determined by the conditions of the layout. 	Layout appears to be in conformance	Yes	
Lot Depth Abutting a Secondary Thoroughfare (Subdivision Ordinance: Sec. 4.02.A5)	Lots abutting a major or secondary thoroughfare must have a depth of at least 140'	Lots 25-27 abut Novi Road and are provided with the minimum 140' depth	Yes	
Depth to Width Ratio (Subdivision Ordinance: Sec. 4.02.A6)	Single Family lots shall not exceed a 3:1 depth to width ratio	Table not provided	Yes?	Provide a lot table indicating area for each lot, setbacks, frontage, and depth to width ratio
Arrangement (Subdivision Ordinance: Sec. 4.02.B)	<ul style="list-style-type: none"> - Every lot shall front or abut on a street. - Side lot lines shall be at right angles or radial to the street lines, or as nearly as possible thereto. 	<ul style="list-style-type: none"> - All lots front on proposed street - All lots conform to shape requirement 	Yes	
Streets (Subdivision Ordinance: Sec. 4.04)	Extend streets to boundary to provide access intervals not to exceed 1,300 ft. unless one of the following exists: <ul style="list-style-type: none"> - practical difficulties because of topographic conditions or natural features - Would create undesirable traffic patterns 	Layout appears to be in conformance	Yes	
Topographic Conditions (Subdivision Ordinance Sec 4.03)				
A. Flood plain	Compliance with applicable state laws and City Code Areas in a floodplain cannot be platted	No floodplain or floodways indicated	NA	
B. Trees and Landscaping	Compliance with Chapter 37 and Article 5 of City Zoning Code	Landscape Plan is provided	Yes	Refer to Landscape review letter for further details

Item	Required Code	Proposed	Meets Code	Comments
C. Natural Features	To be preserved Lots cannot extend into a wetland or watercourse	Lots 2-4 extend into wetland and 25 ft. wetland buffer	No	See Wetland Review Letter for additional details. Provide easement over buffer.
D. Man-made Features	To be built according to City standards	None Proposed	NA	
E. Open Space Areas	Any Open Space Area shall meet the following: <ul style="list-style-type: none"> - Require performance guarantee - Shall be brought to a suitable grade - Compliance with zoning ordinance - Except for wooded areas, all ground area should be top dressed with a minimum of 25% of red fescue and a maximum of 20% perennial rye. 	The open space that is provided will need to meet these standards. Applicant has shown open space areas as West Bolingbroke Park, Bolingbroke Park, Yardley Park, and Durham Park behind many of the lots.	Yes	
F. Non-Access Greenbelt Easements	<ul style="list-style-type: none"> - Along rear or side property lines for reverse frontage lots. - Shall be 15 ft. wide along all reverse frontage lots. - 20 ft. wide where power lines exist. 	Reverse frontage lots along Old Novi Road, Novi Road, and 12 ½ Mile Road. For lots 39-46 and lots 1-15: 25 ft. Woodland Easement provided from parcel line to rear lot lines; 15 ft. non-access greenbelt provided on lot along rear lot line. For lots 1,25-27 a 40' non-access easement is proposed in the rear yard.	No	Lots cannot contain non-access greenbelt easements. The intent is to prevent access to these areas as part of the development and this is unenforceable when on lots.
G. Zoning Boundary Screening	A non-residential development abutting a residential development would need screening	Subject property is not abutting any non-residential development	NA	
Sidewalks Requirements				
Non-Motorized Plan	An 8' wide pathway is existing along Novi Road and Old Novi Road. A 6' wide sidewalk is required along 12 ½ Mile Road.	6' sidewalk is provided along 12 ½ Mile Road	Yes	
Sidewalks <i>(Subdivision Ordinance: Sec. 4.05)</i>	Sidewalks are required on both sides of proposed drives	5' sidewalks are proposed on either side of the proposed public drives within the	Yes	

Item	Required Code	Proposed	Meets Code	Comments
		development		
Other Requirements				
Residential Entryway Lighting	A residential development entrance light must be provided at the entrances to the development off of Old Novi Road and 12 ½ Mile Road	None indicated	No	Work with Engineering on entryway lighting for both entrances.
Development and Street Names	Development and street names must be approved by the Street Naming Committee before Preliminary Site Plan approval	Project: Bolingbroke Streets: Bolingbroke Lane, Ellesmere Circle, and Yardley Drive	No	The previously approved project name and street names have expired. Please resubmit the names to the Project and Street Naming Committee for approval.
Economic Impact Information	<ul style="list-style-type: none"> - Total cost of the proposed building & site improvements - Home size & expected sales price of new homes 	<p>\$15,640,000 cost of site and building improvements</p> <p>2,500 sq. ft. homes for sale at \$450,000</p> <p>115 jobs created during construction</p>	Yes	
Legal Requirements				
Property Split or Combination	All property splits and combinations must be submitted to the Assessing Department for approval.	Master deed combination/split required once final site plan approved	No	<u>Applicant needs to provide copy of Master Deed with Stamping Set submittal.</u>
Development/ Business Sign	Signage if proposed requires a permit. Signage is not reviewed or approved by the Planning Commission or Planning Division.	Not shown	NA	<u>For sign permit information contact Jeannie Niland 248-347-0438.</u>
Site Addressing	The applicant should contact the Building Division for an address prior to applying for a building permit.		NA	<u>For sign permit information contact Jeannie Niland 248-347-0438.</u>
Conservation Easements	The Applicant shall provide preservation/ conservation easements for any areas of remaining wetlands and woodland.		No	<u>Refer to woodland/wetland review letters for additional information. All drafts to be submitted after Planning Commission</u>

Item	Required Code	Proposed	Meets Code	Comments
				<u>approval and prior to Stamping Set submittal.</u>

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



PLAN REVIEW CENTER REPORT

May 4, 2017

Engineering Review

BOLINGBROKE 2017

Applicant

BOLINGBROKE SINGH, LLC

Review Type

Preliminary and Final Site Plan

Property Characteristics

- Site Location: West of Old Novi Road, North of 12-1/2 Mile Road
- Site Size: 19.783 acres
- Plan Date: March 30, 2017
- Design Engineer: Seiber, Keast Engineering

Project Summary

- Construction of a 46 unit site condominium and associated proposed public streets. Site access to be provided from Old Novi Road and 12-1/2 Mile Road.
- Water service to be provided by 8-inch water main, including seven hydrants, tapped from the existing 24-inch water main along the north side of 12-1/2 Mile Rd. A water main stub to be provided to a parcel to the west with a temporary hydrant.
- Sanitary sewer service would be provided by extension of an 8-inch sanitary sewer on Old Novi Road. Sanitary sewer stubs to be provided to two parcels to the west.
- Storm water would be collected by a single storm sewer collection system and detained on-site in an above ground detention pond.

Recommendation

Approval of the Preliminary Site Plan and Preliminary Storm Water Management is recommended.

Approval of the Final Site Plan is NOT recommended until the following items are addressed.

Comments:

The Final Site Plan does not meet the general requirements of Chapter 11 of the Code of Ordinances, the Storm Water Management Ordinance and/or the Engineering Design Manual. The following must be addressed prior to resubmittal:

General

1. Show and label the abandoned Old Novi and Novi Road right-of-way.
2. 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 any existing or proposed utility. All utilities shall be shown on the landscape plan, or other appropriate sheet, to confirm the separation distance.
3. Show the locations of all light poles on the utility plan and indicate the typical foundation depth for the pole to verify that no conflicts with utilities will occur. Light poles in a utility easement will require a License Agreement.

Water Main

4. The water main/storm sewer crossing shown on Bolingbroke Lane at station 7+95 should be a sanitary sewer/storm sewer crossing.
5. The water main stub at lot 16 shall terminate with a hydrant, followed by a valve in well, and a stub and cap. The hydrant is not a requirement of the development at this location, so it can be labeled as temporary allowing it to be relocated in the future.
6. Show vertical bends as necessary to provide consistent cover over the water main in the off-road water mains south of lot 16 and east of lot 46.
7. Indicate the water main/sanitary sewer crossing at station 12+85 on Ellesmere Circle.
8. Indicate water main/gas main crossings on Yardley Circle (should be Drive) profile and off-road east of lot 46 profile.
9. Revise profile elevations of GVW5 and GVW6.
10. Presuming 12-1/2 Mile Road is a gravel surfaced road, the rim of TSV&W 1 should be 6 inches lower than surrounding grade. If 12-1/2 Mile Road is a chip seal surfaced road, provide an asphalt collar around the rim at grade.

Sanitary Sewer

11. Revise note on Sheet 1 to indicate connection to existing 8" sanitary sewer.
12. The sanitary segments 14-6 and 13A-13 shall have a slope of 0.60% since they are the furthest upstream segments without additional contributing flows. The stubs to the west shall have a slope of 1.0%.
13. Raise proposed upstream invert at structure 3 to be 0.1 feet higher than existing downstream invert.
14. Label the water main and storm sewer crossings upstream of structure 9.
15. Raise proposed rim elevation of structure 3 to ensure positive drainage.

Storm Sewer

16. Revise structure sizes to provide a minimum of 6" of undisturbed precast structure wall between pipes. (Structures 5 and 6). Indicate the requirement to verify diameter or upsize structure 8.
17. Revise frame and cover of structure 33A.
18. Remove the label "4' diameter manhole" on structure 44A of in the profile.
19. Revise the frame and cover of the mountable curb type grates to 7065.
20. Lower the rim of structure 45.

Storm Water Management Plan

21. Show the off-site tributary area label at structure 16A on sheet 15.
22. Verify grate capacity of structures 3, 4, 32 and 36 to receive 0.011 cfs/in². Add additional inlets as necessary.

