



NOVI SENIOR COMMUNITY PROJECT JSP17-66

NOVI SENIOR COMMUNITY PROJECT JSP 17-66

Public hearing at the request of CA Senior Living Holdings, LLC for Preliminary Site Plan, Wetland Permit, Woodland Permit, and Storm water Management plan approval. The subject property is currently zoned OS-1 (office service) and RA (residential acreage) and is governed by the William R. Eldridge v City of Novi Consent Judgment. The subject property is approximately 9.72 acres and is located on the north side of Twelve Mile Road, between Novi Road and Meadowbrook Road (Section 11). The applicant is proposing to build a senior living care facility that houses about 78 assisted living units and 105 beds for congregate care all under one roof with associated site improvements such as parking, loading and landscaping. The site plan also includes an exclusive access drive to the adjacent cemetery.

Required Action

Approve/Deny the Preliminary Site Plan, Wetland Permit, Woodland Permit, and Storm water Management plan.

REVIEW	RESULT	DATE	COMMENTS
Planning	Approval recommended	01-26-18	<ul style="list-style-type: none"> • Zoning Board of Appeals variances for proposing a loading dock, dumpster and transformer in side yard (rear yard required) • Items to be addressed by the applicant prior to Final Site Plan approval
Engineering	Approval recommended	01-29-18	<ul style="list-style-type: none"> • Items to be addressed by the applicant prior to Final Site Plan approval
Landscaping	Approval recommended	01-10-18	<ul style="list-style-type: none"> • Waiver for allowing evergreen trees in lieu of perimeter parking lot canopy trees along western edge of parking lot • Waiver for absence of access drive trees along cemetery access drive • Applicant to revise the plans to eliminate conflict between Utility lines and proposed landscaping at the time of Final Site plan submittal • Items to be addressed by the applicant prior to Final Site Plan approval
Woodlands	Not Applicable	01-26-18	<ul style="list-style-type: none"> • A City of Novi Non-Minor Woodland Permit is required for the proposed impacts • Items to be addressed by the applicant prior to Final Site Plan approval
Wetlands	Approval recommended	01-26-18	<ul style="list-style-type: none"> • Administrative approval of Non-Minor wetland permit • Letter of authorization for encroaching into 25 foot wetland buffers • Applicant to contact MDEQ for any additional

			<p>permits</p> <ul style="list-style-type: none"> • Items to be addressed by the applicant prior to Final Site Plan approval
Traffic	Approval recommended	01-25-18	<ul style="list-style-type: none"> • City Council variance for absence of required right turn taper • The applicant to revise the plans to increase the width of cemetery access road from 18 ft. to 20 ft. at the time of Final site plan. • Items to be addressed by the applicant prior to Final Site Plan approval
Façade	Approval recommended	01-30-18	<ul style="list-style-type: none"> • No additional comments
Fire	Approval recommended	01-12-18	<ul style="list-style-type: none"> • Items to be addressed by the applicant prior to Final Site Plan approval

MOTION SHEET

Approval – Preliminary Site Plan

In the matter of Novi Senior Community Project JSP 17-66, motion to **approve** the Preliminary Site Plan based on and subject to the following:

- a. Landscape waiver from Sec 5.5.3.C.iv) to allow evergreen trees in lieu of required canopy trees for parking lot perimeter trees along the western edge of the access drive because maintaining the cemetery access drive will benefit the cemetery but reduce the area remaining for the required landscaping, and the screening provided by the arborvitae will be a benefit to all. , which is hereby granted;
- a. Landscape waiver to not provide the required perimeter canopy trees along the cemetery access drive due to a lack of room for the required trees.
- b. The applicant shall revise the landscape and utility plan at the time of Final Site Plan submittal, to be reviewed and approved by City's Landscape Architect and City's Staff Engineer in order to eliminate the existing conflict between the proposed Sanitary Sewer easement and proposed Evergreen screening between the west access road and the along cemetery access drive;
- c. The applicant shall increase the width of the cemetery access drive to 20 feet at the time of Final Site plan submittal;
- d. City Council variance from Sec. 11-216 (c) (8) of Novi City Code for absence of a right turn taper lane along Twelve Mile Road;
- e. A Zoning Board of Appeals variance from Section 4.19.2.F for allowing the dumpster in the side yard instead of the required rear yard;
- f. A Zoning Board of Appeals variance from Section 4.19.2.F for allowing the dumpster in the side yard instead of the required rear yard;
- g. A Zoning Board of Appeals variance from Section 5.4.1. for allowing the loading area in the side yard instead of the required rear yard;
- h. The findings of compliance with Ordinance standards in the staff and consultant review letters and the conditions and the items listed in those letters being addressed on the Final Site Plan; and
- i. *(additional conditions here if any)*

(This motion is made because the plan is otherwise in compliance with Article 3, Article 4, and Article 5 of the Zoning Ordinance and all other applicable provisions of the Ordinance.)

-AND-

Approval – Wetland Permit

In the matter of Novi Senior Community Project JSP 17-66, motion to **approve** the Wetland Permit based on and subject to the following:

- a. The findings of compliance with Ordinance standards in the staff and consultant review letters, and the conditions and items listed in those letters being addressed on the Final Site Plan; and
- b. *(additional conditions here if any)*

(This motion is made because the plan is otherwise in compliance with Chapter 12, Article V of the Code of Ordinances and all other applicable provisions of the Ordinance.)

-AND-

Approval – Woodland Permit

In the matter of Novi Senior Community Project JSP 17-66, motion to **approve** the Woodland Permit based on and subject to the following:

- a. The findings of compliance with Ordinance standards in the staff and consultant review letters, and the conditions and items listed in those letters being addressed on the Final Site Plan; and
- b. *(additional conditions here if any)*

(This motion is made because the plan is otherwise in compliance with Chapter 37 of the Code of Ordinances and all other applicable provisions of the Ordinance.)

-AND-

Approval – Stormwater Management Plan

In the matter of Novi Senior Community Project JSP 17-66, motion to **approve** the Stormwater Management Plan based on and subject to the following:

- a. The findings of compliance with Ordinance standards in the staff and consultant review letters, and the conditions and items listed in those letters being addressed on the Final Site Plan; and
- b. *(additional conditions here if any)*

(This motion is made because the plan is otherwise in compliance with Chapter 11 of the Code of Ordinances and all other applicable provisions of the Ordinance.)

- OR -

Denial – Preliminary Site Plan

In the matter of Novi Senior Community Project JSP 17-66, motion to **deny** the Preliminary Site Plan... *(because the plan is not in compliance with Article 3, Article 4, and Article 5 of the Zoning Ordinance and all other applicable provisions of the Ordinance.)*

-AND-

Denial- Wetland Permit

In the matter of Novi Senior Community Project JSP 17-66, motion to **deny** the Wetland Permit... *(because the plan is not in compliance with Chapter 12, Article V of the Code of Ordinances and all other applicable provisions of the Ordinance.)*

-AND-

Denial- Woodland Permit

In the matter of Novi Senior Community Project JSP 17-66, motion to **deny** the Woodland Permit... *(because the plan is not in compliance with Chapter 37 of the Code of Ordinances and all other applicable provisions of the Ordinance.)*

-AND-

Denial – Stormwater Management Plan

In the matter of Novi Senior Community Project JSP 17-66, motion to **deny** the Stormwater Management Plan... *(because the plan is not in compliance with Chapter 11 of the Code of Ordinances and all other applicable provisions of the Ordinance.)*

MAPS

Location

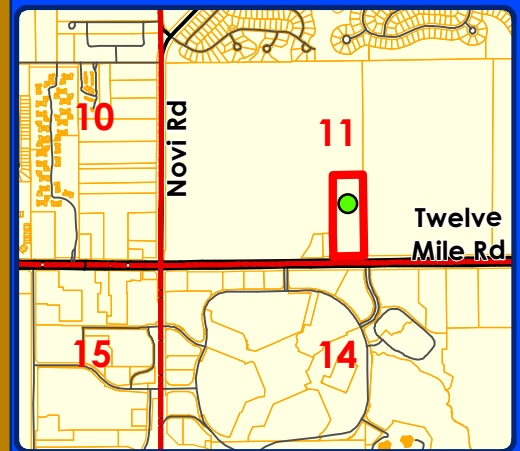
Zoning

Future Land Use

Natural Features

JSP 17-66 NOVI SENIOR COMMUNITY PROJECT

Location Map



LEGEND

 Sections



City of Novi

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

Map Author: Sri Komaragiri
Date: 02/01/18
Project: JSP 17-66 NOVI SENIOR COMMUNITY PROJECT
Version #: 1



1 inch = 205 feet

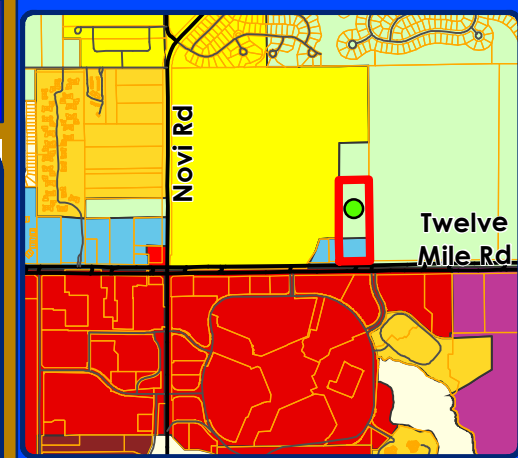
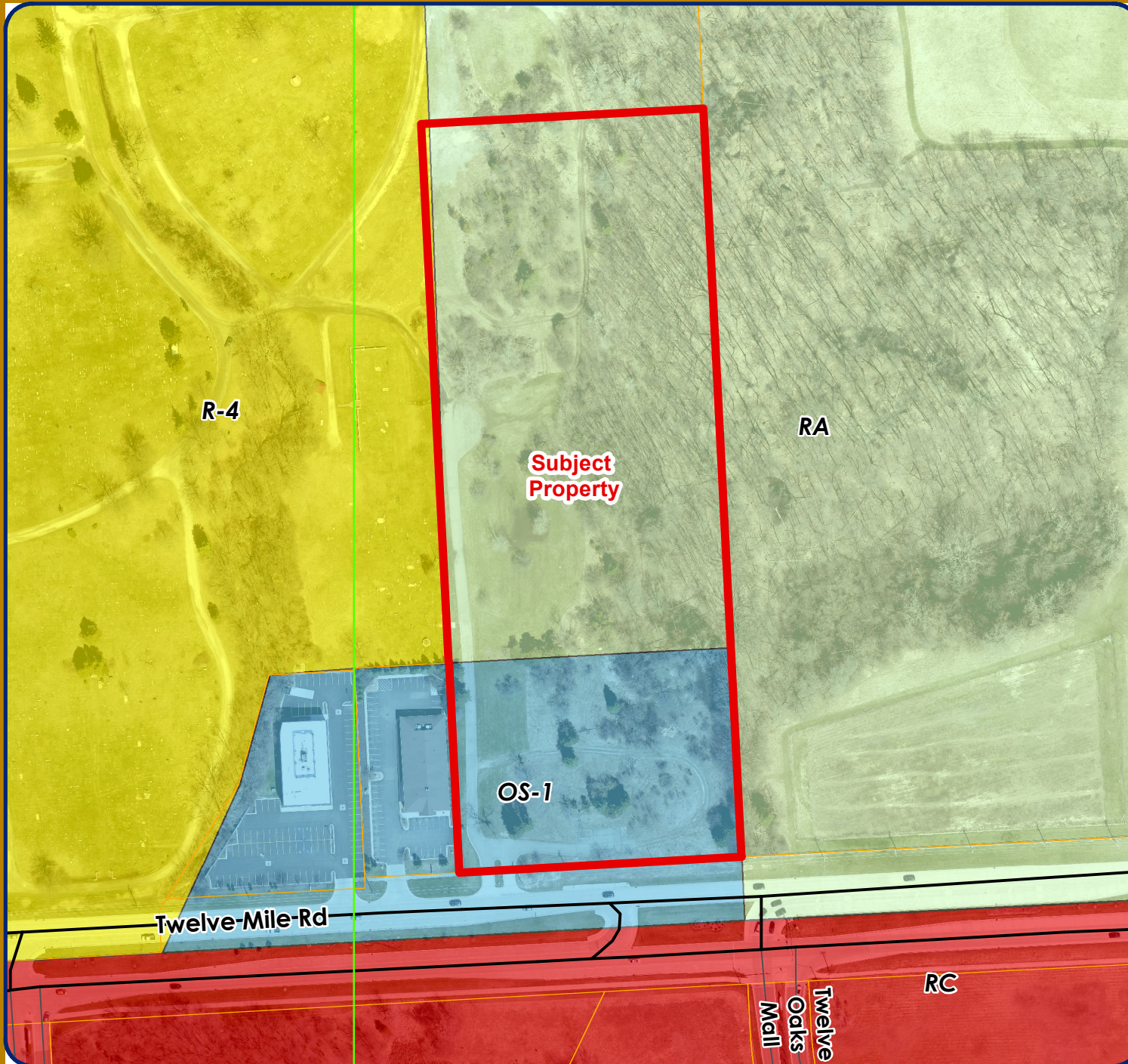


MAP INTERPRETATION NOTICE

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

JSP 17-66 NOVI SENIOR COMMUNITY PROJECT

Zoning Map



LEGEND

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


City of Novi
 Dept. of Community Development
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Feet
 0 45 90 180 270

1 inch = 205 feet

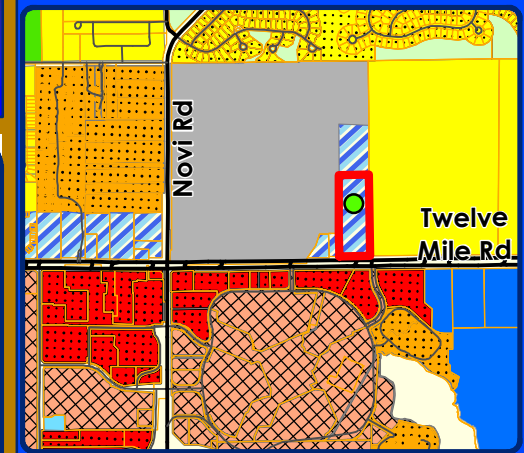


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JSP 17-66 NOVI SENIOR COMMUNITY PROJECT

Future Land Use Map



LEGEND

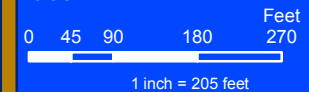
- FUTURE LAND USE**
- Single Family
 - PUD
 - PD1
 - Community Office
 - Office RD Tech
 - Regional Commercial
 - PD2
 - Public
 - Public Park
 - Private Park
 - Cemetery



City of Novi

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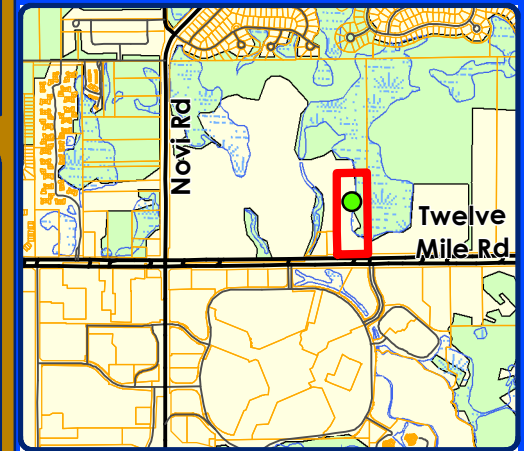


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JSP 17-66 NOVI SENIOR COMMUNITY PROJECT

Natural Features Map



LEGEND

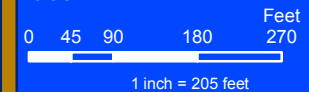
-  WETLANDS
-  WOODLANDS



City of Novi

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SITE PLAN

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

NOVI SENIOR COMMUNITY PROJECT

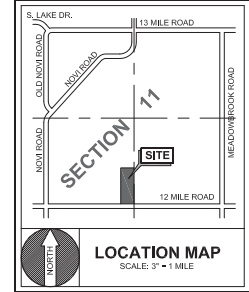
A PART OF THE SOUTHWEST 1/4 OF SECTION 11, TOWN 1 NORTH,
RANGE 8 EAST, CITY OF NOVI, OKLAHOMA COUNTY, MICHIGAN

BENCHMARK LIST

- #1082 "X" ON NORTH BRM OF GATE WELL LOCATED IN THE NORTHWEST QUAD OF INTERSECTION 12 MILE ROAD AND 10 MILE ROAD, 5 FEET WEST OF SIDEWALK AND 1 FEET NORTH OF BACK OF CURB. ELEVATION=51.69
- #1415 "X" ON NORTH BRM OF GATE WELL LOCATED BETWEEN COTE ROAD AND 12 MILE ROAD, SOUTH OF 12 MILE ROAD AND 3 FEET SOUTH OF SIDEWALK. ELEVATION=48.59
- #1412 "X" ON NORTH BRM OF GATE WELL LOCATED 6 FEET EAST OF WEST ENTRANCE TO 12 OAKS MALL OF 12 MILE ROAD, 19 FEET SOUTH OF SIDEWALK. ELEVATION=51.33
- #1425 "X" ON SOUTH FLANGE BOLT OF FIRE HYDRANT LOCATED 38 FEET EAST OF INTERSECTION ENTRANCE TO DETROIT MEDICAL CENTER REHABILITATION CENTER AND 12 MILE ROAD, 6 FEET NORTH OF SIDEWALK. ELEVATION=44.17
- #1421 "X" ON NORTH BRM OF GATE WELL LOCATED IN THE SOUTHWEST QUAD OF INTERSECTION 12 MILE ROAD AND 12 MILE ROAD, 10 FEET SOUTH OF BACK OF CURB 12 MILE ROAD AND 4 FEET EAST OF SIDEWALK. ELEVATION=52.93

LEGEND

SECTION CORNER	FOUND IRON	SECTION LINE
SET IRON	ROAD CENTERLINE	EXISTING WATER MAIN
EXISTING FIRE HYDRANT	EXISTING WATER MAIN	EXISTING SANITARY SEWER
EXISTING GATE VALVE AND WELL	EXISTING SANITARY SEWER	EXISTING STORM LINE
EXISTING SANITARY MANHOLE	EXISTING STORM LINE	EXISTING OVERHEAD WIRES
EXISTING ROAD CATCH BASIN	EXISTING OVERHEAD WIRES	EXISTING TREE (SHRUB) LINE
EXISTING YARD CATCH BASIN	EXISTING TREE (SHRUB) LINE	EXISTING CONTOUR
EXISTING STORM MANHOLE	EXISTING CONTOUR	EXISTING UTILITY
EXISTING END SECTION	EXISTING UTILITY	EXISTING UTILITY PEDestal
EXISTING TRANSFORMER	EXISTING UTILITY PEDestal	EXISTING GRAVE HEADSTONE
EXISTING UTILITY	EXISTING GRAVE HEADSTONE	EXISTING GROUND
EXISTING UTILITY PEDestal	EXISTING GROUND	EXISTING ASPHALT
EXISTING GRAVE HEADSTONE	EXISTING ASPHALT	EXISTING CONCRETE
EXISTING GROUND	EXISTING CONCRETE	EXISTING GRAVES



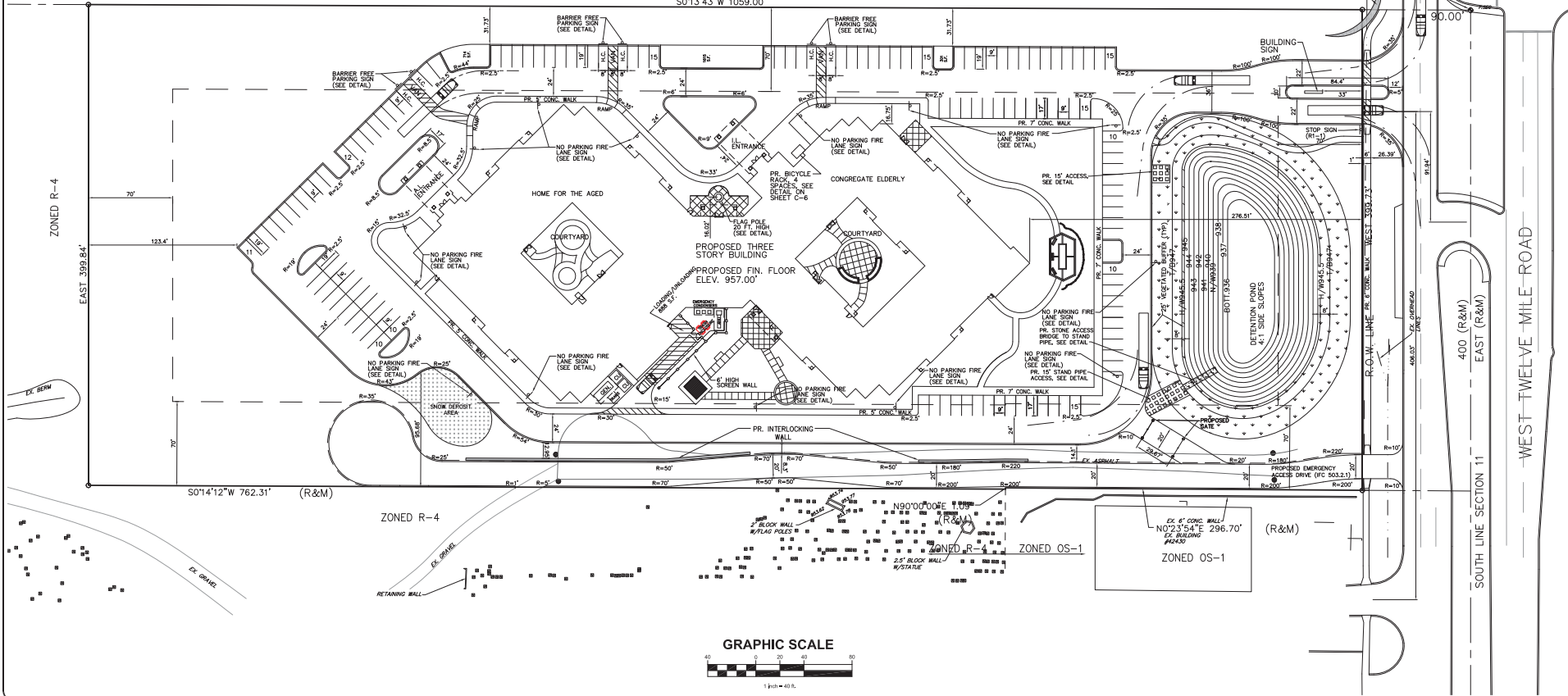
- SITE NOTES:**
- APPLICANT: CA SENIOR LIVING, 130 EAST RANDOLPH STREET, SUITE 2100, OKLAHOMA, OK 73101, PHONE: (312) 248-2091, FAX: (312) 248-2091
 - OWNER: MUGGANAWCA-VENTURES.COM, SMALL: MUGGANAWCA-VENTURES.COM, 2145 CROOKS ROAD, SUITE 210, IRON, MI 48039, PHONE: (248) 530-9199, FAX: (248) 530-9199
 - ARCHITECT: ROBERT PARKINS, 84 EDWARDS LONDON & ASSOCIATES, 30750 QUIN CENTER DR., STE. 610, SOUTHWFIELD, MI 48076, PHONE: (248) 351-4800, FAX: (248) 353-2920
 - ENGINEER: FAZAL KHAN & ASSOCIATES INC., 43279 SCHOENHERR, STERLING HEIGHTS, MI 48313, (586) 738-8007, SMALL: FAZALKHAN.COM, WWW.FAZALKHAN.COM
 - HOUSING FOR THE ELDERLY: INDEPENDENT ELDERLY HOUSING FOR THE ELDERLY; CONGRUATE ELDERLY HOUSING FOR THE ELDERLY; HOME FOR THE AGED
 - PARKING: REQUIRED: HOUSING FOR THE ELDERLY: HOME FOR THE AGED: 1 SPACE FOR EACH 4 BEDS AND 1 SPACE FOR EACH EMPLOYEE = 105 UNITS AND 25 EMPLOYEES = 82 SPACES HOUSING FOR THE ELDERLY: INDEPENDENT ELDERLY: 1 SPACE FOR EACH 1 UNIT AND 1 SPACE FOR EACH EMPLOYEE = 78 UNITS AND 3 EMPLOYEES = 83 SPACES CONGRUATE ELDERLY: 130 TOTAL SPACES REQUIRED BARRIER FREE PARKING = 1 B.F. PER 25 SPACES = 135/25 = 5.4 PROVIDED: 132 SPACES 6 MAX ACCESSIBLE SPACES 138 TOTAL SPACES PROVIDED
 - SETBACKS: FRONT YARD = 50 FT. (+ 20 FT. FOR 300 STORY) SIDE YARD = 50 FT. (+ 20 FT. FOR 300 STORY) REAR YARD = 50 FT. (+ 20 FT. FOR 300 STORY) PARKING LOT = 15 FT. PER CONSENT JUDGMENT
 - BUILDING HEIGHT: 44'-3" TO THE PEAK OF THE ROOF.
 - ZONING: SITE = CONSENT JUDGMENT ADJACENT: NORTH = RA, WEST = RC-4 AND OS-1 EAST = RA SOUTH = RC
 - BICYCLE PARKING: REQUIRED: 1 SPACE FOR EVERY 20 EMPLOYEES ON MAXIMUM SHIFT, 30 EMPLOYEES (INC. SHIFT OVERLAP) 4 SPACES PROVIDED: 1.5 TOTAL SPACES REQUIRED
 - LOADING/UNLOADING: REQUIRED: 360 SQ. FT. PROVIDED: 888 SQ. FT.
 - LOT COVERAGE: SITE AREA = 37,718 ACRES OR 423,316 SQ. FT. BUILDING FOOTPRINT = 13,186 SQ. FT. BUILDING LOT COVERAGE = 17.7% ASPHALT PAVING AND SIDEWALK AREA = 114,447 S.F. TOTAL LOT COVERAGE = 44.2%
 - OTHER: THERE IS NO FLOOD PLAN ON THIS SITE PER FEMA FIRM MAP, PANEL #167777A, MAP #01250027F EFFECTIVE DATE, SEPTEMBER 29, 2006.
 - HOURS OF OPERATION: 24 HOURS

- OS-1 DISTRICT REQUIRED CONDITIONS NOTES:**
- NO INTERIOR DISPLAY SHALL BE VISIBLE FROM THE EXTERIOR OF THE BUILDING.
 - THE OUTDOOR STORAGE OF GOODS OR MATERIALS SHALL BE PROHIBITED.
 - WASHING OR INDOOR STORAGE OF GOODS OR MATERIAL BEYOND THAT NORMALLY INCIDENT TO THE PERMITTED USES, SHALL BE PROHIBITED.
- STANDARD LIGHTING NOTES:**
- ELECTRICAL SERVICE TO LIGHT FIXTURES SHALL BE PLACED UNDERGROUND.
 - FLASHING LIGHT SHALL NOT BE PERMITTED.
 - ONLY NECESSARY LIGHTING FOR SECURITY PURPOSES & LIMITED OPERATIONS SHALL BE PERMITTED AFTER THE SITE'S HOURS OF OPERATIONS.
- NOTE:** ALL WORK SHALL CONFORM TO THE CURRENT CITY OF NOVI STANDARDS AND SPECIFICATIONS.

