



46860 WEST ROAD JSP17-35

46860 WEST ROAD, JSP 17-35

Public hearing at the request of Quadrants Development for approval of Preliminary Site Plan, Wetland Permit, Woodland Permit and Storm Water Management Plan. The subject property is located in Section 4 of the City of Novi north of West Road and west of Hudson Drive. The applicant is proposing to construct a 36,000 square feet single story office and warehouse building with associated site improvements.

Required Action

Approval/Denial of the Preliminary Site Plan, Wetland Permit, Woodland Permit, and Stormwater Management Plan.

REVIEW	RESULT	DATE	COMMENTS
Planning	Approval recommended	2-15-18	<ul style="list-style-type: none"> • Zoning Board of Appeals variance request for location of transformer (accessory structure) in the front yard • Items to be addressed on Final Site Plan
Engineering	Approval recommended	2-14-18	<ul style="list-style-type: none"> • Items to be addressed on Final Site Plan
Landscape	Approval recommended	2-2-18	<ul style="list-style-type: none"> • Items to be addressed on Final Site Plan
Wetlands	Approval recommended	2-12-18	<ul style="list-style-type: none"> • Items to be addressed on Final Site Plan
Woodlands	Approval recommended	2-12-18	<ul style="list-style-type: none"> • Items to be addressed on Final Site Plan
Traffic	Approval recommended	12-8-17	<ul style="list-style-type: none"> • Items to be addressed on Final Site Plan
Traffic Impact Analysis	Approval recommended	12-8-17	<ul style="list-style-type: none"> • Items to be addressed on Final Site Plan
Facade	Approval Recommended	2-13-18	<ul style="list-style-type: none"> • Section 9 waiver required for exceeding maximum allowable percentages for flat metal panels on the West and North elevations. Staff supported.
Fire	Approval recommended	11-16-17	<ul style="list-style-type: none"> • Items to be addressed on Final Site Plan

Motion Sheet

Approval –Preliminary Site Plan

In the matter of **46860 WEST ROAD JSP 17-35**, motion to **approve** the Preliminary Site with a Section 9 waiver based on and subject to the following:

- a. To allow the overage of Flat Metal Panels (50% allowed; 70% on north, 68% on west), because those elevations have a lower degree of visibility from the major thoroughfare and overall the building is consistent with the intent and purpose of the Façade Ordinance, which is hereby granted;
- b. The applicant will either seek a Zoning Board of Appeals variance for the proposed transformer in the front yard or propose permanent screening to comply with the Zoning Ordinance requirements;
- c. The conditions and items listed in the staff and consultant review letters being addressed on the Final Site Plan; and
- d. *(additional conditions here if any)*

This motion is made because the plan is otherwise in compliance with the 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 **46860 WEST ROAD JSP 17-35**, 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 **46860 WEST ROAD JSP 17-35**, 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 **46860 WEST ROAD JSP 17-35**, 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 **46860 WEST ROAD JSP 17-35**, motion to **deny** the Preliminary Site Plan, for the following reasons...*(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 **46860 WEST ROAD JSP 17-35**, motion to **deny** the Wetland Permit based on and subject to the following:

- c. 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
- d. *(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-

Denial – Woodland Permit

In the matter of **46860 WEST ROAD JSP 17-35**, motion to **deny** the Woodland Permit based on and subject to the following:

- c. 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
- d. *(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-

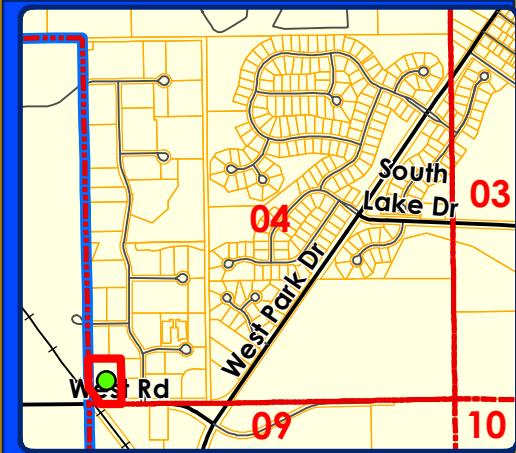
Denial –Stormwater Management Plan

In the matter of **46860 WEST ROAD JSP 17-35**, motion to **deny** the Stormwater Management Plan, for the following reasons...(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

46860 WEST ROAD: JSP 17-35

Location



LEGEND

- City of Novi
- Sections
- Subject Property



City of Novi

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

Map Author: Lindsay Bell
Date: 02/22/2018
Project: 46860 WEST ROAD_JSP17-35
Version #: 1



1 inch = 167 feet

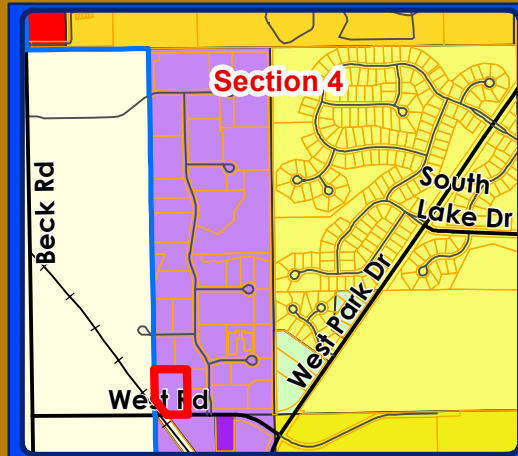
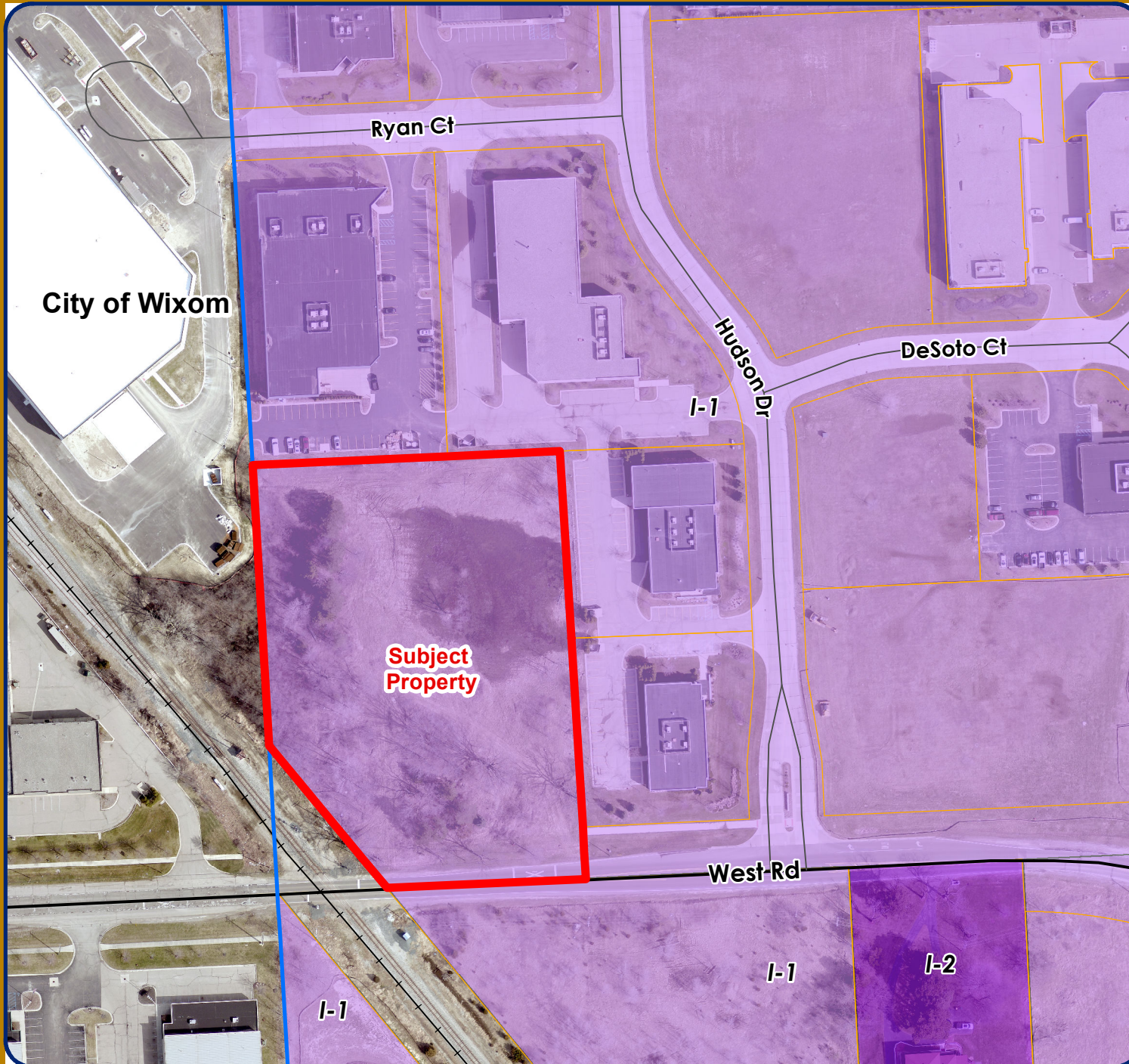


MAP INTERPRETATION NOTICE

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.

46860 WEST ROAD: JSP 17-35

Zoning



LEGEND

- City of Novi
- R-A: Residential Acreage
- R-1: One-Family Residential District
- R-2: One-Family Residential
- R-4: One-Family Residential District
- RM-1: Low-Density Multiple Family
- B-3: General Business District
- I-1: Light Industrial District
- I-2: General Industrial District
- Subject Property



City of Novi

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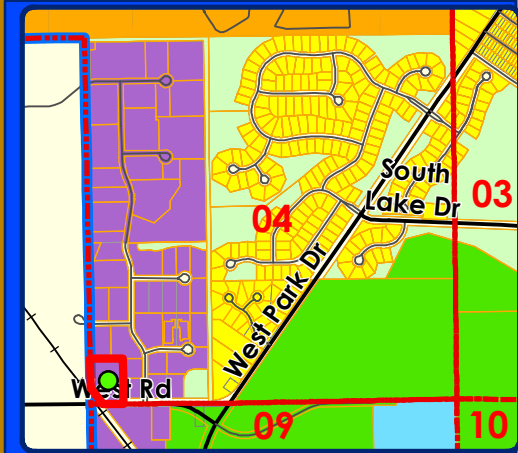


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46860 WEST ROAD: JSP 17-35

Future Land Use



LEGEND

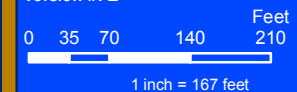
- City of Novi
- Sections
- FUTURE LAND USE**
- Single Family
- Multiple Family
- Industrial RD Tech
- Public
- Public Park
- Private Park
- Subject Property



City of Novi

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

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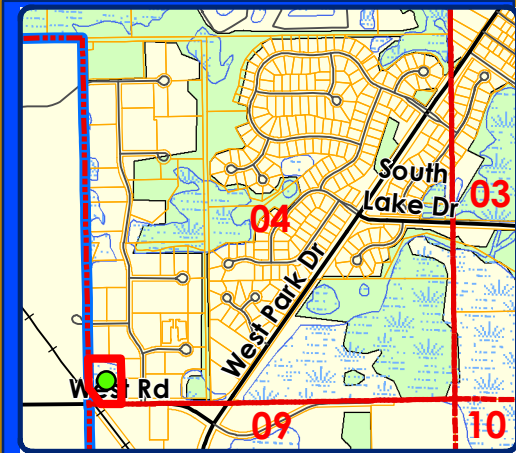


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46860 WEST ROAD: JSP 17-35

Natural Features



LEGEND

- City of Novi
- Sections
- WETLANDS
- WOODLANDS
- Subject Property



City of Novi

Dept. of Community Development
City Hall / Civic Center
45175 W Ten Mile Rd
Novi, MI 48375
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Map Author: Lindsay Bell
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SITE PLAN

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

ISSUED FOR	DATE
PRELIM	2/4/17
	4/11/17
PRE-APP	4/19/17
SFA	5/8

ARCHITECTURAL DESIGN
 RESIDENTIAL
 COMMERCIAL
 INDUSTRIAL

GAV ASSOCIATES, INC
 49132 Wixom Tech Drive
 Wixom, Michigan
 48196-3554
 (248) 858-8554
 www.gavassociates.com

Quadrant Development, LLC
 49132 Wixom Tech Drive
 Wixom, Michigan
 48196-3554

PROPOSED NEW FACILITY :
46860 WEST ROAD
NOV, MICHIGAN

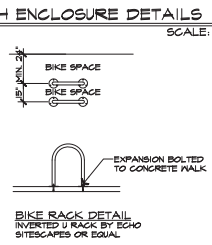
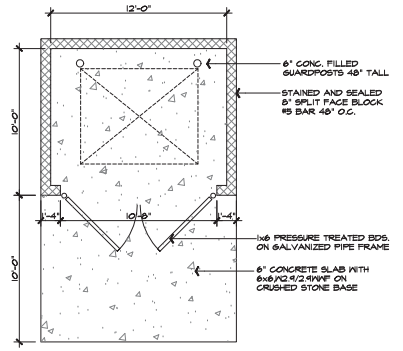
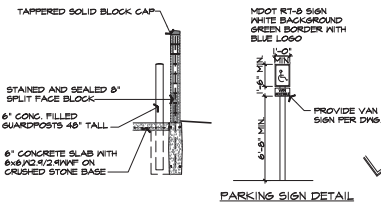
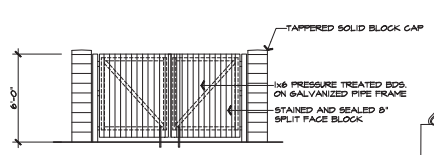
DRAWN	DESIGNED	CHECKED
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SCALE :
 FILE NAME :