Paving & Grading

23. The road cross section shall be 2.5" 5E3 over 2.5" 4C over 8" 21AA.
24. The road cross section in Old Novi Road right-of-way shall be 2.5" 5E3 over 2.5" 4C over 2.5" 3C over 8" 21AA.
25. Provide an enlarged grading plan of the sidewalk along 12-1/2 Mile Road. Include a note to ensure positive drainage across the sidewalk.
26. Shift the southbound sidewalk stub west of Melanie Lane to provide 3' minimum distance from the utility pole, and dimension.
27. Revise the elevation callout at the northwest corner of lot 17 and rim of sanitary sewer structure 7.
28. Revise the elevation callout at the northeast corner of lot 43 and rim of storm sewer structure 20.
29. Revise the elevation callout at the northwest corner of lot 44 on sheets 3 and 6. Revise the elevation callout at the southwest corner of lot 44 on sheet 16.
30. Revise the elevation callout at the southeast corner of lot 1 and rim of storm sewer structure 44. Remove elevation 962.84 on the sidewalk ramp in that vicinity.
31. Add an elevation of 965.0 west of storm sewer structure 25.
32. Add proposed contours on the Proposed Contour Plan.
33. Provide minimum 2% slope across rear yard of lot 26. Provide maximum 25% slope from rear lot corner to structure 40.
34. Provide maximum 5% longitudinal slope along 8' wide sidewalk south of the tie-in to the existing sidewalk.
35. The transition from straight-face to mountable curb shall be 20' long.
36. The curb and gutter in the 12-1/2 Mile Road right-of-way shall be straight-face and have a 20' long transition to mountable curb.
37. Add bottom of wall elevations to the detention basin wall.
38. Revise the pathway cross-section to indicate a maximum cross-slope of 2%.

39. Revise the Detail "M" callout to point to the right area on sheet 16. Also, add a butt joint detail and accurately depict the sawcutting and limits of asphalt pavement.

Soil Erosion and Sediment Control

40. An SESC permit is required. A full review has not been done at this time. The review checklist detailing all SESC requirements is attached to this letter. Please address the comments below and submit a SESC permit application under a separate cover. The application can be found on the City's website at <http://cityofnovi.org/Reference/Forms-and-Permits.aspx>.

The following must be submitted with the Revised Final Site Plan:

41. A letter from either the applicant or the applicant's engineer must be submitted with the Stamping Set highlighting the changes made to the plans addressing each of the comments listed above and indicating the revised sheets involved. **Additionally, a statement must be provided stating that all changes to the plan have been discussed in the applicant's response letter.**

The following must be submitted with the Stamping Set:

(Please note that all documents must be submitted together as a package with the Stamping Set submittal with the legal review transmittal form attached for your completion. Partial submittals will not be accepted.)

42. A draft copy of the Storm Drainage Facility Maintenance Easement Agreement, as outlined in the Storm Water Management Ordinance, must be submitted to the Community Development Department. Once the form of the agreement is approved, this agreement must be approved by City Council and shall be recorded in the office of the Oakland County Register of Deeds. This document is available on our website.
43. A draft copy of the easement for the water main to be constructed on the site must be submitted to the Community Development Department. The description may be 20-foot wide centered on the water main or the description of the future right-of-way to temporarily describe the easement until the right-of-way is accepted. An easement template document is available on our website.
44. A draft copy of the easement for the sanitary sewer to be constructed on the site must be submitted to the Community Development Department. The description may be 20-foot wide centered on the sanitary sewer or may include the description of the future right-of-way to temporarily describe the easement until the right-of-way is accepted. An easement template document is available on our website.
45. A draft copy of the warranty deed for the additional 10-foot width right-of-way along 12-1/2 Mile Road.
46. A draft copy of the warranty deed for the 60-foot right-of-way along Old Novi Road.

47. A draft copy of the warranty deed for the streets to be dedicated as public.
48. A draft copy of the variable width sidewalks for the portions of sidewalk that meander outside of the proposed right-of-way.

The following must be addressed prior to construction:

49. A pre-construction meeting shall be required prior to any site work being started. Please contact Sarah Marchioni in the Community Development Department to setup a meeting (248-347-0430).
50. A City of Novi Grading Permit will be required prior to any grading on the site. This permit will be issued at the pre-construction meeting (no application required). No fee is required for this permit.
51. Material certifications must be submitted to Spalding DeDecker for review prior to the construction of any utilities on the site. Contact Ted Meadows at 248-844-5400 for more information.
52. Construction inspection fees in the amount of \$104,241.81 must be paid to the Community Development.
53. Legal escrow fees in the amount of \$5,462.50 must be deposited with Community Development. Unused escrow will be returned to the payee at the end of the project. This amount includes engineering legal fees only. There may be additional legal fees for planning legal documents.
54. A storm water performance guarantee in the amount of \$2,880.00 (equal to 120% of the cost required to complete the storm water management facilities) as specified in the Storm Water Management Ordinance must be posted at the Community Development.
55. Water and Sanitary Sewer Fees must be paid prior to the pre-construction meeting. Contact the Water & Sewer Division at 248-347-0498 to determine the amount of these fees.
56. A street sign financial guarantee in the amount of \$5,600 (\$400 per traffic control sign proposed) must be posted at the Community Development Department. Signs must be installed in accordance with MMUTCD standards.
57. A Soil Erosion Control Permit must be obtained from the City of Novi. Contact Sarah Marchioni in the Community Development Department, Building Division (248-347-0430) for forms and information. The financial guarantee and inspection fees will be determined during the SESC review.
58. A permit for work within the right-of-way must be obtained from the City of Novi. The application is available from the City Engineering Division or on the City website and may be filed once the Final Site Plan has been submitted. Please contact the Engineering Division at 248-347-0454 for further information. Only submit the cover sheet, standard details and plan sheets applicable to the permit.

59. An NPDES permit must be obtained from the MDEQ because the site is over 5 acres in size. The MDEQ may require an approved SESC plan to be submitted with the Notice of Coverage.
60. An inspection permit for the sanitary sewer tap must be obtained from the Oakland County Water Resource Commissioner.
61. Permits for the construction of each retaining wall must be obtained from the Community Development Department (248-347-0415).
62. The amount of the incomplete site work performance guarantee for this development at this time is \$1,325,919.60 (equal to 1.2 times the amount required to complete the site improvements, excluding the storm water facilities) as specified in the Performance Guarantee Ordinance. This guarantee will be reduced upon utility acceptance, at which time it will be based on estimated pavement repairs and any minor outstanding items.

The following must be addressed prior to issuance of building permits:

63. All easements, warranty deeds, and agreements referenced above, with the exception of the warranty deed for the street(s) to be dedicated as public, must be executed, notarized and approved by the City Attorney and City Engineer.
64. A Bill of Sale for the utilities conveying the improvements to the City of Novi must be submitted to the Community Development Department. This document is available on our website.
65. Spalding DeDecker will prepare the record drawings for this development. The record drawings will be prepared in accordance with Article XII, Design and Construction Standards, Chapter 11 of the Novi Code of Ordinances.
66. Submit to the Community Development Department, Waivers of Lien from any parties involved with the installation of each utility as well as a Sworn Statement listing those parties and stating that all labor and material expenses incurred in connection with the subject construction improvements have been paid.
67. Submit a Maintenance Bond to the Community Development Department in the amount of \$86,927.50 (equal to 25 percent of the cost of the construction of the utilities to be accepted). This bond must be for a period of two years from the date that the Utility Acceptance Permit is issued by the City of Novi Engineering Division. This document is available on our website.
68. Submit an up-to-date Title Policy (dated within 90 days of City Council consideration of acceptance) for the purpose of verifying that the parties signing the Easement and Bill of Sale documents have the legal authority to do so. Please be sure that all parties of interest shown on the title policy (including mortgage holders) either sign the easement documents themselves or a Subordination Agreement. Please be aware that the title

policy may indicate that additional documentation is necessary to complete the acceptance process.

The following must be addressed prior to Street Acceptance for the development at the time ninety (90) percent of the certificates of occupancy (including temporary certificates) have been issued, or within four (4) years after the issuance of the initial permit, whichever occurs first:

69. A warranty deed for the street(s) to be dedicated must be submitted to the Community Development Department.
70. A Bill of Sale for each street conveying the improvements to the City of Novi must be submitted to the Community Development Department. This document is available on our website.
71. Submit to the Community Development Waivers of Lien from any parties involved with the installation of each street as well as a Sworn Statement listing those parties and stating that all labor and material expenses incurred in connection with the subject construction improvements have been paid.
72. Submit a Maintenance Bond to the Community Development Department in the amount of \$87,870.25 (equal to 25 percent of the cost of the construction of the streets to be accepted). This bond must be for a period of two years from the date of formal acceptance by City Council. This document is available on our website.

Prior to preparing stamping sets, the Applicant is advised to provide any revised sheets directly to the Engineering Division for an informal review and approval.

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 Theresa Bridges at (248) 735-5625 with any questions.

Theresa C. Bridges, P.E.

cc: Kirsten Mellem, Community Development
Angela Pawlowski, Community Development
Tina Glenn, Treasurers
Kristin Pace, Treasurers
Ben Croy, Water and Sewer
Theresa Bridges, Engineering
George Melistas, Engineering
T. Meadows, T. Reynolds, B. Allen; Spalding DeDecker

LANDSCAPE REVIEW



PLAN REVIEW CENTER REPORT

May 3, 2017

Preliminary/Final Site Plan - Landscaping

Bolingbroke

Review Type

Preliminary/Final Landscape Review

Property Characteristics

- Site Location: Northwest Corner of Novi Road and 12 ½ Mile Road
- Site Acreage: 19.85 acres
- Site Zoning: R-4
- Adjacent Zoning: R-4, R-1, RM-1, RA
- Plan Date: 3/30/2017

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/Final Site Plan submittal. Please follow guidelines of the Zoning Ordinance and Landscape Design Guidelines. This review and the accompanying Landscape Chart is a summary and not intended to substitute for any Ordinance.

Recommendation

This project is **recommended for approval**. However, a number of landscape waivers are requested, so the Planning Commission will need to decide on those. Most of the required woodland replacements are proposed for an offsite development (Ballantyne) so the Planning Commission will also need to decide on the merits of that proposal.

Ordinance Considerations

Existing Soils (Preliminary Site Plan checklist #10, #17)

Provided.

Existing and proposed overhead and underground utilities, including hydrants.(LDM 2.e.(4))

1. Proposed utility lines are provided.
2. **Please clearly show all overhead utility lines, fire hydrants and utility structures on the landscape plan.**

Existing Trees (Sec 37 Woodland Protection, Preliminary Site Plan checklist #17 and LDM 2.3 (2))

1. **Please show tree fencing at the Critical Root Zone (1' beyond dripline) for all existing trees to remain near the project area on the Demolition Plan.**
2. **Please provide a tree protection fencing detail with fence located at Critical Root Zone (1' beyond dripline).**
3. **Please leave the tree labels for all existing trees to remain on the landscape plan for use in landscaping and woodland tree inspections.**

Adjacent to Residential - Buffer (Zoning Sec. 5.5.3.B.ii and iii)

Property is not adjacent to any non-residential zoning.