SEE SHEET 6 FOR SITE PLAN DETAILS

ZONED RA

SOUTH 1/4 CORNER,
SECTION 11, T.1N.,
R.8E., J-5 REMON IRON
IN MON. BOX
L.16874, P.151



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FAZAL KHAN & ASSOCIATES INC. CIVIL ENGINEERS & LAND SURVEYORS

NOVI SENIOR COMMUNITY PROJECT PRELIMINARY SITE PLAN

PROJECT NO: 16874, SHEET NO: C-5, DATE: 05/16/17, SCALE: 1" = 40'

CLIENT: MUGGANAWCA-VENTURES, INC. 2145 CROOKS ROAD, IRON, MI 48039

DESIGNER: FAZAL KHAN & ASSOCIATES INC. 43279 SCHOENHERR, STERLING HEIGHTS, MI 48313

DATE: 05/16/17, SCALE: 1" = 40'

PROJECT NO: 16874, SHEET NO: C-5



CA Novi Senior Housing
1/19/18 Scale

Perspective View - Northwest
(Main Entry)





CA Novi Senior Housing

1/19/18

Scale

Birdseye View - Northeast



PLANNING REVIEW



PLAN REVIEW CENTER REPORT

January 26, 2018

Planning Review

NOVI SENIOR COMMUNITY PROJECT

JSP 17-66

Petitioner

CA Senior Living Holdings, LLC

Review Type

Revised Preliminary Site Plan with a Consent Judgement

Property Characteristics

Section	11	
Site Location	North of Twelve Mile Road; East of Novi Road; 50-22-11-300-009	
Site School District	Novi Community School District	
Site Zoning	OS-1 Office Service District & RA; Residential Acreage (per Zoning map) Consent Judgement regulates the permitted uses	
Adjoining Zoning	North	R-4: One-Family Residential
	East	RA; Residential Acreage
	West	R-4: One-Family Residential & OS-1 Office Service District
	South	Regional Commercial (across Twelve Mile)
Current Site Use	Vacant	
Adjoining Uses	North	Cemetery
	East	MSU Tollgate Farm
	West	Cemetery/Office
	South	Twelve Oaks Mall/vacant outlots
Site Size	9.72 Acres	
Plan Date	January 14, 2018	

Project Summary

The applicant is proposing to build a senior living care facility that houses about 78 assisted living units and 105 beds for congregate care all under one roof. According to the narrative provided by the applicant, the community will provide each resident living quarters and the option of meals prepared in the commercial grade kitchen served in community dining room, personal care services and activities. The community will feature ample amenities and services such as chauffeured van transportation, gardens, fitness center, activities, game room, library/computer amenities, private chapel, on-site personalized care, beauty salon/barber shop etc. The site layout proposes associated parking, loading and bike facilities. Site access is provided off of Twelve Mile Road. A secondary emergency access is also provided off of Twelve Mile Road.

Revisions from previous submittal:

There is an existing access road that provides access to the adjoining cemetery from subject property. The original submittal eliminated that road. The current submittal is proposing to keep the same alignment but extend the cul-de-sac location further north to accommodate the proposed site layout. Necessary landscape and layout changes are made to maintain continued access to cemetery site.

A part of the proposed access road also serves as a secondary emergency access until it branches off into the proposed senior living facility. An emergency gate is located at the branching point.

Recommendation

Approval of the *revised Preliminary 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, wetland permit, 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. **Please see the attached chart for information pertaining to ordinance requirements.** Items in **bold** below must be addressed and incorporated as part of the Final Site Plan submittal:

1. Consent Judgement: An agreement is in place between the City and the applicant in form of a consent judgement. It was recorded on May 24 of 2007. The judgement regulates the allowed uses for this site in addition to maximum building height (46 feet or 3 stories) and minimum parking setback (15 feet). **The current plans are reviewed against OS-1 standard except for building height and parking setbacks.**
2. Amendment to Consent Judgement: Facilities for human care such as general hospitals, sanitariums, convalescent homes, hospice care facilities and assisted living facilities is a permitted use under OS-1 and as listed in the consent judgement. The current proposal also proposes "Independent living units", which is a different use category. City Council approved a first amendment to the existing consent judgement to allow some independent living units within and as part of the overall senior facility, up to 50% of the total development.
3. Minimum parking required: A minimum of 137 spaces are required and 140 spaces are provided. **Revise the parking calculations in the site plan to reflect the following**
 - a. **1 for each dwelling unit for independent living and**
 - b. **8 units in assisted living have two beds as per the narrative, so total number of beds is 114, not 106.**
 - c. Maximum employees are listed as 30 under parking calculations and 70 under bike parking calculations. **Provide largest working shift and potential overlap to determine greatest parking need for employees.**
4. Cemetery access road: The current plan is proposing the cemetery access with a width of 18 feet. The applicant has agreed to revise the width to 20 feet based on discussions with the City staff. Please provide a revised site plan in PDF format prior to Planning Commission meeting.
5. Pedestrian Connectivity: The applicant has proposed a sidewalk connection from the site to the public sidewalk on the west side of the entry drive. **The sidewalk is located in the vegetated buffer and requires additional clarification. Please refer to Engineering comments for more details.**
6. Planning Commission waivers
 - d. Landscape review has identified multiple deviation that would require Planning Commission approval
7. Zoning Board of Appeals Variances
 - a. A variance from section 5.4.1 for proposing the loading space in side yard(rear yard required)
 - b. A variance from section 4.19.2.F for proposing the dumpster in side yard(rear yard required)
 - c. A variance from section 4.19 for proposing a transformer in side yard (rear yard required)
8. City Council Variances
 - a. A City Council variance is required for an absence of a right turn taper along Twelve Mile Road.

9. Photometric Plan: A photometric plan is required prior to Planning Commission's approval of Preliminary site plan, if the subject property abuts residential district. **A plan was provided with pre-application review, but not currently. All comments for photometric plan in the Plan review chart refer to the plan provided at the time of Pre-application meeting. Please include sheet PM-1 along with other information requested.**
10. Exterior 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 submitted, reviewed, and approved as part of a site plan application. Proposed signs shall be shown on the preliminary site plan. **If the applicant is requesting the staff to identify any deviations that may be required with proposed signage, additional details such as elevations, heights, distances etc. should be submitted with the Preliminary Site plan.**

Alternatively, an applicant may choose to submit a sign application to the Building Official for administrative review after Site plan approval. 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.

11. Conservation Easements: Draft conservation easements are required along with electronic site plan submittal.
12. Other Reviews
- a. Engineering Review: Additional comments to be addressed with Final Site Plan. Engineering recommends approval.
 - b. Landscape Review: Landscape review has identified waivers that may be required. Refer to review letter for more comments. Landscape recommends approval.
 - c. Wetlands Review: A City of Novi Non-minor Wetland Permit and Buffer Authorization are required for the proposed impacts to wetlands and regulated wetland setbacks. Additional comments to be addressed with Final Site Plan. Wetlands recommend approval.
 - d. Woodlands Review: A City of Novi Woodland permit is required for the proposed impacts to regulated woodlands. Additional comments to be addressed with Final Site Plan. Woodlands recommend approval.
 - e. Traffic Review: Additional comments to be addressed with Final Site Plan. Traffic recommends approval.
 - f. Facade Review: All facades are now in full compliance with the Façade Ordinance. Façade recommends approval.
 - g. Fire Review: Additional comments to be addressed with Final Site Plan. Fire recommends approval.

NEXT STEP: Planning Commission Meeting

The site plan is scheduled for a public hearing on February 07, 2018 meeting. Please provide the following **no later than February 01, 2018**.

1. Original Site Plan submittal in PDF format (maximum of 10MB). **NO CHANGES MADE.**
2. Revised site plan in PDF format reflecting the 20 feet wide cemetery access drive and related greenbelt changes.
3. A response letter addressing ALL the comments from ALL the review letters and **a request for waivers as you see fit.**
4. A color rendering of the Site Plan, if any.

Final Site Plan Submittal

After receiving the Preliminary Site Plan approval, please submit the following for Final site plan review and approval

1. Seven copies of Final Site Plan addressing all comments from Preliminary review
2. Response letter **addressing all comments and refer to sheet numbers where the change is reflected**
3. [Final Site Plan Application](#)
4. [Final Site Plan Checklist](#)
5. Engineering Cost Estimate
6. Landscape Cost Estimate
7. [Other Agency Checklist](#)
8. [Hazardous Materials Packet](#) (Non-residential developments)
9. [Non-Domestic User Survey](#) (Non-residential developments)
10. [No Revision Façade Affidavit](#) (if no changes are proposed for Façade)
11. Legal Documents as required **per the attached Planning and Engineering Legal Transmittals**
12. Drafts of any legal documents (note that off-site easements need to be executed and any on-site easements need to be submitted in draft form before stamping sets will be stamped)

Electronic Stamping Set Submittal and Response Letter

After receiving Final Site Plan approval, please submit the following for Electronic stamping set approval:

1. Plans addressing the comments in all of the staff and consultant review letters in PDF format.
2. Response letter addressing all comments in ALL letters and ALL charts and **refer to sheet numbers where the change is reflected.**

Stamping Set Approval

Stamping sets 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 in the Community Development Department 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 approval from the Street and Project Naming Committee. Please contact Hannah Smith (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 248.735.5607 or skomaragiri@cityofnovi.org.



Sri Ravali Komaragiri – Planner



PLANNING REVIEW CHART: Office Service Commercial (OSC)

Review Date: January 26, 2018
Review Type: Revised Preliminary Site Plan
Project Name: JSP17-66 Novi Senior Community
Plan Date: January 14, 2018
Prepared by: Sri Ravali Komaragiri, Planner
E-mail: skomaragiri@cityofnovi.org; **Phone:** 248.735.5607

Items in **Bold** need to be addressed by the applicant before approval of the Preliminary Site Plan. Underlined items need to be addressed on the Final Site Plan.

Item	Required Code	Proposed	Meets Code	Comments
Zoning and Use Requirements				
Master Plan (Adp. Aug. 25, 2010)	Community Office	Senior Housing	Yes/No	
Area Study	NA	NA	NA	
Zoning (Eff. Dec. 25, 2013)	Consent Judgement: OS-1, OSC	OSC	Yes	
Uses Permitted (Sec 3.1.22.B & C)	Sec. 3.1.22.B. – Principal Uses Permitted Sec. 3.1.22.C. – Special Land Uses Permitted	Facilities for human care (Use Standard 4.64)		Council approved the first amendment on October 23, 2017 to allow the proposed use.
Height, bulk, density and area limitations (Sec 3.1.22)				
Frontage on a Public Street. (Sec. 5.12)	Frontage on a Public Street is required	Frontage on 12 Mile	Yes	
Minimum Zoning Lot Size for each Unit in Ac (Sec 3.6.2.D)	Except where otherwise provided in this Ordinance, the minimum lot area and width, and the maximum percent of lot coverage shall be determined on the basis of off-street parking, loading, greenbelt screening, yard setback or usable open space		Yes	
Minimum Zoning Lot Size for each Unit: Width in Feet (Sec 3.6.2.D)			Yes	
Open Space Area	----	---	---	
Maximum % of Lot Area Covered (By All Buildings)	(Sec 3.6.2.D)	14.6 % proposed	Yes	
Building Height (Sec. 3.1.23.D)	Maximum building height is 46 feet, no more than three stories per consent judgement	44'-3" to the peak of the roof; 3 stories	Yes	

Item	Required Code	Proposed	Meets Code	Comments
Building Setbacks (Sec 3.1.23.D & Sec. 4.64.2)				
Front (South)	50 ft. + 20 ft. (for additional story)	70 ft. min	Yes	
Side (East)	50 ft.	70 ft. min	Yes	
Side (West)	50 ft.	70 ft. min	Yes	
Rear (North)	50 ft.	70 ft. min	Yes	
Parking Setback Refer to applicable notes in Sec 3.6.2				
All sides	15 ft. minimum according to the Consent judgement	Minimum 31 feet, maximum 123 feet.	Yes	
Note To District Standards (Sec 3.6.2)				
Exterior Side Yard Abutting a Street (Sec 3.6.2.C)	All exterior side yards abutting a street shall be provided with a setback equal to front yard.	NA	NA	
Off-Street Parking in Front Yard (Sec 3.6.2.E)	Off-street parking is allowed in front yard, but outside of the parking setback	Proposed	Yes	
Setbacks when property abuts residential (Sec. 3.6.2.L)	Wherever property directly abuts or is adjacent to residentially zoned property, the minimum yard setback shall be twenty (20) feet.	Minimum 15 feet per consent judgement	Yes	
Wetland/Watercourse Setback (Sec 3.6.2.M)	A setback of 25 ft. from wetlands and from high watermark course shall be maintained	Provided	Yes	
Parking setback screening (Sec 3.6.2.P)	Required parking setback area shall be landscaped per sec 5.5.3.	Provided	Yes	See Landscape Review Letter for additional comments
Modification of parking setback requirements (Sec 3.6.2.Q)	The Planning Commission may modify parking setback requirements based on its determination according to Sec 3.6.2.Q	NA	NA	Consent judgement requires a minimum of 15 feet on all sides for all uses
OS-1 District Required Conditions (Sec 3.17)				
OS-1 District Required Conditions (Sec 3.17)	<ul style="list-style-type: none"> - No interior display shall be visible from the exterior of the building. - The outdoor storage of goods or materials shall be prohibited. 	Notes added to the site plan	Yes	

Item	Required Code	Proposed	Meets Code	Comments
	- Warehousing or indoor storage of goods or material, beyond that normally incident to the permitted uses, shall be prohibited.			
Use Standards for Facilities for Human Care (Sec. 4.64)				
Intent (Sec. 4.64)	Facilities for human care such as general hospital, sanitariums, convalescent homes, hospice care, and assisted living.	Congregate care, specialized memory care, and assisted living	Yes/No	<i>General hospital is not allowed per consent judgement. Council approved the first amendment on October 23, 2017 to allow the proposed use of independent living</i>
Minimum Acreage (Sec. 4.64.1)	Not less than 5 acres, except general hospitals shall be not less than 20 acres.	9.72 acres	Yes	
Minimum Setbacks (Sec. 4.64.2)	Minimum distance of any main or accessory building from any lot line or street shall be at least 50 ft. for all two story structures. For every story above 2, the minimum yard setback for any yard shall be increased by no less than 20 ft. for each floor over 2, or the setback requirements of the particular zoning district, whichever is greater.	Minimum 70 ft. all around proposed 3 stories maximum	Yes	
General Hospital (Sec. 4.64.3)	General hospitals may exceed maximum height restrictions of the district provided that all structures shall be limited to 5 stories and 65 ft. in height	NA	NA	
Definitions				
Sanitariums, Hospice Care	No definitions provided in Zoning Ordinance			<i>Listed under Facilities for Human Care</i>
Convalescent or Nursing Home	A structure with sleeping rooms, where persons are housed or lodged and are furnished with meals, nursing, and limited medical care.			<i>Listed under Facilities for Human Care</i>
Assisted Living Facility	A residential care facility for the transitional residency of elderly people usually consisting of			<i>Listed under Facilities for Human Care</i>

Item	Required Code	Proposed	Meets Code	Comments
	individual living unit combined with facilities for assistance with daily activities, nursing services, and limited medical care.			
Independent living, Housing for Elderly	Housing for the elderly that includes attached or detached cottage-type dwellings, townhouses, of apartments.		Yes	With the approved amendment to consent judgement, Independent living units within and as part of the overall senior facility are allowed up to 50% of the total development.
Parking, Loading and Dumpster Requirements				
Number of Parking Spaces (Sec.5.2.12) Memory Care –39 Beds Assisted Living – 74 Beds Independent Living –103 Beds	Independent Elderly 1 for each dwelling unit and 1 for each employee For 74 units, 5 employees $78+5 = 83$ Assisted Living 1 for each 4 beds and 1 for each employee For 105 beds, 25 employees $27 + 25 = 52$ spaces 135 spaces required	138 spaces proposed	Yes	In the previous submittal, 8 units in assisted living have two beds, so total number of beds is 114, not 105. A bed count summary is not provided with this submittal. The site plan appears to provide the required 137 spaces. Please update the calculations to refer to the accurate number. Provide largest working shift and potential overlap to determine greatest parking need for employees.
Maximum allowed parking	No more than 25 percent than minimum required. Minimum required: 135 Maximum allowed: 168 spaces	Maximum proposed 138	Yes	<i>Novi City Council is currently reviewing an amendment to the Zoning Ordinance that limits the number of on-site parking spaces to 125 percent of the required parking</i>
Parking Space Dimensions and Maneuvering Lanes (Sec. 5.3.2)	- 90° Parking: 9 ft. x 19 ft. - 24 ft. two way drives - 9 ft. x 17 ft. parking spaces allowed along 7 ft. wide interior sidewalks as long as detail indicates a 4" curb at these locations and along landscaping	Yes Yes Yes	Yes	

Item	Required Code	Proposed	Meets Code	Comments
Parking stall located adjacent to a parking lot entrance (public or private) (Sec. 5.3.13)	Shall not be located closer than 25 ft. from the street right-of-way line, street easement or sidewalk, whichever is closer	Approximately 140 ft. proposed	Yes	
End Islands (Sec. 5.3.12)	<ul style="list-style-type: none"> - End Islands with landscaping and raised curbs are required at the end of all parking bays that abut traffic circulation aisles. - The end islands shall generally be at least 8 feet wide, have an outside radius of 15 feet, and be constructed 3' shorter than the adjacent parking stall as illustrated in the Zoning Ordinance 	Yes Provide measurements for end islands on site plan and confirm all are 3' shorter	No	Provide additional details on end island size
Barrier Free Spaces <i>Barrier Free Code</i>	101-150, 5 spaces 1 to be van accessible	6 spaces proposed	Yes	
Barrier Free Space Dimensions <i>Barrier Free Code</i>	<ul style="list-style-type: none"> - 8' wide with an 8' wide access aisle for van accessible spaces - 8' wide with a 5' wide access aisle for regular accessible spaces 	All are van accessible	Yes	
Barrier Free Signs <i>Barrier Free Code</i>	One sign for each accessible parking space.	One sign per space is proposed	Yes	
Minimum number of Bicycle Parking (Sec. 5.16.1)	Congregate/Assisted Living: 1 space for each 20 employees on maximum shift, minimum of 2	4 spaces provided	Yes	
Bicycle Parking General requirements (Sec. 5.16)	<ul style="list-style-type: none"> - No farther than 120 ft. from the entrance being served - When 4 or more spaces are required for a building with multiple entrances, the spaces shall be provided in multiple locations - Spaces to be paved 	Proposed, but unclear dimensions Inverted U style racks	Yes	

Item	Required Code	Proposed	Meets Code	Comments
	and the bike rack shall be inverted "U" design - Shall be accessible via 6 ft. paved sidewalk			
Bicycle Parking Lot layout (Sec 5.16.6)	Parking space width: 6 ft. One tier width: 10 ft. Two tier width: 16 ft. Maneuvering lane width: 4 ft. Parking space depth: 2 ft. single, 2 ½ ft. double	Proposed, but unclear dimensions	No	Detail shows six bike spaces. One four are proposed with the current submittal. Please correct the inconsistency.
Loading Spaces Sec. 5.4.1	<ul style="list-style-type: none"> - Within the OS districts, loading space shall be provided in the rear yard or in the case of a double frontage lot, in the interior side yard, - In the ratio of five (5) square feet per front foot of building up to a total area of three-hundred sixty (360) square feet per building. 	Proposed in side yard 999 sq. ft. provided	No	<u>Applicant requested a ZBA variance for the location in the side yard.</u>
Dumpster Sec 4.19.2.F	<ul style="list-style-type: none"> - Located in rear yard - Attached to the building or - No closer than 10 ft. from building if not attached - Not located in parking setback - If no setback, then it cannot be any closer than 10 ft. from property line. - Away from Barrier free Spaces 	No, in side yard Attached to the building NA Correct NA Yes	No	<u>Applicant requested a ZBA variance for the location in the side yard.</u>

Item	Required Code	Proposed	Meets Code	Comments
Dumpster Enclosure <i>Sec. 21-145. (c)</i> <i>Chapter 21 of City Code of Ordinances</i>	<ul style="list-style-type: none"> - Screened from public view - A wall or fence 1 ft. higher than height of refuse bin - And no less than 5 ft. on three sides - Posts or bumpers to protect the screening - Hard surface pad. - Screening Materials: Masonry, wood or evergreen shrubbery 	Unknown	No	Provide additional details as required by City Code on the site plans in plan and elevation views.
Accessory Structures <i>(Sec. 4.19)</i> <i>Generator/Transformer</i> <i>Flagpoles</i> <i>Canopies</i>	Detached accessory structure shall be located in the rear yard, 10 feet from the building, and 6 feet from the lot line.	Generator and transformer proposed	Yes/No	<u>Applicant requested a ZBA variance as transformer is located in the side yard.</u>
	Flagpoles may be located within any required front or exterior side yard, cannot be located closer than ½ the distance between the principal building and the public ROW.	2 20ft. tall flagpoles proposed 1 in rear yard, 1 in east side yard. They are located far from public right of way	Yes	
Lighting and Other Equipment Requirements				
Exterior lighting <i>(Sec. 5.7)</i>	Photometric plan and exterior lighting details needed at time of Final Site Plan submittal	One is not included in this submittal	Yes?	<u>One was provided at the time of Pre-application plan review which was in conformance pending some additional details</u>
Roof top equipment and wall mounted utility equipment <i>(Sec. 4.19.2.E.ii)</i>	All roof top equipment must be screened and all wall mounted utility equipment must be enclosed and integrated into the design and color of the building	Proposed, screened	Yes	
Roof top appurtenances Screening <i>(Sec. 5.15.3)</i>	Roof top appurtenances shall be screened in accordance with applicable facade regulations, and shall not be visible from any street, road or adjacent property.	Proposed, screened	Yes	
Non-Motorized Facilities				