JOB # : 16151

SHEET TITLE
SITE STUDY

SHEET #
SD-1



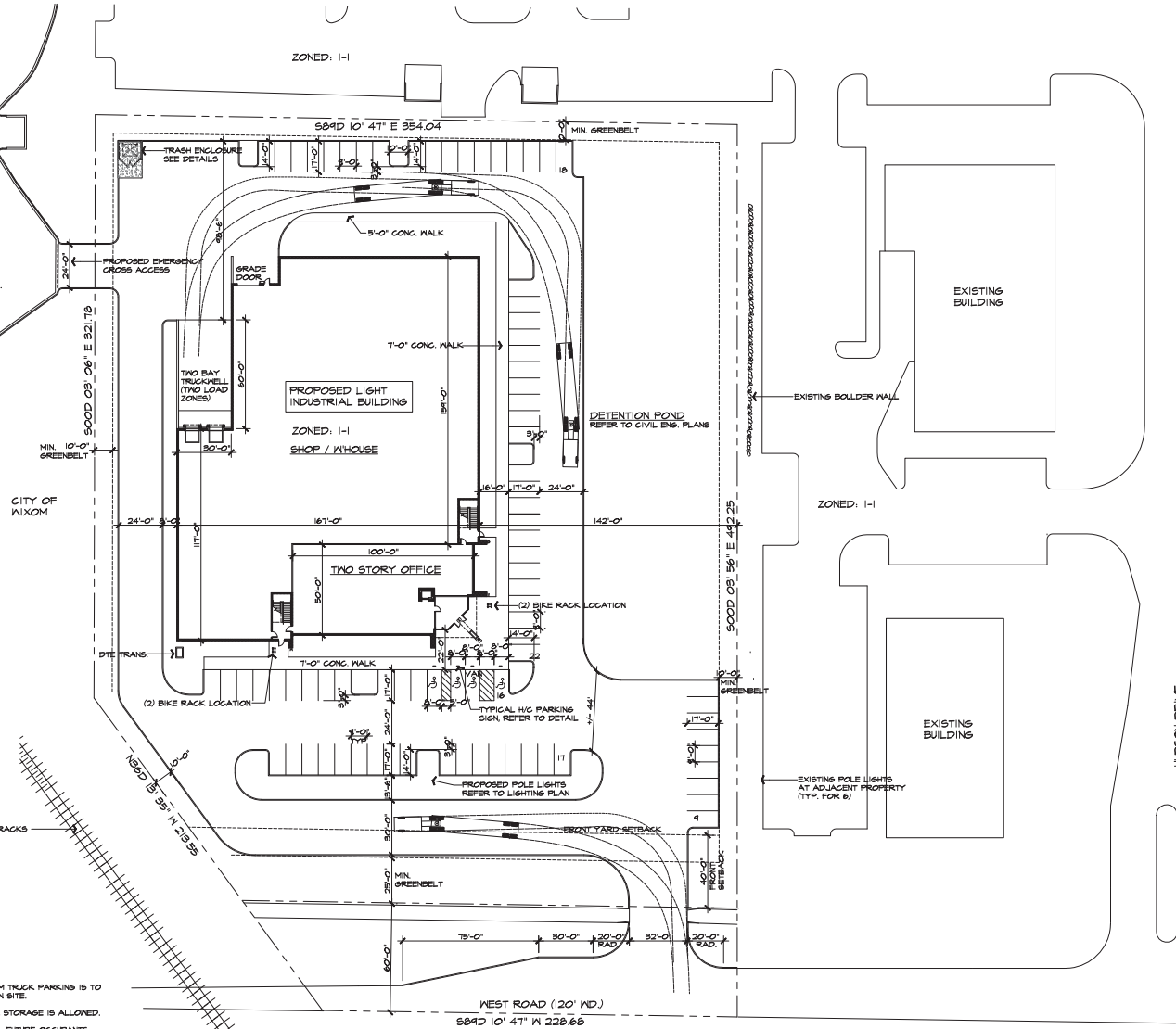
BUILDING DATA
 BUILDING AREA, MAIN LEVEL OFFICE: 4,821 GROSS S.F.
 SHOP / WAREHOUSE: 29,849 GROSS S.F.
 TOTAL MAIN LEVEL = 31,466 GROSS S.F.
 UPPER LEVEL: +/- 4,821 GROSS S.F.
 TOTAL BUILDING AREA: +/- 36,287 GROSS S.F.
 USE GROUP: MIXED NONSEPARATED, B / S-1 / F-1
 CONSTRUCTION CLASS: 2B
 FIRE SUPPRESSED BUILDING

PARKING REQ'D.
 OFFICE = ONE PER 222 S.F. OF GROSS LEASABLE FLOOR AREA +/- 9,642 / 222 = 44 SPACES
 SHOP / WAREHOUSE = ONE PER 100 S.F. OF USABLE FLOOR AREA +/- 29,849 S.F. x .028 / 100 = 83 SPACES
 TOTAL REQ'D. = 141 SPACES
 82 PARKING SPACES PROVIDED

NOTE
 1. NO LONG TERM TRUCK PARKING IS TO BE ALLOWED ON SITE.
 2. NO OUTDOOR STORAGE IS ALLOWED.
 3. ANY AND ALL FUTURE OCCUPANTS SHALL COMPLY WITH ALL ORDINANCE SECTIONS 14.3C, 14.3D AND 14.3 E REGARDING PERFORMANCE STANDARDS, STORAGE AND USE OF MATERIALS AND HAZARDOUS MATERIAL CHECKLIST.

SITE DATA
 SIDWELL: 22-04-326-006
 ZONING: I-1
 SITE GROSS AREA: 163,759 S.F. (3.76 ACRES)
 SITE NET AREA: 149,604 S.F. (3.41 ACRES)
 LOT COVERAGE GROSS: 14.2%
 LOT COVERAGE NET: 21.2%

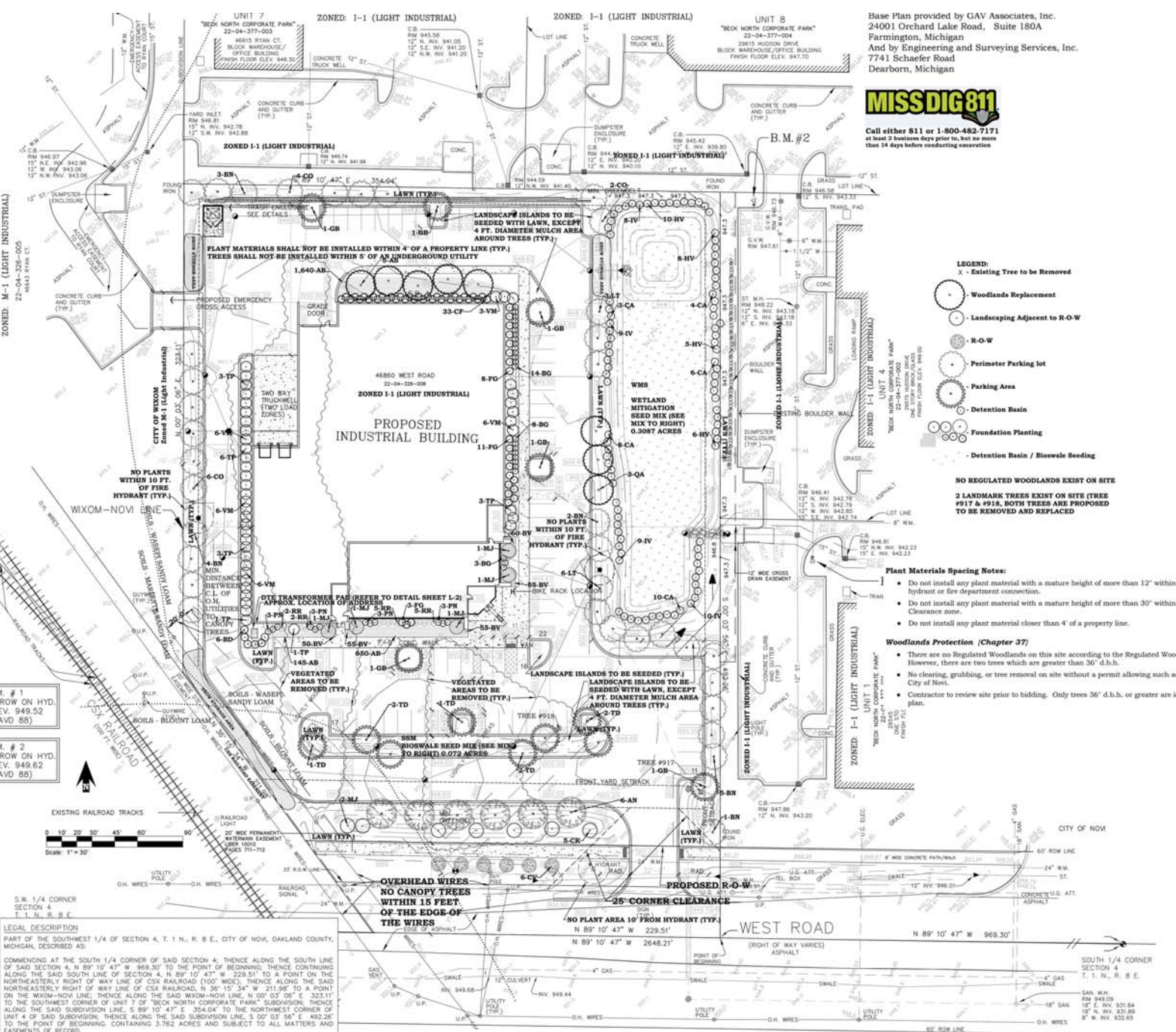
FRONT YARD PARKING
 THE FRONT YARD PARKING AREA CANNOT OCCUPY MORE THAN FIFTY (50) PERCENT OF AREA BETWEEN THE MINIMUM FRONT YARD SETBACK LINE AND THE BUILDING FACADE.
 SETBACK LINE
 AREA FROM 40' SETBACK TO BUILDING LINE = 85,212 S.F.
 50% = 17,542 S.F. 44 PARKING SPACES IN FRONT YARD = 6,752 S.F. < 17,542 S.F. (PARKING ALLOWED)



SITE PLAN

SCALE: 1" = 30'

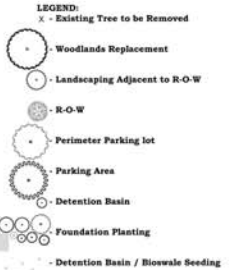




Base Plan provided by GAV Associates, Inc.
24001 Orchard Lake Road, Suite 180A
Farmington, Michigan
And by Engineering and Surveying Services, Inc.
7741 Schaefer Road
Dearborn, Michigan



Call either 811 or 1-800-482-7171
at least 3 business days prior to, but no more
than 14 days before conducting excavation



NO REGULATED WOODLANDS EXIST ON SITE
2 LANDMARK TREES EXIST ON SITE (TREE #917 & #918, BOTH TREES ARE PROPOSED TO BE REMOVED AND REPLACED)

Plant Materials Spacing Notes:

- Do not install any plant material with a mature height of more than 12' within 10' of a fire hydrant or fire department connection.
- Do not install any plant material with a mature height of more than 30' within the 25' Corner Clearance zone.
- Do not install any plant material closer than 4' of a property line.

Woodlands Protection (Chapter 37)

- There are no Regulated Woodlands on this site according to the Regulated Woodlands Map. However, there are two trees which are greater than 36' d.b.h.
- No clearing, grubbing, or tree removal on site without a permit allowing such activities from the City of Novi.
- Contractor to review site prior to bidding. Only trees 36' d.b.h. or greater are identified on the plan.

Plant Materials List - Tree & Shrub	Item	Quantity	Notes	Requirement
1	Aster	100	14' 1/2" ht.	Foundation Planting
2	Aster	100	14' 1/2" ht.	Foundation Planting
3	Aster	100	14' 1/2" ht.	Foundation Planting
4	Aster	100	14' 1/2" ht.	Foundation Planting
5	Aster	100	14' 1/2" ht.	Foundation Planting
6	Aster	100	14' 1/2" ht.	Foundation Planting
7	Aster	100	14' 1/2" ht.	Foundation Planting
8	Aster	100	14' 1/2" ht.	Foundation Planting
9	Aster	100	14' 1/2" ht.	Foundation Planting
10	Aster	100	14' 1/2" ht.	Foundation Planting
11	Aster	100	14' 1/2" ht.	Foundation Planting
12	Aster	100	14' 1/2" ht.	Foundation Planting
13	Aster	100	14' 1/2" ht.	Foundation Planting
14	Aster	100	14' 1/2" ht.	Foundation Planting
15	Aster	100	14' 1/2" ht.	Foundation Planting
16	Aster	100	14' 1/2" ht.	Foundation Planting
17	Aster	100	14' 1/2" ht.	Foundation Planting
18	Aster	100	14' 1/2" ht.	Foundation Planting
19	Aster	100	14' 1/2" ht.	Foundation Planting
20	Aster	100	14' 1/2" ht.	Foundation Planting
21	Aster	100	14' 1/2" ht.	Foundation Planting
22	Aster	100	14' 1/2" ht.	Foundation Planting
23	Aster	100	14' 1/2" ht.	Foundation Planting
24	Aster	100	14' 1/2" ht.	Foundation Planting
25	Aster	100	14' 1/2" ht.	Foundation Planting
26	Aster	100	14' 1/2" ht.	Foundation Planting
27	Aster	100	14' 1/2" ht.	Foundation Planting
28	Aster	100	14' 1/2" ht.	Foundation Planting
29	Aster	100	14' 1/2" ht.	Foundation Planting
30	Aster	100	14' 1/2" ht.	Foundation Planting

Plant Materials List - Wetland Mitigation Seed Mix	Item	Quantity	Notes	Requirement
1	Aster	100	14' 1/2" ht.	Foundation Planting
2	Aster	100	14' 1/2" ht.	Foundation Planting
3	Aster	100	14' 1/2" ht.	Foundation Planting
4	Aster	100	14' 1/2" ht.	Foundation Planting
5	Aster	100	14' 1/2" ht.	Foundation Planting
6	Aster	100	14' 1/2" ht.	Foundation Planting
7	Aster	100	14' 1/2" ht.	Foundation Planting
8	Aster	100	14' 1/2" ht.	Foundation Planting
9	Aster	100	14' 1/2" ht.	Foundation Planting
10	Aster	100	14' 1/2" ht.	Foundation Planting
11	Aster	100	14' 1/2" ht.	Foundation Planting
12	Aster	100	14' 1/2" ht.	Foundation Planting
13	Aster	100	14' 1/2" ht.	Foundation Planting
14	Aster	100	14' 1/2" ht.	Foundation Planting
15	Aster	100	14' 1/2" ht.	Foundation Planting
16	Aster	100	14' 1/2" ht.	Foundation Planting
17	Aster	100	14' 1/2" ht.	Foundation Planting
18	Aster	100	14' 1/2" ht.	Foundation Planting
19	Aster	100	14' 1/2" ht.	Foundation Planting
20	Aster	100	14' 1/2" ht.	Foundation Planting
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26	Aster	100	14' 1/2" ht.	Foundation Planting
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28	Aster	100	14' 1/2" ht.	Foundation Planting
29	Aster	100	14' 1/2" ht.	Foundation Planting
30	Aster	100	14' 1/2" ht.	Foundation Planting



Professional Engineer
Eric A. Olson, PLLC
Michigan License No. 94243
1500 West 12th Street
Farmington, Michigan 48333

Design by:
Eric A. Olson, PLLC
1500 West 12th Street
Farmington, Michigan 48333
(248) 424-4330
eolson@agribiotech.com

Client:
Quantum Development, LLC
49113 Wixom Tech Drive
Farmington, Michigan 48333
(248) 947-8960

Landscape & Tree Replacement Plan for:
Spec. Building
46860 West Road
City of Novi, Michigan 48377-1724

Sheet
L-1 of 2

Job No. 17AJ

ZONED M-1 (LIGHT INDUSTRIAL)
22-04-326-005
8643 TAN CT



LEGAL DESCRIPTION
PART OF THE SOUTHWEST 1/4 OF SECTION 4, T. 1 N., R. 8 E., CITY OF NOVI, OAKLAND COUNTY, MICHIGAN, DESCRIBED AS:
COMMENCING AT THE SOUTH 1/4 CORNER OF SAID SECTION 4, THENCE ALONG THE SOUTH LINE OF SAID SECTION 4, N 89° 10' 47" W 969.30' TO THE POINT OF BEGINNING, THENCE CONTINUING ALONG THE SAID SOUTH LINE OF SECTION 4, N 89° 10' 47" W 229.51' TO A POINT ON THE NORTHEASTLY RIGHT OF WAY LINE OF CSX RAILROAD (100' WIDE), THENCE ALONG THE SAID NORTHEASTLY RIGHT OF WAY LINE OF CSX RAILROAD, N 30° 15' 24" W 211.98' TO A POINT ON THE WIXOM-NOVI LINE, THENCE ALONG THE SAID WIXOM-NOVI LINE, N 00° 03' 06" E 323.11' TO THE SOUTHWEST CORNER OF UNIT 7 OF "BECK NORTH CORPORATE PARK" SUBDIVISION, THENCE ALONG THE SAID SUBDIVISION LINE, S 89° 10' 47" E 354.04' TO THE NORTHWEST CORNER OF UNIT 4 OF SAID SUBDIVISION, THENCE ALONG THE SAID SUBDIVISION LINE, S 00° 53' 56" E 492.26' TO THE POINT OF BEGINNING, CONTAINING 3.762 ACRES AND SUBJECT TO ALL MATTERS AND EASEMENTS OF RECORD.