Adjacent to Public Rights-of-Way – Berm (Wall) & Buffer (Zoning Sec. 5.5.3.B.ii and iii)

The project fronts Old Novi Road, Novi Road and 12 ½ Mile Road. The required 40 foot non-access greenbelt is provided along all three frontages.

Old Novi Road – Frontage net of Bolingbroke Road ROW is 354 lf

1. 4 foot tall berms with 4 foot crests are provided.
2. 10 large evergreen or deciduous canopy trees are required and 22 trees are provided. The applicant is using the extra 12 trees as woodland replacement trees.
3. 18 subcanopy trees are required and are provided.

Novi Road – Frontage is 328 lf

1. 4 foot tall berms with 4 foot crests are required. It is not clear whether the berm between the detention pond and Novi Road are of sufficient height or width along the entire frontage. **Please clearly label the contours along Novi Road to make interpretation easier. A landscape waiver would be required for an insufficient berm.**
2. 9 large evergreen or deciduous canopy trees are required and 33 trees are provided. The applicant is using the extra 24 trees as woodland replacement trees.
3. 16 subcanopy trees are required and are provided.

Twelve and a Half Mile Road – Frontage is 1068

1. The applicant is requesting a landscape waiver for the berm in order to preserve the existing natural landscape. As part of this waiver, the berm and required landscaping are not provided. A site visit revealed this area to have a good number of native trees of varying sizes, and a good number of wildflowers in the greenbelt. Because of this growth, the waiver is supported by staff.
2. **The waiver request should include the extent of berms and landscaping not provided and be listed on either the plan set cover sheet or Sheet LS1 with all other waivers requested.**

Street Tree Requirements (Zoning Sec. 5.5.3.E.i.c and LDM 1.d.)

1. Old Novi Road – Based on the frontage, 10 street trees are required. 12 are provided.
2. Novi Road – Based on the frontage, 9 street trees are required. 7 are provided.
3. Twelve and a Half Road – Based on the frontage, 31 street trees are provided.
The applicant is requesting a landscape waiver for the street trees in order to preserve the existing natural landscape. A site visit revealed this area to have a good number of attractive, naturally occurring trees along the road. This look would be damaged by the placement of additional street trees. Because of this growth, the waiver is supported by staff.
4. Lots – Based on the lots' frontages, 114 street trees are required, and 120 are provided.
5. The clear vision zones called for in Section 5.9 should be provided for all street intersections, including interior intersections. Trees cannot be placed within those zones. If the required number of street trees cannot be located along the roads because of these clear vision zones, the applicant may request a landscape waiver for the trees that can't be planted for this reason. **The waiver should be included in the list mentioned above.**

Plant List (LDM 2.h. and t.)

Please do not use *Lonicera fragrantissima* as the Asian bush honeysuckles are known to be invasive.

Planting Notations and Details (LDM)

1. **Please revise the details provided per the instructions on the landscape chart.**
2. **Please add a tree guy and tree protection fence detail.**

Storm Basin Landscape (Zoning Sec 5.5.3.E.iv and LDM 1.d.(3))

1. Only 63% of the basin has planted or naturally occurring landscaping along it. **Please add sufficient large native shrubs along the high water line of the pond to bring the coverage to 70-75%.**
2. **Please use large shrubs native to Michigan as replacements for the Viburnums used, which are all non-native, and the Lonicera fragrantissima.**

Irrigation (LDM 1.a.(1)(e) and 2.s)

Please provide an irrigation plan for the site landscaping.

Proposed topography. 2' contour minimum (LDM 2.e.(1))

Provided.

Snow Deposit (LDM.2.q.)

Please indicate where the snow plows can deposit the snow in winter.

Proposed trees to be saved (Sec 37 Woodland Protection 37-9, LDM 2.e.(1))

The trees in the greenbelt along 12 ½ Mile Road are proposed to be saved.

Corner Clearance (Zoning Sec 5.9)

Please add the corner clearance zones for all of the intersections, including interior intersections and the Old Novi/Novi Road intersection.

Woodland Replacement Trees

Please use a heavier hatch for the woodland replacement trees so they can be distinguished from other landscaping.

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

Review Date: May 3, 2017
Project Name: JSP17-34: Bolingbroke PSP & FSP
Plan Date: March 30, 2017
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.

Item	Required	Proposed	Meets Code	Comments
Landscape Plan Requirements (LDM (2))				
Landscape Plan <i>(Zoning Sec 5.5.2, LDM 2.e.)</i>	<ul style="list-style-type: none"> ▪ 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 ▪ Consistent with plans throughout set 	Yes	Yes	Overall plan 1"=60' Details: 1"=20' and 1"=30' All are acceptable.
Project Information <i>(LDM 2.d.)</i>	Name and Address	Yes	Yes	
Owner/Developer Contact Information <i>(LDM 2.a.)</i>	Name, address and telephone number of the owner and developer or association	Yes	Yes	
Landscape Architect contact information <i>(LDM 2.b.)</i>	Name, Address and telephone number of RLA/LLA	Yes	Yes	
Sealed by LA. <i>(LDM 2.g.)</i>	Requires original signature	Yes	Yes	
Miss Dig Note (800) 482-7171 <i>(LDM.3.a.(8))</i>	Show on all plan sheets	Yes	Yes	
Zoning <i>(LDM 2.f.)</i>	Include all adjacent zoning	Site: R-4 Adjacent: R-4, R-1, RM-1, RA	No	Please show site zoning and adjacent parcels' zoning on site plan or landscape plan
Survey information <i>(LDM 2.c.)</i>	<ul style="list-style-type: none"> ▪ Legal description or boundary line survey ▪ Existing topography 	Yes	Yes	1. Description on cover sheet. 2. Please provide an existing conditions sheet without the site

Item	Required	Proposed	Meets Code	Comments
				layout or other improvements on it.
Existing plant material Existing woodlands or wetlands <i>(LDM 2.e.(2))</i>	<ul style="list-style-type: none"> ▪ Show location type and size. Label to be saved or removed. ▪ Plan shall state if none exists. 	Tree survey and removals from original project	Yes/No	1. Original tree survey, from 2005, showing the trees that were removed with the originally approved project. This is helpful information. 2. Please add an updated tree survey to include any currently existing trees with 8" dbh or greater.
Soil types <i>(LDM.2.r.)</i>	<ul style="list-style-type: none"> ▪ As determined by Soils survey of Oakland county ▪ Show types, boundaries 	Yes	Yes	Landscape Sheet LS1
Existing and proposed improvements <i>(LDM 2.e.(4))</i>	Existing and proposed buildings, easements, parking spaces, vehicular use areas, and R.O.W	Yes	Yes	
Existing and proposed utilities <i>(LDM 2.e.(4))</i>	Overhead and underground utilities, including hydrants	Yes/No	Yes/No	1. Existing and proposed utility lines, including overhead lines, are shown. 2. Please clearly show all hydrants and utility structures on landscape plan to ensure proper spacing.
Proposed grading. 2' contour minimum <i>(LDM 2.e.(1))</i>	Provide proposed contours at 2' interval	Yes/No	Yes/No	1. Proposed spot elevations and berm contours are shown on Sheet 3. 2. Please fix the labels on Sheet 3A and label the berm contours clearly so the heights can be verified. This is especially needed between Novi Road and the detention pond.
Snow deposit <i>(LDM.2.g.)</i>	Show snow deposit areas on plan	No	No	Please show areas for snow deposits.

Item	Required	Proposed	Meets Code	Comments
LANDSCAPING REQUIREMENTS				
Parking Area Landscape Requirements LDM 1.c. & Calculations (LDM 2.o.)				
General requirements (LDM 1.c)	<ul style="list-style-type: none"> ▪ Clear sight distance within parking islands ▪ No evergreen trees 	NA		
Name, type and number of ground cover (LDM 1.c.(5))	As proposed on planting islands	NA		
General (Zoning Sec 5.5.3.C.ii)				
Parking lot Islands (a, b. i)	<ul style="list-style-type: none"> ▪ A minimum of 300 SF to qualify ▪ 6" curbs ▪ Islands minimum width 10' BOC to BOC 	NA		
Curbs and Parking stall reduction (c)	Parking stall can be reduced to 17' and the curb to 4" adjacent to a sidewalk of minimum 7 ft.	NA		
Contiguous space limit (i)	Maximum of 15 contiguous spaces	NA		
Plantings around Fire Hydrant (d)	No plantings with matured height greater than 12' within 10 ft. of fire hydrants	Some trees may be close to hydrants, manholes – can't tell at present.	No	<ol style="list-style-type: none"> 1. Please show all proposed hydrants and utility structures clearly on landscape plan. 2. Keep all trees and large shrubs at least 10' away from hydrants, manholes. 3. Please include the 10 foot restriction in General Landscape Note #15.
Landscaped area (g)	Areas not dedicated to parking use or driveways exceeding 100 sq. ft. shall be landscaped	NA		
Clear Zones (LDM 2.3.(5))	25 ft corner clearance required. Refer to Zoning Section 5.5.9			<ol style="list-style-type: none"> 1. Clear zone is provided for Old Novi Road entry. 2. Please add clear vision zones for interior roads as well, and either shift trees out of them if there is room or remove the trees from them entirely. It appears