Item	Required Code	Proposed	Meets Code	Comments
Article XI. Off-Road Non-Motorized Facilities	A 6 foot sidewalk is required along 12 Mile Road	6 ft. proposed along 12 Mile Road	Yes	
Pedestrian Connectivity	Assure safety and convenience of both vehicular and pedestrian traffic both within the site and in relation to access streets.	Sidewalks throughout proposed	No	Proposed sidewalk along the entry drive is located within the vegetated buffer. Refer to Engineering comments for more details.
Lighting and Photometric Plan (Sec. 5.7)				
Intent (Sec. 5.7.1)	Establish appropriate minimum levels, prevent unnecessary glare, reduce spillover onto adjacent properties & reduce unnecessary transmission of light into the night sky	Proposed	Yes	A lighting and photometric plan is required prior to Preliminary site plan review when the property abuts a residential district. A plan was provided with pre-application review, but not currently. Sheet PM-1 is not included in the submittal.
Lighting Plan (Sec. 5.7.A.1)	Site plan showing location of all existing & proposed buildings, landscaping, streets, drives, parking areas & exterior lighting fixtures	Proposed	Yes	All comments for photometric plan refer to the plan provided at the time of Pre-application meeting. Please include it in this submittal as well along with other information requested.
Building Lighting (Sec. 5.7.2.A.iii)	Relevant building elevation drawings showing all fixtures, the portions of the walls to be illuminated, illuminance levels of walls and the aiming points of any remote fixtures.	Not provided	No	Provide photometric data on building elevations as required
Lighting Plan (Sec.5.7.2A.ii)	Specifications for all proposed & existing lighting fixtures	Provided	Yes	
	Photometric data	Provided	Yes	
	Fixture height	Provided	Yes	
	Mounting & design	Provided	Yes	
	Glare control devices	Provided	Yes	
	Type & color rendition of lamps	Provided	Yes	
	Hours of operation	Not provided	No	Provide note on site plan

Item	Required Code	Proposed	Meets Code	Comments
	Photometric plan illustrating all light sources that impact the subject site, including spill-over information from neighboring properties	Provided	Yes	
Maximum height when abutting residential districts (Sec. 5.7.3.A)	Height not to exceed maximum height of zoning district (or 25 ft. where adjacent to residential districts or uses)	Maximum proposed is 25 ft.	Yes	
Standard Notes (Sec. 5.7.3.B)	<ul style="list-style-type: none"> - Electrical service to light fixtures shall be placed underground - Flashing light shall not be permitted - Only necessary lighting for security purposes & limited operations shall be permitted after a site's hours of operation 	Not provided	No	Provide notes on site plan
Security Lighting (Sec. 5.7.3.H) Lighting for security purposes shall be directed only onto the area to be secured.	<ul style="list-style-type: none"> - All fixtures shall be located, shielded and aimed at the areas to be secured. - Fixtures mounted on the building and designed to illuminate the facade are preferred 	Not provided	No	Indicate what fixtures are considered security lighting. Provide a separate photometric plan for security lights only.
Average light levels (Sec.5.7.3.E)	Average light level of the surface being lit to the lowest light of the surface being lit; not exceed 4:1	2.82:1 proposed	Yes	
Type of Fixtures (Sec. 5.7.3.F)	Use of true color rendering lamps such as metal halide is preferred over high & low pressure sodium lamps	All LED proposed	Yes	
Min. Illumination (Sec. 5.7.3.k)	Parking areas: 0.2 min	Yes	Yes	
	Loading & unloading areas: 0.4 min	Yes	Yes	
	Walkways: 0.2 min	Yes	Yes	
	Building entrances, frequent use: 1.0 min	Yes	Yes	

Item	Required Code	Proposed	Meets Code	Comments
	Building entrances, infrequent use: 0.2 min	Yes	Yes	
Max. Illumination adjacent to Non-Residential (Sec. 5.7.3.K)	When site abuts a non-residential district, maximum illumination at the property line shall not exceed 1 foot candle	NA	NA	
Max. Illumination adjacent to Residential (Sec. 5.7.3.L)	When adjacent to residential districts: - All cut off angles of fixtures must be 90° - maximum illumination at the property line shall not exceed 0.5 foot candle	Provided	Yes	
Building Code and Other Requirements				
Building Code	Building exits must be connected to sidewalk system or parking lot.	Provided	Yes	
Design and Construction Standards Manual	Land description, Sidwell number (metes and bounds for acreage parcel, lot number(s), Liber, and page for subdivisions).	Provided	Yes	
General layout and dimension of proposed physical improvements	Location of all existing and proposed buildings, proposed building heights, building layouts, (floor area in square feet), location of proposed parking and parking layout, streets and drives, and indicate square footage of pavement area (indicate public or private).	Provided	Yes?	Refer to all review letters for other dimensions requested
Economic Impact	- Total cost of the proposed building & site improvements - Number of anticipated jobs created (during construction & after building is occupied, if known)	Not provided	No	Provide answers to questions with next site plan submittal; required for Planning Commission review
Development/ Business Sign &	- Signage if proposed requires a permit. - Signs are not regulated	Sign proposed in Entrance Boulevard	No	Refer to Planning review letter for more comments

Item	Required Code	Proposed	Meets Code	Comments
	by Planning. - Applicant may submit sign with site plan for simultaneous review.			<u>For sign permit information contact Ordinance 248-735-5678 for requirements.</u>
Street addressing	The applicant should contact the Building Division for an address prior to applying for a building permit.			<u>Once plans are stamped, then may apply for building address.</u>
Project and Street Naming (City Code Sec. 31-51)	Some projects may need approval from the Street and Project Naming Committee.	No name proposed; Submit for project name with Preliminary Site Plan submittal	No	<u>For street and project name request contact Hannah Smith 248-347-0579</u>
Property Split/Combination	The proposed property split/combination must be submitted to the Assessing Department for approval.	No split or combo proposed	NA	
Planning Legal Documents	- Amendment to Consent Judgement - Wetland/Woodland Conservation Easement - Emergency Access Easement	Woodland Conservation Easement drafts are required with electronic stamping set submittal	Yes?	Council approved the first amendment on October 23, 2017 to allow the proposed use.

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

January 29, 2018

Engineering Review

Novi Senior Center

JSP17-0066

Applicant

Legacy Construction Group LLC

Review Type

Preliminary Site Plan

Property Characteristics

- Site Location: North side of Twelve Mile Road, east of Novi Road and west of Meadowbrook Road
- Site Size: 9.718 acres
- Plan Date: 09/15/2017
- Design Engineer: Fazal Khan & Associates, Inc.

Project Summary

- Construction of an approximately 149,840 square-foot health care facility and associated parking. Site access would be provided by a new drive way approach off of Twelve Mile Road.
- Water service would be provided by an 8-inch looped system with two taps to the existing 20-inch water main along the south side of Twelve Mile Road. The building domestic and fire service leads are not indicated in this plan set.
- Sanitary sewer service would be provided by an 8 inch sanitary sewer main connected to the existing 8 inch sanitary sewer along the west side of Twelve Mile Road.
- Storm water would be collected by a single storm sewer collection system and detained in a new on-site basin.

Recommendation:

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

Comments:

General

1. The City standard detail sheets are not required for the Final Site Plan submittal. They will be required with the Stamping Set submittal. They can be found on the City website (www.cityofnovi.org/DesignManual).
2. The Non-domestic User Survey form shall be submitted to the City so it can be forwarded to Oakland County. This form was included in the original site plan package.
3. Provide a backflow prevention device on all irrigation systems. The backflow prevention device shall be an RPZ, or another approved device based on site conditions such as irrigation head heights (pop-ups), grade changes, berms etc. Please contact Kevin Roby in the Water and Sewer Division at 248-735-5640 with any questions.
4. Right-of-way permits will be required from the Road Commission for Oakland County (RCOC) and the City of Novi.
5. Provide a traffic control sign table listing the quantities of each sign type proposed for the development. Provide a note along with the table stating all traffic signage will comply with the current MMUTCD standards. Soil borings shall be provided for a preliminary review of the constructability of the proposed development (roads, basin, etc.). Borings identifying soil types, and groundwater elevation should be provided when available.
6. Provide a traffic control plan for the work in the Twelve Mile Road right-of-way (ROW).
7. Traffic signs in the RCOC right-of-way will be installed by RCOC.
8. A 6-foot wide pedestrian pathway is required along the Twelve Mile frontage.
9. Soil borings shall be provided for a preliminary review of the constructability of the proposed development (roads, basin, etc.). Borings identifying soil types, and groundwater elevation should be provided at the time of Preliminary Site plan.
10. Provide a note that compacted sand backfill shall be provided for all utilities within the influence of paved areas, and illustrate on the profiles.
11. Provide a construction materials table on the Utility Plan listing the quantity and material type for each utility (water, sanitary and storm) being proposed.
12. Provide a construction materials table on the Paving Plan listing the quantity and material type for each pavement cross-section being proposed.
13. Provide a utility crossing table indicating that at least 18-inch vertical clearance will be provided; or that additional bedding measures will be utilized at points of conflict where adequate clearance cannot be maintained.
14. Maintain a minimum of 10 foot horizontal clearance between utilities, measured between outside walls of pipe.

15. Provide a note stating if dewatering is anticipated or encountered during construction a dewatering plan must be submitted to the Engineering Department for review.
16. 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.
17. 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.
18. A letter from either the applicant or the applicant's engineer must be submitted with the Preliminary Site Plan submittal highlighting the changes made to the plans addressing each of the comments in this review.

Water Main

19. Provide the size and location for separate domestic lead and 6-inch fire lead with a unique shut-off value for each.
20. Provide a profile for all proposed water main 8-inch and larger.
21. Provide three (3) signed and sealed sets of revised utility plans along with the MDEQ permit application (06/12 rev.) for water main construction. The Streamlined Water Main Permit Checklist should be submitted to the Engineering Division for review, assuming no further design changes are anticipated. Utility plan sets shall include only the cover sheet, any applicable utility sheets and the standard detail sheets.

Sanitary Sewer

22. The sanitary sewer monitoring manhole will not require a separate access easement if placed within the public sanitary sewer easement. MH2 can serve as the monitoring manhole.
23. Provide seven (7) signed sealed sets of revised utility plans along with the MDEQ permit application (04/14 rev.) for sanitary sewer construction and the Streamlined Sanitary Sewer Permit Certification Checklist should be submitted to the Engineering Division for review, assuming no further design changes are anticipated. Utility plan sets shall include only the cover sheet, any applicable utility sheets and the standard detail sheets. Also, the MDEQ can be contacted for an expedited review by their office.

Paving & Grading

24. Site grading shall be limited to 1V:4H (25-percent), excluding landscaping berms. Numerous areas appear to exceed this standard. The east and west berms are not considered landscape berms.
25. The top of bank surrounding the pond must have a 2-foot wide crest.
26. The cemetery access road should be a minimum of 20 feet in width. The applicant provided supporting information describing the use of the existing

access road, and how the cemetery would continue to use the road. The absence of curb is acceptable for the intended function and use of the access road. Revise the width of the access road to 20 feet.

27. Provide additional grades and clarify where runoff from the access road is captured.
28. Provide grades along the proposed on-site sidewalk.

Storm Sewer

29. Provide storm sewer profiles views.
30. Provide a 0.1-foot drop in the downstream invert of all storm structures where a change in direction of 30 degrees or greater occurs.
31. Match the 0.80 diameter depth above invert for pipe size increases.
32. Storm manholes with differences in invert elevations exceeding two feet shall contain a 2-foot deep plunge pool.
33. Provide a four-foot deep sump and an oil/gas separator in the last storm structure prior to discharge to the detention basin.
34. Label the 10-year HGL on the storm sewer profiles, and ensure the HGL remains at least 1-foot below the rim of each structure.
35. Illustrate all pipes intersecting storm structures on the storm profiles.
36. Obtain RCOC approval for the drainage directed to the Twelve Mile Road ROW.
37. Provide a schedule listing the casting type and other relevant information for each proposed storm structure on the utility plan. Round castings shall be provided on all catch basins except curb inlet structures.
38. Show and label all roof conductors, and show where they will tie into the storm sewer system on the layout and on the profile.

Storm Water Management Plan

39. The detention pond geometry is generally acceptable within the constraints of the site.
40. A 4-foot wide safety shelf is required one-foot below the permanent water surface elevation within the basin.
41. Provide and show on the plans an access easement for maintenance over the storm water detention system. Also, include an access easement to the detention area from the public road right-of-way.
42. The weighted c, detention pond sizing and release rate calculations show inconsistent site sizes and composite site c factors. Revise as necessary.

The following must be submitted at the time of Final Site Plan submittal:

43. An itemized construction cost estimate must be submitted to the Community Development Department at the time of Final Site Plan submittal for the determination of plan review and construction inspection fees. This estimate should only include the civil site work and not any costs associated with

construction of the building or any demolition work. **The cost estimate must be itemized** for each utility (water, sanitary, storm sewer), on-site paving, right-of-way paving (including proposed right-of-way), grading, and the storm water basin (basin construction, control structure, pretreatment structure and restoration).

The following must be submitted at the time of Stamping Set submittal:

44. A draft copy of the maintenance agreement for the storm water facilities, as outlined in the Storm Water Management Ordinance, must be submitted to the Community Development Department with the Final Site Plan. 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.
45. A draft copy of the 20-foot wide easement for the water main to be constructed on the site must be submitted to the Community Development Department.
46. A draft copy of the 20-foot wide easement for the sanitary sewer to be constructed on the site must be submitted to the Community Development Department.
47. Draft copy of the cross-access easement for the emergency/cemetery access road.

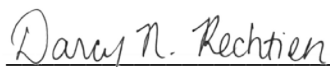
The following must be addressed prior to construction:

48. A pre-construction meeting shall be required prior to the commencement of any site work. Please contact Sarah Marchioni in the Community Development Department to setup a meeting (248-347-0430).
49. 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. There is no fee for this permit.
50. A Soil Erosion Control Permit must be obtained from the City of Novi. Contact Sarah Marchioni in the Community Development Department (248-347-0430) for forms and information.
51. An NPDES permit must be obtained from the MDEQ since the site is over 5 acres in size. The MDEQ requires an approved plan to be submitted with the Notice of Coverage.
52. A permit for work within the right-of-way of Twelve Mile Road must be obtained from the City of Novi. The application is available from the City Engineering Division and should be filed at the time of Final Site Plan submittal. Please contact the Engineering Division at 248-347-0454 for further information.

53. A permit for work within the right-of-way of Twelve Mile Road must be obtained from the Road Commission for Oakland County. Please contact the RCOC (248-858-4835) directly with any questions. The applicant must forward a copy of this permit to the City. Provide a note on the plans indicating all work within the right-of-way will be constructed in accordance with the Road Commission for Oakland County standards.
54. A permit for water main construction must be obtained from the MDEQ. This permit application must be submitted by the City's Water and Sewer Senior Manager after the water main plans have been approved.
55. A permit for sanitary sewer construction must be obtained from the MDEQ. This permit application must be submitted by the City's Water and Sewer Senior Manager after the sanitary sewer plans have been approved.
56. Construction Inspection Fees, to be determined once the construction cost estimate is submitted, must be paid prior to the pre-construction meeting.
57. A storm water performance guarantee, equal to 1.2 times the amount required to complete storm water management and facilities as specified in the Storm Water Management Ordinance, must be posted at the Treasurer's Office.
58. A street sign financial guarantee in an amount to be determined (\$400 per traffic control sign proposed) must be posted at the Treasurer's Office.
59. Permits for the construction of each retaining wall in excess of 4 feet must be obtained from the Community Development Department (248-347-0415).

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 Darcy Rechtien at (248) 735-5695 with any questions.



Darcy N. Rechtien, P.E.

cc: Theresa Bridges, Engineering
George Melistas, Engineering
Sri Komaragiri, Community Development

LANDSCAPE REVIEW



PLAN REVIEW CENTER REPORT

February 2, 2018

Revised Preliminary Site Plan

Novi Senior Community Center

Review Type

Revised Preliminary Site Plan Landscape Review

Job

JSP17-0066

Property Characteristics

- Site Location: North side of Twelve Mile Road, east of Memorial Gardens
- Site Zoning: OS-1/RA with Consent Judgment
- Adjacent Zoning: RA to north and east, R-C to south, R-4 and OS-1 to west
- Plan Date: Landscape Plan Date 5/16/2017, Plan set Date 1/14/2018

Ordinance Considerations

This project was reviewed for conformance with Chapter 37: Woodland Protection, Zoning Article 5.5 Landscape Standards, the Landscape Design Manual and any other applicable provisions of the Zoning Ordinance. Items in **bold** below must be addressed and incorporated as part of the revised Preliminary Site Plan submittal. Underlined items must be addressed in Final Site Plans. Please follow guidelines of the Zoning Ordinance and Landscape Design Guidelines. This review is a summary and not intended to substitute for any Ordinance. Please also see the accompanying landscape chart for additional comments.

Recommendation:

This concept is **recommended for approval**. There is one landscape waivers required, which I support. The other changes required can be corrected in Final Site plans.

Landscape Waivers required:

1. The applicant has not provided perimeter parking lot trees along all of the access drives, as is required by Section 5.5.3.C.iv and part of the interior perimeter. A landscape waiver is required for the perimeter trees not provided along the western property edge, the access drives to the site and along the cemetery access drive, and along the interior perimeter south of the building.
 - a. The waiver is supported for the western frontage because the green giant arborvitaes are providing screening from the cemetery and the applicant is maintaining the access drive to the cemetery so there is not sufficient room for both along that frontage.
 - b. The waiver for not providing perimeter canopy trees along the cemetery access drive is supported because the drive is being preserved for the cemetery and this creates a lack of room for both screening and the required canopy trees.
 - c. The waiver is not supported for the other perimeter areas that need trees as described in the landscape chart.
2. A landscape waiver may be requested for the lack of perimeter canopy trees on other areas of the site. These waivers may or may not be supported by staff, depending on their extent and justification given.

General Note: The landscape plans were created using the old landscape ordinance. As this site did not get preliminary site plan approval before the revised ordinance was adopted, the revised ordinance should be used for this project. The revised ordinance and landscape design manual can be found at these locations:

REVISED LANDSCAPE ORDINANCE:

<http://cityofnovi.org/Reference/Code-of-Ordinances-and-City-Charter/18-283LandscapeStandards.aspx>. Parking and greenbelt plantings were the primary areas of change.

REVISED LANDSCAPE DESIGN MANUAL:

<http://cityofnovi.org/Government/City-Services/Community-Development/Information-Requirements-Sheets,-Checklists,-Manua/LandscapeDesignManual.aspx>

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

Soil information is provided.

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

1. Utilities are shown on the Landscape Plans.
2. **Please show all of the utility lines, not just the structures, for all utilities on the site.**
3. As currently laid out, the sanitary sewer easement along the west drive occupies most of the required perimeter landscape area, so trees and large plants like Green Giant Arborvitae can't be planted there. The visual screening between the cemetery and building that the arborvitaes will provide is extremely important. **Please re-align the utilities along that drive to remove this conflict.**
4. **Please be sure that the most current utility layout is included on the landscape plan so conflicts can be minimized.**
5. **The Landscape Plan utility layout does not coincide with the Utility Plan. The Utility Plan indicates that, between the Fire access lane, the water main easement and the sanitary easement, the western 55 feet of area cannot have any trees planted in it. This is not acceptable. Please adjust the lines such that the area where trees cannot be planted is minimized.**

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

1. **Existing trees and proposed removals have been shown on Sheets C-3 and C-4.**
2. **Please do not show the removed trees on Sheets L-1 and L-2.**

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

Provided.

Woodland Replacement Trees (Sec 37 Woodland Protection)

1. Calculations are provided and 85 replacement trees are proposed to be planted on site. A payment for 368 replacement trees not planted on site will be made to the city's tree fund.
2. **If desired, the applicant may apply the *Ostrya virginiana* around the detention pond toward the replacement tree requirement as they are on the Woodland Replacement chart (they cannot replace the required perimeter trees along the drives or the required detention basin shrubs, however).**
3. **Please use a species on the Woodland Replacement Chart instead of Armstrong maples as replacement trees south of the building.**
4. **If substitutes from the Woodland Replacement Chart are used for the Scots Pines and River Birches used along the east property line, the applicant could gain additional woodland replacement credits on the site and reduce their contribution to the tree fund.**
5. **Please see the ECT woodland review for a full discussion of the woodland replacement requirements.**

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

1. Provided.
2. **Please revise the grading such that it is kept outside of the tree protection fencing.**

Non-residential Adjacent to Residential – Berm (Wall) & Buffer (Zoning Sec. 5.5.3.B.ii and iii)

1. No berms are required along the east or west property lines because neither adjacent site is developed for residential purposes. **As a result, a berm is not required along either side.**
2. The applicant is still encouraged, however, to add vegetation along each side to help screen the property from adjacent uses. **The applicant is encouraged to use native species in impacted areas along the east edge which could count toward the required woodland replacements.** The Scotch pine and River birch are not on the Woodland Replacement Chart in Section 37: Woodland Protection so they are species that cannot be used for woodland credits.
3. The Green Giant arborvitaes, while not eligible for woodland replacement credits, are a good choice for the screening along the west side. **Please keep the Green Giant arborvitaes as proposed.**

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

1. No berm is required along Twelve Mile Road because the parking is not adjacent to the right of way. The site slope grades up 12 feet in height to reach the detention basin rim. That said, all berms need to have a flat crest and the detail and site grading does not indicate that. **Please add the flat crest to the site grading and details.**
2. The applicant may revise the calculations for the canopy and subcanopy trees required along the right-of-way frontage per the revised ordinance (can be found at: <http://cityofnovi.org/Reference/Code-of-Ordinances-and-City-Charter/18-283LandscapeStandards.aspx>). Currently 9 canopy trees and 17 subcanopy trees are provided, but only 6 and 8 trees, respectively, are required. Also, per the ordinance, greenbelt canopy trees within 15' of the parking lot or access way perimeter may also count toward the perimeter requirement. If this option is utilized, please note that in the calculations. **The number of trees can be reduced to the number required, if desired.**

Street Tree Requirements (Zoning Sec. 5.5.3.A)

1. The required number of street trees along Twelve Mile Road (5) is provided. If the RCOC prohibits any or all of those trees they do not need to be planted, but a copy of their review will need to be provided.
2. It appears that some of the proposed street trees are located directly beneath the overhead wires. **If this is the case, the *Tillias* must not be used. 8 subcanopy trees (5 * 1.5, rounded up) need to be used instead. The trees should have a mature height no taller than the lowest wire.**

Parking Lot Interior Landscaping (Zoning Sec 5.5.3.C.)

The required number of trees and parking lot landscaping area are both provided.

Parking Lot Perimeter Landscaping (Zoning Sec 5.5.3.C.iv)

1. **The basis of calculation did not include some required perimeter frontages and needs to be revised to include them.**
2. The required perimeter landscaping for the access drive, and the fire access drive were not provided. *This would require a landscape waiver that is not supported by staff.*
3. The required perimeter canopy trees are not provided along the west side of the site, adjacent between the drive and the cemetery access road, but a dense line of Green Giant Arborvitaes are provided. *This waiver request would be supported by staff because maintaining the access road will benefit the cemetery but reduce the area remaining for the required landscaping, and the screening provided by the arborvitaes will be a benefit to all.*
4. The required perimeter canopy trees for the cemetery access road are not provided. *This waiver request would be supported by staff because there is not room for the*

required perimeter trees. The required trees on the east and north sides of the cemetery access road turnaround will still need to be provided at a rate of 1/35lf.

5. There are some other areas of the site that could have perimeter trees but do not (south of the building, northwest of the building). *Staff does not support a waiver request for those areas.*

Transformer/Utility Box Screening (Zoning Sec 5.5.3.D.)

1. The generator is screened by a wall and landscaping.
2. **See the landscape chart for comments regarding the need for additional screening from the west.**

Storm water detention pond (LDM 3)

1. **Please add at least 40lf of additional shrubs to meet the 70% minimum coverage requirement.**
2. **Please substitute species native to Michigan for Ilex glabra and Hamamelis x intermedia, neither of which are native to Michigan.**

Plant List (LDM 1.d.(1).(d) and LDM 2.h. and t.)

Please replace *Pyrus calleryana* with a species that is not on the prohibited plants list (LDM 9.c).

Planting Notations and Details (LDM)

1. Details provided meet City of Novi requirements.
2. **Please add a multi-stem tree planting detail and tree guying/staking detail.**

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

A means for getting the plantings established and have them survive in the long term is required. This can be an underground irrigation system, hose bibs near the plantings, tree gators/water trucks, etc. If xeriscaping is used such that a permanent irrigation system will not be necessary to keep the plants alive in dry weather, a description of the plants used and the methods planned to get them established must be provided.