46860 WEST ROAD, NOVI MI 48377-1724
PARCEL NUMBER: 22-04-326-006

ISSUED FOR	DATE
PRELIM	1/20/11
PRE-APP	4/8/11
SPA	10/8

ARCHITECTURAL DESIGN
 RESIDENTIAL
 COMMERCIAL
 INDUSTRIAL

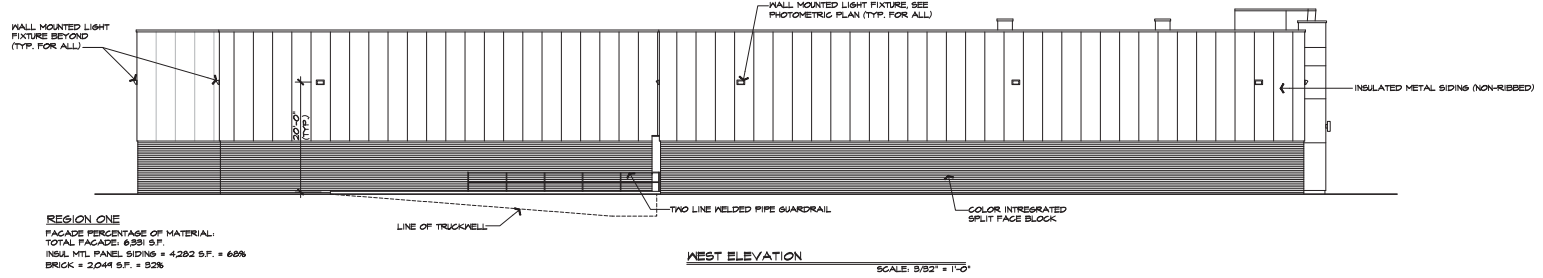
G.A.V. ASSOCIATES, INC.
 4912 Wisconsin Tech Drive
 Farmington Hills, MI 48334
 248-858-5554
 www.gavassociates.com



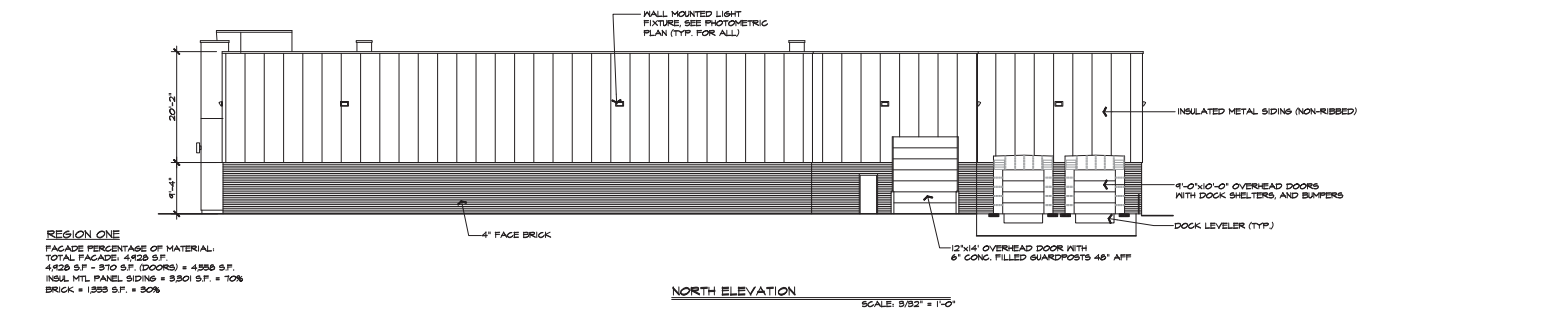
Quantum Development, LLC
 4912 Wisconsin Tech Drive
 Farmington Hills, MI 48334
 248-858-5554

PROPOSED NEW FACILITY :
 46860 WEST ROAD
 NOVI, MICHIGAN

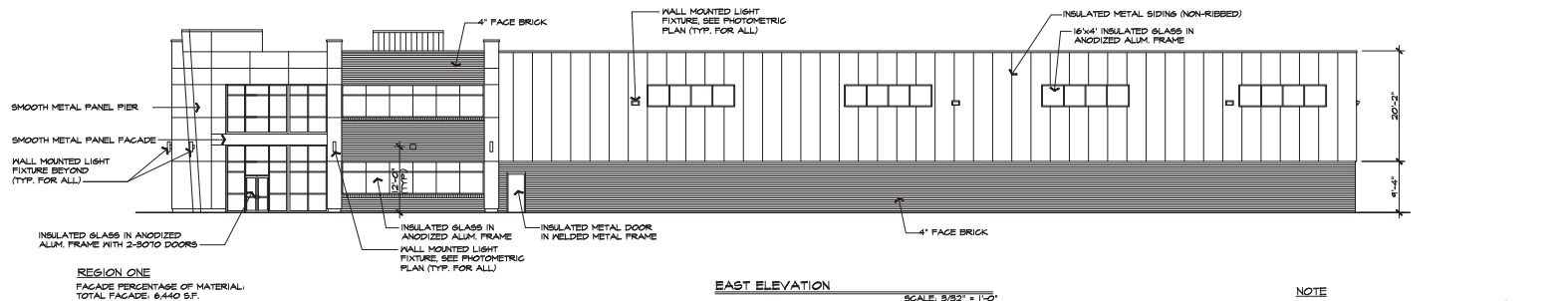
DRAWN :	DESIGNED :	CHECKED :
SCALE :	FILE NAME :	JOB # : 16151
SHEET TITLE		
EXTERIOR ELEVATION		
SHEET #		
A.201		



REGION ONE
 FACADE PERCENTAGE OF MATERIAL:
 TOTAL FACADE: 6,930 S.F.
 INSUL. MTL. PANEL SIDING = 4,282 S.F. = 60%
 BRICK = 2,648 S.F. = 38%

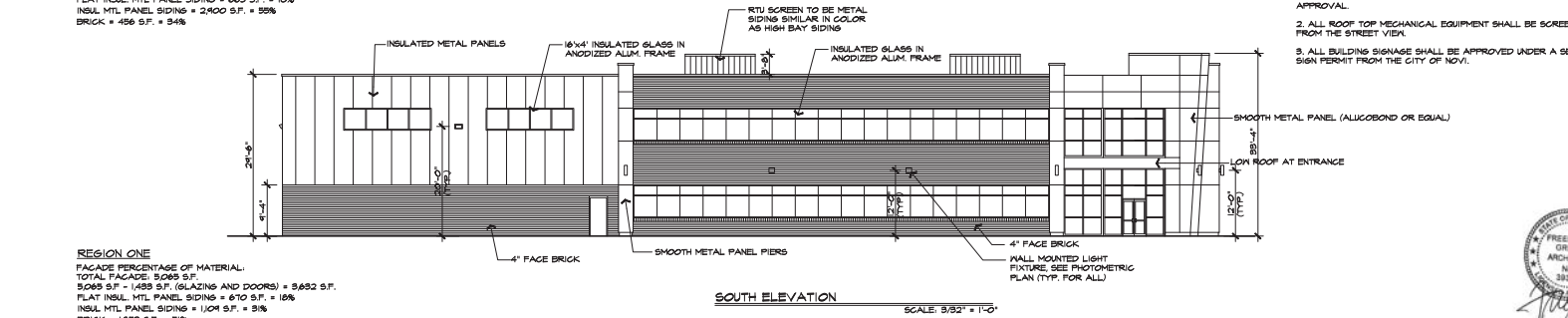


REGION ONE
 FACADE PERCENTAGE OF MATERIAL:
 TOTAL FACADE: 4,920 S.F.
 4,920 S.F. = 870 S.F. (DOORS) = 4,950 S.F.
 INSUL. MTL. PANEL SIDING = 3,801 S.F. = 70%
 BRICK = 1,558 S.F. = 32%



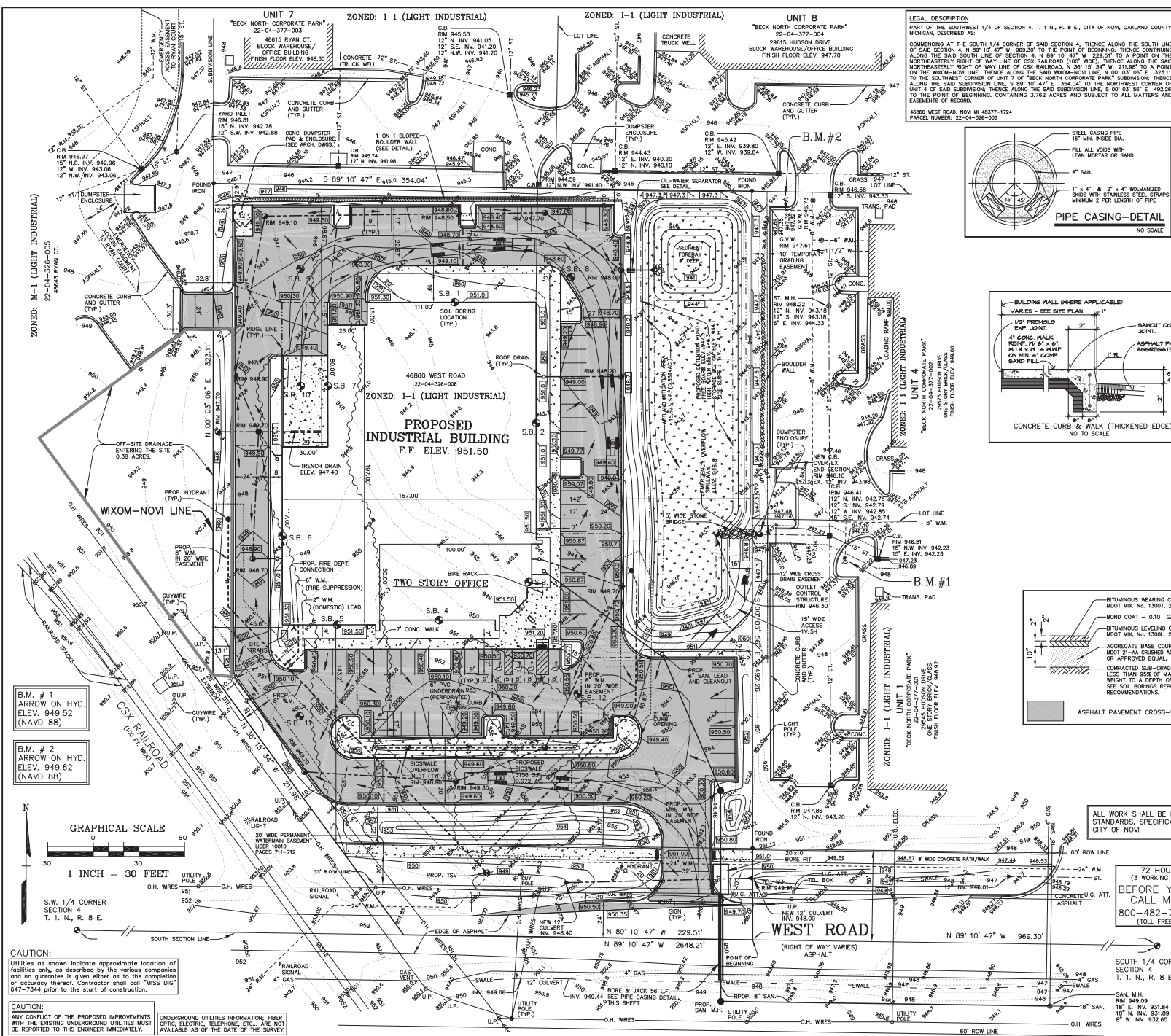
REGION ONE
 FACADE PERCENTAGE OF MATERIAL:
 TOTAL FACADE: 6,440 S.F.
 6,440 S.F. = 182 S.F. (GLAZING AND DOORS) = 5,458 S.F.
 FLAT INSUL. MTL. PANEL SIDING = 649 S.F. = 10%
 INSUL. MTL. PANEL SIDING = 2,400 S.F. = 37%
 BRICK = 456 S.F. = 7%

NOTE
 1. ANY MODIFICATIONS TO THE FACADE PLAN (INCLUDING COLOR) MUST BE RESUBMITTED TO THE CITY OF NOVI FOR REVISED APPROVAL.
 2. ALL ROOF TOP MECHANICAL EQUIPMENT SHALL BE SCREENED FROM THE STREET VIEW.
 3. ALL BUILDING SIGNAGE SHALL BE APPROVED UNDER A SEPARATE SIGN PERMIT FROM THE CITY OF NOVI.