Item	Required	Proposed	Meets Code	Comments
				that the tree requirement can still be met even with these removals.
Berms, Walls and ROW Planting Requirements				
Berms				
<ul style="list-style-type: none"> ▪ 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 top soil. 				
Residential Adjacent to Non-residential (Zoning Sec 5.5.3.A and LDM 1.a)				
Berm requirements (Zoning Sec 5.5.A)	Adjacent Zoning is RA and R1	NA		
Planting requirements (LDM 1.a.)	LDM Novi Street Tree List	NA		
Adjacent to Public Rights-of-Way (Zoning Sec 5.5.3.A and LDM 1.b)				
Cross-Section of Berms (Zoning Sec 5.5.3.B and LDM 2.j)				
Slope, height and width (Zoning Sec 5.5.3.A.v)	<ul style="list-style-type: none"> ▪ Label contour lines ▪ Maximum 33% slope ▪ Min. 4 feet crest ▪ Constructed of loam ▪ 6" top layer of topsoil 	No	No	Please provide a typical cross section for the greenbelt berms
Type of Ground Cover		Yes	Yes	Lawn
Setbacks from Utilities	Overhead utility lines and 15 ft. setback from edge of utility or 20 ft. setback from closest pole	No	No	Please show any overhead utilities – existing or proposed, and dimension closest trees.
Walls (LDM 2.k & 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	<ul style="list-style-type: none"> • Entry sign walls are proposed • One small retaining wall at southeast corner is proposed. 		
Walls greater than 3 ½ ft. should be designed and sealed by an Engineer		<ul style="list-style-type: none"> • Entry sign wall is taller than 3.5' • Retaining wall appears to be less than 3.5' tall. 		<u>Please have design engineer provide final construction drawings in construction drawing sets.</u>
ROW Landscape Screening Requirements (Sec 5.5.3.B. ii)				
Greenbelt width (2)(3) (5)	40 ft non-access easement, 34' greenbelt along all 3 roads	40 ft non-access greenbelt along all 3 roads.	Yes	

Item	Required	Proposed	Meets Code	Comments
Min. berm crest width	4 ft.	4'	TBD	<ol style="list-style-type: none"> 1. Please label berm contours more clearly so berm dimensions can be evaluated. 2. Berm is not provided along 12 ½ Mile Road in order to maintain the natural landscape. Staff recommends that this waiver be granted as the area within the greenbelt has a large number of native trees of varying sizes, and a number of wildflowers as well. 3. Please include this waiver in a list of waivers requested, that includes the length of the berm not provided (the length of the entire frontage).
Minimum berm height (9)	4 ft.	4'	Yes	See above
3' wall (4) (7)	NA	No		
Canopy deciduous or large evergreen trees Notes (1) (10) LDM1.d.(1)(b)	<ul style="list-style-type: none"> ▪ 1 tree per 35 lf; ▪ <u>Old Novi Road:</u> 354/35 = 10 trees ▪ <u>Novi Road:</u> 328/35 = 9 trees ▪ <u>12 ½ Mile Road:</u> 1068/35 = 31 trees 	<ul style="list-style-type: none"> ▪ <u>Old Novi Road:</u> 33 trees (23 extra are credited toward replacements) ▪ <u>Novi Road:</u> 22 trees (12 extra are credited toward replacements) • <u>12 ½ Mile Road:</u> 0 trees (Landscape waiver along entire road frontage is requested to preserve the natural appearance) 		<ol style="list-style-type: none"> 1. Calculations are provided. 2. Please correct frontages and trees required/provided for Old Novi and Novi Roads in calculations. They appear to be switched. 3. Please use a heavier hatch for the replacements, so they can be distinguished from required greenbelt trees. 4. A waiver is sought for the entire 12 ½ mile frontage in order to preserve the natural

Item	Required	Proposed	Meets Code	Comments
				<p>appearance along 12 ½ Mile Road. This waiver is supported by staff with the condition that the existing invasive trees, shrubs and vines in the greenbelt should be cut down in late summer/fall and treated with a concentrated Triclopyr or Glyphosate product. Staff can provide a list of the species that were observed.</p>
<p>Sub-canopy deciduous trees Notes (2)(10)</p>	<ul style="list-style-type: none"> ▪ 1 tree per 20 lf; ▪ <u>Old Novi Road:</u> 354/20 = 18 trees ▪ <u>Novi Road:</u> 328/20 = 16 trees ▪ <u>12 ½ Mile Road:</u> 1068/20 = 53 trees 	<ul style="list-style-type: none"> • <u>Old Novi Road:</u> 17 trees • <u>Novi Road:</u> 18 trees • <u>12 ½ Mile Road:</u> 0 trees (Landscape waiver along entire road frontage is requested to preserve the natural appearance) 	<p>No</p>	<ol style="list-style-type: none"> 1. Calculations are provided 2. Please correct the frontages and trees required/provided for Old Novi and Novi Roads in calculations. They appear to be switched. 3. Be sure to use subcanopy trees whose height does not exceed utility line height requirements.
<p>Street Trees (LDM 1.d.(1) and Novi Street Tree List))</p>	<ul style="list-style-type: none"> ▪ 1 tree per 35 lf; ▪ <u>Old Novi Road:</u> 354/35 = 10 trees ▪ <u>Novi Road:</u> 328/35 = 9 trees ▪ <u>12 ½ Mile Road:</u> 1068/35 = 31 trees ▪ <u>Internal lots</u> – trees set by frontage – see table in LDM – 114 trees 	<ul style="list-style-type: none"> ▪ <u>Old Novi Road:</u> 12 trees ▪ <u>Novi Road:</u> 7 trees ▪ <u>12 ½ Mile Road:</u> 0 trees (Landscape waiver along entire road frontage is requested to preserve the natural appearance) ▪ <u>Lots:</u> 120 trees 	<p>No</p>	<ol style="list-style-type: none"> 1. Calculation for total Novi/Old Novi Road is provided, as are required trees. 2. Please provide clear vision zones for interior intersections. 3. Please move trees outside of clear vision zones. If there is insufficient room along the right-of-ways outside the clear vision zones for all of the required trees, a landscape waiver for the trees not provided can be requested and will

Item	Required	Proposed	Meets Code	Comments
				be supported by staff. 4. If possible, the sidewalk along 12 ½ Mile Road should utilize the existing gap within the greenbelt to avoid having to remove more trees than is absolutely necessary.
Island & Boulevard Planting <i>(Zoning Sec & LDM 1.d.(1)(e))</i>	<ul style="list-style-type: none"> ▪ Must be landscaped & irrigated ▪ Mix of canopy/sub-canopy trees, shrubs, groundcovers, etc. ▪ No plant materials between heights of 3-6 feet as measured from street grade 	3 trees, 49 shrubs and seasonal flowers	Yes	
Transformers/Utility boxes <i>(LDM 1.e from 1 through 5)</i>	<ul style="list-style-type: none"> ▪ A minimum of 2ft. separation between box and the plants ▪ Ground cover below 4" is allowed up to pad. ▪ No plant materials within 8 ft. from the doors 	NA		When location of transformer/utility boxes is determined, add landscaping per city requirements.
Detention/Retention Basin Requirements (Sec. 5.5.3.E.iv)				
Planting requirements <i>(Sec. 5.5.3.E.iv)</i>	<ul style="list-style-type: none"> ▪ Clusters of large, native shrubs shall cover 70-75% of the basin rim area ▪ 10" to 14" tall grass along sides of basin ▪ Refer to wetland for basin mix 	Large shrubs are provided along 745lf of the 1180lf high water line (63%).	No	<ol style="list-style-type: none"> 1. Seed mix for basin bottom is provided. 2. Please add the seed mix for the sides of the basin. 3. Please clearly show the high water line (HWL) of the pond on the landscape plan. 4. Please add at least another 80lf of shrubs along the rim to reach 70% coverage. 5. Please substitute shrubs native to Michigan for <i>Viburnum opulus</i>, <i>Viburnum plicatum</i>, <i>Viburnum x b</i>

Item	Required	Proposed	Meets Code	Comments
				<i>Mohawk and Lonicera fragrantissima</i>
Woodland Replacements (Chapter 37 Woodlands Protection)				
Woodland Replacement Calculations – Required/Provided	Original project showed removals of 745 regulated trees to be removed and 588 replacements required.	<ul style="list-style-type: none"> 51 credits replaced on site 538 credits replaced off-site 	TBD	<ol style="list-style-type: none"> Calculations are provided. Please update tree survey to indicate whether any additional regulated trees are being removed for this project and revise calculations if necessary. Elevations of trees do not need to be shown on tree chart. See ECT review for complete woodland replacements review.
Woodland Replacement Trees Proposed	<ul style="list-style-type: none"> Show clearly on plan and plant list which trees are proposed as woodland replacement trees Reforestation credit table breakdown, if applicable 	<ul style="list-style-type: none"> Some species on LS-3 plant list are not on Woodland Replacement Chart. Tree species on plant list on LS-4 are all from Woodland Replacement Chart. 	TBD	<ol style="list-style-type: none"> Please uniquely label woodland replacement trees for verification. Please replace Black Spruce (<i>Picea mariana</i>) with Black Hills Spruce (<i>Picea glauca var Densata</i>) if that was intended. <i>Picea mariana</i> is a wetland tree that is not widely available. If replacement trees on list(s) are not from Section 37's Woodland Replacement Chart, please change them to species that are.
LANDSCAPING NOTES, DETAILS AND GENERAL REQUIREMENTS				
Landscape Notes – Utilize City of Novi Standard Notes				
Installation date (LDM 2.I. & Zoning Sec 5.5.5.B)	Provide intended date	Between Mar 1 – June 1, Oct 1 and freeze	Yes	
Maintenance & Statement of intent (LDM 2.m & Zoning	<ul style="list-style-type: none"> Include statement of intent to install and guarantee all 	Yes/No	Yes/No	Please add note regarding cultivations in June-Aug

Item	Required	Proposed	Meets Code	Comments
<i>Sec 5.5.6)</i>	materials for 2 years. <ul style="list-style-type: none"> ▪ Include a minimum one cultivation in June, July and August for the 2-year warranty period. 			
Plant source <i>(LDM 2.n & LDM 3.a.(2))</i>	Shall be northern nursery grown, No.1 grade	No	No	Please add this note.
Irrigation plan <i>(LDM 2.s.)</i>	A fully automatic irrigation system and a method of draining is required with Final Site Plan	No	No	<u>Need for final site plan</u>
Other information <i>(LDM 2.u)</i>	Required by Planning Commission	NA		
Establishment period <i>(Zoning Sec 5.5.6.B)</i>	2 yr. Guarantee	Yes	Yes	
Approval of substitutions. <i>(Zoning Sec 5.5.5.E)</i>	City must approve any substitutions in writing prior to installation.	Yes	Yes	
Plant List (LDM 2.h.) - Include all cost estimates				
Quantities and sizes	Refer to LDM suggested plant list	Yes	TBD	Please verify plant counts for all items on list.
Root type		Yes	Yes	
Botanical and common names		Yes	Yes	
Breakdown of genus/species diversity (LDM 1.d.(1).d.		No	TBD	Please be sure that diversity of plantings conforms with standard listed in Design Manual Section 1.d.(1).d.
Type and amount of lawn		No		<u>Need for Final Site Plan</u>
Cost estimate <i>(LDM 2.t)</i>		For all new plantings, mulch and sod as listed on the plan	No	
Planting Details/Info (LDM 2.i) - Utilize City of Novi Standard Details				
Canopy Deciduous Tree	Refer to LDM for detail drawings	Yes	Yes	Please add callout stating that dirt from rootball should be removed to expose root flare.
Evergreen Tree		Yes	Yes	Please add callout stating that dirt from rootball should be removed to expose root flare.