Snow Deposit Areas (LDM.2.q.)

1. **The snow deposit area appears to be oversized, and will drain onto the cemetery if the correct grading is not provided to direct all of the snowmelt to the drain provided. It is not clear if a curb is provided along the north end of the access drive to direct the water to the catch basin provided. This needs to be corrected.**
2. **Please provide at least 2 perimeter trees along the straight stretch where it is not likely the snow will be deposited by plows.**

Please refer to the accompanying Landscape Chart for further comments and explanation.

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 meader rmeader@cityofnovi.org.



Rick Meader – Landscape Architect

LANDSCAPE REVIEW SUMMARY CHART

Review Date: January 10, 2018
Project Name: JSP17 – 0066: NOVI SENIOR CENTER
Plan Date: Received Sep 15, 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.

WAIVERS REQUIRED:

1. Required parking lot perimeter trees are not provided along the access and fire access drives at the front of the site. Staff does not support this waiver request.
2. The required number of deciduous canopy perimeter trees is not provided along the west building access drive. Staff supports this waiver request as there is a lack of room for both screening and perimeter canopy tree plantings along that section as the cemetery access drive is being preserved and the Green Giant arborvitaes will screen the development from the cemetery.
3. The required perimeter canopy trees are not provided along both sides of the cemetery access drive. This waiver is supported by staff as the applicant is preserving the access drive for the benefit of the cemetery. (Note: the required perimeter canopy trees should still be provided around the east and north sides of the turnaround at a rate of 1/35lf).
4. A landscape waiver for missing perimeter trees in other areas of the site may be requested. It can't be determined whether that waiver would be supported at this time.

Please add a note showing these waiver requests, and their impacts (number of required trees not included) on the Landscape Plans.

Item	Required	Proposed	Meets Code	Comments
Landscape Plan Requirements (LDM (2))				
Landscape Plan (Zoning Sec 5.5.2, LDM 2.e.)	§ 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	Scale 1"=30'
Project Information (LDM 2.d.)	Name and Address	Yes	Yes	
Owner/Developer Contact Information (LDM 2.a.)	Name, address and telephone number of the owner and	Yes	Yes	

Item	Required	Proposed	Meets Code	Comments
	developer or association			
Landscape Architect contact information (LDM 2.b.)	Name, Address and telephone number of RLA	Yes	Yes	
Sealed by LA. (LDM 2.g.)	Requires original signature	Yes	Yes	<u>Need for Final Site Plans</u>
Miss Dig Note (800) 482-7171 (LDM.3.a.(8))	Show on all plan sheets	Yes	Yes	
Zoning (LDM 2.f.)	Include all adjacent zoning	Parcel: OS-1, RA w/consent judgment North: R-4 West: R-4, OS-1 East: RA South: R-C	Yes	Please show adjacent zoning on Landscape Plans
Survey information (LDM 2.c.)	§ Legal description or boundary line survey § Existing topography	Yes	Yes	Sheet C-2
Existing plant material Existing woodlands or wetlands (LDM 2.e.(2))	§ Show location type and size. Label to be saved or removed. § Plan shall state if none exists.	Yes	Yes	1. Sheets C-3 and C-4 2. Please freeze removed tree layer(s) on Sheets L-1 and L-2
Soil types (LDM.2.r.)	§ As determined by Soils survey of Oakland Cty § Show types, boundaries	Yes	Yes	Sheet L-1
Existing and proposed improvements (LDM 2.e.(4))	Existing and proposed buildings, easements, parking spaces, vehicular use areas, and R.O.W	Yes	No	1. The utility layout on the Landscape Plan does not coincide with that shown on the Utility Plan. Please be sure to use the correct utility layout so conflicts are avoided. 2. As it is, the western 55 feet of area along the front of the site cannot have trees planted in it as the fire access lane, water main and sanitary sewer easements combine to occupy that entire area. This is not acceptable. 3. Please revise the utility connections in 12 Mile Road to

Item	Required	Proposed	Meets Code	Comments
<p>Existing and proposed utilities (LDM 2.e.(4))</p>	<p>Overhead and underground utilities, including hydrants, catch basins and manholes.</p>	<p>Utility structures and hydrants are shown but not all utility lines.</p>	<p>No</p>	<p>minimize the area where required trees can't be planted.</p> <ol style="list-style-type: none"> 1. Please clearly show all existing and proposed utility lines as well as structures on landscape plans to help identify conflicts. It appears that some of the proposed street trees are placed directly under the existing overhead wires. 2. If conflicts exist (trees within 10 feet of a hydrant or utility structure, or trees on top of underground lines), they should be resolved with required trees still provided. 3. As currently configured, most of the Green Giant arborvitaes along the west drive are within the sanitary sewer easement. This is not advisable due to the anticipated size they will attain. Please re-align the utilities along the western drive to take the sanitary easement out of the required perimeter landscaping area.
<p>Proposed grading. 2' contour minimum (LDM 2.e.(1))</p>	<p>Provide proposed contours at 2' interval</p>	<p>Spot elevations and contours are shown on Sheet C-7</p>	<p>Yes</p>	<ol style="list-style-type: none"> 1. Sheet C-7 shows grading within the protective tree fence lines. 2. This should be corrected, to keep grading outside of the tree fence limits.
<p>Snow deposit (LDM.2.q.)</p>	<p>Show snow deposit areas on plan</p>	<p>Yes</p>	<p>Yes</p>	<ol style="list-style-type: none"> 1. The area seems to be oversized. 2. Please add periphery

Item	Required	Proposed	Meets Code	Comments
				trees where possible along the edge of pavement where snow deposits are not likely. It seems there is space for at least 2 between the two access road bends.
LANDSCAPING REQUIREMENTS				
Berms, Walls and ROW Planting Requirements				
Berms				
§ 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 of loam with 6" top layer of topsoil.				
Residential Adjacent to Non-residential (Sec 5.5.3.A) & (LDM 1.a)				
Berm requirements <i>(Zoning Sec 5.5.A)</i>	Site abuts residentially zoned property, but the properties are not developed with residential uses so no landscaped berm is required.	<ul style="list-style-type: none"> • A partial berm is provided along the eastern property line. • Plantings are proposed along property borders to screen building. • Sections are provided. 	Yes	<ol style="list-style-type: none"> 1. If the applicant uses species on the Woodland Replacement Chart instead of those proposed, woodland replacement credit could be given for the screening plantings along the east side (not the parking lot perimeter plantings). 2. The proposed Green Giant arborvitae proposed along the western side of the site are a good choice to help screen the building from the cemetery. While not required, it is hoped that the applicant will still propose them as they are the basis for the landscape waiver in that area.
Planting requirements <i>(LDM 1.a.)</i>	LDM Novi Street Tree List	NA		
Adjacent to Public Rights-of-Way (Sec 5.5.B) and (LDM 1.b)				
Berm requirements <i>(Zoning Sec 5.5.3.A.(5))</i>	No berm is required since parking is not adjacent to right-of-way	Berm leading from 12 Mile to detention basin is about 12	NA	

Item	Required	Proposed	Meets Code	Comments
		feet high.		
Cross-Section of Berms (LDM 2.j)				
Slope, height and width	§ Label contour lines § Maximum 33% slope § Min. 3 feet flat horizontal area § Constructed of loam with 6" top layer of topsoil.	NA		<ol style="list-style-type: none"> The detail provided on L-4 shows section leading from berm high point to the building. The detail does not show a flat crest, which is required for all berms. Please add a flat crest on the site grading and detail. Please extend that detail down to 12 Mile Road. Please add construction details – maximum slope, construction-to the cross section provided.
Type of Ground Cover		NA		
Setbacks from Utilities	Overhead utility lines and 15 ft. setback from edge of utility or 20 ft. setback from closest pole	Overhead utilities exist along 12 Mile Road.	Yes	
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	Walls provided along western boundary are 3' or less in height.	Yes	
Walls greater than 3 ½ ft. should be designed and sealed by an Engineer				
ROW Landscape Screening Requirements (Sec 5.5.3.B. ii)				
Greenbelt width (2)(3) (5)	25 ft.	175 ft	Yes	
Min. berm crest width	NA	Approximately 3 ft	Yes	
Minimum berm height (9)	NA	Approximately 12 ft	Yes	
3' wall	(4)(7)	No	Yes	
Canopy deciduous or large evergreen trees	§ Not adjacent to Parking: 1 tree per 60 lf	9 trees	Yes	1. Please correct calculations per the

Item	Required	Proposed	Meets Code	Comments
Notes (1) (10)	§ (400-50-20)/60 = 6 trees			revised ordinance. 2. Excess trees can be removed from plan if desired.
Sub-canopy deciduous trees Notes (2)(10)	§ Not adjacent to Parking: 1 tree per 40 lf § (400-50-20)/20 = 8 trees	17 trees	Yes	1. Please correct calculations per the revised ordinance. 2. Excess trees can be removed from plan if desired.
Canopy deciduous trees in area between sidewalk and curb (Novi Street Tree List)	§ 1 tree per 35 lf § (400-135-80)/35 = 5 trees	5	Yes, but see notes.	1. It appears that some of the 5 Tiliacs are placed beneath the existing overhead wires. 2. If this is true, the 5 Tiliacs should be replaced with 8 (5 * 1.5, rounded up) subcanopy trees whose mature height is less than the height of the lowest wire. 3. If RCOC denies any or all of the trees, please provide us with copy of their communication. They will not need to be planted elsewhere.
Parking Area Landscape Requirements LDM 1.c. & Calculations (LDM 2.o.)				
General requirements (LDM 1.c)	§ Clear sight distance within parking islands § No evergreen trees	Yes	Yes	
Name, type and number of ground cover (LDM 1.c.(5))	As proposed on planting islands	Yes	Yes	Please clearly indicate which areas will be sod and which will be seed.
General (Zoning Sec 5.5.3.C.ii)				
Parking lot Islands (a, b. i)	§ A minimum of 200 SF to qualify § Minimum of 200sf per tree planted in island. § 6" curbs § Islands minimum width 10' BOC to BOC	Yes	Yes	
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		

Item	Required	Proposed	Meets Code	Comments
Contiguous space limit (i)	Maximum of 15 contiguous spaces	The maximum bay length is 15 spaces.	Yes	
Plantings around Fire Hydrant (d)	No plantings with matured height greater than 12' within 10 ft. of fire hydrants or other utility structures	No	Yes, for the most part.	<ol style="list-style-type: none"> 1. Please locate all new trees at least 10 feet away from hydrants, manholes and catch basins. 2. There are at least 3 shown too close to a hydrant: <ol style="list-style-type: none"> a. a parking lot linden east of the main building entrance b. a linden in the southeast parking lot island c. a green giant arborvitae near the emergency access lane.
Landscaped area (g)	Areas not dedicated to parking use or driveways exceeding 100 sq. ft. shall be landscaped	Yes	Yes	
Clear Zones (LDM 2.3.(5))	25 ft corner clearance required. Refer to Zoning Section 5.5.9	Yes	Yes	
Category 1: For OS-1, OS-2, OSC, OST, B-1, B-2, B-3, NCC, EXPO, FS, TC, TC-1, RC, Special Land Use or non-residential use in any R district (Zoning Sec 5.5.3.C.iii)				
A = Total square footage of parking spaces not including access aisles x 10%	$A = 50,000 \text{ sf} \times 7.5\% = 3,750 \text{ sf}$			
B= Total square footage of additional paved vehicular use areas (not including A) over 50,000 SF) x 1 %	$B = 38,210 \text{ sf} \times 1\% = 382 \text{ sf}$			
Category 2: For: I-1 and I-2 (Zoning Sec 5.5.3.C.iii)				
A. = Total square footage of parking spaces not including access aisles x 7%	$A = x \text{ sf} \times 5\% = xx \text{ sf}$	NA		
B= Total square footage of additional paved vehicular use areas (not including A) over 50,000 SF) x 0.5%	$B = x \text{ sf} \times 0.5\% = xx \text{ SF}$	NA		

Item	Required	Proposed	Meets Code	Comments
All Categories				
C = A+B Total square footage of landscaped islands	3750 + 382 = 4132 SF	6777 sf	Yes	
D = C/200 Number of canopy trees required	4130/200 = 21 Trees	23 trees	Yes	
<p>Perimeter Green space (5.5.3.C.iii, including footnote (5))</p>	<p>§ 1 Canopy tree per 35 lf § 2031/35 = 58 trees § Access drives also need perimeter trees on both sides.</p>	<p>§ 49 canopy trees § Line of green giant arborvitaes along western frontage.</p>	No	<ol style="list-style-type: none"> 1. Please add perimeter trees along both sides of the entry drive to the site and south of the building, the east side of the fire access path and the cemetery access drive turn-around (not the drive itself). 2. The parking lot perimeter used in the calculation should also include the inner boundary of the parking areas south of the building (around the Armstrong maples). <i>Currently a landscape waiver would be required for the lack of perimeter trees in this area that is not supported by staff.</i> 3. Please include a heavy line showing the sections of paving used for the perimeter calculations (or show in a separate graphic). 4. Perimeter trees need to be moved to within 15 feet of the back of curb, and not planted so closely together that they can't grow in a healthy condition. Please space them no closer than 1/30lf o.c..

Item	Required	Proposed	Meets Code	Comments
				<p>5. If some of those cannot be planted within 15 feet of the perimeter with acceptable spacing, a landscape waiver can be requested. The waiver should include the number of trees not provided based on 1/35lf of paving edge and the justification for those waivers. Wherever possible, however, the required trees should be planted in those locations.</p> <p>6. The revised ordinance allows greenbelt canopy trees within 15' of the parking lot or access way perimeters to also count toward the perimeter requirement. If you elect to use this and adjust trees accordingly, please note it in the calculations and on the plan.</p> <p>7. A landscape waiver can be requested for the required perimeter plantings along the cemetery access drive after it splits from the fire access drive. <i>It will be supported by staff as that drive is being preserved to benefit the cemetery.</i></p> <p>8. A landscape waiver for not planting the required deciduous canopy trees along the building access drive between the cemetery drive and</p>

Item	Required	Proposed	Meets Code	Comments
				the western building access lane is required. It would be supported by staff because the Green Giant arborvitae will provide good screening from the cemetery and could reach a height that will provide shade for the parking lot. They will need to be allowed to grow to their full mature height, which may be 20-30 feet.
Parking land banked	NA	None		
Non-Residential Zoning Sec 5.5.3.E.iii & LDM 1.d (2)				
Refer to Planting in ROW, building foundation landscape, parking lot landscaping and LDM				
Interior Street to Industrial subdivision (LDM 1.d.(2))	§ 1 canopy deciduous or 1 large evergreen per 35 l.f. along ROW § No evergreen trees closer than 20 ft. § 3 sub canopy trees per 40 l.f. of total linear frontage § Plant massing for 25% of ROW	NA		
Screening of outdoor storage, loading/unloading (Zoning Sec. 3.14, 3.15, 4.55, 4.56, 5.5)		<ul style="list-style-type: none"> • 6 foot vinyl fence and arborvitae proposed at loading area • Required dumpster enclosure is provided. 	Yes	
Transformers/Utility boxes (LDM 1.e from 1 through 5)	§ 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	§ A wall surrounds the generator on 3 sides. § Significant landscaping is proposed between the wall and the parking area.	Yes/No	1. The gap in the arborvitae screening provides a clear view of the transformers from the cemetery. 2. Please work to screen the transformers better from the cemetery.
Building Foundation Landscape Requirements (Sec 5.5.3.D)				
Interior site	§ Equals to entire	19,256 sf	Yes	

Item	Required	Proposed	Meets Code	Comments
landscaping SF	perimeter of the building x 8 with a minimum width of 4 ft. § 1442 If x 8ft = 11,536 SF			
Zoning Sec 5.5.3.D.ii. All items from (b) to (e)	If visible from public street a minimum of 60% of the exterior building perimeter should be covered in green space	100% of area fronting 12 Mile Road is landscaped.	Yes	
Detention/Retention Basin Requirements (Sec. 5.5.3.E.iv)				
Planting requirements (Sec. 5.5.3.E.iv)	<p>§ Clusters shall cover 70-75% of the basin rim area</p> <p>§ 10" to 14" tall grass along sides of basin</p> <p>§ Refer to wetland for basin mix</p>	Shrub massing for 63% of the rim is provided.	No	<ol style="list-style-type: none"> 1. Please add at least 40lf of additional shrub plantings to meet 70% minimum. 2. Plants used must be large (min 3 ft tall) shrubs native to Michigan. 3. Please replace <i>Ilex glabra</i> and <i>Hamamelis x intermedia</i> with species native to Michigan. 4. Please add a note to the plant list calling for straight species <i>Rhus aromatica</i>, not Grow Low as the latter is too short to be considered large. 5. Trees are not required for detention landscaping. Ornamentals shown can count as Woodland Replacements if they are on the woodland chart. See Section 37-8 for replacement requirements.
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 15 and Nov 15.	Yes	Don't include the year in the note.
Maintenance & Statement of intent	§ Include statement of intent to install and	Yes	Yes	Please correct notes to indicate that failing

Item	Required	Proposed	Meets Code	Comments
(LDM 2.m & Zoning Sec 5.5.6)	guarantee all materials for 2 years. § Include a minimum one cultivation in June, July and August for the 2-year warranty period.			plants must be replaced within 3 months of failing – not just at the end of the 2 year period.
Plant source (LDM 2.n & LDM 3.a.(2))	Shall be northern nursery grown, No.1 grade.	Yes	Yes	
Irrigation plan (LDM 2.s.)	A fully automatic irrigation system and a method of draining is required with Final Site Plan		No	<u>Irrigation plan should be provided with Final Site Plans.</u>
Other information (LDM 2.u)	Required by Planning Commission	NA		
Establishment period (Zoning Sec 5.5.6.B)	2 yr. Guarantee	Yes	Yes	
Approval of substitutions. (Zoning Sec 5.5.5.E)	City must approve any substitutions in writing prior to installation.	Yes	Yes	Please add “in writing” to note.
Plant List (LDM 2.h.) – Include all cost estimates				
Quantities and sizes	Refer to LDM suggested plant list	Yes	Yes	
Root type		Yes	Yes	
Botanical and common names		Yes	Yes	
Type and amount of lawn		Yes	Yes	
Cost estimate (LDM 2.t)	For all new plantings, mulch and sod as listed on the plan	Yes	Yes	
Planting Details/Info (LDM 2.i) – Utilize City of Novi Standard Details				
Canopy Deciduous Tree	Refer to LDM for detail drawings	Yes	Yes	
Evergreen Tree		Yes	Yes	
Multi-stem Tree		No	No	Please add detail
Shrub		Yes	Yes	
Perennial/ Ground Cover		Yes	Yes	
Tree stakes and guys. (Wood stakes, fabric guys)		No	No	Please add detail
Tree protection fencing	Located at Critical Root Zone (1' outside of dripline)	Yes	Yes	
Other Plant Material Requirements (LDM 3)				

Item	Required	Proposed	Meets Code	Comments
General Conditions (LDM 3.a)	Plant materials shall not be planted within 4 ft. of property line	TBD		Please add note near property lines stating this.
Plant Materials & Existing Plant Material (LDM 3.b)	Clearly show trees to be removed and trees to be saved.	Yes	Yes	
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	No		
Plant Sizes for ROW, Woodland replacement and others (LDM 3.c)	Canopy Deciduous shall be 3" and sub-canopy deciduous shall be 2.5" caliper. Refer to section for more details			Please replace Armstrong maples as replacements as they are actually a hybrid that does not appear on the Woodland Replacement Chart.
Plant size credit (LDM3.c.(2))	NA	No		
Prohibited Plants (LDM 3.d)	No plants on City Invasive Species List	20 Pyrus calleryana are proposed	No	1. These are on the city's prohibited species list. 2. Please replace them with a species that is not prohibited.
Recommended trees for planting under overhead utilities (LDM 3.e)	Label the distance from the overhead utilities		Yes	
Collected or Transplanted trees (LDM 3.f)		No		
Nonliving Durable Material: Mulch (LDM 4)	§ 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.

Item	Required	Proposed	Meets Code	Comments
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.			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.			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.

WOODLANDS REVIEW

January 26, 2018

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

Re: Novi Senior Community Project (JSP17-0066)
Woodland Review of the Revised Preliminary Site Plan (PSP18-0003)

Dear Ms. McBeth:

Environmental Consulting & Technology, Inc. (ECT) has reviewed the Revised Preliminary Site Plan (Plan) for the proposed Novi Senior Community Project prepared by Fazal Khan & Associates, Inc. (FKA) dated and stamped "Received" by the City of Novi Community Development Department on January 4, 2018 (Plan). The Plan was reviewed for conformance with the City of Novi Woodland Protection Ordinance Chapter 37. ECT conducted a woodland evaluation for the property on October 3, 2017 in order to verify the woodland information provided on the Plan.

ECT currently recommends approval of the Revised Preliminary Site Plan for Woodlands. ECT recommends that the Applicant address the items noted in the *Woodland Comments* section of this letter prior to approval of the Final Site Plan.

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 proposed development is located north of Twelve Mile Road between Novi Road and Meadowbrook Road in Section 11. The site is bounded by the Oakland Hills Memorial Gardens cemetery on the west and north sides, the Michigan State University Tollgate Farm on the east and Twelve Mile Road to the south. The project includes the development of a proposed 3-story senior center, associated parking, utilities and a stormwater detention basin.

Based on our review of the Plan, Novi aerial photos, Novi GIS, and the City of Novi Official Wetlands and Woodlands Maps (see Figure 1), it appears as if this proposed project site contains Regulated Wetlands as well as Regulated Woodlands. The site appears to contain some disturbed areas in the southwestern and northwestern portions of the property as well as some more mature woodland areas along the eastern and northeastern sections of the site. A significant portion of the eastern side of the subject property is mapped as City of Novi Regulated Wetlands and Woodlands. A tree survey and inventory has been completed for the site.

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.*

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

On-Site Woodland Evaluation

ECT has reviewed the City of Novi Official Woodlands Map and completed an onsite Woodland Evaluation on October 3, 2017. ECT's in-office review of available materials included the City of Novi Regulated Woodland map and other available mapping. The subject property includes area that is indicated as City-Regulated Woodland on the official City of Novi Regulated Wetland and Woodland Map (see Figure 1). These areas are located along the eastern section of the property. The western side of the site is generally more open with fewer trees.

An existing tree survey has been completed for the site and is included as Sheet C-3 (*Tree Survey and Tree Removal Plan*) and Sheet C-4 (*Tree List*) that identify tree tag numbers, diameter-at-breast-height (DBH), common/scientific name, and condition notes for the surveyed trees. The *Tree List* also includes a 'save/remove' column and a 'replacement' column.

The surveyed trees have been marked with metal tree tags allowing ECT to compare the tree diameters reported on the *Tree List* to the existing tree diameters in the field. ECT found that the Plan appears to accurately depict the location, species composition, size, and condition of the existing trees. ECT took a sample of diameter-at-breast-height (DBH) measurements and found that the data provided on the Plan was consistent with the field measurements.

The highest quality woodlands on site are found along the eastern and northeastern sections of the project site. In general, the on-site trees consist of northern red oak (*Quercus rubra*), white oak (*Quercus alba*), silver maple (*Acer saccharinum*), black walnut (*Juglans nigra*), eastern red cedar (*Juniperus virginiana*), American basswood (*Tilia Americana*), and several other species.

In terms of habitat quality and diversity of tree species, the overall subject site consists of fair to good quality trees. In terms of a scenic asset, wildlife habitat, windblock, noise buffer or other environmental asset, the forested area located on the subject site is considered to be of fair to good quality. It should be noted that although the woodland areas contain some degree of invasive species such as buckthorn (*Rhamnus cathartica*),

areas of the existing woodlands are relatively open and free of dense undergrowth that deters some species of wildlife such as white-tailed deer (*Odocoileus virginianus*).

As noted above, the northern and eastern sections of the site are mapped as Regulated Woodland on the City of Novi's Regulated Woodland Map. There are a number of trees to be removed for the proposed development, however the proposed site plan will attempt to preserve a wooded buffer of variable width along the northeastern and eastern sides of the property.

Proposed Woodland Impacts and Proposed Woodland Replacements

The *Landscape Plan-North* (Sheet L-2) continues to note that 453 Woodland Replacement Trees are required for the project. This is unchanged from the Preliminary Site Plan submittal. The Plan notes that a total of 86 Woodland Replacement Trees are proposed on-site (this is an increase of 1 Woodland Replacement Credit from the Preliminary Site Plan). The remaining 367 Woodland Replacement Tree credits will be paid into the City of Novi Tree Fund.