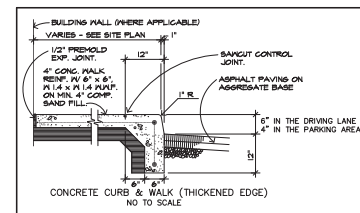
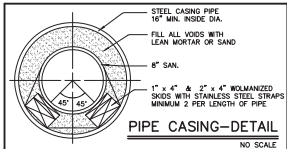
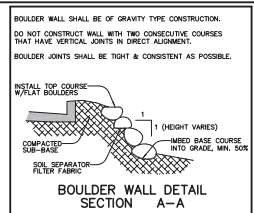


REGION ONE
 FACADE PERCENTAGE OF MATERIAL:
 TOTAL FACADE: 5,069 S.F.
 5,069 S.F. = 1,459 S.F. (GLAZING AND DOORS) = 3,652 S.F.
 FLAT INSUL. MTL. PANEL SIDING = 670 S.F. = 13%
 INSUL. MTL. PANEL SIDING = 1,041 S.F. = 21%
 BRICK = 1,958 S.F. = 39%





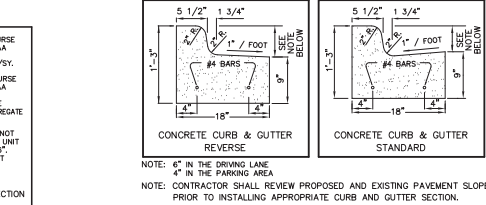
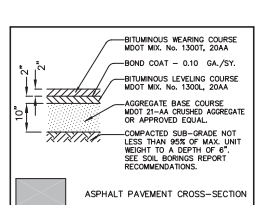
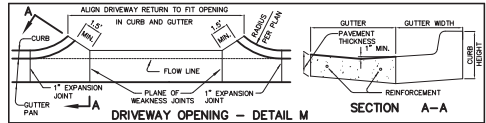
LEGAL DESCRIPTION
 PART OF THE SOUTHWEST 1/4 OF SECTION 4, T. 1 N., R. 8 E., CITY OF NOVI, OAKLAND COUNTY, MICHIGAN, DESCRIBED AS:
 COMMENCING AT THE SOUTH 1/4 CORNER OF SAID SECTION 4, THENCE ALONG THE SOUTH LINE OF SAID SECTION 4, N 89° 10' 47" W 969.30' TO THE POINT OF BEGINNING, THENCE CONTINUING ALONG THE SAID SOUTH LINE OF SECTION 4, N 89° 10' 47" W 229.21' TO A POINT ON THE NORTHEASTLY RIGHT OF WAY LINE OF CSX RAILROAD, N 30° 17' 54" W 311.98' TO A POINT ON THE WIXOM-NOVI LINE, THENCE ALONG THE SAID WIXOM-NOVI LINE, N 00° 03' 06" E 323.11' TO THE SOUTHWEST CORNER OF UNIT 7 OF BECK NORTH CORPORATE PARK SUBDIVISION, THENCE ALONG THE SAID SUBDIVISION LINE, S 89° 10' 47" E 354.04' TO THE NORTHEAST CORNER OF UNIT 4 OF SAID SUBDIVISION, THENCE ALONG THE SAID SUBDIVISION LINE, S 00° 03' 06" E 192.00' TO THE POINT OF BEGINNING, CONTAINING 3.762 ACRES AND SUBJECT TO ALL MATTERS AND ENCUMBRANCES OF RECORD.
 46860 WEST ROAD, NOV MI 48377-1724
 PARCEL NUMBER: 22-01-328-006



LOCATION MAP
NO SCALE

LEGEND

DISTING.	PROPOSED
3/4"=16'	ELECTRIC (OR TELEPHONE) OH. LINE & POLE
1/8"=16'	TELEPHONE U.S. CABLE
1/16"=16'	ELECTRIC U.S. CABLE
1/8"=16'	GAS MAIN
1/8"=16'	WATERMAIN, HDG. GATE VALVE, TAPPING SLAVE & VALVE
1/8"=16'	STORM SEWER & MANHOLE
1/8"=16'	COMBINED SEWER & MANHOLE
1/8"=16'	CATCH BASIN (B/W SWAMP)
1/8"=16'	NET (NO SWAMP)
1/8"=16'	PAVEMENT CATCH BASIN (B/W SWAMP)
1/8"=16'	M.H. W.C. COVER (NO SWAMP)
1/8"=16'	POINT ELEVATION (at second point)
1/8"=16'	66 S&B ELEVATION
1/8"=16'	CONTOUR LINE
1/8"=16'	FENCE
1/8"=16'	STREETLIGHT
1/8"=16'	SOIL
1/8"=16'	PAVEMENT
1/8"=16'	SAND BAYDOLL
1/8"=16'	NET/CATCH BASIN FILTER
1/8"=16'	REVERSE CONCRETE CURB & GUTTER
1/8"=16'	MONUMENT FOUND
1/8"=16'	MONUMENT SET
1/8"=16'	RECORDED
1/8"=16'	MEASURED
1/8"=16'	CALCULATED



PRELIMINARY NOT FOR CONSTRUCTION

ALL WORK SHALL BE DONE IN ACCORDANCE WITH THE CURRENT STANDARDS, SPECIFICATIONS, AND GENERAL CONDITIONS OF THE CITY OF NOVI

72 HOURS (3 WORKING DAYS) BEFORE YOU DIG CALL MISS DIG 800-482-7171 (TOLL FREE)

I.A.S.	L.A.S.	PER CITY OF NOVI	DATE
		PER CITY OF NOVI	01-23-18
		PER CITY OF NOVI	12-23-17
		PER CITY OF NOVI	11-09-17
		REVISIONS	

QUADRANS DEVELOPMENT, LLC
 4932 WIXOM RD.
 WIXOM, MI 48393
 TEL: (248) 960-5422; (248) 960-9867

PRELIMINARY SITE PLAN
 PROPOSED NEW FACILITY

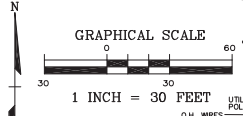
46860 WEST ROAD
 NOV MI 48377-1724

Engineering and Surveying Services, Inc.
 Dearborn, Michigan 48126
 Tel: (313) 945 5890 Fax: (313) 945 5891

ENGINEERING and SURVEYING SERVICES, INC.

B.M. # 1
ARROW ON HYD.
ELEV. 949.52
(NAVD 88)

B.M. # 2
ARROW ON HYD.
ELEV. 949.62
(NAVD 88)



CAUTION:
 Utilities as shown indicate approximate location of facilities only, as described by the various companies and no guarantee is given either as to the completion or accuracy thereof. Contractor shall call "MISS DIG" 847-7344 prior to the start of construction.

CAUTION:
 ANY CONFLICT OF THE PROPOSED IMPROVEMENTS WITH THE EXISTING UNDERGROUND UTILITIES MUST BE REPORTED TO THIS ENGINEER IMMEDIATELY.

UNDERGROUND UTILITIES INFORMATION: FIBER OPTIC, ELECTRIC, TELEPHONE, ETC., ARE NOT AVAILABLE AS OF THE DATE OF THE SURVEY.



SOUTH 1/4 CORNER SECTION 4, T. 1 N., R. 8 E.

SAN. W.H. RM 949.09
 18" N. INV. 931.84
 18" N. INV. 931.89
 8" W. INV. 932.65

60' ROW LINE

PLANNING REVIEW



PLAN REVIEW CENTER REPORT

February 15, 2018

Planning Review

46860 West Road

JSP 17-35

Petitioner

Quadrants Development, LLC

Review Type

Revised Preliminary Site Plan

Property Characteristics

Section	4	
Site Location	46860 West Road; North of West Road, West of Hudson Drive	
Site School District	Walled Lake Consolidated School District	
Site Zoning	I-1: Light Industrial District	
Adjoining Zoning	North	I-1: Light Industrial District
	East	I-1: Light Industrial District
	West	M-1: Light Industrial (City of Wixom)
	South	I-1: Light Industrial District
Current Site Use	Vacant	
Adjoining Uses	North	Light industrial
	East	Light industrial
	West	Railroad tracks/Light Industrial (City of Wixom)
	South	Industrial/Office: Vacant
Site Size	3.76 acres	
Plan Date	January 5, 2018	

Project Summary

The applicant is proposing a 36,000 +/- square foot light industrial speculative building with associated site improvements on the north side of West Road, west of Hudson Drive, and east of the CSX Railroad and City of Wixom line. The building would contain a 2-story office space with approximately 9,600 GSF and 26,600 GSF shop/warehouse. The 3.76 acre site is currently vacant, and is planned and zoned for Light Industrial use.

Recommendation

Approval of the revised *Preliminary Site Plan is recommended subject to appropriate relocation and/or screening of proposed transformer (currently located in the front yard) or the applicant receiving a Zoning Board of Appeals variance for the current location.* The plan mostly conforms to the requirements of the Zoning Ordinance, with a few deviations to be addressed in subsequent Site Plan submissions. All reviews are recommending approval. **Planning Commission's approval for Preliminary Site Plan, Wetland Permit, Woodland Permit, Section 9 Façade Waiver, 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 charts for information pertaining to ordinance requirements.** Items in **bold** below must be addressed and incorporated as part of the Final Site Plan submittal:

1. Plan Review Chart: There are additional minor clarifications requested in the Plan review chart. Please refer to the chart for additional details.
2. Economic Impact Information: **The following information is requested with the response letter and before the Planning Commission meeting:**
 - i. Total cost of the proposed construction and site improvements
 - ii. Number of anticipated jobs created (during construction & after building is occupied, if known)
3. Response Letter: **Please provide a response letter addressing all comments and refer to sheet numbers where the change is reflected** (*note to applicant: responses to the Engineering comments were missing when the revised Preliminary Site Plan was submitted*).
4. Accessory Structures (Sec 4.19.2.A): DTE Transformer is considered an accessory structure and should be located in the rear yard. Location must meet the 20 ft. setback requirement and screening is required. **The applicant should consider relocation of proposed transformer, provide proper screening, OR must request a Zoning Board of Appeals variance for transformer location in the front yard. The applicant had previously indicated that proposed location of the transformer is due to the existing location of the power pole where the tap will occur.**
5. Lighting and Photometric Plan (Sec. 5.7.2): **Complete Luminaire Schedule chart and include a chart that addresses the required lighting levels from Sec. 5.7.3.K. See chart for additional details.**
6. Wetland Conservation Easement: If the Planning Commission approves the Wetland Permit, the applicant should **submit a draft Wetland Conservation Easement for the proposed wetland mitigation areas at the time of the Final Site Plan submittal.**
7. Woodland Conservation Easement: The applicant is proposing to plant 8 Woodland Replacement Trees on site due to the removal of two regulated trees from the site. All proposed woodland replacement trees should be guaranteed to be preserved as planted with a conservation easement. If the Planning Commission approves the Woodland Permit, the applicant should **submit a draft Woodland Conservation Easement for the proposed replacement trees at the time of the Final Site Plan submittal. (A combined Woodland/Wetland Conservation Easement is allowed.)**
8. Other Reviews:
 - a. Engineering Review: Additional comments to be addressed in Final Site Plan. Engineering recommends approval. Draft copies of the Legal documents for all required off-site easements, as detailed in the Engineering review letter, should be submitted with the Final Site Plan.
 - b. Landscape Review: Landscape recommends approval with comments to be addressed in Final Site Plan Submittal. Refer to review letter and chart for more comments.
 - c. Wetlands Review: A City of Novi Wetland Permit and Buffer Authorization are required for the proposed impacts to wetlands and regulated wetland setbacks. Wetland mitigation is also required and proposed in the revised plan. Wetland consultant recommends approval.
 - d. Woodlands Review: Two trees greater than 36-inches DBH are proposed to be removed and eight woodland tree replacements will be planted.
 - e. Traffic Review: Additional comments to be addressed with Final Site Plan. Traffic recommends approval.
 - f. Facade Review: The South and East facades are in full compliance with the Façade Ordinance. **A Section 9 waiver is required for overage of Flat Metal Panels on the West and North facades.** Given the lower degree of visibility from the major thoroughfare, this waiver is supported by staff. **Façade consultant recommends approval.**
 - g. Fire Review: Fire recommends approval. Additional comments to be addressed with Final Site Plan.

NEXT STEP: Planning Commission Meeting

This Preliminary Site Plan is scheduled to go before Planning Commission following a 5-day notice for a public hearing. The site plan is scheduled at the February 28, 2018 meeting. Please provide the following **no later than 12:00pm, February 21st** if you wish to keep the schedule:

1. Site Plan submittal in PDF format (maximum of 10MB). **NO CHANGES MADE.**
2. **A response letter addressing ALL the comments from ALL the review letters and a request for waivers as you see fit.**
3. A color rendering of the Site Plan (Optional to be used for Planning Commission presentation).
4. A sample board of building materials as requested by our Façade Consultant.

Final Site Plan Submittal

After receiving Planning Commission's approval of the revised Preliminary Site Plan, 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 the comments from ALL the review letters and **refer to sheet numbers where the change is reflected**, and
3. **Draft copies of the Legal documents for all required off-site easements, as detailed in the Engineering review letter, and Wetland/Woodland Conservation Easement.**

Electronic Stamping Set Submittal

After receiving Final Site Plan approval, plans addressing the comments in all of the staff and consultant review letters should be submitted electronically for informal review and approval prior to printing Stamping Sets. A letter from either the applicant or the applicant's representative addressing comments in this and other review letters and associated charts is to be submitted with the electronic stamping set. This letter should address 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.

Drafts for all required legal documents with a legal transmittal are required along with stamping sets.

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.

Parcel Split/Combination

No parcel split or combination is required.

Pre-Construction Meeting

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

before a Pre-Con can be scheduled. If you have questions regarding the checklist or the Pre-Con itself, please contact Sarah Marchioni [248.347.0430 or smarchioni@cityofnovi.org] in the Community Development Department.

Chapter 26.5

Chapter 26.5 of the City of Novi Code of Ordinances generally requires all projects be completed within two years of the issuance of any starting permit. Please contact Sarah Marchioni at 248-347-0430 for additional information on starting permits. The applicant should review and be aware of the requirements of Chapter 26.5 before starting construction.

If the applicant has any questions concerning the above review or the process in general, do not hesitate to contact me at 248.347.0484 or lbell@cityofnovi.org.

A handwritten signature in black ink that reads "Lindsay Bell". The signature is written in a cursive, flowing style.