Item	Required	Proposed	Meets Code	Comments
Shrub		Yes	Yes	
Perennial/ Ground Cover		Yes	Yes	
Tree stakes and guys. (Wood stakes, fabric guys)		No	No	Please provide.
Tree protection fencing	Located at Critical Root Zone (1' outside of dripline)	No	No	Please provide.
Other Plant Material Requirements (LDM 3)				
General Conditions (LDM 3.a)	Plant materials shall not be planted within 4 ft. of property line	No	No	Please add note near property lines.
Plant Materials & Existing Plant Material (LDM 3.b)	Clearly show trees to be removed and trees to be saved.	No	No	Please leave tree labels for trees to be saved on Landscape Plans L-1 and L-2 to be sure of counts and screening.
Landscape tree credit (LDM3.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	None		
Plant Sizes for ROW, Woodland replacement and others (LDM 3.c)	Refer to Chapter 37, LDM for more details	Yes	No	Include sizes on plant list.
Plant size credit (LDM3.c.(2))	NA			
Prohibited plants (LDM 3.d)	No plants on City Invasive Species List	<i>Lonicera fragrantissima</i> is potentially an invasive species in Michigan.		Please replace <i>Lonicera fragrantissima</i> with another species that is not potentially an invasive shrub. While it does not appear on the Michigan invasive species list yet, many other alien <i>Lonicera</i> species are.
Recommended trees for planting under overhead utilities (LDM 3.e)	Label the distance from the overhead utilities			Please dimension distance from proposed trees close to overhead lines
Collected or Transplanted trees (LDM 3.f)		NA		

Item	Required	Proposed	Meets Code	Comments
Nonliving Durable Material: Mulch (<i>LDM 4</i>)	<ul style="list-style-type: none"> ▪ 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. ▪ Refer to section for additional information 	Yes	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. For the landscape requirements, please see the Zoning Ordinance landscape section 5.5 and the Landscape Design Manual for the appropriate items under the applicable zoning classification.
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.

WETLANDS REVIEW

May 1, 2017
ECT No. 170297-0100

Ms. Barbara McBeth
City Planner
City of Novi
45175 W. Ten Mile Road
Novi, Michigan 48375

Re: Bolingbroke (JSP17-0034)
Wetland Review of the Preliminary & Final Site Plan (PSP17-0057)

Dear Ms. McBeth:

Environmental Consulting & Technology, Inc. (ECT) has reviewed the Preliminary & Final Site Plan (Engineering Construction Plans) for the proposed Bolingbroke residential project prepared by Seiber, Keast Engineering, L.L.C. dated March 30, 2017 (Plan). The Plan was reviewed for conformance with the City of Novi Wetland and Watercourse Protection Ordinance and the natural features setback provisions in the Zoning Ordinance.

ECT recommends approval of the Preliminary & Final Site Plan for Wetlands; however, the Applicant should address the items noted below in the *Wetland Comments* Section of this letter prior to receiving Building Permits for the project.

The following woodland related items are required for this project:

Item	Required/Not Required/Not Applicable
Wetland Permit (specify Non-Minor or Minor)	Not required
Wetland Mitigation	Not required
Wetland Buffer Authorization	Not required
MDEQ Permit	Not required
Wetland Conservation Easement	Required

The site is located north of 12 ½ Mile Road and west of Novi Road/Old Novi Road, in Section 10. The proposed site plan appears to propose the development of 46 site condominiums, roads, utilities and a storm water detention basin. ECT previously reviewed iterations of this project's site plan in 2005 as well as a pre-application plan in August 2014. The scope of the site development (with respect to wetlands and 25-foot wetland buffers) appears to be unchanged from the previous iterations of the plan.

The proposed project site contains a small portion of City-Regulated wetland along the northern boundary of the proposed site that is not shown on the City of Novi Wetland and Woodland Map (Figure 1). The area of flagged wetland is located north of proposed Lots 2, 3, and 4 (see Figure 2). The on-site wetland was delineated by King & MacGregor, Environmental, Inc. (KME).

City of Novi Ordinance Requirements

The City of Novi Wetland and Watercourse Protection Ordinance (City of Novi Code of Ordinances, Part II, Chapter 12, and Article V) describes the regulatory criteria for wetlands and review standards for wetland permit applications.

As stated in the Ordinance, it is the policy of the city to prevent a further net loss of those wetlands that are: (1) contiguous to a lake, pond, river or stream, as defined in Administrative Rule 281.921; (2) two (2) acres in size or greater; or (3) less than two (2) acres in size, but deemed essential to the preservation of the natural resources of the city under the criteria set forth in subsection 12-174(b).

The wetland essentiality criteria as described in the Wetland and Watercourse Protection Ordinance are included below. Wetlands deemed essential by the City of Novi require the approval of a use permit for any proposed impacts to the wetland:

All noncontiguous wetland areas of less than two (2) acres which appear on the wetlands inventory map, or which are otherwise identified during a field inspection by the city, shall be analyzed for the purpose of determining whether such areas are essential to the preservation of the natural resources of the city....In making the determination, the city shall find that one (1) or more of the following exist at the particular site:

- (1) The site supports state or federal endangered or threatened plants, fish or wildlife appearing on a list specified in Section 36505 of the Natural Resources Environmental Protection Act (Act 451 of 1994) [previously section 6 of the endangered species act of 1974, Act No. 203 of the Public Acts of 1974, being section 229.226 of the Michigan Compiled Laws].*
- (2) The site represents what is identified as a locally rare or unique ecosystem.*
- (3) The site supports plants or animals of an identified local importance.*
- (4) The site provides groundwater recharge documented by a public agency.*
- (5) The site provides flood and storm control by the hydrologic absorption and storage capacity of the wetland.*
- (6) The site provides wildlife habitat by providing breeding, nesting or feeding grounds or cover for forms of wildlife, waterfowl, including migratory waterfowl, and rare, threatened or endangered wildlife species.*
- (7) The site provides protection of subsurface water resources and provision of valuable watersheds and recharging groundwater supplies.*
- (8) The site provides pollution treatment by serving as a biological and chemical oxidation basin.*
- (9) The site provides erosion control by serving as a sedimentation area and filtering basin, absorbing silt and organic matter.*
- (10) The site provides sources of nutrients in water food cycles and nursery grounds and sanctuaries for fish.*

After determining that a wetland less than two (2) acres in size is essential to the preservation of the natural resources of the city, the wetland use permit application shall be reviewed according to the standards in subsection 12-174(a).

Wetland Evaluation

Based on ECT's in-office review of available materials including the City of Novi Regulated Wetland and Watercourse map, USGS topographic quadrangle map, NRCS soils map, USFWS National Wetland Inventory map, and historical aerial photographs, it appears as if the overall proposed project site contains one (1) small area of City-regulated wetland as well as regulated 25-foot wetland setback/buffer. Although the majority of this site has been previously cleared to prepare for development, the wetland (Wetland A) and the associated 25-foot wetland setback do not appear to have been impacted.

The focus of this review was to determine whether the on-site wetland meets the City of Novi's Wetland Essentiality Criteria. One (1) area of wetland (i.e., Wetland A) is indicated on the Plan. The *Woodland/Wetland & Tree Protection Plan* (Sheet 4) notes that the area of on-site wetland is 774 square feet (0.02-acre). The on-site area of 25-foot wetland buffer is 3,796 square feet (0.09-acre). This wetland is a scrub shrub/forested wetland. Common tree species located in and around the wetland include red maple (*Acer rubrum*), box elder (*Acer negundo*), and American elm (*Ulmus americana*).

The adjacent upland area contains plant species typical of disturbed fields including grasses, apple trees (*Malus sp.*) and several species of shrubs.

Wetland Impact Review

As noted above, the current Plan does not indicate any proposed impacts to Wetland A or its 25-foot wetland setback/buffer.

Permits & Regulatory Status

Wetland A is not depicted as a wetland on the available mapping materials or on the official City of Novi Regulated Wetland and Watercourse map. These wetlands are not contiguous with any inland lakes, streams or ponds. The wetland therefore does not appear to be regulated by the Michigan Department of Environmental Quality (MDEQ).

Based on the criteria set forth in The City of Novi Wetlands and Watercourse Protection ordinance (Part II-Code of Ordinances, Ch. 12, Article V.), Wetland A appears to meet the definition of a city-regulated wetland and meets one or more of the essentially criteria (i.e., wildlife habitat, etc.). A wetland use permit would be required for any proposed activities within City regulated wetlands.

Because the Plan currently does not propose any impacts to wetlands or wetland setback, the project does not appear to require a City of Novi *Wetland Use Permit* or *Authorization to Encroach the 25-Foot Natural Features Setback*.

Wetland Comments

ECT recommends that the Applicant address the items noted below prior to the issuance of building permits for the project:

1. The Applicant shall provide wetland conservation easements as directed by the City of Novi Community Development Department for any areas of remaining wetland as well as for any proposed wetland mitigation areas (if applicable). A Conservation Easement shall be executed covering all remaining wetland areas on site as shown on the approved plans. This language shall be submitted to the City Attorney for

review. The executed easement must be returned to the City Attorney within 60 days of the issuance of the City of Novi Wetland and Watercourse permit.