City of Novi Woodland Review Standards & Woodland 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”.

A Woodland Permit from the City of Novi would be required for proposed impacts to any trees 8-inch diameter-at-breast-height (DBH) or greater and located within an area designated as City Regulated Woodland, or any tree 36-inches DBH regardless of location on the site. Such trees shall be relocated or replaced by the permit grantee. All deciduous replacement trees shall be two and one-half (2 ½) inches caliper or greater and all coniferous replacement trees shall be six (6) feet in height (minimum). All Woodland Replacement trees shall be species that are listed on the City's Woodland Tree Replacement Chart (attached).

The Plan notes that the 85 Woodland Replacement Trees to be provided on-site will be 2.5” to 3” caliper deciduous trees, however, the proposed species have not been provided. The Woodland Replacement trees have been proposed both north and south of the proposed buildings.

Woodland Comments

The following are repeat comments from our Woodland Review of the Preliminary Site Plan (PSP17-0146) letter dated October 4, 2017. The current status of each comment is listed in ***bold italics***. Please consider the following comments when submitting future site development plan submittals:

1. The Applicant shall tabulate the number of trees that are proposed to be removed within the following categories and indicate how many Woodland Replacement are required for each removed tree:

Replacement Tree Requirements

Removed Tree D.B.H. (In Inches)	Ratio Replacement/ Removed Tree
8 < 11	1
>11 < 20	2
> 20 < 29	3
> 30	4

This comment has been adequately addressed.

2. It should be noted that when a proposed tree to be removed has multiple trunks, each multi-stemmed tree's caliper inch diameter shall be totaled and then divided by 8 to determine the required number of Woodland Replacement trees. The result shall be rounded up to determine the number of replacement credits required. For example, a multi-stemmed tree with 10", 12" and 13" trunks (10+12+13=34 divided by 8 = 4.25. Therefore, rounding to the next full number, five (5) replacement credits would be required.

This comment has been adequately addressed.

3. The Plan notes that the **85** Woodland Replacement Trees to be provided on-site will be 2.5" to 3" caliper deciduous trees, however, the proposed species have not been provided. Please see the *Woodland Tree Replacement Chart* (attached) for a list of acceptable Woodland Replacement Tree species.

This comment has been adequately addressed. The applicant is now providing a total of 86 acceptable Woodland Replacement trees on-site. The replacement trees are indicated on Sheets L-1 and L-2 (Landscape Plan – South and -North, respectively).

4. 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.

This comment still applies. The Woodland Replacement Performance Guarantee for on-site replacement trees will be \$34,400 (86 Woodland Replacement Credits on-site x \$400/Credit).

5. 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.

This comment still applies. A payment of \$146,800 (367 additional Woodland Replacement Credits x \$400/Credit) will be required.

6. 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.

This comment still applies.

7. 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.

This comment still applies.

8. 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*.

This comment still applies.

Recommendation

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

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

Respectfully submitted,

ENVIRONMENTAL CONSULTING & TECHNOLOGY, INC.



Pete Hill, P.E.
Senior Associate Engineer

Novi Senior Community Project (JSP17-0066)
Woodland Review of the Revised Preliminary Site Plan (PSP18-0003)
January 26, 2018
Page 6 of 10

cc: Lindsay Bell, City of Novi Planner
Sri Komaragiri, City of Novi Planner
Rick Meader, City of Novi Landscape Architect
Hannah Smith, City of Novi Planning Assistance

Attachments: Figure 1 – City of Novi Regulated Wetland & Woodland Map
Site Photos
Woodland Tree Replacement Chart

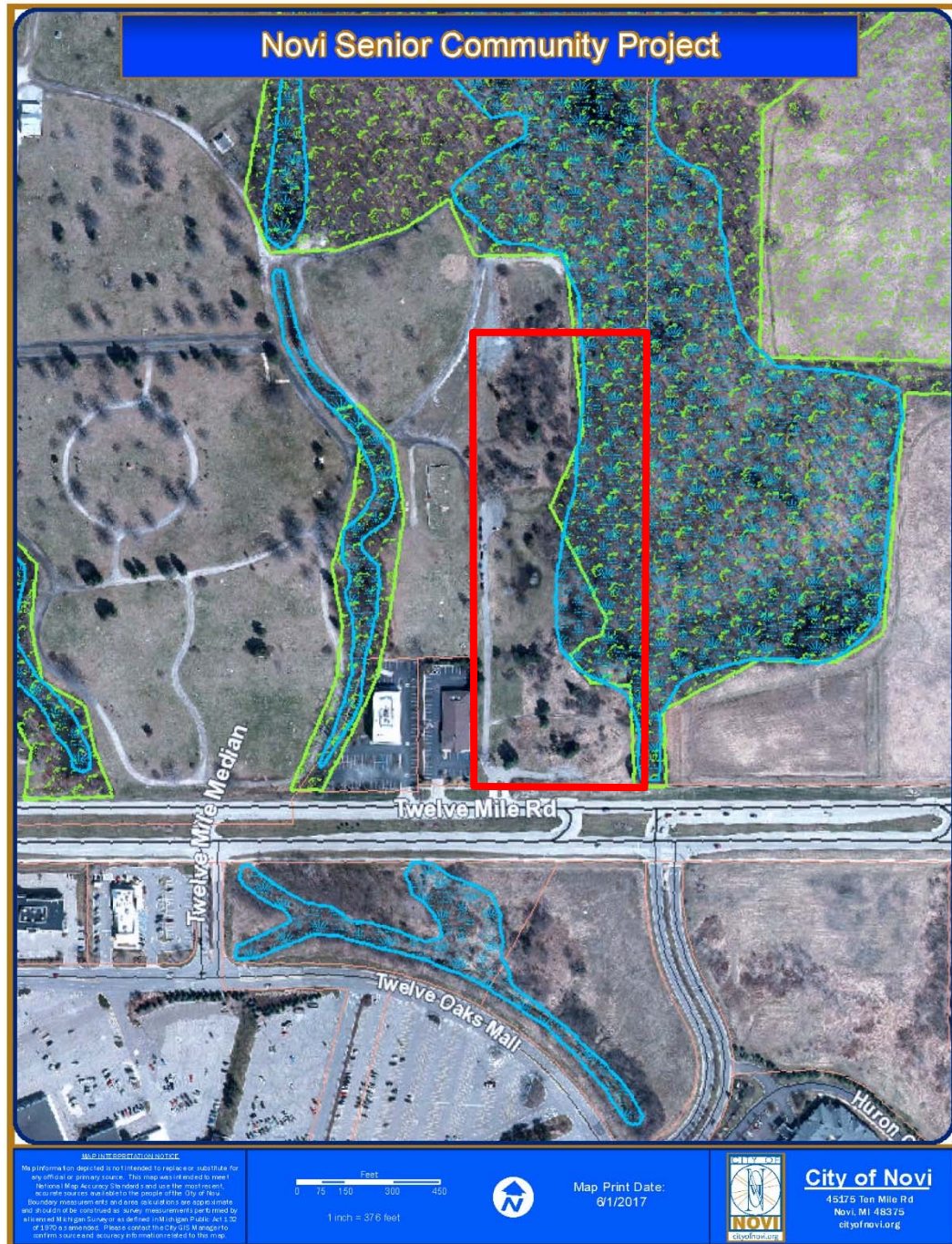


Figure 1. City of Novi Regulated Wetland & Woodland Map (approximate project boundary shown in red). Regulated Woodland areas are shown in green and regulated Wetland areas are shown in blue.

Site Photos



Photo 1. Looking south near western property boundary. Area is relatively open and contains few trees (ECT, 10/3/2017).



Photo 2. Looking north near the southern portion of the property. Area of site is previously disturbed (ECT, 10/3/2017).



Photo 3. Large oak trees (including 40" diameter northern red oak, Tree No. 3397) along the property boundary in the southeast section of the site to be preserved (ECT, 10/3/2017).



Photo 4. Looking north near northeast section of site. Area of woodland is to be preserved (ECT, 10/3/2017).

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>

WETLANDS REVIEW

January 26, 2018
ECT No. 170623-0300

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

Re: Novi Senior Community Project (JSP17-0066)
Wetland Review of the Revised Preliminary Site Plan (PSP18-0003)

Dear Ms. McBeth:

Environmental Consulting & Technology, Inc. (ECT) has reviewed the Revised Preliminary Site Plan (Plan) for the proposed Novi Senior Community Project prepared by Fazal Khan & Associates, Inc. (FKA) dated and stamped "Received" by the City of Novi Community Development Department on January 4, 2018 (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 also visited the site on October 3rd and October 17th, 2017 in order to verify wetland boundaries.

ECT currently recommends approval of the Revised Preliminary Site Plan for Wetlands. ECT recommends that the Applicant address the items noted in the *Wetland Comments* section of this letter prior to approval of the Final Site Plan.

The following wetland related items are required for this project:

Item	Required/Not Required/Not Applicable
Wetland Permit (specify Non-Minor or Minor)	Required (Non-Minor)
Wetland Mitigation	Not likely Required
Wetland Buffer Authorization	Required
MDEQ Permit	Likely required - It is the applicant's responsibility to contact the MDEQ in order to determine the need for a wetland use permit.
Wetland Conservation Easement	Not Required

The proposed development is located north of Twelve Mile Road between Novi Road and Meadowbrook Road in Section 11. The project is to be located east of the Oakland Hills Memorial Gardens cemetery. The project includes the development of a proposed 3-story senior center, associated parking, utilities and a stormwater detention basin.

Based on our review of the Plan, Novi aerial photos, Novi GIS, and the City of Novi Official Wetlands and Woodlands Maps (see Figure 1), it appears as if this proposed project site contains Regulated Wetlands as well as Regulated Woodlands. The site appears to contain some disturbed areas in the southwestern and northwestern portions of the property as well as some more mature remaining woodland areas along the

eastern and northeastern sections of the site. A significant portion of the eastern side of the subject property is mapped as City of Novi Regulated Wetlands and Woodlands.

The site is bounded by the Oakland Hills Memorial Gardens cemetery on the west and north sides, the Michigan State University Tollgate Farm on the east and Twelve Mile Road to the south.

The site was reviewed for the presence of regulated wetlands as defined in the City of Novi Wetland and Watercourse Protection Ordinance. ECT suggests that the City of Novi Engineering Department review this plan in order to verify that the site's stormwater will be adequately managed and meet the City's stormwater storage requirements.

Onsite Wetland Evaluation

ECT has reviewed the City of Novi Official Wetland and Woodlands Map and completed an onsite wetland verification on October 3, 2017 as well as October 17, 2017. There are surveyed wetlands (Wetlands A and B) located along the central/eastern section of the site, and Wetland D is located along the central/western section of the site. Wetlands A and B contain forested wetland vegetation. These wetlands include signs of seasonal standing water (water staining on tree trunks, stained leaves, etc.) as well as silver maple (*Acer saccharinum*), American elm (*Ulmus americana*), and eastern cottonwood (*Populus deltoides*). These wetlands contained little herbaceous vegetation. Wetland D is a relatively low-quality wetland that contains cottonwood trees and little visible herbaceous wetland vegetation at the time of the site inspection. The wetland boundaries appear to be accurately flagged in the field and displayed on the Plan. It should be noted that in addition to wetlands, the City of Novi also regulates the 25-foot wetland setback (i.e., wetland buffer). What follows is a summary of the wetland impacts associated with the proposed site design.

Wetland Impact Review

As noted above, three (3) areas of wetland have been confirmed on the subject property by the applicant's wetland consultant. The site development includes the filling of all three (3) wetlands; Wetlands A, B, D and the associated 25-foot wetland setbacks. The following table summarizes the proposed wetland impacts as listed on the *Boundary and Topography Plan* (Sheet C-2). It should be noted that the wetland area, 25-foot setback area and proposed fill quantity for Wetland D has not been provided by the applicant:

Table 1. Proposed Wetland Impacts

Wetland	City Reg?	MDEQ Reg?	Wetland Area	Wetland Area	Impact Area	Impact Area	Estimate d Fill Volume
			Square Feet	Acre	Square Feet	Acre	Cubic Yards
A	Yes, City Regulated /Essential	Not Likely	1,586	0.036	1,586	0.036	352
B	Yes, City Regulated /Essential	Not Likely	3,097	0.071	3,097	0.071	631
D	Yes, City Regulated	Likely	Not Provided	Not Provided	Not Provided	Not Provided	Not Provided

<i>Wetland</i>	<i>City Reg?</i>	<i>MDEQ Reg?</i>	<i>Wetland Area</i>	<i>Wetland Area</i>	<i>Impact Area</i>	<i>Impact Area</i>	<i>Estimated Fill Volume</i>
			<i>Square Feet</i>	<i>Acre</i>	<i>Square Feet</i>	<i>Acre</i>	<i>Cubic Yards</i>
	/Essential 1		(est. at 3,600)	(est. at 0.083)	(est. at 3,600)	(est. at 0.083)	
TOTAL	--	--	8,283	0.190	8,283	0.190	983 (Does not include fill to Wetland D)

The Plan also includes the construction of a storm water management basin located on the south side of the site, adjacent to Twelve Mile Road. The outlet from the detention basin will be to the City of Novi storm sewer system located in the Twelve Mile Road right-of-way.

The currently proposed wetland impacts do not appear to require wetland mitigation as the City's threshold for wetland mitigation is 0.25-acre of wetland impact. The current proposed wetland total impact is estimated to be 0.19-acre.

In addition to the proposed wetland impacts, the Plan proposes disturbance to 0.318-acre of on-site 25-foot wetland buffer area. It should be noted that the existing area of the Wetland D buffer and the proposed impacts have not been quantified on the Plan. The following table summarizes the proposed wetland/watercourse setback impacts as listed on the Plan (i.e., for Wetlands A and B):

Table 2. Proposed 25-Foot Wetland Buffer Impacts

<i>Wetland Buffer</i>	<i>City Regulated?</i>	<i>Wetland Buffer Area</i>	<i>Wetland Buffer Area</i>	<i>Buffer Impact Area</i>	<i>Buffer Impact Area</i>	<i>Estimated Fill Volume</i>
		<i>Square Feet</i>	<i>Acre</i>	<i>Square Feet</i>	<i>Acre</i>	<i>Cubic Yards</i>
A	Yes, City Regulated /Essential	5,655	0.130	5,655	0.130	904
B	Yes, City Regulated /Essential	8,183	0.188	8,183	0.188	1,036
TOTAL	--	13,838	0.318	13,838	0.318	1,940

Permits & Regulatory Status

The purpose of the City of Novi Wetland and Watercourse Protection Ordinance is described in the City of Novi Code of Ordinances, Part II, Chapter 12, Article V.; Division 1. This section states that:

- (a) The wetlands and watercourses of the city are indispensable and fragile natural resources subject to floodwater capacity limitations, erosion, soil bearing capacity limitations and other hazards. In their natural state, wetlands and watercourses provide many public benefits, such as the maintenance of water quality through nutrient cycling and sediment trapping, and flood and stormwater runoff control through temporary water storage, slow release and groundwater recharge. In addition, wetlands provide open space, passive recreation, fish and wildlife habitat, including migratory waterfowl and rare, threatened or endangered animal and plant species. The continued destruction and loss of wetlands and watercourses constitutes a distinct and immediate danger to the public health, safety and general welfare.
- (b) Throughout the state, considerable acreage of these important natural resources has been lost or impaired by draining, dredging, filling, excavating, building, pollution and other acts inconsistent with the natural uses of such areas. Remaining wetlands and watercourses are in jeopardy of being despoiled or impaired. Consequently, 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).
- (c) Pursuant to Mich. Const. 1963, Art. IV, § 52, the conservation and development of natural resources of the state is a matter of paramount public concern in the interest of the health, safety and general welfare of the people. Pursuant to the Michigan Environmental Protection Act, MCL 324.1701, et seq., it is the responsibility of public and private entities to prevent the pollution, impairment or destruction of the air, water or other natural resources by their conduct. It is, therefore, the policy of the city to protect wetlands and watercourses while taking into account varying ecological, hydrologic, economic, recreational and aesthetic values. Activities which may damage wetlands and watercourses shall be located on upland sites outside of upland woodland areas, unless there are no less harmful, feasible and prudent alternatives to the proposed activity. When an activity will result in the impairment or destruction of a wetland, mitigation shall be required in accordance with section 12-173(e)1.b.
- (d) It is the purpose of this article to protect the public health, safety and welfare through the protection of wetlands and watercourses. To meet these purposes, this article establishes standards and procedures for the review of proposed activities in wetlands and watercourses, provides for the issuance of use permits for approved activities, requires coordination with other applicable ordinances, statutes and regulations and establishes penalties for the violation of this article.

Any proposed impacts to the on-site wetlands would require a City of Novi *Wetland (Non-Minor) Use Permit* as well as an *Authorization to Encroach the 25-Foot Natural Features Setback* for any proposed impacts to the 25-foot wetland buffers. The on-site wetlands are considered essential by the City as they appear to meet one or more of the essentiality criteria set forth in the City's Wetland and Watercourse Protection Ordinance (i.e., storm water storage/flood control, wildlife habitat, etc.).

The granting or denying of nonresidential minor use permits shall be the responsibility of the Community Development Department per the City's Wetland Ordinance. A nonresidential minor use permit is a permit for activities consisting of no more than one (1) of the following activities which have a minimal environmental effect:

- a) Minor fills of three hundred (300) cubic yards or less and not exceeding ten thousand (10,000) square feet in a wetland area, providing the fill consists of clean, nonpolluting materials which will not cause siltation and do not contain soluble chemicals or organic matter which is biodegradable, and providing that any upland on the property is utilized to the greatest degree possible. All fills shall be stabilized with sod, or seeded, fertilized and mulched, or planted with other native vegetation, or riprapped as necessary to prevent soil erosion.
- b) Installation of a single water outfall provided that the outlet is riprapped or otherwise stabilized to prevent soil erosion.
- c) Watercourse crossings by utilities, pipelines, cables and sewer lines which meet all of the following design criteria:
 - i. The method of construction proposed is the least disturbing to the environment employable at the given site;
 - ii. The diameter of pipe, cable or encasement does not exceed twenty (20) inches;
 - iii. A minimum of thirty (30) inches of cover will be maintained between the top of the cable or pipe and the bed of the stream or other watercourse on buried crossings; and
 - iv. Any necessary backfilling will be of washed gravel.
- d) Extension of a wetland/watercourse permit previously approved by the planning commission.
- e) Replacement of a culvert of an identical length and size, and at the same elevation. If the proposed culvert is of a greater length or size than the existing culvert, or is a new culvert altogether, it must meet the conditions of subpart c., above, to qualify for a nonresidential minor use permit.
- f) Temporary impacts where the encroachment into protected areas is less than five hundred (500) feet.

The Michigan Department of Environmental Quality (MDEQ) generally regulates wetlands that are within 500 feet of a waterbody, regulated stream or are part of wetland system greater than 5 acres in size. It is the applicant's responsibility to contact MDEQ in order to confirm the regulatory authority with respect to the on-site wetland areas. The MDEQ does not regulate the 25-foot wetland buffer as does the City of Novi. Wetland A and Wetland B do not appear to meet the requirements for regulation by the MDEQ, however Wetland D is likely regulated by the MDEQ.

Wetland Comments

Please consider the following comments when preparing subsequent site plan submittals:

1. The applicant shall provide information on subsequent plans that clearly indicates the areas of all on-site wetlands as well as the area of the 25-foot wetland buffers. The plans shall also clearly indicate the area (square feet or acres) of all wetland and wetland buffer impacts (both permanent and temporary, if applicable) and the volume (cubic yards) of all wetland impacts. Please provide this information for Wetland D and provide a new impact summary for the project totals.
2. The proposed impacts to the on-site wetlands would require a City of Novi *Wetland Non-Minor Use Permit* as well as an *Authorization to Encroach the 25-Foot Natural Features Setback* for the proposed impacts to the 25-foot wetland buffers. The on-site wetlands are considered essential by the City as they appear to meet one or more of the essentiality criteria set forth in the City's Wetland and Watercourse Protection Ordinance (i.e., storm water storage/flood control, wildlife habitat, etc.).

3. The Michigan Department of Environmental Quality (MDEQ) generally regulates wetlands that are within 500 feet of a waterbody, regulated stream or are part of wetland system greater than 5 acres in size. It is the applicant's responsibility to contact MDEQ in order to confirm the regulatory authority with respect to the on-site wetland areas. The MDEQ does not regulate the 25-foot wetland buffer as does the City of Novi. Wetland A and Wetland B do not appear to meet the requirements for regulation by the MDEQ, however Wetland D is likely regulated by the MDEQ.

Final determination of regulatory status should be made by the MDEQ. A permit from this agency may be required for any direct impacts to existing wetlands. Correspondence from the MDEQ should be provided as a City of Novi Wetland Permit cannot be issued prior to receiving this information.

Recommendation

ECT currently recommends approval of the Revised Preliminary Site Plan for Wetlands. ECT recommends that the Applicant address the items noted in the *Wetland Comments* section of this letter prior to approval of the Final Site Plan.

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

Sincerely,

ENVIRONMENTAL CONSULTING & TECHNOLOGY, INC.



Peter Hill, P.E.
Senior Associate Engineer

cc: Lindsay Bell, City of Novi Planner
Sri Komaragiri, City of Novi Planner
Rick Meader, City of Novi Landscape Architect
Hannah Smith, City of Novi Planning Assistant

Attachments: Figure 1. City of Novi Regulated Wetland & Woodland Map
Site Photos

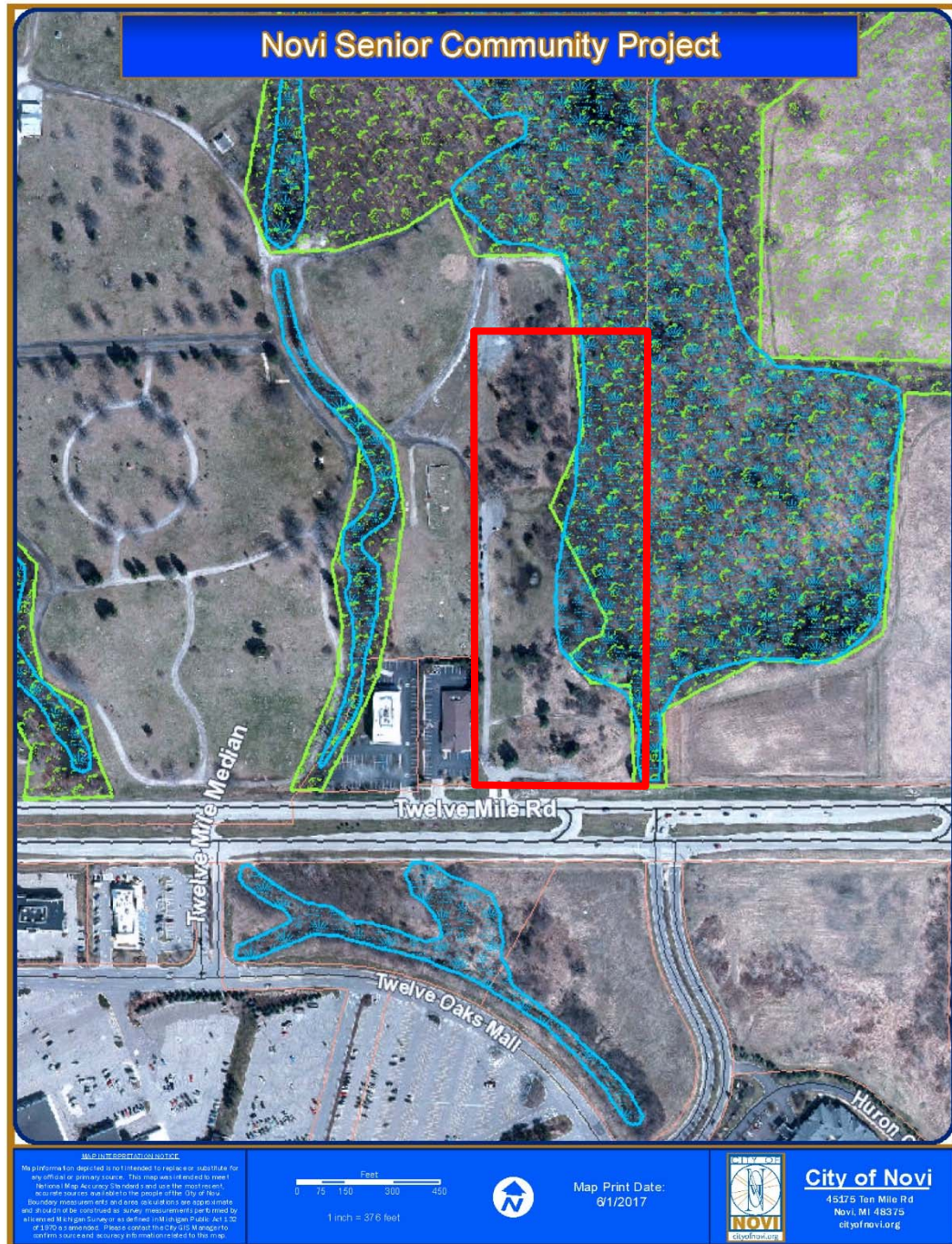


Figure 1. City of Novi Regulated Wetland & Woodland GIS Coverage Map (approximate project boundary shown in red). Regulated Woodland areas are shown in green and regulated Wetland areas are shown in blue.