Lindsay Bell – Planner



PLANNING REVIEW CHART

Review Date: February 15, 2017
Review Type: Revised Preliminary Site Plan
Project Name: 46860 West Road
Plan Date: 1.5.18
Prepared by: Lindsay Bell, Planner
E-mail: lbell@cityofnovi.org **Phone:** 248.347.0484

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

Item	Required Code	Proposed	Meets Code	Comments
Zoning and Use Requirements				
Master Plan <i>(adopted August 25, 2010)</i>	Industrial Research Development and Technology	No Change	Yes	<i>Speculative building – once tenant is known will need to confirm use is permitted</i>
Area Study	The site does not fall under any special category	NA	NA	
Zoning <i>(Effective December 25, 2013)</i>	I-1: Light Industrial District	No Change	Yes	
Uses Permitted (Sec 3.1.18.B & C)	Principal Uses Permitted Special Land Uses	36,287 sq. ft. building 9,642 office 26,645 warehouse	Yes	<i>Industrial office and warehouse are permitted uses when not abutting residential</i>
Height, bulk, density and area limitations (Sec 3.1.18)				
Frontage on a Public Street. <i>(Sec. 5.12)</i>	Frontage on a Public Street is required	Frontage on West Road	Yes	
Access to Major Thoroughfare <i>(Sec. 5.13)</i>	Vehicular access shall be provided only to an existing or planned major thoroughfare or freeway service drive	Access to West Road is provided	Yes	
Minimum Zoning Lot Size for each Unit in Ac <i>(Sec 3.6.2.D)</i>	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		NA	
Minimum Zoning Lot Size for each Unit: Width in Feet			NA	

Item	Required Code	Proposed	Meets Code	Comments
Open Space Area	----	----	----	----
Maximum % of Lot Area Covered (By All Buildings)	(Sec 3.6.2.D)	21.2%	Yes	
Building Height (Sec. 3.1.18.D)	40 ft.	33' 4"	Yes	
Building Setbacks (Sec 3.1.18.D)				
Front (south)	40 ft.	143 ft.	Yes	Front setback does not include the proposed 60' ROW dedication
Rear (north)	20 ft.	75 ft.	Yes	
Side (west)	20 ft.	42 ft.	Yes	
Side (east)	20 ft.	142 ft.	Yes	
Parking Setback (Sec 3.1.18.D) & Refer to applicable notes in Sec 3.6.2				
Front (south)	40 ft. (See 3.6.2.E)	43 ft.	Yes	
Rear (north)	10 ft.	10 ft.	Yes	
Side (west)	10 ft.	60 ft.	Yes	
Side (east)	10 ft.	10 ft.	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.	No side yard abutting street	NA	
Off-Street Parking in Front Yard (Sec 3.6.2.E)	Off-street parking is allowed in front yard if - the site is a minimum 2 acre site, - does not extend into the minimum required front yard setback of the district, - cannot occupy more than 50% of the area between min. front yard setback & bldg. setback, - must be screened by brick wall or landscaped berm - lighting compatible with surrounding neighborhood	Parking proposed in front yard -Meets -Provided -Provided (less than 50%) -Provided -Provided	Yes	
Off-Street Parking in Side and Rear Yards (Sec 3.6.2.F)	Off-street parking is allowed in side and rear yards if the site does not abut residential. If it does, additional conditions apply.	Not adjacent to residential districts	NA	
Setback from Residential District (Sec 3.6.2.H)	I-1 and I-2 districts, five (5) feet of horizontal setback for each foot of building height, or one-hundred (100) feet, whichever is greater. c. Except when a site or rear yard is separated from a residential district by a railroad	Not abutting a residential district	NA	

Item	Required Code	Proposed	Meets Code	Comments
	right-of-way, the right-of-way may be included as part of the setback requirement.			
Wetland/Watercourse Setback (Sec 3.6.2.M)	A setback of 25 ft. from wetlands and from high watermark course shall be maintained	Wetland impacts to 0.3881 acre. 2 mitigation areas proposed for total of 0.431 acre.	Yes	Wetland permit required from Planning Commission.
Additional Height (Sec 3.6.2.O)	Additional heights for selected building is allowed based on conditions listed in Sec 3.6.2.O	Applicant not requesting	NA	
Parking setback screening (Sec 3.6.2.P)	Required parking setback area shall be landscaped per Sec 5.5.3.	Parking lot is screened	Yes	See Landscaping comments
Modification of parking setback requirements (Sec 3.6.2.Q)	The Planning Commission may modify parking setback requirements based on conditions listed in Sec 3.6.2.Q	Not requested	NA	
Parking, Loading and Dumpster Requirements				
Number of Parking Spaces Warehouses and wholesale establishments and related accessory offices (Sec.5.2.12.E) Business offices or professional offices (Sec.5.2.12.D)	One (1) space for each seven hundred (700) square feet of usable floor area: Total Warehouse: 26,645 SF usable space (90% useable) Required Parking: 35 spaces For buildings up to 100,000 SF 1 space for 222 SF GLA Total Office: 9,642 GSF Required Parking: 44 Spaces Total Required: 79 spaces	Total Proposed = 82	Yes	
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	24 ft. drives 9 ft. x 17 ft. perimeter spaces along landscaping and 7' sidewalks	Yes	
Parking stall located adjacent to a parking lot entrance (public or private) (Sec. 5.3.13)	Shall not be located closer than twenty-five (25) feet from the street right-of-way (ROW) line, street easement or sidewalk, whichever is closer	Minimum distance is maintained	Yes	

Item	Required Code	Proposed	Meets Code	Comments
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	Yes	
Barrier Free Spaces <i>Barrier Free Code</i>	For 82 spaces, 4 barrier free required	4 barrier free provided	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 - 5' wide with a 5' wide access aisle for regular accessible spaces 	Two types of accessible spaces are provided; one van and three regular	Yes	
Barrier Free Signs <i>Barrier Free Code</i>	One sign for each accessible parking space.	Proposed	Yes	
Minimum number of Bicycle Parking (Sec. 5.16.1)	Five (5) percent of 79 required automobile spaces: 4 spaces required	Two bike racks located at main and side entrance w/ required capacity	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 and the bike rack shall be inverted "U" design - Shall be accessible via 6 ft. paved sidewalk 	Provided 4 spaces proposed; 2 locations proposed Inverted U design shown	Yes	
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	Bicycle parking layout is shown	Yes	
Loading Spaces (Sec. 5.4.3)	Loading area in the rear yard, unless abutting residential or interior side yard is adjacent to	Truck well located in exterior side yard abutting M-1,	Yes	

Item	Required Code	Proposed	Meets Code	Comments
	I, EXPO or EXO district	light industrial district in Wixom		
Accessory Structures				
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 	Yes Yes, >10 ft. from bldg. Yes, 10 ft. from lot line Yes Yes	Yes	
Dumpster Enclosure (Sec. 21-145. (c))	<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 	Proposed dumpster enclosure is composed of stained & sealed split face block with gate of pressure treated BDS on Galvanized frame	Yes	
Roof top equipment and wall mounted utility equipment (Sec. 4.19.2.E.ii)	All roof top equipment must be screened and all wall mounted utility equipment must be enclosed and integrated into the design and color of the building	Rooftop equipment is enclosed	Yes	
Roof top appurtenances screening	Roof top appurtenances shall be screened in accordance with applicable facade regulations, and shall not be visible from any street, road or adjacent property.	Rooftop equipment is enclosed	Yes	
Transformer/ Generator	Provide location of any proposed transformers/ generators etc.	DTE Trans shown at SW corner of the building in the front yard. No generator shown.	No	Accessory structures to be located in the rear yard and screened with landscaping; Provide structural screening or request BZA variance
I-1 District Required Conditions (Sec 3.14)				
Outdoor Storage of above ground storage tanks (Sec. 3.14.1.B.ii)	Outdoor placement of above-ground storage tanks of not more than 600 capacity per tank and accessory to an otherwise permitted use. Additional conditions apply.	Not Proposed	NA	
Outdoor Storage		Not Proposed	NA	

Item	Required Code	Proposed	Meets Code	Comments
of recreational equipment (Sec. 3.14.1.B.iii)				
Other (Sec 3.14.2)	Unless otherwise provided, dealing directly with consumer at retail, is prohibited.	Speculative building, specific use unknown;	No	Add note to the plan
Adjacent to Freeway ROW (Sec 3.14.4)	Where a permitted use abuts a freeway right-of way , special conditions listed in section 3.14.4 apply	Not adjacent to Freeway ROW	NA	
Adjacent to Residential district (Sec 3.14.5)	Where a permitted use abuts a freeway right-of way , special conditions listed in section 3.14.5 apply	Not adjacent to residential district	NA	
Planning Commission findings for permitted uses (Sec 3.14.3)				
Sec 3.14.3.A	Protecting current and future residential uses from development impact	Not adjacent to residential districts	NA	
Long term truck parking Sec 3.14.3.B	No long term delivery truck parking on site	Note added to sheet SD-1	Yes	
Performance standards Sec 3.14.3.C	The lighting, noise, vibration, odor and other possible impacts are in compliance with standards and intent of the article and performance standards of Section 5.14	Speculative building, specific use unknown; Note added to Sheet SD-1	Yes	
Storage and/use of material Sec 3.14.3.D	The storage and/or use of any volatile, flammable or other materials shall be fully identified in application and shall comply with any city ordinances regarding toxic or hazardous materials.	Speculative building, specific use unknown; Note added to Sheet SD-1	Yes	
Hazardous material checklist Sec 3.14.3.E	Compliance of City's hazardous materials checklist	Speculative building, specific use unknown; Note added to Sheet SD-1	Yes	
Sidewalks and Pathways				
ARTICLE XI. OFF-ROAD NON-MOTORIZED FACILITIES Sec. 11-256. Requirement. (c) & Sub. Ord. Sec. 4.05,	<ul style="list-style-type: none"> - In the case of new streets and roadways to be constructed as part of the project, a sidewalk shall be provided on both sides of the proposed street or roadway. - Sidewalks along arterials and collectors shall be 6 feet or 8 feet wide as designated by the "Bicycle and Pedestrian Plan," but not along industrial service streets per Subdivision 	<p>NA</p> <p>West Road is a minor arterial, requiring 8 ft. major pathway</p>	Yes	

Item	Required Code	Proposed	Meets Code	Comments
	Ordinance. - Whereas sidewalks along local streets and private roadways shall be five (5) feet wide.	NA		
Pedestrian Connectivity	- Whether the traffic circulation features within the site and parking areas are designed to assure safety and convenience of both vehicular and pedestrian traffic both within the site and in relation to access streets - Building exits must be connected to sidewalk system or parking lot.	Proposed	Yes	
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	Provided	Yes	
Lighting Plan (Sec. 5.7.A.i)	Site plan showing location of all existing & proposed buildings, landscaping, streets, drives, parking areas & exterior lighting fixtures	Provided	Yes	
Building Lighting (Sec. 5.7.2.A.iii)	Relevant building elevation drawings showing all fixtures, the portions of the walls to be illuminated, illuminance levels of walls and the aiming points of any remote fixtures.	Lighting fixtures shown on building elevations	Yes	
Lighting Plan (Sec. 5.7.2.A.ii)	Specifications for all proposed & existing lighting fixtures	Provided	Yes	Provide for all lamp types
	Photometric data	Provided	Yes	
	Fixture height	Provided	Yes	
	Mounting & design	Provided	Yes	
	Glare control devices (Also see Sec. 5.7.3.D)	Provided	Yes	
	Type & color rendition of lamps	Some missing	No	
	Hours of operation	Unknown until tenant identified	Yes	
	Photometric plan illustrating all light sources that impact the subject site, including spill-over information from neighboring properties	Pole light locations noted, but detailed information unknown	Yes	
Maximum	Height not to exceed	25 ft.	Yes	

Item	Required Code	Proposed	Meets Code	Comments
Height (Sec. 5.7.3.A)	maximum height of zoning district (40 ft.) (or 25 ft. where adjacent to residential districts or uses)			
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 	Notes on sheet SD-2	Yes	
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. 	Unknown until tenant identified – note added to Sheet SD-2	OK	
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 shall not exceed 4:1	3.5:1 proposed	Yes	
Type of Lamps (Sec. 5.7.3.F)	Use of true color rendering lamps such as metal halide is preferred over high & low pressure sodium lamps	Proposed?	No	Provide lamp type & color for all lighting proposed in Luminaire Schedule on SD-2; missing information in table
Min. Illumination (Sec. 5.7.3.k)	Parking areas: 0.2 min	Proposed	Yes	Provide various light level requirements in the table on sheet SD-2
	Loading/unloading areas: 0.4 min	Proposed	Yes	
	Walkways: 0.2 min	Proposed	Yes	
	Building entrances, frequent use: 1.0 min	Proposed	Yes	
	Building entrances, infrequent use: 0.2 min	Proposed	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	Proposed	Yes	

Item	Required Code	Proposed	Meets Code	Comments
Cut off Angles (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	Not abutting residential	NA	
Other Requirements				
Exterior lighting (Sec. 5.7)	Photometric plan and exterior lighting details needed at time of Final Site Plan submittal	A lighting plan is provided	Yes	<u>Refer to Lighting chart comments for additional compliance requests</u>
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	
Economic Impact Information	- 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 requested information for Planning Commission's consideration
Development and Street Names	Development and street names must be approved by the Street Naming Committee before Preliminary Site Plan approval	Name approval for business not required	NA	<u>Contact Hannah Smith at 248-347-0475 to schedule a meeting with the Committee</u>
Development/ Business Sign	Signage if proposed requires a permit. Can be considered during site plan review process or independently.	None shown	NA	<u>For sign permit information contact Maureen Underhill 248-735-5602.</u>

NOTES:

1. This table is a working summary chart and not intended to substitute for any Ordinance or City of Novi requirements or standards.
2. The section of the applicable ordinance or standard is indicated in parenthesis. Please refer to those sections in Article 3, 4, and 5 of the zoning ordinance for further details.
3. Please include a written response to any points requiring clarification or for any corresponding site plan modifications to the City of Novi Planning Department with future submittals.

ENGINEERING REVIEW



PLAN REVIEW CENTER REPORT

February 14, 2018

Engineering Review

46860 West Road
JSP17-0035

Applicant

Quadrants Development, LLC

Review Type

Revised Preliminary Site Plan

Property Characteristics

- Site Location: East of Beck Road, north of West Road
- Site Size: 3.76 acres
- Plan Date: 01/23/18
- Design Engineer: Engineering and Surveying Services, Inc.

Project Summary

- Construction of an approximately 36,287 square-foot multi-level office and industrial building and associated parking. Site access would be provided from West Road.
- The 24 inch water main would be provided by an 8-inch tap from the existing 24-inch water main on the north side of West Road. A 2-inch domestic lead and a 6-inch fire lead would be provided to serve the building, along with additional fire hydrants on the site.
- Sanitary sewer service would be provided by extending an 8-inch main to the west on the south side of West Road and crossing West Road to serve the site.
- Storm water would be collected by a single storm sewer collection system, detained on-site and discharged to an existing storm sewer system in an existing easement on the adjacent property to the east.