2. The Applicant is encouraged to provide wetland conservation easements for any areas of remaining wetland or 25-foot wetland buffer. All proposed preservation/conservation easements shall be indicated on the Final Stamping set plan.
3. The preservation of 25-foot wetland buffer areas is important to the overall health of existing wetlands and watercourses as the existing buffers serve to filter pollutants and nutrients from storm water before entering the wetlands, as well as provide additional wildlife habitat. ECT recommends that the applicant provide assurance that the 25-foot watercourse setback on Lots 2, 3, and 4 be maintained through a conservation easement or deed restriction, etc. Any proposed conservation easement areas should be demarcated on-site through the use of proposed easement signage and potentially other means such as boulders or decorative fencing along the setback boundaries.

Conclusion

Wetland A is regulated by the City of Novi and any proposed use of the wetland will require a City of Novi *Wetland Use Permit*. A City of Novi *Authorization to Encroach the 25-Foot Natural Features Setback* will be required for any proposed impacts to the 25-foot wetland setback. The current Plan does not require a wetland permit or *Authorization to Encroach the 25-Foot Natural Features Setback*.

Recommendation

ECT recommends approval of the Preliminary & Final Site Plan for Wetlands; however, the Applicant should address the items noted in the *Wetland Comments* Section of this letter prior to receiving Building Permits for the project.

If you have any questions regarding the contents of this letter, please contact us.

Sincerely,

ENVIRONMENTAL CONSULTING & TECHNOLOGY, INC.



Matthew Carmer
Senior Scientist
Professional Wetland Scientist #1746



Pete Hill, P.E.
Senior Associate Engineer

cc: Sri Komaragiri, City of Novi Planner
Richelle Leskun, City of Novi Planning Assistant
Rick Meader, City of Novi Landscape Architect
Kirsten Mellem, City of Novi Planner

Attachments: Figure 1 & Figure 2

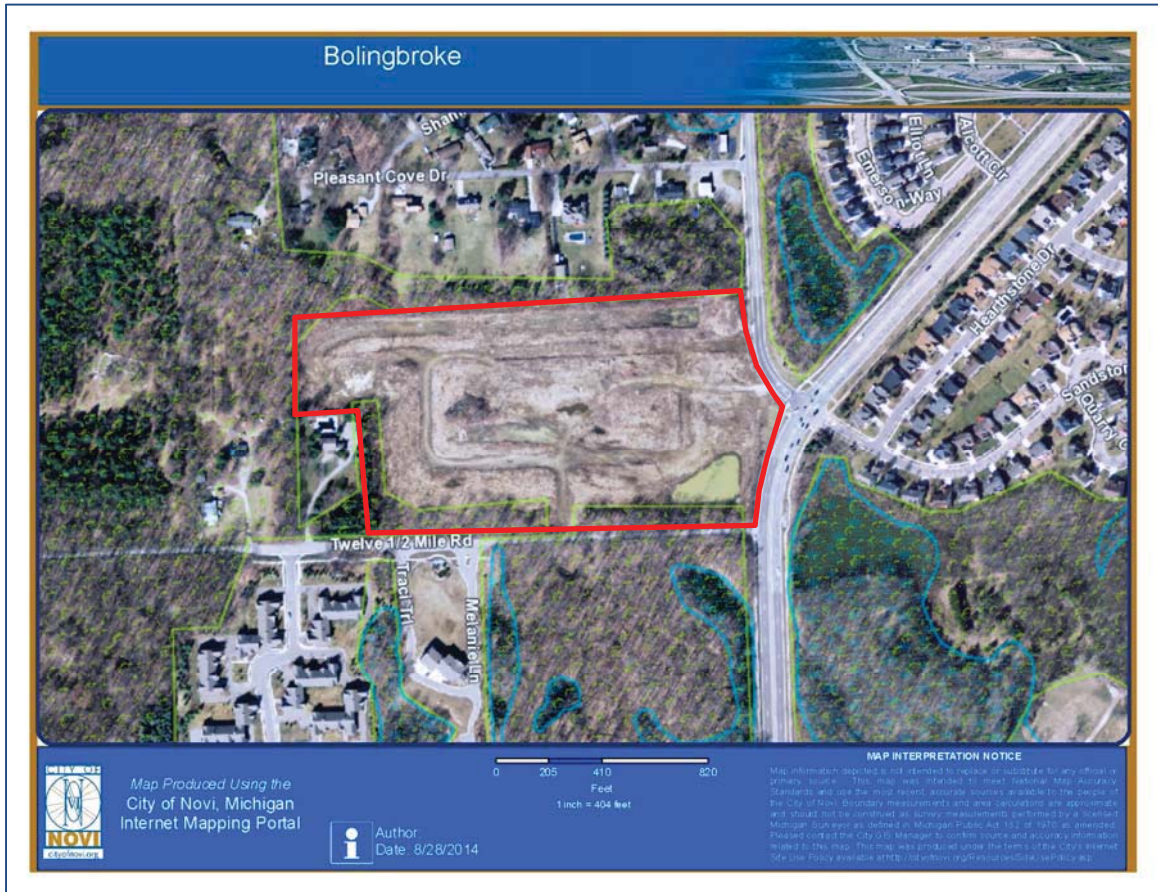


Figure 1. City of Novi Regulated Wetland & Woodland GIS Coverage Map (approximate property boundary shown in red). Regulated Woodland areas are shown in green and regulated Wetland areas are shown in blue (Wetland A is not included on the City's wetland mapping). Approximate project boundary is indicated in red.



Figure 2. On-site wetlands. Wetland boundaries are shown in blue. The approximate project boundary is shown in red.

WOODLANDS REVIEW

May 3, 2017
 ECT No. 170297-0200

Ms. Barbara McBeth
 City Planner
 City of Novi
 45175 West Ten Mile Road
 Novi, MI 48375

Re: Bolingbroke (JSP17-0034)
 Woodland Review of the Preliminary & Final Site Plan (PSP17-0057)

Dear Ms. McBeth:

Environmental Consulting & Technology, Inc. (ECT) has reviewed the Preliminary & Final Site Plan (Engineering Construction Plans) for the proposed Bolingbroke residential project prepared by Seiber, Keast Engineering, L.L.C. dated March 30, 2017. The Plan was reviewed for conformance with the City of Novi Woodland Protection Ordinance Chapter 37.

ECT recommends approval of the Preliminary & Final Site Plan for Woodlands; however, the Applicant should address the items noted below in the *Woodland Comments* Section of this letter prior to receiving Building Permits for the project.

The following woodland related items are required for this project:

Item	Required/Not Required/Not Applicable
Woodland Permit	Required
Woodland Fence	Required
Woodland Conservation Easement	Required

The site is located north of 12 ½ Mile Road and west of Novi Road/Old Novi Road, in Section 10. The proposed site plan appears to propose the development of 46 site condominiums, roads, utilities and a storm water detention basin. ECT previously reviewed iterations of this project's site plan in 2005 as well as a pre-application plan in August 2014. The scope of the site development (with respect to woodlands) appears to be unchanged from the previous iterations of the plan.

The purpose of the Woodlands Protection Ordinance is to:

- 1) *Provide for the protection, preservation, replacement, proper maintenance and use of trees and woodlands located in the city in order to minimize disturbance to them and to prevent damage from erosion and siltation, a loss of wildlife and vegetation, and/or from the destruction of the natural habitat. In this regard, it is the intent of this chapter to protect the integrity of woodland areas as a whole, in recognition that woodlands serve as part of an ecosystem, and to place priority on the preservation of woodlands, trees, similar woody vegetation, and related natural resources over development when there are no location alternatives;*

- 2) *Protect the woodlands, including trees and other forms of vegetation, of the city for their economic support of local property values when allowed to remain uncleared and/or unharvested and for their natural beauty, wilderness character of geological, ecological, or historical significance; and*
- 3) *Provide for the paramount public concern for these natural resources in the interest of health, safety and general welfare of the residents of the city.*

The proposed project site currently contains several areas of City Regulated Woodlands. The Applicant has stated that approval was previously granted for tree removals on this site. Specifically, the development received Final Approval for construction in October 2005. Most of the trees that were approved for removal were removed in 2005.

What follows is a summary of our findings regarding on-site woodlands associated with the proposed project.

Woodland Evaluation

Based on ECT's in-office review of available materials including the City of Novi Regulated Woodland map (see Figure 1) and historical aerial photographs, it appears as if the overall proposed project site contains several areas of City-regulated woodlands. Although the majority of this site has been previously cleared to prepare for development, several areas of regulated trees remain on-site.

The Applicant states in a response letter dated January 26, 2015 that all sheets in the site plan have been revised to reflect the as-built information for the utilities, topography, etc., except for Sheets 4 (*Woodland/Wetland & Tree Protection Plan*), and 18, 19 and 20 (*Woodland Plan Tree List*). These sheets were preserved to provide historical information related to the approved Woodland Plan. Sheet 4 shows the original topography including trees to be removed and saved. Sheets 18 through 20 provide a complete inventory of the trees and an accounting of the number of trees to be removed, saved and replaced. The as-built topography does not show this information because most of the trees that were approved for removal were removed in 2005.

The entire site is approximately 20 acres. As noted above, the majority of the site was previously cleared around 2005. The majority of the site consists of previously-disturbed land and only a few areas of regulated woodland remain on the site. These areas are generally located along the southern, western and northern edges of the proposed development site. It appears as if several pockets of regulated trees are to be preserved around the perimeter of the site. In addition, an area of regulated trees will be preserved in the area of proposed Lots 17, 18, 34 and 35. The trees to be preserved in this area appear to be white ash (*Fraxinus americana*), black cherry (*Prunus serotina*) and American elm (*Ulmus Americana*). Additional tree species found in the areas of woodland to remain include black walnut (*Juglans nigra*), red maple (*Acer rubrum*), basswood (*Tilia americana*), cottonwood (*Populus deltoides*) and sugar maple (*Acer saccharum*).

Proposed Woodland Impacts and Replacements

Although the on-site woodlands provide some degree of environmental benefit, in terms of a scenic asset, windblock, noise buffer or other environmental asset, the woodland areas proposed for impact are not considered to be of a unique or high-quality nature.