Site Photos



Photo 1. Looking southwest at existing Wetland A (ECT, October 3, 2017).



Photo 2. Looking east at existing Wetland B (ECT, October 3, 2017).



Photo 3. Looking south at existing Wetland D (ECT, October 17, 2017).

TRAFFIC REVIEW



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

Project name:
JSP17-0066 Novi Senior Community Project
Preliminary Traffic Review

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

From:
AECOM

Date:
January 25, 2018

CC:
Sri Komaragiri, Lindsay Bell, George Melistas,
Theresa Bridges, Darcy Rechten, Hannah Smith

Memo

Subject: Novi Senior Community Project Traffic Review

The revised preliminary site plan was reviewed to the level of detail provided and AECOM **recommends conditional approval** for the applicant to move forward with the condition that the comments provided below, **specifically in regards to the right turn taper**, are adequately addressed to the satisfaction of the City.

GENERAL COMMENTS

1. The applicant, CA Senior Living Holdings, LLC is proposing a 183-unit elderly housing development on the north side of 12 Mile Road between Novi Road and Meadowbrook Road. The proposed building is three stories and has a total footprint of 73,166 square feet (SF).
2. 12 Mile Road is under the jurisdiction of the Road Commission for Oakland County (RCOC).
3. The site is zoned OS-1/OSC (Judgment). The applicant has not requested to re-zone the parcel.
4. Residential units range from studio to two-bedroom units.
5. 105 units will be for residents that require active assistance and 78 units are described as independent living.
6. Summary of traffic-related waivers/variances:
 - a. The applicant is requesting a variance for the access road width.

TRAFFIC IMPACTS

1. AECOM performed an initial trip generation estimate based on the ITE Trip Generation Manual, 10th Edition, as follows:

ITE Code: 253 (Congregate Care Facility) and 254 (Assisted Living)
Development-specific Quantity: 78 units and 114 beds, respective to above ITE codes
Zoning Change: N/A

Trip Generation Summary					
	City of Novi Threshold	Congregate Care Facility Estimated Trips	Assisted Living Estimated Trips	Total Trips	Above Threshold?
AM Peak-Hour, Peak-Direction Trips	100	4	14	18	No
PM Peak-Hour, Peak-Direction Trips	100	8	18	26	No
Daily (One-Directional) Trips	750	158	296	454	No

- The number of trips does not exceed the City's threshold of more than 750 trips per day or 100 trips per either the AM or PM peak hour. AECOM recommends performing the following traffic impact study in accordance with the City's requirements:

Traffic Impact Study Recommendation	
Type of Study	Justification
None	N/A

EXTERNAL SITE ACCESS AND OPERATIONS

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

- The applicant has proposed a divided driveway on Twelve Mile Road. The proposed dimensions of the driveway for entering and exiting radii, entering and exiting width, and island length do not align with the standard dimensions given in the City's Code of Ordinances. However, the proposed values are within the City's allowable range for the given type of driveway. The applicant should provide justification for using the provided dimensions or revise the dimensions to comply with the City's standards shown in Figure IX.3 in the Code of Ordinances. **If dimensions other than the standard dimensions are used, the applicant is required to request an administrative variance.**
- A right turn taper is required based on the AADT of 12 Mile Road (8,520 vehicles per day, SEMCOG) and the estimated right turning traffic into the development. It should be noted that the numbers are right on the threshold of the right turn taper requirement. The applicant should provide a right-turn taper at the driveway based on the dimensions specified in Figure IX.11 in the City's Code of Ordinances. **A City Council variance is required for an absence of a right turn taper.**
- The applicant has indicated 460 feet of sight distance for exiting vehicles. The City requires 510 feet of sight distance for multi-lane facilities with a speed limit of 45 mph. Please indicate if the additional sight distance is available.
- The applicant has provided driveway spacing distances. The proposed driveway spacing is compliant with City standards. It should be noted that opposite side driveway spacing does not apply to divided roadways.

5. The applicant has proposed an emergency access driveway of 20 feet in width, which is in compliance with City standards.
6. The applicant has proposed two emergency access gates for the emergency access drive spaced approximately 30 feet apart. The applicant should update the break-away gate detail to indicate actual site dimensions.
7. The applicant has proposed to re-construct the access road to the cemetery to the west of the site. The access road is proposed at 18 feet wide, uncurbed, and ending in a circular loop with a radius of 35 feet. The City requires a minimum width of 20 feet for the non-residential marginal access road from back of curb to back of curb; or the width is required to be 28 feet from back of curb to back of curb for two-way operation. The access road is proposed for vehicle queueing/storage and will not be used to facilitate traffic. It is understood that the applicant is constrained by the available space on the site; however, the following should be evaluated, and approved by the applicable City representative, prior to final site plan approval.
 - a. **A City Council Variance is required for the reduced roadway width.** AECOM would support not the variance for roadway width due to site space constraints and general functionality of the access road; however, it is recommended that the following be evaluated by City Council prior to approving the variance:
 - i. The 18 foot wide access drive is intended to serve as vehicle storage during burial services. It should be noted that a typical parallel parking space is eight feet wide, which only leaves 10 feet remaining for a travel lane. While it is understood that there will typically not be a need for two-way traffic in addition to the parking lane, it should be noted that in the event that a vehicle needs to bypass the parked vehicles and exit the access road, there could be conflicts with inbound vehicles due to the limited road width and proposed wall of the east side of the roadway.
 - ii. It is likely that vehicles will park in the landscaped area off of the pavement, which may lead to the following concerns:
 1. Deterioration of the landscape/grass depending on the frequency of burial services, especially during periods of rainfall.
 2. The applicant should indicate snow removal plans to ensure that adequate space is cleared to facilitate queuing vehicles (parked) and traveling vehicles along the access road.
 - b. Due to the absence of a curb, the applicant should indicate that the grade of the drive approach between the edge of the pavement and the edge of the shoulder shall conform to the slope of the shoulder and that adequate drainage is provided.
 - c. The applicant has indicated a circular “cul-de-sac” at the end of the access road. It is unclear as to whether this is to be considered a formal cul-de-sac or a modified circular loop. If the roadway geometry is considered a circular loop, based on the minimum outside turning radius of a passenger car is 23.8 feet with an inside radius of 14.4 feet based on Figure 2-1 in A Policy on Geometric Design of Highways and Streets the design is acceptable. If the roadway geometry is to be considered a cul-de-sac, the City requires cul-de-sacs to have a mountable curb on the outside of the cul-de-sac. A City Council Variance would be required for the absence of the mountable curb. The cul-de-sac design itself is adequate based on the outside and inside turning radius of a passenger vehicle (23.8 feet and 14.4 feet, respectively)

INTERNAL SITE OPERATIONS

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

1. General Traffic Operations
 - a. The applicant has shown truck turning patterns throughout portions of the site but should update the plans to also show turning patterns into and out of the loading area.
 - b. Based on the existing zoning the applicant is required to provide five square feet of loading area per front foot of building up to 360 square feet. The applicant has proposed an 888 SF loading zone.
 - c. The applicant has indicated trash collection areas on the west side of the building.

- d. The trash collection areas and loading zones utilize the same space. The applicant should indicate that there are not anticipated conflicts with accommodating loading/unloading and trash collection services simultaneously.
- e. The applicant should indicate turning patterns for emergency vehicle access to the A.L. and I.L. entrances. The applicant should also indicate turning patterns for emergency vehicle access to/from the emergency access roadway, particularly where it meets the main site aisle.

2. Parking Facilities

- a. The City of Novi requires one parking space for every one dwelling unit of independent elderly living (78 units) and one for each employee. The city also requires one parking space for every four beds of assisted living (114 beds assumed as indicated in the response letter, the applicant should provide the total number of beds for the assisted living section of the development) and one for each employee for the assisted living section of the building. The applicant has indicated 30 employees total for both facilities. Therefore, the City requires a total of 137 parking spaces. The applicant should revise the plans to indicate the total parking spaces required by the City's Zoning Ordinance Section 5.2.12. The applicant has proposed 138 total parking spaces.
- b. The applicant has proposed six accessible spaces of the 138 total parking spaces. All six accessible parking spaces are proposed as van accessible.
- c. The applicant should consider relocating the accessible spaces such that they are located a closer distance to site entrances as recommended by ADA standards.
- d. The applicant has provided a mix of 19 foot long parking spaces and 17 foot long parking spaces. The applicant has proposed a six inch curb at all parking spaces and should revise the plans to indicate a four inch curb for all 17 foot long spaces in order to be in compliance with City standards. Reference Section 5.3.2 of the City's Zoning Ordinance for more information.
 - i. Similarly, the applicant could consider reducing the perimeter parking spaces to be 17 feet in length with a four inch curb and clear two foot vehicle overhang area to provide more permeable surface area on the site.
- e. The applicant has provided a maximum of 15 parking spaces in a single parking bay as required by City standards.
- f. The applicant has provided a seven foot wide sidewalk in areas where 17 foot parking abuts a sidewalk; however, the sidewalk should be reduced to four inches in height instead of six to accommodate the required two-foot vehicular overhang with the 17 foot parking space.
- g. The applicant should indicate a 24 foot wide parking aisle throughout the entire site. There are some areas where the aisle width is not labeled.
- h. The applicant should indicate that parking end islands are three feet shorter than the adjacent parking space and the end island width as required by Section 5.3.12 of the City's Zoning Ordinance.
- i. Based on the land-uses of congregate elderly housing and assisted living facility, the site requires one bicycle parking space for every 20 employees. Therefore the applicant is required to provide a minimum of one bicycle parking space. The applicant has provided four bicycle parking spaces, all located at the I.L. entrance. The bicycle parking space detail should be updated to indicate four bicycle parking spaces, not three. The applicant could also consider splitting up the bicycle parking to serve both entrances.
- j. The bicycle parking layout is generally in compliance with City standards given that the revision above is completed; however, the bicycle rack height is required to be 36 inches as required by Section 5.16.5.B of the City's Zoning Ordinance.

3. Sidewalk Requirements

- a. The proposed sidewalk widths along Twelve Mile Road and around the perimeter of the building are in compliance with City standards.
- b. The applicant has proposed a connection from the Twelve Mile Road sidewalk to the pathway around the perimeter of the building; however, there is no connecting sidewalk from the building across from the proposed ramp. The applicant should provide a connecting sidewalk and/or ramp on the building side of the parking aisle.

- c. The applicant should update the proposed ramp/detectable warning surface detail to MDOT detail R-28-J.
 - d. The applicant should place ramps at the proposed crosswalk across the loading zone access path.
 - e. The provided offset of the sidewalk along 12 Mile Road is in compliance with City standards.
4. All on-site signing and pavement markings shall be in compliance with the Michigan Manual on Uniform Traffic Control Devices. The following is a discussion of the proposed signing and striping.
- a. All signing and striping details are required by the final site plan.
 - b. All roadside signs should be installed two feet from the face of the curb to the near edge of the sign.
 - c. Single signs with nominal dimensions of 12" x 18" or smaller in size shall be mounted on a galvanized 2 lb. U-channel post. Multiple signs and/or signs with nominal dimension greater than 12" x 18" shall be mounted on a galvanized 3 lb. or greater U-channel post as dictated by the weight of the proposed signs.
 - d. Traffic control signs shall use the FHWA Standard Alphabet series.
 - e. Traffic control signs shall have High Intensity Prismatic (HIP) sheeting to meet FHWA retroreflectivity requirements.
 - f. All signs are required to be a height of 7 feet from the top of grade to the bottom of the sign when placed in the vicinity of a curb.
 - g. The proposed R7-8 sign detail is not the same sign as the R7-8 sign indicated in the MMUTCD. Please update detail to reflect the correct sign.
 - h. The applicant should indicate that the "No Parking Fire Lane" sign is a modified R8-3a sign. It should be noted that the minimum size of the R8-3a sign is 18"x24".
 - i. The applicant should indicate the size of the proposed stop sign and also indicate that the sign is an R1-1 sign. It should be noted that the R1-1 should be 30"x30".
 - j. The sign quantities table on sheet C-6 should be updated to include MMUTCD designation, sign size and sign quantity. Please note that the quantities listed in the table are not consistent with those indicated near the sign details.
 - k. The applicant should indicate the color and width of parking striping. Standard space striping is required to be white and accessible parking striping is required to be blue. All parking striping shall be four inches in width. Standard parking spaces and accessible parking spaces shall be separated by abutting white and blue stripes.
 - l. The applicant is required to provide details for the international symbol of accessibility to be used to identify accessible parking spaces. The symbol is required to be white or white with a blue background and white border with rounded corners as required per the MMUTCD.
 - m. The applicant has proposed striping from each accessible access aisle across the parking aisle. It should be noted that the striping for the accessible aisle shall be blue and crosswalk striping shall be white. The applicant could consider removing the crosswalk striping from the site plan.
 - n. The applicant should update plans and provide a detail for proposed crosswalk striping to be compliant with MMUTCD standards.

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

Sincerely,

AECOM



Sterling Frazier, PE
Reviewer, Traffic/ITS Engineer

Memo



Maureen N. Peters, PE
Senior Traffic/ITS Engineer

FAÇADE REVIEW



January 30, 2018

Façade Review Status Summary:
Full Compliance, Section 9 Waiver not required.

City of Novi Planning Department
 45175 W. 10 Mile Rd.
 Novi, MI 48375-3024

Re: **FACADE ORDINANCE - Façade Review**
Novi Senior Housing, 12 Mile Rd., PSP17-0146
 Façade Region: 1, Zoning District: RA

Dear Ms. McBeth;

The following is the Façade Review for the above referenced project based on the drawings prepared by BKV Group Architects, dated 1/19/18. This project is subject to the Façade Ordinance Section 5.15. The percentages of materials proposed for each façade are as shown in the tables below. Materials in non-compliance, if any are highlighted in bold.

	North	South	East	West	West Link	East Link	Façade Ordinance Section 2520 Maximum (Minimum)
Brick	38%	42%	32%	31%	32%	30%	100% (30% Min)
Cement Fiber Siding	34%	28%	33%	32%	34%	36%	50% (Note 11)
Wood Trim	6%	5%	5%	6%	8%	8%	50%
Asphalt Shingles	22%	25%	30%	31%	26%	26%	50%

Recommendation - In response to prior comments the applicant has revised the elevations to provide 30% minimum brick on all facades. All facades are now in full compliance with the Façade Ordinance. The sample board provided indicates well-coordinated earth toned colors.

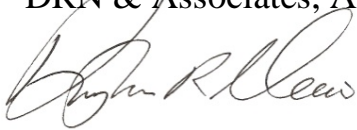
Notes to the Applicant:

1. All roof top equipment must be screened from view from all vantage points both on and off-site using materials compliant with Section 5.15.
2. Façade Ordinance requires inspection(s) for all projects. Materials displayed on the approved sample board will be compared to materials delivered to the site. It is the applicant's responsibility to request the inspection of each façade material at the appropriate time. Inspections may be requested using the Novi Building Department's Online Inspection Portal with the following link. Please click on "Click here to Request an Inspection" under "Contractors", then click "Façade".

<http://www.cityofnovi.org/Services/CommDev/OnlineInspectionPortal.asp>.

If you have any questions regarding this project please do not hesitate to call.

Sincerely,
DRN & Associates, Architects PC



Douglas R. Necci, AIA

FIRE REVIEW



January 12, 2018

TO: Barbara McBeth- City Planner
Sri Ravali Komaragiri- Plan Review Center
Hannah Smith- Plan Review Center

RE: Novi Senior Community Project

PSP# 17-0146

PSP# 18-0003

Project Description:

Build a three story senior living building off of Twelve Mile Rd. East of Novi Rd. on the north side of Twelve Mile.

Comments:

- 1) **CORRECTED 1/12/18** - On Plan #C-5, secondary access road MUST be at least 20' wide. Not 18' wide that is indicated on the plans. IFC 503.2.1.
- 2) **STILL PENDING 1/12/18** - For the over-hang on Plan #A 5.2, over-head clearance for the fire lane is 14', NOT 13.6'. IFC 503.2.1.
- 3) **STILL PENDING 1/12/18** - On Plans #C-9, hydrant spacing is 300' in a /commercial setting. City Ordinance 11-68(F)(1)C.
- 4) **STILL PENDING 1/12/18** All roads and access drives MUST be built to support 35 ton. City Ordinance 15-17 503.2.3.

Recommendation:

APPROVED WITH CONDITIONS Items 2, 3, 4 still pending.

Sincerely,

Andrew Copeland – FPO/Inspector II - CFPE
City of Novi – Fire Dept
cc: file

APPLICANT RESPONSE LETTER

FAZAL KHAN & ASSOCIATES, INC.

Civil Engineers & Land Surveyors

Fazlullah M. Khan, P.E., MSCE
 Donald H. King, P.S.
 Carol P. Thurber, P.E., CFM
 Thomas R. DeHondt, P.E.
 Ottavio Palazzolo, P.E.
 Stephen M. Henige

February 1, 2018

Sri Ravali Komaragiri, Planner
 City of Novi
 Community Development Department
 Planning Division
 45175 W. Ten Mile Road
 Novi, MI 48375

RE: Novi Senior Community (City File #JSP17-45)
 Preliminary Site Plan

Dear Ms. Komaragiri:

We are pleased to submit the Preliminary Site Plan for Novi Senior Community on behalf of CA Senior Living Holdings, LLC. Novi Senior Community is a two story assisted living community for the elderly, located on the north side of Twelve Mile Road between Novi Road and Meadowbrook Road. We have revised the Preliminary Site Plan for the above referenced development according to your pre-application review dated October 10, 2017. Enclosed please find one (1) full set of revised plans and all review response letters. Our revisions and comments are as follows:

Item	Required Code	Proposed	Meets Code	City Comments	Applicant Comments
Notes:					
1. Please see attached narrative describing the proposed uses in the development and how they meet the consent judgement and current zoning ordinance use standards and definitions.					
2. One site plan with has been provided with notes that reference details on other sheets.					
3. A combined site plan submittal is attached which includes one document with one cover sheet with an index that accurately show the order of the different components contained within.					
Zoning and Use Requirements					
Master Plan (Adp. Aug. 25, 2010)	Community Office	Senior Housing	Yes/No		
Area Study	NA	NA	NA		
Zoning (Eff. Dec. 25, 2013)	Consent Judgement: OS-1, OSC	OSC	Yes		
Uses Permitted (Sec 3.1.22.B & C)	Sec. 3.1.22.B. – Principal Uses Permitted Sec. 3.1.22.C. – Special Land Uses Permitted	Facilities for human care (Use Standard 4.64)		The existing consent judgement should be amended to allow the proposed use.	The consent judgement was amended and presented to the City Council on October 23.
Height bulk, density and area limitations					
Frontage on a Public Street. (Sec. 5.12)	Frontage on a Public Street is required	Frontage on 12 Mile	Yes		
Minimum Zoning Lot Size for each Unit in Ac (Sec 3.6.2.D)	Except where otherwise provided in this Ordinance, the minimum lot area and width, and the maximum percent of lot coverage shall be determined on the		Yes		

Minimum Zoning Lot Size for each Unit: Width in Feet (Sec 3.6.2.D)	basis of off-street parking, loading, greenbelt screening, yard setback or usable open space		Yes		
Open Space Area	---	---	---	---	
Maximum % of Lot Area Covered (By All Buildings)	(Sec 3.6.2.D)	14.6% proposed	Yes		
Building Height (Sec. 3.1.23.D)	Maximum building height is 46 feet, no more than three stories per consent judgement	44'3" to the peak of the roof; 3 stories	Yes		

Building Setbacks (Sec. 3.1.23.D)					
Front (South)	50 ft. + 20 ft. (for additional story)	284.8 ft.	Yes	Appears to be in conformance. Label the height to indicate a minimum of 70 ft. on all sides.	Setbacks have been revised on the site plan to indicate a minimum of 70 ft. on all sides.
Side (East)	50 ft.	77 ft. approx.	Yes		
Side (West)	50 ft.	75 ft. approx.	Yes		
Rear (North)	50 ft.	250 ft. approx.	Yes		

Parking Setback (Sec 3.1.23.D) Refer to applicable notes in Sec 3.6.2					
All sides	15 ft. minimum according to the Consent judgement	Minimum 18 feet, maximum 162 feet.	Yes		

Note to District Standards (Sec 3.6.2)					
Exterior Side Yard Abutting a Street (Sec 3.6.2.C)	All exterior side yards abutting a street shall be provided with a setback equal to front yard.	NA	NA		
Off-Street Parking in Front Yard (Sec 3.6.2.E)	Off-street parking is allowed in front yard, but outside of the parking setback	Proposed	Yes		
Setbacks when property abuts residential (Sec 3.6.2.L)	Wherever property directly abuts or is adjacent to residentially zoned property, the minimum yard setback shall be twenty (20) feet.	Minimum 15 feet per consent judgement	Yes		
Wetland/ Watercourse Setback (Sec 3.6.2.M)	A setback of 25 ft. from wetlands and from high watermark course shall be maintained	Provided	Yes		
Parking setback screening (Sec 3.6.2.P)	Required parking setback area shall be landscaped per sec 5.5.3.	Provided	Yes	See Landscape Review Letter for additional comments	See Landscape Review Response letter for comments.
Modification of parking setback requirements (Sec 3.6.2.Q)	The Planning Commission may modify parking setback requirements based on its determination according to Sec 3.6.2.Q	NA	NA	Consent judgement requires a minimum of 15 feet on all sides for all uses	

OS-1 District Required Conditions (Sec 3.17)					
OS-1 District Required Conditions (Sec 3.17)	-No interior display shall be visible from the exterior of the building.	Unable to determine	Yes?	Please add notes to the site to verify conformance	See architectural plans

	-The outdoor storage of goods or materials shall be prohibited. -Warehousing or indoor storage of goods or material, beyond that normally incident to the permitted uses, shall be prohibited.				
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Use Standards for Facilities for Human Care (Sec. 4.64)					
Intent (Sec. 4.64)	Facilities for human care such as general hospital sanitariums, convalescent homes, hospice care, and assisted living.	Congregate care, specialized memory care, and assisted living	Yes/No	General hospital is not allowed per consent judgement. Applicant should amend the consent judgement to allow the proposed use	The consent judgement was amended and presented to the City Council on October 23.
Minimum Acreage (Sec. 4.64.1)	Not less than 5 acres, except general hospitals shall be not less than 20 acres.	9.72 acres	Yes		
Minimum Setbacks (Sec. 4.64.2)	Minimum distance of any main or accessory building from any lot line or street shall be at least 50 ft. for all two story structures. For every story above 2, the minimum yard setback for any yard shall be increased by no less than 20 ft. for each floor over 2, or the setback requirements of the particular zoning district, whichever is greater.	Minimum 70 ft. all around proposed 3 stories maximum	Yes		
General Hospital (Sec. 4.64.3)	General hospitals may exceed maximum height restrictions of the district provided that all structures shall be limited to 5 stories and 65 ft. in height	NA	NA		