Recommendation

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

Comments:

The Preliminary Site Plan currently meets the general requirements of the design and construction standards as set forth in Chapter 11 of the City of Novi Codified Ordinance and the Storm Water Management Ordinance and requirement in the Engineering Design Manual, with the following items to be addressed at the time of Final Site Plan submittal:

Additional Comments (to be addressed with Final Site Plan submittal):

General

1. Revise the plan set to reference at least one city established benchmark. An interactive map of the City's established survey benchmarks can be found under the 'Map Gallery' tab on www.cityofnovi.org.
2. A sheet index shall be provided on the cover sheet.
3. The City standard detail sheets are not required with 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).
4. The Non-domestic User Survey form shall be submitted to the City so it can be forwarded to Oakland County.
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.
6. Provide a note that compacted sand backfill shall be provided for all utilities within the influence of paved areas, and illustrate on the profiles.
7. Provide a construction materials table on the Utility Plan listing the quantity and material type for each utility (water, sanitary and storm) being proposed.
8. Provide a note stating if dewatering is anticipated or encountered during construction a dewatering plan must be submitted to the Engineering Department for review.
9. 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.
10. Show the locations of all light poles on the utility plan and indicate the typical foundation depth for the pole to verify that no conflicts with utilities will occur. Light poles in a utility easement will require a License Agreement.

Water Main

11. Indicate water main pipe material and lengths on the utility plan.
12. Provide a profile for all proposed water main 8-inch and larger.
13. Provide three (3) signed and sealed sets of revised utility plans along with the MDEQ permit application (1/07 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. Please include only the cover sheet, any applicable utility sheets and the standard detail sheets in the sets for the permit application.

Sanitary Sewer

14. Indicate sanitary sewer pipe materials and lengths on the utility plan.
15. Provide a note on the construction materials table that 6-inch sanitary leads shall be a minimum SDR 23.5, and mains shall be SDR 26.
16. Provide a note on the Utility Plan and sanitary profile stating that sanitary leads shall be buried at least 5 feet deep where under the influence of pavement.
17. Provide a sanitary sewer basis of design.
18. 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.

Storm Sewer

19. Provide storm sewer sizing calculations.
20. A minimum cover depth of 3 feet shall be maintained over all storm sewers.
21. Provide a four-foot deep sump and an oil/gas separator in the last storm structure prior to discharge to the storm water basin. This can be done with an elbow in the catch basin and does not need to be a separate unit.
22. 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.
23. Label all inlet storm structures on the profiles. Inlets are only permitted in paved areas and when followed by a catch basin within 50 feet.

Storm Water Management Plan

24. Provide calculations verifying the post-development runoff rate directed to the proposed receiving drainage course does not exceed the pre-development runoff rate for the site.
25. Provide additional information and documentation of the existing 12 foot cross drain easement indicated on the plans.
26. Provide a cross section of the maintenance access route to the basin outlet structure.
27. Provide a cross section of the pond and outlet structure.
28. Provide a 5-foot wide stone bridge allowing direct access to the standpipe from the bank of the basin during high-water conditions (i.e. stone 6-inches above high water elevation). Provide a detail and/or note as necessary.

29. A 4-foot wide safety shelf is required one-foot below the permanent water surface elevation within the basin.
30. Provide 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.

Paving & Grading

31. Provide a sheet entitled site grading plan, separate from the Storm Water Management Plan sheet.
32. Provide a construction materials table on the site Layout or Paving Plan listing the quantity and material type for each pavement cross-section being proposed.
33. The City standard minimum parking lot asphalt pavement cross section is 1.5 inches of 5E1 on 2.5 inches of 3C, on 8 inch 21AA compacted base OR 8 inch limestone base within 100 feet of watercourse. Revise the asphalt cross section to be consistent with this standard. Limestone base material must be used within 100 feet of the wetland/water course.
34. Reference the City standard bituminous pavement detail for paving in the right-of-way.

Soil Erosion and Sediment Control

35. A SESC permit is required. Provide a Soil Erosion Control Plan with the Final Site Plan. The review checklist detailing all SESC requirements is attached to this letter. An informal review will be complete with the Final Site Plan if SESC plans are included in the submittal. A separate application is required for the SESC permit.

Off-Site Easements

36. Any off-site utility easements anticipated must be executed **prior to final approval of the plans**. Drafts of the easements and a recent title search shall be submitted to the Community Development Department as soon as possible for review, and shall be approved by the Engineering Division and the City Attorney prior to executing the easements.
 - a. Temporary off-site construction easements for construction activity on the adjacent parcels
 - b. An off-site emergency access agreement is required.

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

37. 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).
38. A letter from either the applicant or the applicant's engineer must be submitted with the Final Site Plan highlighting the changes made to the plans addressing each of the comments listed above and indicating the revised sheets involved.
 39. Draft copies of any off-site utility easements, a recent title search, and legal escrow funds must be submitted to the Community Development Department for review and approval by the Engineering Division and the City Attorney prior to being executed.

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

40. 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.
41. 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.
42. A draft copy of the 20-foot wide easement for the sanitary sewer and monitoring manhole to be constructed on the site must be submitted to the Community Development Department.
43. **Executed** copies of any required off-site utility easements must be submitted to the Community Development Department.

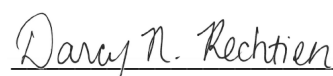
The following must be addressed prior to construction:

44. 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).
45. 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.
46. 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.
47. A permit for work within the right-of-way of West 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.

48. A permit for water main construction must be obtained from the MDEQ. This permit application must be submitted through the Water and Sewer Senior Manager after the water main plans have been approved.
49. A permit for sanitary sewer construction must be obtained from the MDEQ. This permit application must be submitted through the Water and Sewer Senior Manager after the sanitary sewer plans have been approved.
50. Water and Sanitary Sewer Fees must be paid prior to the pre-construction meeting. Contact the Water & Sewer Division at 248-347-0498 to determine the amount of these fees.
51. Construction Inspection Fees, to be determined once the construction cost estimate is submitted, must be paid prior to the pre-construction meeting.
52. 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 Community Development.
53. A street sign financial guarantee in an amount to be determined (\$400 per traffic control sign proposed) must be posted at Community Development.

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 Rechten at (248) 735-5695 with any questions.



Darcy N. Rechten, P.E.

cc: Theresa Bridges, Engineering
George Melistas, Engineering
Lindsay Bell, Community Development



CITY OF NOVI ENGINEERING DIVISION SOIL EROSION AND SEDIMENTATION CONTROL PLAN CHECKLIST

PROJECT: _____ SESC Application #: SE -

Contact Name: _____ DATE COMPLETED: _____

Phone Number: _____ DATE OF PLAN: _____

Fax Number: _____ **STATUS:**

General Requirements – Following the initial Soil Erosion and Sedimentation Control permit application to the Community Development Department, all SESC plan revisions shall be submitted directly to the Engineering Department for further review and/or permit approval. One (1) copy of revised soil erosion plans, including response letter addressing the comments below, shall be submitted for each subsequent review until the plan has been given approval by the Engineering Department, at which point five (5) copies will be required for permit approval. Plans shall be signed and sealed, and the bond must be submitted to the Treasurer's Office prior to permit issuance.

ITEM NO.	ITEM	Provided on Plans	COMMENTS
1.	Plan shall be at scale of not more than 1" = 200', include legal description, location, proximity to lakes, streams or wetlands, slopes, etc.	<input type="checkbox"/>	
2.	Plan shall include a soil survey or a written description of soil types of the exposed land area.	<input type="checkbox"/>	
3.	Plan shall show the limits of earth disruption.	<input type="checkbox"/>	
4.	Plan shall show tree protection fencing and location of trees to be protected.	<input type="checkbox"/>	
5.	Plan shall show all existing and proposed on-site drainage and dewatering facilities (i.e. structure details, rim elev., etc.)	<input type="checkbox"/>	
6.	Detailed sequence of construction shall be provided on plans structured similar to the following, supplemented with site specific items: 1) Install tracking mat, 2) Install temp. SESC measures, 3) Construct storm water basins and install treatment structures, if applicable, 4) Install storm sewer, with inlet protection to follow immediately, 5) Remove all temp. SESC measures once site is stabilized.	<input type="checkbox"/>	
7.	Plan must address maintenance of soil erosion and sedimentation control measures (temporary and permanent)	<input type="checkbox"/>	
8.	Provide a note stating if dewatering is anticipated or encountered during construction a dewatering plan must be submitted to the Engineering Division for review.	<input type="checkbox"/>	
9.	A grading plan shall be provided, or grade information shown on plan.	<input type="checkbox"/>	

10.	Note that it is the developer's responsibility to grade and stabilize disturbances due to the installation of public utilities.	<input type="checkbox"/>	
11.	The CSWO shall be listed on permit application.	<input type="checkbox"/>	
12.	Plan sealed by registered civil engineer with original signature.	<input type="checkbox"/>	
13.	An itemized cost estimate (Silt Fence, Inlet Filters, Topsoil/Seed/Mulch, Const. Access, etc.) shall be provided.	<input type="checkbox"/>	The SESC financial guarantee will be \$. The SESC inspection fees will be \$.
14.	Potential stockpile areas shall be shown on the plan, with note stating a ring of silt fence will be installed surrounding any stockpiled material.	<input type="checkbox"/>	
15.	Sediment basin: Provide filter on standpipe outlet structure until site is stabilized, then removed. Noted on plan and standpipe detail(s).	<input type="checkbox"/>	
16.	Provide a note on the plan stating the storm water basin will be stabilized prior to directing flow to the basin.	<input type="checkbox"/>	
17.	Pretreatment Structures: Noted to inspect weekly for sediment accumulation until site is stabilized, and will clean as required.	<input type="checkbox"/>	.
18.	Attach the Oakland County standard detail sheet.	<input type="checkbox"/>	
19.	Construction mud tracking entrance: 75'x20', 6" of 1" to 3" stone, on geotextile fabric.	<input type="checkbox"/>	
20.	Silt fence: 6" anchor trench, stakes 6' on center. Prominent line type on plan, with legend.	<input type="checkbox"/>	
21.	Provide Silt Sack with overflow capability as the inlet protection, and provide detail on plans.	<input type="checkbox"/>	
22.	Catch basin inlet filters shall be provided on existing roadways along construction route for reasonable distance from site.	<input type="checkbox"/>	
23.	Street sweeping and dust control shall be noted on plan as responsibility of contractor.	<input type="checkbox"/>	
24.	Vegetation shall be established within 5 days of final grade, or whenever disturbed areas will remain unchanged for 30 days or greater. 3-4" of topsoil will be used where vegetation is required.	<input type="checkbox"/>	
25.	Vegetated buffer strips (25' wide wherever possible) shall be created or retained along the edges of all water bodies, water courses or wetlands.	<input type="checkbox"/>	
26.	Diversion berms or terracing shall be implemented where necessary.	<input type="checkbox"/>	
27.	All drainage ditches shall be stabilized with erosion control blanket and shall utilize check	<input type="checkbox"/>	

	dams as necessary. Drainage ditches steeper than 3% shall be sodded.		
28.	Slopes steeper than 1V:6H (16%) shall be stabilized with erosion control blanket. Add this note as a general note, and also in a prominent location near any berm, etc. where a significant slope is proposed.	<input type="checkbox"/>	
29.	All culvert end sections must contain grouted rip-rap in accordance with ordinance specifications.	<input type="checkbox"/>	

ADDITIONAL COMMENTS:

1. Please note that installation of silt fencing or tree protection fencing shall not occur prior to the initial City pre-construction meeting. When natural features exist on the site, inspection of staking may be required prior to installation of the fencing.
- 2.

Reviewed By:



LEGAL REVIEW TRANSMITTAL FORM

Engineering Documents

(Include the Transmittal with every submittal)

CITY USE ONLY

Date Received:

PROJECT INFORMATION: <i>(To be filled by Staff)</i>		Legal Permit No:
Site Plan No:	JSP17-0035	
Project Name:	46860 West Road	Engineer:
Site Address:	46860 West Road	

PRIMARY CONTACT INFORMATION: <i>(To be filled by Applicant)</i>			
Contact Name:		Phone:	
Company:		E-mail:	
Contact Address:			

TYPE OF DOCUMENTS SUBMITTING: <i>(To be filled by Staff)</i>	
<input checked="" type="checkbox"/>	Initial Draft
<input type="checkbox"/>	Revised Draft
<input type="checkbox"/>	Final Signed and Notarized (Sign in black ink only or County will reject) Consent page on the easement form should be signed by any lenders on the property
1. Digital copies are also accepted via e-mail for Initial and Revised Drafts. E-mail: hsmith@cityofnovi.org 2. Hard Copies are required for Final signed and Notarized submittal 3. All exhibits should be letter or legal sized (24" x 36" will not be accepted unless requested)	

LEGAL DOCUMENTS REQUIRED: *(To be filled by Staff)*

All items checked below should be submitted together. **Incomplete submittals will not be processed.**

<input checked="" type="checkbox"/>	10: Off-site Title Policy	<input type="checkbox"/>	23: R.O.W. Warranty Deed (add'l on ex. rd.)
<input checked="" type="checkbox"/>	11: Off-Site Temporary Construction Agreement	<input type="checkbox"/>	24: R.O.W. Warranty Deed (new road)
<input type="checkbox"/>	12: Off-Site Storm Sewer and Drainage Easement	<input type="checkbox"/>	25: Roads Bill Of Sale
<input type="checkbox"/>	13: Off-Site Sanitary Sewer Easement	<input type="checkbox"/>	26: Roads Sworn Statement (Signed by DEVELOPER Only)
<input type="checkbox"/>	14: Off-Site Water Main Easement	<input type="checkbox"/>	27: Roads Waivers Of Lien (Signed by ROADS CONTRACTOR Only)
<input type="checkbox"/>	15: Title Policy	<input type="checkbox"/>	28: Ingress-Egress Easement
<input type="checkbox"/>	16: Storm Drain Facility Maintenance Easement	<input type="checkbox"/>	29: Cross-Access Easement
<input type="checkbox"/>	17: Sanitary Sewer Easement	<input type="checkbox"/>	30: Emergency Access Easement
<input type="checkbox"/>	18: Sanitary Sewer Manhole Access Easement	<input type="checkbox"/>	31: Sidewalk or Pathway Easement
<input type="checkbox"/>	19: Water Main Easement	<input type="checkbox"/>	32: Boardwalk Bill of Sale
<input type="checkbox"/>	20: Utilities Bill of Sale (SanSew/WM)	<input checked="" type="checkbox"/>	33: Other Off-site Emergency Access Easement
<input type="checkbox"/>	21: Utilities Sworn Statement (SanSew/WM) (Signed by DEVELOPER Only)		
<input type="checkbox"/>	22: Utility Waivers Of Lien (Signed by UTILITY CONTRACTOR Only)		

MAINTENANCE/FINANCIAL GUARANTEES

Submit directly to Bond Coordinator under **SEPARATE COVER**. For any questions, call Angela Pawlowski, @ 248-347-0441

Additional Documents may be required during the review process

LANDSCAPE REVIEW



PLAN REVIEW CENTER REPORT

February 2, 2018

Revised Preliminary Site Plan - Landscaping

46860 West Road

Review Type

Revised Preliminary Site Plan Landscape Review

Property Characteristics

- Site Location: 46860 West Road
- Site Acreage: 3.76 acres
- Site Zoning: I-1
- Adjacent Zoning: North, East, South: I-1, West: City of Wixom - Industrial
- Plan Date: 1/24/2018

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

Recommendation

The project is **recommended for approval**. The comments below and on the accompanying chart should be corrected in Preliminary or Final Site Plans, as indicated by bold or underlined comments.