Per the *Woodland Summary* on Sheet 20 (*Woodland Plan Tree List*), the project site contained 983 total regulated trees. Of these, the Plan proposed the removal of 745 of these trees. A total of 405 of the trees to be removed require replacement based on the standards contained in the Woodland Ordinance. The Plan

states that 340 of these trees were recommended for the replacement exemption per the Woodland Ordinance Section 37-27(3), which states:

Notwithstanding the prohibition of Section 37-26, the following activities are permitted within woodland areas without a use permit, unless otherwise prohibited by statute or ordinance: (3) The removal or trimming of dead, diseased or damaged trees or other woody vegetation, provided that the damage resulted from a nonhuman cause, and provided further that the removal or trimming is in compliance of ANSI standards.

Based on the tree survey (provided by Mike's Tree Surgeons, Inc.) the majority of the trees that are listed on the Plan as diseased, damaged or dead are white ash or American elm trees. Based on this species information, it is plausible that the trees (already removed) were, in fact, dead, diseased or damaged and would qualify for this exemption.

The *Woodland Tree Replacement Summary* table on the *Bolingbroke Tree Replacement Plantings* plan (Sheet LS-4 of 7) states the following:

Total number of regulated trees on site:	983
Total number of regulated trees to be saved:	238
Total number of regulated trees to be removed:	745
Total number of regulated non-exempt trees to be removed:	405
Total number of regulated exempt trees to be removed:	340
Total number of Woodland Replacement Credits required:	588
Total number of Woodland Tree Replacement Credits provided:	587.7
Total number of Woodland Replacement Credits on-site:	50.4 (9% of total)
Replacements in Greenbelt area:	19.9
16 – 8' evergreens @ 1.5 trees/1 credit:	10.6
14 – 10'-12' evergreens @ 1.5 trees/1 credit:	9.3
Replacements in Detention area:	24.6
10 – 2.5" deciduous @ 1.0 credit:	10
13 – 8' evergreens @ 1.5 trees/1 credit:	8.6
9 – 10' evergreens @ 1.5 trees/1 credit:	6.0
Replacements in Open Space area:	5.9
2 – 2.5" deciduous @ 1.0 credit:	2
4 – 8' evergreens @ 1.5 trees/1 credit:	2.6
2 – 10' evergreens @ 1.5 trees/1 credit:	1.3
Total number of Woodland Replacement Credits off-site:	537.3 (91% of total)
Replacements at Ballantyne Development:	
363 – 2.5" deciduous @ 1.0 credit:	363
200 – 7' evergreens @ 1.5 trees/1 credit:	133.3

246 – shrubs @ 6 shrubs/1 credit:

41

City of Novi Woodland Review Standards and Permit Requirements

Based on Section 37-29 (*Application Review Standards*) of the City of Novi Woodland Ordinance, the following standards shall govern the grant or denial of an application for a use permit required by this article:

No application shall be denied solely on the basis that some trees are growing on the property under consideration. However, the protection and conservation of irreplaceable natural resources from pollution, impairment, or destruction is of paramount concern. Therefore, the preservation of woodlands, trees, similar woody vegetation, and related natural resources shall have priority over development when there are location alternatives.

In addition,

"The removal or relocation of trees shall be limited to those instances when necessary for the location of a structure or site improvements and when no feasible and prudent alternative location for the structure or improvements can be had without causing undue hardship".

The City of Novi regulates all trees 8-inches diameter-at-breast-height (DBH) and greater that are located within the areas delineated as regulated woodlands on the City-Regulated Woodlands Map. The City also regulates any individual tree greater than or equal to 36-inches DBH, irrespective of whether such tree is within a regulated woodland. Proposed woodland impacts will require a Woodland Permit and the regulated trees shall be relocated or replaced by the permit grantee.

Woodland Comments

ECT recommends that the Applicant address the items noted below prior to the issuance of building permits for the project:

1. It should be noted that 537 of the total 588 (91%) Woodland Replacement requirements are proposed to be planted at Ballantyne; a proposed off-site development to be located at the northwest corner of W. Eight Mile and Garfield Road. Only 50 Woodland Replacement credits required (9% of the total) are proposed to be planted on the Bolingbroke development site. It should be noted that the Ballantyne development's Final Stamping Set plans were approved in December 2015 and will expire in December 2017. It is our understanding that the applicant has yet to apply for any building permits at the Ballantyne site and there is a fairly significant uncertainty as to whether the Ballantyne site will be built by this developer. ECT recommends that the applicant be required to pay the 537 proposed off-site replacements to the City of Novi Tree Fund should either of the following conditions occur:
 - a. No Building Permits are applied for and issued for the Ballantyne site by December 2017, or
 - b. If the current owner of the Ballantyne site (Singh Development) sells the property.

Ultimately, it is the City of Novi Planning Commission's decision as to whether these options for authorizing the planting of off-site trees at the Ballantyne site shall be granted to Singh Development, or if the applicant should be required to pay the 537 proposed "off-site" Woodland Replacement Credits to the City of Novi Tree Fund. **ECT recommends that the applicant be required to pay the City of Novi Tree Fund for all Woodland Replacement trees that cannot be placed on the subject site and would otherwise be provided as "off-site" replacement trees.**

2. All Woodland Replacement Trees, both on-site and off-site (at Ballantyne, if applicable) will need to be planted in common areas or greenspaces and not on individual Lots. Woodland replacement credit will not be granted for any trees planted within the residential lots.
3. A Woodland Permit from the City of Novi would be required for proposed impacts to any trees 8-inch DBH or greater located within the regulated woodland boundaries or any tree greater than 36-inches DBH. Such trees shall be relocated or replaced by the permit grantee either through approved on-site replacement trees or through a payment to the City of Novi Tree Fund. All deciduous replacement trees shall be two and one-half (2 ½) inches caliper or greater and will be counted at a 1:1 replacement ratio. All proposed coniferous replacement trees shall be 6-feet in height (minimum) and will be counted at a 1.5:1 replacement ratio. See the attached City of Novi Woodland Replacement Chart for acceptable woodland replacement species.
4. The *Woodland Tree Replacement Summary* on Sheet LS-4 of 7 indicates that a total of 50.86 Woodland Replacement credits will be provided on site and 538 credits will be planted at the Singh Ballantyne project site on the northwest corner of 8 Mile and Garfield Road for a total of 588.86 total Woodland Replacement credits. There appear to be some small inconsistencies in this summary table. Please review and revise as necessary keeping in mind:
 - a. All coniferous Woodland Replacement trees planted are counted at a 1.5 tree/1 Woodland Replacement Credit ratio;
 - b. Please clarify the number of 'off-site' deciduous trees that will be provided (the table shows 361 in one location and 363 in another).
5. Please clarify the locations of the Woodland Replacement trees on the landscaping plans (the cross hatch used to indicate the Woodland Replacement trees is difficult to read).
6. The applicant shall review and revise the proposed Woodland Replacement material to ensure that all selections are native Michigan species and are listed on the City of Novi Woodland Tree Replacement Chart (attached). Please refer to the City of Novi Landscape review memo for additional details.
7. A Woodland Replacement Performance financial guarantee for the planting of replacement trees will be required. This financial guarantee will be based on the number of on-site woodland replacement trees (credits) being provided at a per tree value of \$400.
8. The Applicant will be required to pay the City of Novi Tree Fund at a value of \$400/credit for any Woodland Replacement tree credits that cannot be placed on site.
9. Based on a successful inspection of the installed on-site Woodland Replacement trees, the Woodland Replacement Performance Guarantee shall be returned to the Applicant. A Woodland Maintenance and Guarantee bond equal to twenty-five percent (25%) of the value of the original Woodland Replacement material will then be kept for a period of 2-years after the successful inspection of the tree replacement installation.
10. The Applicant shall provide preservation/conservation easements as directed by the City of Novi Community Development Department for any areas of remaining woodland and woodland replacement trees. The applicant shall demonstrate that the all proposed woodland replacement trees and existing regulated woodland trees to remain will be guaranteed to be preserved as planted with a conservation

easement or landscape easement to be granted to the city. This language shall be submitted to the City Attorney for review. The executed easement must be returned to the City Attorney within 60 days of the issuance of the City of Novi Woodland permit.

11. Replacement material should not be located 1) within 10' of built structures or the edges of utility easements and 2) over underground structures/utilities or within their associated easements. In addition, replacement tree spacing should follow the *Plant Material Spacing Relationship Chart for Landscape Purposes* found in the City of Novi *Landscape Design Manual*.

Recommendation

ECT recommends approval of the Preliminary & Final Site Plan for Woodlands; however, the Applicant should address the items noted in the *Woodland Comments* Section of this letter prior to receiving Building Permits for the project.

If you have any questions regarding the contents of this letter, please contact us.

Sincerely,

ENVIRONMENTAL CONSULTING & TECHNOLOGY, INC.



Matthew Carmer
Senior Scientist
Professional Wetland Scientist #1746



Pete Hill, P.E.
Senior Associate Engineer

cc: Sri Komaragiri, City of Novi Planner
Richelle Leskun, City of Novi Planning Assistant
Rick Meader, City of Novi Landscape Architect
Kirsten Mellem, City of Novi Planner

Attachments: Figure 1. City of Novi Regulated Wetland and Woodlands Map
City of Novi Woodland Tree Replacement Chart