Definitions					
Sanitariums, Hospice Care	No definitions provided in Zoning Ordinance			Listed under Facilities for Human Care	
Convalescent or Nursing Home	A structure with sleeping rooms, where persons are housed or lodged and are furnished with meals, nursing, and limited medical care.			Listed under Facilities for Human Care	
Assisted Living Facility	A residential care facility for the transitional residency of elderly people usually consisting of individual living unit combined with facilities for assistance with daily activities, nursing services, and limited medical care.			Listed under Facilities for Human Care	
Independent living, Housing for Elderly	Housing for the elderly that includes attached or detached cottage-type dwellings, townhouses, or apartments.			Not listed under Facilities for Human Care While we understand that the Independent Living Units could be converted at some time to Assisted Living units, the Independent Living Units as proposed are inconsistent with the types of uses described as "facilities for human care" as listed in the	

			ordinance (i.e. hospitals, sanitariums, convalescent homes, assisted living facilities).	
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Parking, Loading and Dumpster Requirements					
Number of Parking Spaces (Sec.5.2.12) Congregate Elderly Assisted Living	Independent Elderly 1 for each dwelling unit and 1 for each employee For 77 units, 5 employees 77 + 5 = 82 Assisted Living 1 for each 4 beds and 1 for each employee For 114 beds, 25 employees 27 + 25 = 52 spaces 136 spaces required	140 spaces proposed	Yes	Revise the parking calculations in the site plan to reflect 1 for each dwelling unit for independent living and 8 units in assisted living have two beds, so total number of beds is 114, not 106. Provide largest working shift and potential overlap to determine greatest parking need for employees.	Parking calculations have been revised accordingly to allow for largest working shift as well and potential overlap, as well as the number of beds within each unit.
Maximum allowed parking	No more than 25 percent than minimum required. Minimum required: 134 Maximum required: 168 spaces	Maximum proposed 140	Yes	Novi City Council is currently reviewing an amendment to the Zoning Ordinance that limits the number of on-site parking spaces to 125 percent of the required parking	
Parking Space Dimensions and Maneuvering Lanes (Sec. 5.3.2)	-90 ° Parking 9 ft. x 19 ft. - 24 ft. two way drives - 9 ft. x 17 ft. parking spaces allowed along 7 ft. wide interior sidewalks as long as detail indicates a 4" curb at these locations and along landscaping	Yes Yes Yes	Yes		
Parking stall located adjacent to a parking lot entrance (public or private) (Sec. 5.3.13)	Shall not be located closer than 25 ft. from the street right-of-way line, street easement or sidewalk, whichever is closer	Approximately 140 ft. proposed	Yes		
End Islands (Sec. 5.3.12)	- End Islands with landscaping and raised curbs are required at the end of all parking bays that abut traffic circulation aisles. - The end islands shall generally be at least 8 feet wide, have an outside radius of 15 feet, and be constructed 3' shorter than the adjacent parking stall as illustrated in the Zoning Ordinance	Yes Provide measurements for end islands on site plan and confirm all are 3' shorter	No	Provide additional details on end island size	End islands have been eliminated from the parking lot.
Barrier Free Spaces Barrier Free Code	101-150, 5 spaces 1 to be van accessible	6 spaces proposed	Yes	Per building permit review comments, two of proposed handicap	Two spaces were relocated to the opposite side of the

				spaces proposed south of east entrance can be relocated closer to the main building entrance, if site grading permits.	aisle closer to the east entrance.
Barrier Free Space Dimensions Barrier Free Code	- 8' wide with an 8' wide access aisle for van accessible spaces - 8' wide with a 5' wide access aisle for regular accessible spaces	All are van accessible	Yes		
Barrier Free Signs Barrier Free Code	One sign for each accessible parking space.	One sign per space is proposed	Yes		
Minimum number of Bicycle Parking (Sec. 5.16.1)	Congregate/Assisted Living: 1 space for each 20 employees on maximum shift, minimum of 2	4 spaces provided	Yes	30 employees are counted for parking, 70 for bicycle parking. Please clarify and update the calculations accordingly.	
Bicycle Parking General requirements (Sec. 5.16)	- No farther than 120 ft. from the entrance being served - When 4 or more spaces are required for a building with multiple entrances, the spaces shall be provided in multiple locations - Spaces to be paved and the bike rack shall be inverted "U" design - Shall be accessible via 6 ft. paved sidewalk	Proposed, but unclear dimensions	No	The layout plan refers to a detail, but the detail is not provided.	Shown on plans. Detail added to new sheet "Preliminary Site Plan Details" Sheet C-6
Bicycle Parking Lot layout (Sec 5.16.6)	Parking space width: 6 ft. One tier width: 10 ft. Two tier width: 16 ft. Maneuvering lane width: 4 ft. Parking space depth: 2 ft. single, 2 ½ ft. double	Proposed, but unclear dimensions	No	Detail shows six bike spaces. One four are proposed with the current submittal. Please correct the inconsistency.	
Loading Spaces Sec. 5.4.1	- Within the OS districts, loading space shall be provided in the rear yard or in the case of a double frontage lot, in the interior side yard, - In the ratio of five (5) square feet per front foot of building up to a total area of three-hundred sixty (360) square feet per building.	Proposed in side yard 999 sq. ft. provided	No	Applicant should move loading space location or seek a ZBA variance for the location in the side yard.	<i>We respectfully request a variance for loading area and compactor location. Adjacent property is zoned R-4, but existing use is cemetery.</i>
Dumpster Sec 4.19.2.F	- Located in rear yard - Attached to the building or - No closer than 10 ft. from building if not attached - Not located in parking setback - If no setback, then it cannot be any closer	No, in side yard Attached to the building NA Correct NA	No	Applicant should move dumpster location or seek a ZBA variance for the location in the side yard.	<i>We respectfully request a variance for loading area and compactor location. Adjacent property is zoned R-4, but existing use is cemetery.</i>

	than 10 ft. from property line. - Away from Barrier free Spaces	Yes			
Dumpster Enclosure Sec. 21-145. (c) Chapter 21 of City Code of Ordinances	- Screened from public view - A wall or fence 1 ft. higher than height of refuse bin - And no less than 5 ft. on three sides - Posts or bumpers to protect the screening - Hard surface pad. - Screening Materials: Masonry, wood or evergreen shrubbery	Unknown	No	Provide additional details as required by City Code on the site plans in plan and elevation views.	See "Architectural Site Details" Sheet A-1 for dumpster details
Accessory Structures (Sec. 4.19) Generator/ Transformer Flagpoles Canopies	Detached accessory structure shall be located in the rear yard, 10 feet from the building, and 6 feet from the lot line. Flagpoles may be located within any required front or exterior side yard, cannot be located closer than ½ the distance between the principal building and the public ROW.	Generator and transformer proposed 2 20ft. tall flagpoles proposed 1 in rear yard, 1 in east side yard. They are located far from public right of way	Yes/No Yes	Transformer is located in the side yard. It requires a ZBA variance. Show distance from building and height of proposed flagpoles.	We respectfully request a variance for transformer location. Adjacent property is zoned R-4, but existing use is cemetery. Dimensions shown on "Preliminary Site Plan" (sheet C-5)
Lighting and Other Equipment Requirements					
Exterior lighting (Sec. 5.7)	Photometric plan and exterior lighting details needed at time of Final Site Plan submittal	One is not included in this submittal	Yes?	One was provided at the time of Pre-application plan review which was in conformance pending some additional details	
Roof top equipment and wall mounted utility equipment (Sec. 4.19.2.E.ii)	All roof top equipment must be screened and all wall mounted utility equipment must be enclosed and integrated into the design and color of the building	Proposed, Screened	Yes		
Roof top appurtenances Screening (Sec. 5.15.3)	Roof top appurtenances shall be screened in accordance with applicable facade regulations, and shall not be visible from any street, road or adjacent property.	Proposed, Screened	Yes		

Non-Motorized Facilities					
Article XI. Off-Road NonMotorized Facilities	A 6 foot sidewalk is required along 12 Mile Road	6 ft. proposed along 12 Mile Road	Yes		
Pedestrian Connectivity	Assure safety and convenience of both vehicular and pedestrian traffic both within the site and in relation to access streets.	Sidewalks throughout proposed	No	Provide a pedestrian connection from internal sidewalks to public walks along the proposed drive	A pedestrian connection is proposed along the proposed drive. Grades assuring ADA

				or one along emergency access drive.	accessibility are currently being analyzed.
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Lighting and Photometric Plan (Sec. 5.7)					
Intent (Sec. 5.7.1)	Establish appropriate minimum levels, prevent unnecessary glare, reduce spillover onto adjacent properties & reduce unnecessary transmission of light into the night sky	Proposed	Yes	A lighting and photometric plan is required prior to Preliminary site plan review when the property abuts a residential district. A plan was provided with pre-application review, but not currently.	
Lighting Plan (Sec. 5.7.A.1)	Site plan showing location of all existing & proposed buildings, landscaping, streets, drives, parking areas & exterior lighting fixtures	Proposed	Yes	All comments for photometric plan refer to the plan provided at the time of Pre-application meeting. Please include it in this submittal as well along with other information requested.	
Building Lighting (Sec. 5.7.2.A.iii)	Relevant building elevation drawings showing all fixtures, the portions of the walls to be illuminated, illuminance levels of walls and the aiming points of any remote fixtures.	Not provided	No	Provide photometric data on building elevations as required	Building elevations will be submitted at a later date as agreed upon by the City.
Lighting Plan (Sec.5.7.2A.ii)	Specifications for all proposed & existing lighting fixtures	Provided	Yes		
	Photometric data	Provided	Yes		
	Fixture height	Provided	Yes		
	Mounting & design	Provided	Yes		
	Glare control devices	Provided	Yes		
	Type & color rendition of lamps	Provided	Yes		
	Hours of operation	Not provided	No	Provide note on site plan	Note added to Sheet PM-1
	Photometric plan illustrating all light sources that impact the subject site, including spill-over information from neighboring properties	Provided	Yes		
Maximum height when abutting residential districts (Sec. 5.7.3.A)	Height not to exceed maximum height of zoning district (or 25 ft. where adjacent to residential district or uses)	Maximum proposed is 25 ft.	Yes		
Standard Notes (Sec. 5.7.3.B)	- Electrical service to light fixtures shall be placed underground - Flashing light shall not be permitted - Only necessary lighting for security purposes & limited operations shall be permitted after a site's hours of operation	Not provided	No	Provide notes on site plan	Note added to Sheet PM-1
Security Lighting (Sec. 5.7.3.H)	-All fixtures shall be located, shielded and aimed at the areas to be secured.	Not provided	No	Indicate what fixtures are considered security lighting. Provide a separate photometric	

Lighting for security purposes shall be directed only onto the area to be secured.	-Fixtures mounted on the building and designed to illuminate the façade are preferred			plan for security lights only.	
Average light levels (Sec. 5.7.3.E)	Average light level of the surface being lit to the lowest light of the surface being lit; not exceed 4:1	28.82:1 proposed	Yes		
Type of Fixtures (Sec. 5.7.3.F)	Use of true color rendering lamps such as metal halide is preferred over high & low pressure sodium lamps	All LED proposed	Yes		
Min. Illumination (Sec. 5.7.3.k)	Parking areas: 0.2 min	Yes	Yes		
	Loading & unloading areas: 0.4 min	Yes	Yes		
	Walkways: 0.2 min	Yes	Yes		
	Building entrances, frequent use: 1.0 mins	Yes	Yes		
	Building entrances, infrequent use: 0.2 mi	Yes	Yes		
Max. Illumination adjacent to Non-Residential (Sec. 5.7.3.K)	When site abuts a nonresidential district, maximum illumination at the property line shall not exceed 1 foot candle	NA	NA		
Max. Illumination adjacent to Non-Residential (Sec. 5.7.3.L)	When adjacent to residential districts: - All cut off angles of fixtures must be 90° - maximum illumination at the property line shall not exceed 0.5 foot candle	Provided	Yes		

Building Code and Other Requirements					
Building Code	Building exits must be connected to sidewalk system or parking lot.	Provided mostly	Yes?	Floor plans in sheet A1/1 refers to an exit from stairwell into the site. A barrier free sidewalk is not provided at the exit location. Revise the layout and landscape plan to address this situation.	
Design and Construction Standards Manual	Land description, Sidwell number (metes and bounds for acreage parcel, lot number(s), Liber, and page for subdivisions).	Provided	Yes		
General layout and dimension of proposed physical improvements	Location of all existing and proposed buildings, proposed building heights, building layouts, (floor area in square feet), location of proposed parking and parking layout, streets and drives, and indicate square footage of pavement area (indicate public or private).	Provided	Yes?	Refer to all review letters for other dimensions requested	
Economic Impact	- Total cost of the proposed building & site improvements - Number of anticipated jobs created (during construction & after building is occupied, if known)	Not provided	No	Provide answers to questions with next site plan submittal; required for Planning Commission review	

Development/ Business Sign	- Signage if proposed requires a permit. - Signs are not regulated by Planning. - Applicant may submit sign with site plan for simultaneous review.	Sign proposed in entrance boulevard	No	Refer to planning review letter for more comments For sign permit information contact Ordinance 248-735-5678 for requirements.	Will be addressed with site plan changes.
Street addressing	The applicant should contact the Building Division for an address prior to applying for a building permit.			Once plans are stamped, then may apply for building address.	The applicant shall apply for address prior to applying for a building permit
Project and Street Naming (City Code Sec. 3151)	Some projects may need approval from the Street and Project Naming Committee.	No name proposed; Submit for project name with Preliminary Site Plan submittal	No	For street and project name request contact Hannah Smith 248-347-0579	Will be addressed with site plan changes.
Property Split/Combination	The proposed property split/combination must be submitted to the Assessing Department for approval.	No split or combo proposed	NA		
Planning Legal Documents	-Amendment to Consent Judgement -Wetland/Woodland Conservation Easement - Emergency Access Easement	Not required at this time	No	The consent judgement should be amended to include the proposed use prior to approval of the Preliminary Site Plan	The consent judgement was amended and presented to the City Council on October 23.

If you have any questions, please do not hesitate to call.

Sincerely,

Fazal Khan & Associates, Inc.

Ottavio Palazzolo, PE

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FAZAL KHAN & ASSOCIATES, INC.

Civil Engineers & Land Surveyors

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Donald H. King, P.S.
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Ottavio Palazzolo, P.E.
Stephen M. Henige

February 1, 2018

Rick Meader Landscape Architect
City of Novi
Community Development Department
45175 W. Ten Mile Road
Novi, MI 48375

RE: Novi Senior Community (City File #JSP17-45)
Preliminary Site Plan

Dear Mr. Meader:

We are pleased to submit the Preliminary Site Plan for Novi Senior Community on behalf of CA Senior Living Holdings, LLC. Novi Senior Community is a two story assisted living community for the elderly, located on the north side of Twelve Mile Road between Novi Road and Meadowbrook Road. We have revised the Preliminary Site Plan for the above referenced development according to your pre-application review dated October 10, 2017. Our revisions and comments are as follows:

Item	Required Code	Proposed	Meets Code	City Comments	Applicant Comments
Notes: 1. Please see attached narrative describing the proposed uses in the development and how they meet the consent judgement and current zoning ordinance use standards and definitions. 2. One site plan has been provided with notes that reference details on other sheets. 3. A combined site plan submittal is attached which includes one document with one cover sheet with an index that accurately show the order of the different components contained within.					

Landscape Plan Requirements (LDM(2))					
Landscape Plan (Zoning Sec 5.5.2, LDM 2.e.)	- 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	Scale 1"=30	N/A
Project Information (LDM 2.d.)	Name and Address	Yes	Yes	Please make project name consistent with rest of plan (Not Mosaic)	Project name has been updated to Novi Senior Community Project
Owner/Developer Contact Information (LDM 2.a.)	Name, address and telephone number of the owner and developer or association	Yes	Yes		
Landscape Architect contact information (LDM 2.b.)	Name, Address and telephone number of RLA	Yes	Yes		

Sealed by LA. (LDM 2.g.)	Requires original signature	Yes	Yes	<u>Need for Final Site Plans</u>	N/A
Miss Dig Note (800) 482-7171 (LDM.3.a.(8))	Show on all plan sheets	Yes	Yes		
Zoning (LDM 2.f.)	Include all adjacent zoning	Parcel: OS-1, RA w/consent judgment North: R-4 West: R-4, OS-1 East: RA South: R-C	Yes	Please show adjacent zoning on Landscape Plans	Adjacent zoning is now clearly shown on Landscape Plans
Survey information (LDM 2.c.)	- Legal description or boundary line survey - Existing topography	Yes	Yes	Sheet C-2	
Existing plant material Existing woodlands or wetlands (LDM 2.e.(2))	-Show location type and size. Label to be saved or removed. - Plan Shall state if none exists.	Yes	Yes	1. Sheets 3 and 4 2. Please freeze removed tree layer(s) on Sheets L-1 and L-2	Removed trees will be re frozen at time of Final Site Plan
Soil types (LDM.2.r.)	- As determined by Soils survey of Oakland county - Show types, boundaries	Yes	Yes	Sheet L-1	
Existing and proposed improvements (LDM 2.e.(4))	Existing and proposed buildings, easements, parking spaces, vehicular use areas, and R.O.W	Yes	Yes		
Existing and proposed utilities (LDM 2.e.(4))	Overhead and underground utilities, including hydrants	Yes	Yes	1. Improved, but there are still conflicts along the access drives' peripheries. 2. Please allow room along those access drives if possible. 3. Please move trees to at least 10 feet away from all utility structures.	Additional adjustments will be made during Final Site Plan to avoid utilities as much as possible.
Proposed grading. 2' contour minimum (LDM 2.e.(1))	Provide proposed contours at 2' interval	Yes	Yes	Spot elevations on Sheet C-7	
Snow deposit (LDM.2.q.)	Show snow deposit areas on plan	Yes	Yes	1. The area seems to be oversized. 2. If possible, please leave room at ends of area for tree planting areas to shade adjacent spaces.	The snow deposit area has been reduced and relocated.

Landscaping Requirements					
Parking Area Landscape Requirements LDM 1.c. & Calculations LDM 2.o.)					
General requirements (LDM 1.c)	- Clear sight distance within parking islands - No evergreen trees	Yes	Yes		
Name, type and number of ground cover (LDM 1.c.(5))	As proposed on planting islands	Yes	Yes	Please clearly indicate which areas are to be sod and which are to be seed.	N/A

General (Zoning Sec 5.5.3.C.ii)					
Parking lot Islands (a, b, i)	- A minimum of 200 SF to qualify - Minimum of 200 SF per tree planted in island. - 6" curbs - Islands minimum width 10' BOC to BOC	Yes	TBD	1. Areas are labeled as requested. 2. Areas at end of parking bays should have tree planted to help adjacent spaces.	All ends of parking bays will now have trees planted.
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	Yes	Yes	1. The maximum is not exceeded. 2. It appears that the parking spaces at the southeast and southwest corner could be brought closer to the entrance by eliminating one of the interior islands and still keeping the bay(s) less than 15 spaces. 3. There are areas that could count toward interior parking requirements that would replace the island(s) lost. See attached markup (green circled areas)	The plans have been revised to reduce the number of islands along the perimeter, which in turn reduced the space needed for parking.

Plantings around Fire Hydrant (d)	No plantings with matured height greater than 12' within 10 ft. of fire hydrants or other utility structures	No	Yes	1. Please show all new trees at least 10 feet away from hydrants, manholes and catch basins. 2. Please revise distances in table on Sheet L-2.	Additional adjustments will be made during Final Site Plan to avoid utilities as much as possible. The distances on Sheet L-2 have been revised.
Landscaped area (g)	Areas not dedicated to parking use or driveways exceeding 100 sq. ft. shall be landscaped	Yes	Yes		
Clear Zones (LDM 2.3.(5))	25 ft corner clearance required. Refer to Zoning Section 5.5.9	Yes	Yes		

Category 1: For OS-1, OS-2, OSC, OST, B-1, B-2, B-3, NCC, EXPO, FS, TC, TC-1, RC, Special Land Use or nonresidential use in any R district (Zoning Sec 5.5.3.C.iii)					
A = Total square footage of parking spaces not including access aisles x 10%	A = 50,000 sf x 7.5% = 3,750 sf				
B= Total square footage of additional paved vehicular use areas (not including A) over 50,000 SF) x 1 %	B = 37,972 sf x 1% = 380 sf				

Category 2: For: I-1 and I-2 (Zoning Sec 5.5.3.C.iii)					
A. = Total square footage of parking spaces not including access aisles x 7%	A = x sf x 5% = xx sf	NA			
B= Total square footage of additional paved vehicular use areas (not including A) over 50,000 SF) x 0.5%	B = x sf x 0.5% = xx SF	NA			

All Categories					
C = A+B Total square footage of landscaped islands	3750 + 380 = 4130 SF	6777 sf	Yes		
D = C/200 Number of canopy trees required	4130/200 = 21 Trees	21 trees	Yes	1. See above comments regarding bay consolidation.	See above response regarding bay consolidation.

				2. This is not required, but it would be preferred to add trees in endcap islands adjacent to the cross access drive.	
Perimeter Green space (5.5.3.C.iii, including footnote (5))	- 1 Canopy tree per 35 lf - 1680/35 = 48 trees - Access drives also need perimeter trees on both sides.	49 trees	No	1. Please add perimeter trees along both sides of the access drives, including the fire access lane. 2. See heavy red line on markup.	Due to utility placement near the fire access lane, it is not feasible to include perimeter trees alongside.
Parking land Banked	NA	None			

Berms, Walls and ROW Planting Requirements
Berms
- 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 (Sec 5.5.3.A) & (LDM 1.a)					
Berm requirements (Zoning Sec 5.5.A)	Landscaped berm 4.5-6' high, with undulating form and 5 foot wide crest.	- No berms are provided - Plantings are proposed along property borders to screen building. - A section through retaining wall on west side to show screening proposed.	No	1. Please add the required landscaped berms wherever possible. A berm is provided along much of the eastern property line but it is not the required height with respect to the adjacent parking lot as is required. 2. It seems there is room for the required berm north of the wall to help block the view of the building from the cemetery better.	1. Due to extreme grade changes and existing tree preservation, it is not possible to provide full berms along the property lines. 2. Perimeter screening trees are being planted in lieu of a berm due to lack of space as well as the necessity of an access drive for the cemetery. 3. A sheet titled Preliminary Site Cross Sections (Sheet C-8) has been added to the set to clarify grade changes and screening provided. 4. All tree species are presented on the plans as requested. <u>East Property Line:</u> A berm has been provided where possible. There are tree preservation areas. Adjacent site is existing wetland and woodland. Dense screening has been provided. <i>We respectfully request a waiver.</i> <u>North Property Line:</u> Extreme grade changes make a berm ineffective. There are tree preservation areas. Dense

				<p>3. Landscape waivers would be required for any berm deficiencies, or alternatives proposed, such as leaving existing woods, a screening wall or some other option. Evidence that the screening would provide the required visual and audio screening must be provided.</p> <p>4. As no tree species are presented in the plans except for on the retaining wall, the screening capacity of the proposed plantings cannot be determined.</p> <p>5. If proposed screening does not meet the requirements of ordinance, additional plant material or other measures may be required when the site landscaping is inspected. Please add a note to this effect to the plans.</p>	<p>screening has been provided. We respectfully request a waiver.</p> <p><u>West Property Line:</u> Extreme grade changes make a berm ineffective. Dense screening has been provided. Existing use is cemetery. Headstones shown on plans. A new access drive to the cemetery is now also shown at the cemetery's request. We respectfully request a waiver.</p>
<p>Planting requirements (LDM 1.a.)</p>	LDM Novi Street Tree List	NA			

Adjacent to Public Rights-of-Way (Sec 5.5.B) and (LDM 1.b)					
Berm requirements	No berm is required since parking is not adjacent to right-of-way	Berm leading from 12	NA	Please add a flat crest on the	Berm between 12 Mile and the detention pond may be adjusted depending on signage. All

(Zoning Sec 5.5.3.A.(5))		Mile to detention basin is approximately 12 feet high.		site grading for all berms.	changes will be reflected in the Final Site Plan.
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Cross-Section of Berms (LDM 2.j)					
Slope, height and width	<ul style="list-style-type: none"> - Label contour lines - Maximum 33% slope - Min. 3 feet flat horizontal area - Constructed of loam with 6" top layer of topsoil. 	NA		1. Detail provided shows section leading from road to building. 2. The detail does not show a flat crest, which is required. Please add a flat crest on the site grading and detail. 3. Please add construction details – maximum slope, construction, etc. These can be added to the cross section provided.	1. Cross Section provided. 2. A flat crest has been provided for all berms. (see above regarding berm adjacent to detention pond) 3. Maximum slope has been noted on the cross section.
Type of Ground Cover		NA			
Setbacks from Utilities	Overhead utility lines and 15 ft. setback from edge of utility or 20 ft. setback from closest pole	Overhead utilities exist along 12 Mile Road.	Yes		

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	Boulder retaining walls are proposed along western boundary	Yes		
Walls greater than 3 ½ ft. should be designed and sealed by an Engineer				Since walls are to be taller than 3.5 feet, an engineer needs to design them.	Walls greater than 3 ½ ft. shall be designed and sealed by an engineer. Plans will be provided during the construction plan approval process.