Ordinance Considerations

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

Provided.

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

1. Provided.
2. Subcanopy trees will be used in the vicinity of overhead wires.
3. **Please move the northern storm sewer line out of the landscape islands at the north end of the site to remove the tree/utility conflict. The islands are required to have canopy trees planted in them.**

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

1. The applicant indicates that there are no regulated woodlands on the site, and only 2 trees 36" dbh or larger, both of which will be removed. 8 replacement trees are shown for those trees.
2. **Please show tree fencing at the Critical Root Zone (1' beyond dripline) for all existing trees to remain near the project area (including any along the property line) on the Demolition or Grading Plan when it is created.**
3. **Please show existing trees within the grading easement east of the detention pond. Any of these removed during construction need to be replaced.**

Woodland Replacement Trees

See ECT's review for a more detailed discussion of woodland replacement trees.

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

The site is not adjacent to any residential property.

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

1. The site has 280 lf of frontage along West Road. The ordinance allows the deduction of the widths of the access aisle for greenbelt trees and the clear vision zone for street trees. Based on these factors, and the revised ordinance, only 6 canopy and 7 subcanopy greenbelt trees, and 4 canopy or 6 subcanopy street trees are required.
2. The required trees are all provided.
3. **Please show the building street number location (on the building and/or any sign proposed) on the plan and create clear views to the number from the road for use by emergency vehicles.**

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

1. Based on the frontage and clear vision zone mentioned above, 4 canopy or 6 subcanopy trees are required.
2. Six subcanopy trees are provided.

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

1. Based on the proposed vehicular use area, 2541sf of interior landscape area is required, and 4909 sf is provided.
2. 13 canopy trees are required and are provided.
3. **3 of the islands are undersized and need to be enlarged, and one island also needs a tree. See the landscape chart for more details.**

Parking Lot Perimeter Canopy Trees (Zoning Sec. 5.5.3.C.iv)

1. Based on the perimeter, 40 deciduous canopy trees are required and 40 are provided.
2. **Please space out the trees to no closer than 1/30lf.**

Loading Zone screening (Zoning Sec. 3.14, 3.15, 4.55, 4.56, 5.5)

The loading zone screening is sufficient.

Utility Box Screening (LDM 6)

Please add more of the narrow boxwood to completely screen the DTE box per the detail.

Building Foundation Landscape (Zoning Sec 5.5.3.D.)

1. Based on the 735lf building perimeter, 5,880sf of landscaping is provided and 6312sf is provided. Greater than 75% of the building perimeter is landscaped acceptably.
2. 85% of the building fronting on West Road is landscaped, exceeding the 60% requirement.

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

The required shrubs are provided.

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

1. Provided.
2. The plant diversity and percentage of native species used are both sufficient.

Planting Notations and Details (LDM)

1. Provided.
2. **Please add a cross section detail for the berm.**

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

The proposed landscaping must be provided with sufficient water to become established and survive over the long term. Please note how this will be accomplished if an irrigation plan is not provided on the final site plans.

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

Provided.

Snow Deposit (LDM.2.q.)

Provided.

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

No trees on the site are being preserved.

Corner Clearance (Zoning Sec 5.9)

Provided.

If the applicant has any questions concerning the above review or the process in general, do not hesitate to contact me at 248.735.5621 or rmeader rmeader@cityofnovi.org.



Rick Meader – Landscape Architect

LANDSCAPE REVIEW SUMMARY CHART – Revised Preliminary Site Plan

Review Date: February 2, 2018
Project Name: JSP17 – 0035: 46860 WEST ROAD BUILDING
Plan Date: 1/24/2018
Prepared by: Rick Meader, Landscape Architect E-mail: rmeader@cityofnovi.org
 Phone: (248) 735-5621

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

Item	Required	Proposed	Meets Code	Comments
Landscape Plan Requirements (LDM (2))				
Landscape Plan (Zoning Sec 5.5.2, LDM 2.e.)	<ul style="list-style-type: none"> ▪ New commercial or residential developments ▪ Addition to existing building greater than 25% increase in overall footage or 400 SF whichever is less. ▪ 1"=20' minimum with proper North. Variations from this scale can be approved by LA ▪ Consistent with plans throughout set 	Yes	Yes	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 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>
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: I-1 North,East,South: I-1 West: Wixom (industrial)	Yes	
Survey information (LDM 2.c.)	<ul style="list-style-type: none"> ▪ Legal description or boundary line survey ▪ Existing topography 	Yes	Yes	
Existing plant material Existing woodlands or	▪ Show location type and size. Label to be	▪ 2 large walnut trees are located	Yes	Please show the existing trees on the

Item	Required	Proposed	Meets Code	Comments
wetlands (LDM 2.e.(2))	saved or removed. ▪ Plan shall state if none exists.	and are shown as being removed. ▪ Calculations and required replacements are provided.		east side of the detention pond where the grading easement will be. Any existing tree in that area that is removed or negatively impacted as part of the grading shall be replaced with a 2.5" caliper deciduous canopy tree.
Soil types (LDM.2.r.)	▪ As determined by Soils survey of Oakland county ▪ Show types, boundaries	Yes	Yes	Landscaping Sheet 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. The current alignment of the northern east-west storm line does not allow the trees to be centered in the islands to create a visual break between the bays. 2. Please shift the northern east-west storm line out of the islands' centers, so the required trees can be planted there.
Proposed grading. 2' contour minimum (LDM 2.e.(1))	Provide proposed contours at 2' interval	Spot elevations and contours are provided	Yes	
Snow deposit (LDM.2.q.)	Show snow deposit areas on plan	Yes	Yes	
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	A note indicates that all islands will be seeded.

Item	Required	Proposed	Meets Code	Comments
General (Zoning Sec 5.5.3.C.ii)				
Parking lot Islands (a, b. i)	<ul style="list-style-type: none"> ▪ A minimum of 300 SF to qualify ▪ 6" curbs ▪ Islands minimum width 10' BOC to BOC 	Yes	Yes	<ol style="list-style-type: none"> 1. Please enlarge the 148sf island east of the building to at least 200sf. 2. Please enlarge the island at the southeast corner of the building to 200sf and plant a deciduous canopy tree there. 3. Please enlarge the central island just south of the building to 200sf. 4. The end islands could be reduced in area to accomplish these changes.
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.	Yes	Yes	
Contiguous space limit (i)	Maximum of 15 contiguous spaces	Yes	Yes	
Plantings around Fire Hydrant (d)	No plantings with matured height greater than 12' within 10 ft. of fire hydrants	Yes	Yes	
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 paved area x 7%	$A = x \text{ SF} \times 7\% = A \text{ sf}$	NA		
B = Total square footage of additional paved vehicular use areas over 50,000 SF) x 1 %	$B = x \text{ SF} \times 1\% = B \text{ sf}$	NA		
Category 2: For: I-1 and I-2 (Zoning Sec 5.5.3.C.iii)				
A = Total square	• $A = x \text{ SF} \times 5\% = A \text{ sf}$	NA		

Item	Required	Proposed	Meets Code	Comments
footage of paved area x 5%	<ul style="list-style-type: none"> A = 50,000*5% = 2500 sf 			
B = Total square footage of additional paved vehicular use areas over 50,000 SF) x 0.5 %	<ul style="list-style-type: none"> B = x SF x 0.5% = B sf B = 8,258 * 0.5% = 41 sf 	NA		See above
All Categories				
C = A+B Total square footage of landscaped islands	<ul style="list-style-type: none"> A + B = C sf 2500sf + 41sf = 2541 sf 	4909 sf	Yes	<ol style="list-style-type: none"> The island at the southeast corner of the building should be at least 200sf and have a tree planted in it. Please adjust as required. Two other islands should be enlarged as noted above.
D = C/200 Number of canopy trees required	C/200 = D trees 2541/200 = 13 trees	13 trees	Yes	
Perimeter Green space (Zoning Sec. 5.5.3.C.iv)	<ul style="list-style-type: none"> 1 Canopy tree per 35 lf 1384/35 = 40 trees 	<ul style="list-style-type: none"> 40 trees (Includes 6 greenbelt trees adjacent to the access aisle, which is allowed by the ordinance) 	Yes	<ol style="list-style-type: none"> Please space the perimeter trees out to no more than 1/30lf. Currently they are too crowded. If necessary, the oak replacement trees can be placed on the east side of the detention pond.
Parking land banked	<ul style="list-style-type: none"> NA 	No		
Berms, Walls and ROW Planting Requirements				
Berms				
<ul style="list-style-type: none"> All berms shall have a maximum slope of 33%. Gradual slopes are encouraged. Show 1ft. contours Berm should be located on lot line except in conflict with utilities. Berms should be constructed of loam 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)	Refer to Residential Adjacent to Non-residential berm requirements chart	NA		No residential zoning is adjacent to site.
Planting requirements (LDM 1.a.)	LDM Novi Street Tree List	NA		
Adjacent to Public Rights-of-Way (Sec 5.5.B) and (LDM 1.b)				
Berm requirements (Zoning Sec 5.5.3.A.(5))	3 foot tall berm with 3 foot crest	Yes	Yes	

Item	Required	Proposed	Meets Code	Comments
Cross-Section of Berms (LDM 2.j)				
Slope, height and width	<ul style="list-style-type: none"> ▪ Label contour lines ▪ Maximum 33% ▪ Min. 3 feet flat horizontal area ▪ Constructed of loam with 6" top layer of topsoil 	No		Please provide a berm cross section showing construction of loam with 6" layer of topsoil.
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	Subcanopy trees are proposed as street trees due to overhead wires.	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	None		
Walls greater than 3 ½ ft. should be designed and sealed by an Engineer		NA		
ROW Landscape Screening Requirements (Sec 5.5.3.B. ii)				
Greenbelt width (2)(3) (5)	Adjacent to Parking: 25 ft.	25 feet	Yes	
Min. berm crest width	3 feet	Yes	Yes	
Minimum berm height (9)	3 feet	Yes	Yes	
3' wall	(4)(7)	No		
Canopy deciduous or large evergreen trees Notes (1) (10)	<ul style="list-style-type: none"> ▪ Parking: 1 tree per 40 lf ▪ $(280-35)/40 = 6$ trees 	6 trees	Yes	Please show on the plan's building or monument sign (if there is one) where the street number will be and create viewing gaps in the greenbelt from the road to the number for use by emergency vehicles.
Sub-canopy deciduous trees Notes (2)(10)	<ul style="list-style-type: none"> ▪ Parking: 1 tree per 35 lf ▪ $(280-35)/35 = 7$ trees 	7 trees	Yes	See above
Canopy deciduous trees in area between sidewalk and curb (Novi Street Tree List)	<ul style="list-style-type: none"> • Parking: 1 tree per 45 lf • $(280-120)/45 = 4$ trees 	6 subcanopy trees due to overhead wires	Yes	See above

Item	Required	Proposed	Meets Code	Comments
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))	<ul style="list-style-type: none"> ▪ 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)		Yes	Yes	
Transformers/Utility boxes (LDM 1.e from 1 through 5)	<ul style="list-style-type: none"> ▪ A minimum of 2ft. separation between box and the plants ▪ Ground cover below 4" is allowed up to pad. ▪ No plant materials within 8 ft. from the doors 	Yes	Yes	1. The boxwood chosen has a mature width of 2 feet but the plan shows them at 5 feet wide. 2. Please add the required number of shrubs for complete screening of the utility box.
Building Foundation Landscape Requirements (Sec 5.5.3.D)				
Interior site landscaping SF	<ul style="list-style-type: none"> ▪ Equals to entire perimeter of the building x 8 with a minimum width of 4 ft. ▪ 735 lf x 8ft = 5880 SF 	6312sf landscaping is provided around the entire building, less paved access points.	Yes	
<i>Zoning Sec 5.5.3.D.ii. All items from (b) to (e)</i>	If visible from public street a minimum of 60% of the exterior building perimeter should be covered in green space	85% of the West Road frontage is landscaped.	Yes	
Detention/Retention Basin Requirements (Sec. 5.5.3.E.iv)				
Planting requirements (Sec. 5.5.3.E.iv)	<ul style="list-style-type: none"> ▪ 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 	Required landscaping is provided.	Yes	
LANDSCAPING NOTES, DETAILS AND GENERAL REQUIREMENTS				
Landscape Notes – Utilize City of Novi Standard Notes				
Installation date	Provide intended date	Between Mar 15	Yes	

Item	Required	Proposed	Meets Code	Comments
(LDM 2.l. & Zoning Sec 5.5.5.B)		and Nov 15.		
Maintenance & Statement of intent (LDM 2.m & Zoning Sec 5.5.6)	<ul style="list-style-type: none"> ▪ Include statement of intent to install and guarantee all materials for 2 years. ▪ Include a minimum one cultivation in June, July and August for the 2-year warranty period. 	Yes	Yes	
Plant source (LDM 2.n & LDM 3.a.(2))	Shall be northern nursery grown, No.1 grade.	Yes	Yes	
Irrigation plan (LDM 2.s.)	A fully automatic irrigation system and a method of draining is required with Final Site Plan	No	Yes	<u>Required for Final Site Plan</u>
Other information (LDM 2.u)		NA		In General Landscape Note #31, please change March 15 to April 15.
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	
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	No		<u>Required for Final Site Plan. Use the standard cost list at : http://tinyurl.com/l9hdje2</u>
Planting Details/Info (LDM 2.i) - Utilize City of Novi Standard Details				
Canopy Deciduous Tree	<ul style="list-style-type: none"> ▪ Refer to LDM for detail drawings 	Yes	Yes	
Evergreen Tree		Yes	Yes	
Shrub		Yes	Yes	
Perennial/ Ground Cover		Yes	Yes	

Item	Required	Proposed	Meets Code	Comments
Tree stakes and guys. (Wood stakes, fabric guys)		Yes/No/NA	Yes/No	
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	Yes	Yes	Please revise this note to say that the restriction does not apply to required replacements in off-site grading easement area.
Plant Materials & Existing Plant Material (LDM 3.b)	Clearly show trees to be removed and trees to be saved.	<ul style="list-style-type: none"> No woodlands. 2 large black walnuts to be removed are shown on plan. 	Yes	Replacements for trees are planted on site.
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	Yes	Yes	
Plant size credit (LDM3.c.(2))	NA	No		
Prohibited Plants (LDM 3.d)	No plants on City Invasive Species List	No	Yes	
Recommended trees for planting under overhead utilities (LDM 3.e)	Label the distance from the overhead utilities	Yes	Yes	
Collected or Transplanted trees (LDM 3.f)		No		
Nonliving Durable Material: Mulch (LDM 4)	<ul style="list-style-type: none"> Trees shall be mulched to 3" depth and shrubs, groundcovers to 2" depth Specify natural color, finely shredded hardwood bark mulch. Include in cost estimate. 	Yes	Yes	

Item	Required	Proposed	Meets Code	Comments
	<ul style="list-style-type: none"> ▪ Refer to section for additional information 			

NOTES:

1. This table is a working summary chart and not intended to substitute for any Ordinance or City of Novi requirements or standards.
2. The section of the applicable ordinance or standard is indicated in parenthesis. For the landscape requirements, please see the Zoning Ordinance landscape section 5.5 and the Landscape Design Manual for the appropriate items under the applicable zoning classification.
3. Please include a written response to any points requiring clarification or for any corresponding site plan modifications to the City of Novi Planning Department with future submittals.