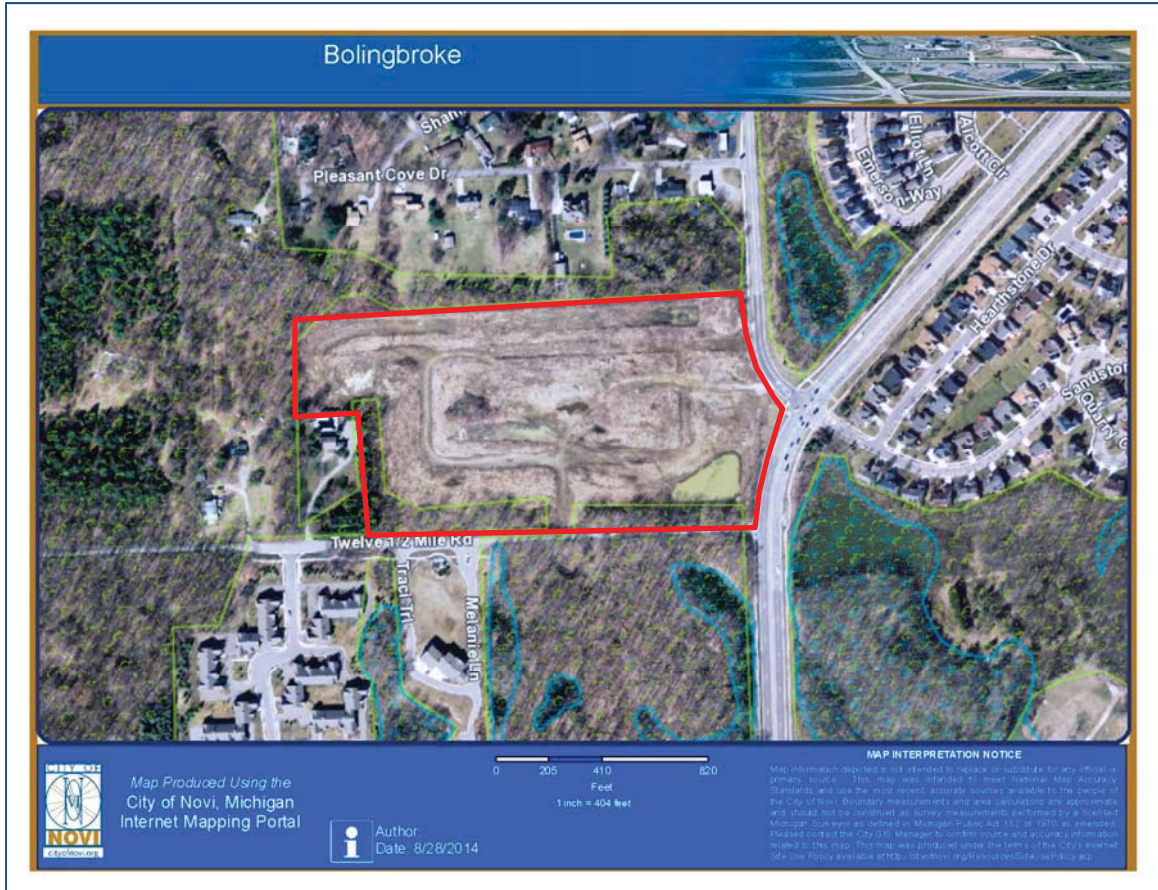


Figure 1. City of Novi Regulated Wetland & Woodland GIS Coverage Map (approximate property boundary shown in red). Regulated Woodland areas are shown in green and regulated Wetland areas are shown in blue). Approximate project boundary is indicated in red.

Woodland Tree Replacement Chart

(from Chapter 37 Woodlands Protection)

(All canopy trees to be 2.5" cal or larger, evergreens as listed)

Common Name	Botanical Name
Black Maple	<i>Acer nigrum</i>
Striped Maple	<i>Acer pennsylvanicum</i>
Red Maple	<i>Acer rubrum</i>
Sugar Maple	<i>Acer saccharum</i>
Mountain Maple	<i>Acer spicatum</i>
Ohio Buckeye	<i>Aesculus glabra</i>
Downy Serviceberry	<i>Amelanchier arborea</i>
Yellow Birch	<i>Betula alleghaniensis</i>
Paper Birch	<i>Betula papyrifera</i>
American Hornbeam	<i>Carpinus caroliniana</i>
Bitternut Hickory	<i>Carya cordiformis</i>
Pignut Hickory	<i>Carya glabra</i>
Shagbark Hickory	<i>Carya ovata</i>
Northern Hackberry	<i>Celtis occidentalis</i>
Eastern Redbud	<i>Cercis canadensis</i>
Yellowwood	<i>Cladrastis lutea</i>
Beech	<i>Fagus sp.</i>
Thornless Honeylocust	<i>Gleditsia triacanthos inermis</i>
Kentucky Coffeetree	<i>Gymnocladus dioica</i>
Walnut	<i>Juglans sp.</i>
Eastern Larch	<i>Larix laricina</i>
Sweetgum	<i>Liquidambar styraciflua</i>
Tuliptree	<i>Liriodendron tulipifera</i>
Tupelo	<i>Nyssa sylvatica</i>
American Hophornbeam	<i>Ostrya virginiana</i>
White Spruce_(1.5:1 ratio) (6' ht.)	<i>Picea glauca</i>
Black Spruce_(1.5:1 ratio) (6' ht.)	<i>Picea mariana</i>
Red Pine	<i>Pinus resinosa</i>
White Pine_(1.5:1 ratio) (6' ht.)	<i>Pinus strobus</i>
American Sycamore	<i>Platanus occidentalis</i>
Black Cherry	<i>Prunus serotina</i>
White Oak	<i>Quercus alba</i>
Swamp White Oak	<i>Quercus bicolor</i>
Scarlet Oak	<i>Quercus coccinea</i>
Shingle Oak	<i>Quercus imbricaria</i>
Burr Oak	<i>Quercus macrocarpa</i>
Chinkapin Oak	<i>Quercus muehlenbergii</i>
Red Oak	<i>Quercus rubra</i>
Black Oak	<i>Quercus velutina</i>
American Bladdernut	<i>Staphylea trifolia</i>
Bald Cypress	<i>Taxodium distichum</i>
American Basswood	<i>Tilia americana</i>
Hemlock (1.5:1 ratio) (6' ht.)	<i>Tsuga canadensis</i>

TRAFFIC REVIEW



AECOM
27777 Franklin Road
Southfield
MI, 48034
USA
aecom.com

Project name:
JSP17-0034 Bolingbroke Preliminary/Final Traffic
Review

From:
AECOM

Date:
May 2, 2017

To:
Barbara McBeth, AICP
City of Novi
45175 10 Mile Road
Novi, Michigan 48375

CC:
Sri Komaragiri, Kirsten Mellem, George Melistas,
Theresa Bridges, Darcy Rehtien, Richelle Leskun

Memo

Subject: Bolingbroke Preliminary and Final Traffic Review

The final site plan was reviewed to the level of detail provided and AECOM **recommends approval** for the applicant to move forward with the condition that the comments provided below are adequately addressed to the satisfaction of the City.

GENERAL COMMENTS

1. The applicant, Singh Development, is proposing the development of a 46-unit site condominium development in the northwest quadrant of the Novi Road and 12 ½ Mile Road intersection, with access from 12 ½ Mile Road and Old Novi Road.
2. 12 ½ Mile Road and Old Novi Road are under the jurisdiction of the City of Novi.
3. The speed limit on 12 ½ Mile Road is 25 miles per hour (mph) and 30 mph on Old Novi Road.
4. The development is zoned R-4 (One-Family Residential). There are no proposed zoning changes.

TRAFFIC IMPACTS

1. The proposed development is not expected to generate traffic volumes in excess of the City thresholds; therefore, additional traffic impact studies are not recommended at this time.

EXTERNAL SITE ACCESS AND OPERATIONS

The following comments relate to the external interface between the proposed development and the surrounding roadway(s).

1. The two (2) proposed entrances to the site are dimensioned in compliance with City standards.
2. The entrance at Old Novi Road includes an entrance and exit taper that is in compliance with City standards. The entrance at 12 ½ Mile Road does not warrant entrance/exit tapers.
3. The dimensioned sight distances and driveway spacing for the site driveways are in compliance with City standards.
4. The applicant has provided an adequate number of site access driveways.

INTERNAL SITE OPERATIONS

The following comments relate to the on-site design and traffic flow operations.

1. General Traffic Flow
 - a. The cul-de-sac is designed in compliance with City standards.
 - b. No parking signs are included at the cul-de-sac and eyebrow locations.
 - c. The applicant stated they are seeking a variance through the Engineering Department for the eyebrow design. Section 11-194(a)(8) of the City Code or Ordinance states that the outside pavement radius of an eyebrow shall be 54' for residential subdivisions and the site plan currently shows a radius of 53'.
2. Parking will be provided via driveways or on-street parking, and areas where on-street parking is restricted are noted in the plans.
3. Sidewalk Requirements
 - a. Sidewalks are generally compliance with City of Novi standards.
 - b. On sheet 6, the grading detail for the Yardley Drive/Ellesmere Circle intersection indicates 955.16T/C and 965.14G at the southern ramp location crossing Ellesmere. This appears to be a mistake and should be corrected accordingly.
4. All on-site signing and pavement markings shall be in compliance with the Michigan Manual on Uniform Traffic Control Devices (MMUTCD). The following is a discussion of the proposed signing and pavement markings.
 - a. All signing is in accordance with the MMUTCD.
 - b. The applicant should include a detail showing the allowable bottom height of the proposed signs.
 - c. The applicant should indicate the proposed sign post type, either 2 or 3 lb U-channel based on sign size in accordance with the City's sign standards.
 - d. The applicant should consider adding W11-2 (pedestrian warning) signs in advance of the crossing locations where traffic is not controlled by a stop or yield sign. Specific locations include the two locations crossing Bolingbroke Lane and the one location crossing Ellesmere Circle at Yardley Drive. If a post-mounted W11-2 sign should be placed at the location of the crossing point where pedestrians might be crossing a roadway, a diagonal downward pointing arrow (W16-7P) plaque shall be mounted below the sign. If a W11-2 is placed in advance, the W16-7P plaque is not necessary.

Should the City or applicant have questions regarding this review, they should contact AECOM for further clarification.

Sincerely,

AECOM



Paula K. Johnson, PE
Reviewer, Senior Transportation Engineer



Maureen N. Peters, PE
Senior Traffic/ITS Engineer

FIRE REVIEW



April 24, 2017

TO: Barbara McBeth- City Planner
Sri Ravali Komaragiri- Plan Review Center
Kirsten Mellem- Plan Review Center

CITY COUNCIL

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Mayor Pro Tem
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Assistant Chief of Police
Jerrod S. Hart

RE: Boling Broke

PSP# 17-0057

Project Description:

Build a 45 single family dwelling subdivision on the corner of Twelve and a half mile and Novi Rd.

Comments:

Turning radius in the circle part of the road doesn't meet Fire Department Standards.

Recommendation:

APPROVED WITH CONDITIONS

Sincerely,

Kevin S. Pierce-Fire Marshal
City of Novi – Fire Dept.

cc: file

Novi Public Safety Administration
45125 W. Ten Mile Road
Novi, Michigan 48375
248.348.7100
248.347.0590 fax

cityofnovi.org