ROW Landscape Screening Requirements (Sec 5.5.3.B. ii)					
Greenbelt width (2)(3) (5)	25 ft.	175 ft	Yes		
Min. berm crest width	NA	Approximately 3 ft	Yes		
Minimum berm height (9)	NA	Approximately 12 ft	Yes		
3' wall	(4)(7)	No	Yes		
Canopy deciduous or large evergreen trees Notes (1) (10)	-No Parking: 1 tree per 60 lf - (400-50-20)/60= 6 trees	9 trees	Yes	1. Please correct calculations. 2. Excess trees can be removed from plan if desired.	1. Calculations have been corrected accordingly. 2. Excess trees have been removed.
Sub-canopy deciduous trees Notes (2)(10)	-No Parking: 1 tree per 40 lf - (400-50-20)/40 = 8 trees	17 trees	Yes	1. Please correct calculations. 2. Excess trees can be removed from plan if desired.	1. Calculations have been corrected accordingly. 2. Excess trees have been removed.
Canopy deciduous trees in area between sidewalk and curb (Novi Street Tree List)	1 tree per 35 lf - (400-135-80)/35 = 5 trees	5	No	1. If RCOC denies any or all of the trees, please provide us with copy of their communication	1. If RCOC denies any or all of the trees, a copy of their communication will be provided to the City.

Non-Residential Zoning Sec 5.5.3.E.iii & LDM 1.d (2) Refer to Planting in ROW, building foundation landscape, parking lot landscaping and LDM					
Interior Street to Industrial subdivision (LDM 1.d.(2))	-1 canopy deciduous or 1 large evergreen per 35 l.f. along ROW - No evergreen trees closer than 20 ft. - 3 sub canopy trees per 40 l.f. of total linear frontage - Plant massing for 25% of ROW	NA			NA
Screening of outdoor storage, loading/unloading (Zoning Sec. 3.14, 3.15, 4.55, 4.56, 5.5)		- 6 foot wall and arborvitae proposed at loading area - required dumpster enclosure	Yes		
Transformers/Utility boxes (LDM 1.e from 1 through 5)	- A minimum of 2ft. separation between box and the plants - Ground cover below 4" is allowed up to pad. - No plant materials	- A wall surrounds the generator. - Significant landscaping is proposed	Yes		

	within 8 ft. from the doors	between the wall and the parking area.			
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Building Foundation Landscape Requirements (Sec 5.5.3.D)					
Interior site landscaping SF	-Equals to entire perimeter of the building x 8 with a minimum width of 4 ft. - 1380 lf x 8ft = 11040 SF	19256 sf	Yes	1. Please label landscape areas provided in SF. 2. <u>Detailed planting plans, with plant ID tags, will be required for final site plans.</u>	1. Areas of landscaping has been provided in s.f. 2. Detailed planting plans, with plant ID tags, will be provided at the time of Final Site Plan.
Zoning Sec 5.5.3.D.ii. All items from (b) to (e)	If visible from public street a minimum of 60% of the exterior building perimeter should be covered in green space	100% of area fronting 12 Mile Road is landscaped.	Yes		

Detention/Retention Basin Requirements (Sec. 5.5.3.E.iv)					
Planting requirements (Sec. 5.5.3.E.iv)	- Clusters shall cover 70-75% of the basin rim area -10" to 14" tall grass along sides of basin - Refer to wetland for basin mix	Yes	Yes	1. Required shrub massing is indicated. 2. <u>For final site plans, plant list must be included.</u> 3. <u>Plants used must be large (min 3 ft tall) shrubs native to Michigan.</u> 4. Trees are not required for detention landscaping. Ornamentals shown can count as Woodland Replacements if they are native to Michigan. See Section 37-8 for replacement requirements. 5. Please show High Water Line more clearly and move shrubs closer to High Water line.	2. Plant list has been included. 3. Large shrubs native to Michigan have been provided. 5. High water line is labeled and will be clarified at time of Final Site Plan.

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 15 and Nov 15.	Yes	Don't include the year in the note.	The year is not included in the note.
Maintenance & Statement of intent (LDM 2.m & Zoning Sec 5.5.6)	- Include statement of intent to install and guarantee all materials for 2 years. - Include a minimum one cultivation in June, July and August for the 2-year warranty period.	Yes	Yes	Please correct notes to indicate that failing plants must be replaced within 3 months of failing – not just at the end of the 2 year period.	A note has been added indicating plant replacement.
Plant source (LDM 2.n & LDM 3.a.(2))	Shall be northern nursery grown, No.1 grade.	Yes	Yes		
Irrigation plan (LDM 2.s.)	A fully automatic irrigation system and a method of draining is required with Final Site Plan		No	<u>Irrigation plan should be provided with Final Site Plans.</u>	Irrigation Plan shall be provided with Final Site Plans. See general notes on sheet L-1
Other information (LDM 2.u)	Required by Planning Commission	NA			
Establishment period (Zoning Sec 5.5.6.B)	2 yr. Guarantee	Yes	Yes		
Approval of substitutions. (Zoning Sec 5.5.5.E)	City must approve any substitutions in writing prior to installation.	Yes	Yes	Please add "in writing" to note.	"In writing" has been added to the note.

Plant List (LDM 2.h.) – Include all cost estimates					
Quantities and sizes	Refer to LDM suggested plant list	No	No	<u>Provide on Final Site Plans.</u>	Quantities and sizes provided on Landscape Plan–South (Sheet L-1).
Root type		No	No	<u>See above</u>	Provided on Landscape Details (Sheet L-3).
Botanical and common names		No	No	<u>See above</u>	Provided on Landscape Details (Sheet L-3).
Type and amount of lawn		No	No	<u>Provide on Final Site Plans.</u>	Sod provided on Landscape Plan–South (Sheet L-1).
Cost estimate (LDM 2.t)		For all new plantings, mulch and sod as listed on the plan	Yes	No	1. <u>Provide on Final Site Plans.</u> 2. <u>Foundation plantings must be included in cost estimate.</u>

Planting Details/Info (LDM 2.i) – Utilize City of Novi Standard Details					
Canopy Deciduous Tree	Refer to LDM for detail drawings	Yes	Yes		
Evergreen Tree		Yes	Yes		
Shrub		Yes	Yes		
Perennial/ Ground Cover		Yes	Yes		

Tree stakes and guys. (Wood stakes, fabric guys)		No	No	Please add detail	Stakes and guys are shown on Landscape Details (Sheet L-3).
Tree protection fencing	Located at Critical Root Zone (1' outside of dripline)	Yes	Yes		

Other Plant Material Requirements (LDM 3)					
General Conditions (LDM 3.a)	Plant materials shall not be planted within 4 ft. of property line	TBD		Please add note near property lines stating this.	A note has been added to Landscape Plan–North and South (Sheet L-1 and L-2).
Plant Materials & Existing Plant Material (LDM 3.b)	Clearly show trees to be removed and trees to be saved.	Yes	Yes		
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	No			
Plant Sizes for ROW, Woodland replacement and others (LDM 3.c)	Canopy Deciduous shall be 3" and sub-canopy deciduous shall be 2.5" caliper. Refer to section for more details				
Plant size credit (LDM3.c.(2))	NA	No			
Prohibited Plants (LDM 3.d)	No plants on City Invasive Species List		TBD		
Recommended trees for planting under overhead utilities (LDM 3.e)	Label the distance from the overhead utilities		Yes		
Collected or Transplanted trees (LDM 3.f)		No			
Nonliving Durable Material: Mulch (LDM 4)	- Trees shall be mulched to 4" depth and shrubs, groundcovers to 3" depth - Specify natural color, finely shredded hardwood bark mulch. Include in cost estimate. - Refer to section for additional information	Yes	Yes		

If you have any questions, please do not hesitate to call.

Sincerely,

Fazal Khan & Associates, Inc.

Ozell Gothard, Landscape Architect

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FAZAL KHAN & ASSOCIATES, INC.

Civil Engineers & Land Surveyors

Fazlullah M. Khan, P.E., MSCE
Donald H. King, P.S.
Carol P. Thurber, P.E., CFM
Thomas R. DeHondt, P.E.
Ottavio Palazzolo, P.E.
Stephen M. Henige

February 1, 2018

Kevin S. Pierce, Fire Marshal
City of Novi – Public Safety Administration
Fire Department
45125 W. Ten Mile Road
Novi, MI 48375

RE: Novi Senior Community (PSP #17-0045)
Preliminary Site Plan

Dear Mr. Pierce:

We are pleased to submit the Preliminary Site Plan for Novi Senior Community on behalf of CA Senior Living Holdings, LLC. Novi Senior Community is a two story assisted living community for the elderly, located on the north side of Twelve Mile Road between Novi Road and Meadowbrook Road. We have revised the Preliminary Site Plan for the above referenced development according to your pre-application review dated September 21, 2017. Our revisions and comments are as follows:

1. The secondary access road is now shown at 20' wide.
2. 14 ft. of clearance has been provided for the fire lane at the main building entrance.
3. A maximum spacing of 300 feet between hydrants has been provided.
4. All roads and access drive will be built to support 35 ton.

If you have any questions, please do not hesitate to call.

Sincerely,

Fazal Khan & Associates, Inc.

Ottavio Palazzolo, PE

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FAZAL KHAN & ASSOCIATES, INC.

Civil Engineers & Land Surveyors

Fazlullah M. Khan, P.E., MSCE
Donald H. King, P.S.
Carol P. Thurber, P.E., CFM
Thomas R. DeHondt, P.E.
Ottavio Palazzolo, P.E.
Stephen M. Henige

February 1, 2018

Darcy N. Rechten, PE
City of Novi
Engineering Department
45175 W. Ten Mile Road
Novi, MI 48375

RE: Novi Senior Community (PSP #JSP17-0045)
Preliminary Site Plan

Dear Ms. Rechten:

We are pleased to submit the Preliminary Site Plan for Novi Senior Community on behalf of CA Senior Living Holdings, LLC. Novi Senior Community is a two story assisted living community for the elderly, located on the north side of Twelve Mile Road between Novi Road and Meadowbrook Road. We have revised the Preliminary Site Plan for the above referenced development according to your pre-application review dated October 9, 2017. Enclosed please find one (1) full set of highlighted plans indicating revisions. Our revisions and comments are as follows:

General:

1. A note on the plans stating that all work shall conform to the current City of Novi standards and specifications has been added to the cover sheet.
2. The City standard detail sheets will be provided at time of Stamping Set submittal.
3. The Non-domestic User Survey form will be completed at time of Final Site Plan submittal.
4. Irrigation plans will be provided at time of Final Site Plan submittal.
5. All traffic control will be provided at time of Final Site Plan submittal. Soil borings with soil types and ground water elevation are provided with this submittal.
6. Traffic control plans will be provided at time of Final Site Plan submittal. Right of way permits shall be obtained from the City of Novi and the Road Commission for Oakland County after engineered construction plan approval.
7. Soil borings with soil types and ground water elevation are provided with this submittal.
8. This letter addresses all comments in this review.

Water Main:

9. The size and location of domestic and fire services to the building will be provided at time of Final Site Plan submittal.
10. A profile for all proposed water main will be provided at time of Final Site Plan submittal.
11. Three (3) signed and sealed sets of revised utility plans along with the MDEQ permit application for water main construction will be submitted at time of Final Site Plan submittal.

Sanitary Sewer:

12. MH2 will serve as the monitoring manhole.
13. Seven (7) signed and sealed sets of revised utility plans along with the MDEQ permit application for sanitary sewer construction will be submitted at time of Final Site Plan submittal.

Paving & Grading:

14. Site grading except for the berm on the east side is limited to 1V:4H.
15. Grading regarding the pond will be revisited at time of Final Site Plan.

Storm Sewer:

16. Storm sewer profiles views will be provided at time of Final Site Plan submittal.
17. A 0.1-foot drop in the downstream invert of all storm structures where a change in direction of 30 degrees or greater occurs will be provided at time of Final Site Plan submittal.
18. Matching the 0.80 diameter depth above invert for pipe size increases will be provided at time of Final Site Plan submittal.
19. 2-foot deep plunge pools will be noted at time of Final Site Plan submittal.
20. A four-foot deep sump and an oil/gas separator in the last storm structure will be provided at time of Final Site Plan submittal.
21. HGL labeling and requirements will be addressed at time of Final Site Plan submittal.
22. Pipe illustrations will be provided at time of Final Site Plan submittal.
23. Plans will be submitted to the RCOC for approval.
24. Schedule will be provided at time of Final Site Plan submittal.
25. Roof conductor locations will be provided at time of Final Site Plan submittal.

Storm Water Management Plan:

26. Due to the existing extreme grade changes of the site and the emergency access drive required by the City, it is not possible to meet a pond length to width ratio of 3 to 1. [We have provided a length to width ratio of approximately 2 to 1 and we respectfully request a waiver for this requirement.](#)
27. Grading regarding the pond will be revisited at time of Final Site Plan.
28. Access easements will be provided at time of Final Site Plan submittal.

If you have any questions, please do not hesitate to call.

Sincerely,

Fazal Khan & Associates, Inc.

Ottavio Palazzolo, PE

Enclosures: 1 sets of Plans highlighted indicating revisions per this

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FAZAL KHAN & ASSOCIATES, INC.

Civil Engineers & Land Surveyors

Fazlullah M. Khan, P.E., MSCE
Donald H. King, P.S.
Carol P. Thurber, P.E., CFM
Thomas R. DeHondt, P.E.
Ottavio Palazzolo, P.E.
Stephen M. Henige

February 1, 2018

Maureen N. Peters, PE
AECOM
27777 Franklin Road
Southfield, MI 48034

RE: Novi Senior Community (PSP #JSP17-0045)
Preliminary Site Plan

Dear Ms. Johnson:

We are pleased to submit the Preliminary Site Plan for Novi Senior Community on behalf of CA Senior Living Holdings, LLC. Novi Senior Community is a two story assisted living community for the elderly, located on the north side of Twelve Mile Road between Novi Road and Meadowbrook Road. We have revised the Preliminary Site Plan for the above referenced development according to your pre-application review dated October 11, 2017. Our revisions and comments are as follows:

External Site Access and Operations

1. The driveway dimensions have been revised to align with the standard dimensions given in the City's Code of Ordinances.
2. The site does not require any modifications to the external roadway such as a right turn lane or taper. [We respectfully request a waiver for this requirement.](#)
3. The Cover Sheet has been revised accordingly.
5. The access drive has been revised due to the addition of the cemetery access drive.

Internal Site Operations

1. General Traffic Flow
 - a. The loading zone and trash compactor are both located on the west side of the site and do not interfere with parking. 840 sq. ft. for the loading zone has been provided as indicated on the Preliminary Site Plan (sheet C-5).
 - c. All trash collection will be within the loading zone.
2. Parking Facilities
 - a. The calculations have been revised accordingly.
 - d. Details will be provided at time of Final Site Plan submittal.
 - e. The calculations have been revised accordingly.
3. Sidewalk Requirements
 - b. Sidewalk from 12 Mile Road to the pathway around the perimeter of the building is now shown.
 - c. A connection has now been provided across the loading zone.
 - d. Details for ADA warning surfaces will be provided at time of Final Site Plan submittal.
 - e. The sidewalk along 12 Mile Road is offset one foot from the right-of-way line.
4. All onsite signing and pavement markings shall be in compliance with the Michigan Manual on Uniform Traffic Control Devices. Details have been added to the Preliminary Site Plan Details (sheet C-6).
 - a. Barrier free parking sign details will be updated at time of Final Site Plan submittal.
 - b. Barrier free parking sign details will be updated at time of Final Site Plan submittal.
 - c. A stop sign will be provided at time of Final Site Plan submittal.
 - d. No parking spaces are proposed near the detention pond and snow removal areas.
 - e. Details will be provided at time of Final Site Plan submittal.
 - f. Details will be provided at time of Final Site Plan submittal.

- g. Details will be provided at time of Final Site Plan submittal.
- h. A signing quantities table will be provided at time of Final Site Plan submittal.

If you have any questions, please do not hesitate to call.

Sincerely,

Fazal Khan & Associates, Inc.

Ottavio Palazzolo, PE

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FAZAL KHAN & ASSOCIATES, INC.

Civil Engineers & Land Surveyors

Fazlullah M. Khan, P.E., MSCE
Donald H. King, P.S.
Carol P. Thurber, P.E., CFM
Thomas R. DeHondt, P.E.
Ottavio Palazzolo, P.E.
Stephen M. Henige

February 1, 2018

Peter Hill, PE
ECT Environmental Consulting & Technology, Inc.
2200 Commonwealth Blvd., Suite 300
Ann Arbor, MI 48105

RE: Novi Senior Community (PSP #JSP17-0045)
Preliminary Site Plan

Dear Mr. Hill:

We are pleased to submit the Preliminary Site Plan for Novi Senior Community on behalf of CA Senior Living Holdings, LLC. Novi Senior Community is a two story assisted living community for the elderly, located on the north side of Twelve Mile Road between Novi Road and Meadowbrook Road. We have revised the Preliminary Site Plan for the above referenced development according to your pre-application review dated October 4, 2017. Our revisions and comments are as follows:

Item	Required/Not Required/Not Applicable	Applicant Comments
Wetland Permit (specify Non-Minor or Minor)	Required (Non-Minor)	We respectfully request Wetland permit with this submission.
Wetland Mitigation	Not Required	None.
Wetland Buffer Authorization	Required	We respectfully request Wetland Buffer Authorization with this submission.
MDEQ Permit	Not likely required. It is the applicant's responsibility to contact the MDEQ in order to determine the need for a wetland use permit.	MDEQ permit is pending.
Wetland Conservation Easement	Required	We are proposing to remove unregulated wetlands, therefore no easement will be provided.
Woodland Permit	Required	We respectfully request Woodland Permit with this submission.
Woodland Fence	Required	Will be provided after on-site evaluation.
Woodland Conservation Easement	Required	Will be provided after on-site evaluation.

ECT should conduct a wetland and woodland field evaluation at the time of Preliminary Site Plan submittal in order to verify the existing on-site wetland boundaries and woodland information (tree sizes, species, conditions, etc.).

Wetlands

The Plan proposes complete impact to two (2) existing wetland areas.

- The areas of the existing wetlands have been shown on the “Boundary and Topography” (sheet C-2).
- The area of all existing 25 ft. wetland buffer areas have been shown on the “Boundary and Topography” (sheet C-2).
- The area and the volume of the existing wetland impacts, both temporary and permanent, have been shown on the “Boundary and Topography” (sheet C-2).
- The area and the volume of all wetland buffer impacts, both temporary and permanent, have been shown on the “Boundary and Topography” (sheet C-2).

We respectfully request a City of Novi Minor Use Wetland Permit and Authorization to Encroach the 25-Foot Natural Features Setback with this submittal.

See Wetland Delineation and Jurisdictional Assessment provided by ASTI Environmental.

If applicable, 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 necessary). 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.

ECT recommends that they conduct a wetland field verification at the time of Preliminary Site Plan submittal in order to verify existing regulated wetland boundary locations with respect to the limits of the proposed project. We respectfully request that ECT contact Fazal Khan and Associates, Inc. prior to site inspection so they can determine if wetland flags are still intact and that the area of disturbance is properly located in the field.

A supplemental wetland pre-application checklist supplied by ECT has been completed below:

City of Novi Pre-Application Wetland Checklist		
General: All areas of proposed wetland impact are clearly shown on the “Boundary and Topography” (sheet C-2) and quantified in terms of area and volume of cut or fill. The same is true for the 25-foot Natural Features Setback adjacent to wetlands and watercourses.		
Yes	No	Has the wetland boundary been verified?
X		Has been located by the applicants’ agent, not the City’s agent.
Yes	No	Has an MDEQ Wetland Permit been obtained?
	X	
Date Sent	Date City Received	If an MDEQ Permit has been obtained, please provide the City a copy of the permit or application, and plans.
NA		
Date Sent	Date City Received	How will the proposed changes to the drainage pattern on site affect the water budget of the wetland(s)? Please provide a hydrologic analysis. This is especially important for projects impacting forested wetlands. If wetlands are to be used for storm water storage, how will the water be pre-treated?
NA		
Yes	No	Has a wetland mitigation plan been submitted? If mitigation is proposed, please provide grading plan, planting plan, and description of design with respect to factors needed to insure successful wetland development. The 25-foot upland-wetland buffer and proposed impacts need to be shown on the plan along with area and volume impacts. Please provide a planting plan for any temporarily disturbed wetland soils and associated upland buffer areas. Provide a cost estimate for the
	X	

		mitigation project including grading and plant materials.
Yes	No	Has a conservation easement been placed on remaining existing wetlands? (Forward copy to the City)
	X	
Date Sent	Date City Received	How will sediment be kept from entering the wetland during and following construction? Please provide a soil and erosion and sediment control plan.
NA		
Yes	No	Has the site been cleared for the presence of threatened or endangered species?
	X	
Yes	No	Does floodplain exist on the site? If so, please show on the site plan.
	X	
Yes	No	Are existing and proposed grades shown on the plan?
X		
Yes	No	Are existing and proposed grades consistent with respect to current drainage patterns? Show proposed finished grades for any buildings
X		
Finished grades for the site has been provided on the "Preliminary Grading Plan" (sheet C-7).		

Woodlands

The site does contain City of Novi Regulated Woodlands. The majority of the Regulated Woodland area is located on the eastern portion of the project site. The "Tree List" (sheet C-4) notes that 453 Woodland Replacement Trees are required and the "Landscape Plan-North" (sheet L-2) notes that 65 Woodland Replacement Trees are proposed on-site. The remaining 388 Woodland Replacement Tree credits will be paid into the City of Novi Tree Fund.

We respectfully request a Woodland Permit from the City of Novi at the time of this submittal for proposed impacts to any trees 8-inch diameter at-breast-height (DBH) or greater and located within an area designated as City Regulated Woodland, or any tree 36-inches DBH regardless of location on the site. Such trees shall be relocated or replaced by the permit grantee as show on "Landscape Plan-South" (sheet L-1) and "Landscape Plan-North" (sheet L-2) in compliance with City ordinance.

The "Tree Survey and Tree Removal Plan" (sheet C-3) clearly indicates existing trees that are proposed for removal and existing trees to be preserved.

The "Tree List" (sheet C4) reports the number of trees to be removed and the number of required replacement trees in compliance with the City's ordinance.

A Woodland Replacement financial guarantee for the planting of replacement trees shall be provided by the applicant. 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.

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.

ECT should conduct a woodland field verification at the time of Preliminary Site Plan submittal in order to verify existing regulated tree locations and confirm the proposed tree replacement quantities, etc.

City of Novi Pre-Application Woodland Checklist		
General: All areas of proposed woodland impact and proposed tree removals are clearly shown on the "Tree Survey and Tree Removal Plan" (sheet C-3), quantified on "Tree List" (sheet C-4) and "Landscape Plan-North" (sheet L-2)		
Yes	No	Where the proposed activity is located on a site with no trees with a d.b.h. of eight (8) inches or greater, has the applicant indicated this in his/her application, and submitted a "no tree" affidavit?
N/A		
Yes	No	Does site plan include a topographical survey?
X		
Yes	No	Does the site plan include the locations, size and species or all existing trees based upon actual field survey?
X		
Yes	No	For all woodlands in which development is proposed, does the proposed Woodlands Plan contain a key identifying, by location, all trees eight (8) inches diameter at-breast-height (d.b.h.) and greater, by size, common and genus name (i.e., Maple/Acer) and condition?
X		
Yes	No	For all trees proposed to remain, has a topographic elevation at the base of the trunk been indicated?
X		
Yes	No	Are existing general soil conditions shown on the site plan/woodland plan?
X		
Yes	No	Has a statement been included showing how trees not proposed for removal are to be protected during land clearing, construction, and on a permanent basis, including the proposed use of protective barriers?
X		
Yes	No	Have the locations and dimensions of all setbacks, easements and existing and proposed public and private utilities been indicated on the plan?
X		
Yes	No	Does the plan include statements as to the proposed grade changes and proposed drainage pattern changes for the lot or parcel, including information as to changes in water levels within protected woodlands?
	X	
Yes	No	Does the plan include the number of trees to be cut which have a d.b.h. of eight (8) inches or more, plus a plan and cost estimate for their replacement? Final costs for replacement shall be determined by the city forester, or his designee, upon acceptance of the final engineering plans by the City.
X		
Yes	No	Does the plan include information as to how all trees to be retained shall be identified at the site, whether by painting with water base paint, flagging, etc. prior to field inspection?
X		

If you have any questions, please do not hesitate to call.

Sincerely,

Fazal Khan & Associates, Inc.

Ottavio Palazzolo, PE

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