WETLAND & WOODLAND REVIEW



ECT No. 170765-0200

February 12, 2018

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

Re: 46860 West Road (JSP17-0035)
Wetland Review of the Revised Preliminary Site Plan (PSP18-0011)

Dear Ms. McBeth:

Environmental Consulting & Technology, Inc. (ECT) has reviewed the Revised Preliminary Site Plan for the proposed 46860 West Road Project prepared by Engineering and Surveying Services, Inc. and G.A.V. Associates, Inc. dated January 5, 2018 and stamped "Received" by the City of Novi Community Development Department on January 24, 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 conducted wetland boundary verifications for the site on several occasions, the most recent site visit was on August 23, 2017. The site was reviewed for the presence of regulated wetlands as defined in the City of Novi Wetland and Watercourse Protection Ordinance.

ECT currently recommends approval of the Revised Preliminary Site Plan for Wetlands. The Applicant shall address the items noted in the *Wetland Comments* Section of this letter prior to receiving Wetland 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	Required
Wetland Buffer Authorization	Required
MDEQ Permit	Not Required
Wetland Conservation Easement	Required

The proposed development is located on the north side of West Road, west of Hudson Drive, Section 4. The site consists of disturbed open space as well as some trees on the south and the west sides. The overall project site area is listed as 3.76 acres and is bounded by industrial developments to the north and east, railroad right-of-way to the west, and West Road to the south. The proposed project includes the construction of an office and light industrial building, associated parking, utilities, stormwater sediment forebay, stormwater detention basin and wetland mitigation area and a stormwater bioswale.

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City of Novi Ordinance Requirements

The City of Novi Wetland and Watercourse Protection Ordinance (City of Novi Code of Ordinances, Part II, Chapter 12, Article V.; Division 2.) describes the regulatory criteria for wetlands and review standards for wetland permit applications.

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

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

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

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

Wetland Evaluation

The focus of the on-site wetland boundary verification inspections was to review site conditions in order to determine whether regulated wetlands are found on the subject property. The site contains City Regulated Wetland Areas as defined on the City's Regulated Wetland Map (see Figure 1). It should be noted that the current *Topographic Survey* (Dwg. No. T-1) appears to indicate the surveyed locations of the wetland flagging/staking that ECT observed on-site. One (1) existing wetland area was flagged in the northeast portion of the site using survey lath numbered A1 to A29. The applicant's wetland consultant also flagged two (2) upland inclusion areas numbered B1 to B11 and C1 to C16. The plant species found in the wetland appeared to be dominated by common reed (*Phragmites australis*), reed canary grass (*Phalaris arundinacea*) and purple loosestrife (*Lythrum salicaria*). These species are invasive plants that are not considered desirable wetland plants as they are pervasive and provide little benefit to wildlife as habitat and food source material.

Based on the existing vegetation, topography, and assessment of site soils by hand-digging test pits, it is ECT's assessment that Wetland A was adequately delineated by the applicant's wetland consultant, CMS Environmental Services.

The *Topographic Survey* notes the following:

• Overall "low land" (i.e., wetland) acreage =	0.4604
• Upland – 1 acreage =	0.0585
• Upland – 2 acreage =	0.0138
Wetland Acreage =	0.3881 Acres

The Plan proposes to fill Wetland A, partially for the purpose of parking lot construction.

Regulatory Discussion

Wetland A (i.e., area surveyed and indicated as "low land" by the applicant) is depicted as regulated wetland on the City of Novi Regulated Wetland and Watercourse Map (Figure 1). ECT has evaluated Wetland A and believes that the wetland provides one or more of the functions and values as described in the wetland ordinance essentiality criteria. The wetland should be considered essential and therefore regulated by the City's Wetland and Watercourse Protection Ordinance. This wetland is an emergent/open water wetland.

Specifically, Wetland A provides for flood and storm control by the hydrologic absorption and storage capacity of the wetland and serves as a sedimentation area and filtering basin as this wetland area seasonally holds significant amounts of water. It should be noted that there appears to be a storm sewer end section located on the east side of Wetland A (i.e., adjacent to the existing parking lot east of Wetland A). The proposed plan appears to incorporate this storm sewer into the design of the outlet control structure for the detention basin. The proposed detention basin will outlet through a riser pipe/outlet control structure that will be connected to this storm sewer pipe.

Proposed Wetland Mitigation

It should be noted that in those cases where an activity results in the impact to wetland areas of 0.25-acre or greater that are deemed essential under City of Novi Ordinance subsection 12-174(b) mitigation shall be required. The current Plan appears to propose an impact to all of the existing on-site wetlands (i.e., 0.3881-acre).

In our *Wetland Review of the Preliminary Site Plan* letter dated December 7, 2017, ECT recommended that the applicant submit a mitigation plan which provides for the establishment of replacement wetlands at a ratio that is consistent with the type of wetland being impacted if the impacts meet or exceed the City's 0.25-acre threshold. In general, emergent and scrub-shrub wetlands require 1.5-to-1 mitigation and forested wetlands require 2.0-to-1 mitigation. Open water areas generally require 1-to-1 mitigation. ECT suggested that the existing wetland area be mitigated for at a 1-to-1 ratio, as it is of low-quality and its main function is flood and storm water control as well as filtering and/or absorbing silt or organic matter.

As noted above, the on-site wetland area is considered to be a low-quality wetland based on the vegetative community present (i.e., dominated by invasive plant species). The applicant has now identified compensatory wetland mitigation on-site in two (2) areas:

- Associated with the stormwater outlet from the stormwater sediment forebay (15,623 square feet/0.359-acre);
- Bioswale located in an island within the southernmost parking area (3,156 square feet/0.072-acre);
- Total On-Site Wetland Mitigation = 18,779 square feet/0.431-acre)

It is our belief that the applicant will be able to provide the proposed stormwater detention basin design that incorporates appropriate grading, seeding, and planting that will likely result in a more desirable wetland condition than the existing on-site wetland area.

Wetland Comments

The following are repeat comments from our *Wetland Review of the Preliminary Site Plan (PSP17-0167)* letter dated December 7, 2017. The current status of each comment follows in ***bold italics***. Please consider the following when preparing the Final Site Plan submittal:

1. The applicant shall clearly indicate these boundaries and the associated areas (square feet and/or acreage) of Wetland A and the 25-foot wetland buffer on all future site plan or concept plan submittals. Specifically, the applicant shall provide the following information on subsequent plans:
 - a. Area of the on-site 25-foot wetland buffer/setback (square feet or acres);
 - b. Area (square feet or acres) of all proposed impacts (both temporary and permanent) to the 25-foot wetland buffer/setback;
 - c. Area (square feet or acres) and volume of cut/fill (cubic yards) of all proposed impacts (both temporary and permanent) to Wetland A.

This comment has been partially addressed. Specifically, the applicant should provide the following information on the Final Site Plan:

- ***Area (square feet or acres) of the existing 25-foot wetland buffer;***
 - ***Volume (cubic yards) of the proposed wetland cut and/or fill.***
2. The Applicant has not identified an area of compensatory wetland mitigation on-site. The applicant shall provide a revised stormwater detention basin design that incorporates appropriate grading, seeding, and planting necessary to create an area of wetland mitigation in conjunction with the required storm water detention function.

The applicant could provide adequate mitigation for the proposed wetland disturbance through the construction of a wetland shelf within the stormwater detention area. It is our belief that the proposed stormwater detention basin, associated grading and a proposed native restoration seed mix would likely result in a more desirable wetland condition than the existing wetland area.

In lieu of creating wetland habitat on-site within the proposed stormwater detention basin, 0.58 acres of wetland mitigation (1.5-to-1 replacement ratio) can be proposed at an off-site mitigation location consistent with Section 12-176 of the City's Wetland Ordinance.

This comment has been adequately addressed. The applicant was required to provide for a minimum of 0.38-acre of on-site wetland mitigation. A total of 0.43-acre has now been

provided in two (2) areas including 0.359-acre in the area associated with the stormwater outlet from the stormwater sediment forebay and in a bioswale located in a parking lot island within the southernmost parking area (0.072-acre).

3. The applicant shall provide additional information with regard the proposed stormwater detention basin design; including a narrative description of proposed construction methodology, proposed vegetation planting plan and any anticipated monitoring and/or invasive species treatment measures. Please review and revise the Plan as necessary in order to indicate how the proposed wetland impacts will be compensated.

The applicant has provided a Landscape & Tree Replacement Plan (Sheet L-1 of 2) that now provides more detailed information related to the proposed wetland mitigation areas including proposed seed mixes and a planting plan. In the Final Site Plan submittal, the applicant shall provide information that describes the anticipated wetland mitigation monitoring and invasive species treatment measures. The City of Novi's Wetland Ordinance (Sec. 12-176) notes that:

The applicant shall also provide as a part of the mitigation plan, a program to monitor the status of the replacement wetland for up to five (5) years after the wetland mitigation has been planted in the mitigation area. The monitoring program shall include annual progress reports submitted no later than December 1 of each year to the body approving the permit, which provide the following information:

- 1. A measure of the percentage of coverage of wetland species versus upland species.***
 - 2. A measure of vegetation diversity.***
 - 3. A description of vegetation and animal community structure.***
 - 4. A record and description of hydrological development.***
 - 5. A written summary of wetland development describing the progression of wetland development.***
 - 6. A photographic record of the wetland for each year.***
4. Any proposed stormwater detention basin shall include a 25-foot setback vegetated with an appropriate native vegetation. Sod or common grass seed will not be approved in these areas. It should be noted that the City of Novi Zoning Ordinance (Section 3.6.2 M i & ii (f.k.a. 2400 T)), notes the following:

There shall be maintained in all districts a wetland and watercourse setback, as provided herein, unless and to the extent, it is determined to be in the public interest not to maintain such a setback. The intent of this provision is to require a minimum setback from wetlands and watercourses...

For the purposes of this regulation the terms "wetland" or "watercourse" shall be defined as set forth in Section 12-152 of the Novi Code of Ordinances. The setback required to be maintained by this regulation shall be twenty-five (25) feet from the boundary of a wetland, and twenty-five (25) feet from the ordinary high-water mark of a watercourse.

Section 12-152 of the Code of Ordinances defines:

Watercourse shall mean any waterway, drainageway, drain, river, stream, lake, pond or detention basin, or any body of surface water having well-defined banks, whether continually or intermittently flowing.

Wetland means land characterized by the presence of water at a frequency and duration sufficient to support and that under normal circumstances does support wetland vegetation or aquatic life and is commonly referred to as bog, swamp or marsh.

This comment still applies. The Landscape & Tree Replacement Plan appears to propose a lawn seed mix within the 25-foot setback of the proposed wetland mitigation area. ECT urges the applicant to plant a native grass or forb seed mix within the area surrounding the basin/mitigation area in lieu of planting sod or common grass seed. As noted in the City’s Zoning Ordinance, the benefits of a wetland/watercourse setback include the following:

- ***Protect unique wildlife habitat and habitat transition, including, without limitation, feeding, nesting, resting and traveling areas for numerous animals; and***
- ***Protection of surface water run-off and water quality for pollution preventing purposes.***

These benefits would be better provided for with a mix of native grasses and forbs as opposed to sod or common grass seed.

Additional comments include the following:

5. The *Preliminary Site Plan* (Sheet SP-1) notes that the wetland mitigation area associated with the stormwater sediment forebay is 0.359-acres in size. The *Landscape & Tree Replacement Plan* (Sheet L-1 of 2) notes that 0.3087-acre of Wetland Mitigation Seed Mix will be provided in this area. The applicant shall address this small discrepancy in the wetland mitigation area on the Plan.
6. A note on the *Landscape & Tree Replacement Plan* (Sheet L-1 of 2) should be removed that points to the proposed bioswale. This “typical” note reads:

Landscape islands to be seeded with lawn, except 4-foot diameter mulch area around trees (typ.).

It should be clear that the bioswale island should be planted with the proposed bioswale seed mix and not “lawn”. This “typical” note should be deleted or moved on the Plan.

7. The Applicant shall provide wetland conservation easements as directed by the City of Novi Community Development Department for proposed wetland mitigation areas. A Conservation Easement shall be executed covering all remaining wetland areas on site (if applicable) as well as proposed wetland mitigation areas. 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.

8. It should be noted that the Plan proposes the removal of two (2) trees that are greater than 36-inches diameter-at-breast-height (DBH). These trees are #917 (37" walnut) and #918 (45" walnut). Each tree requires four (4) Woodland Replacement Credits per the City of Novi Woodland Ordinance. Therefore, a total of eight (8) Woodland Replacement Tree Credits are required. The applicant is prepared to meet this through the planting of 5 sugar maple and 3 white oak trees. It should be noted that The Applicant shall provide preservation/conservation easements as directed by the City of Novi Community Development Department for any areas of planted woodland replacement trees. The applicant shall demonstrate that the all proposed woodland replacement trees 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. These easement areas shall be indicated on the Plan.

Conclusion

One (1) wetland area (Wetland A) is located on the northeast section of the site. ECT was able to assess the applicant's wetland boundary flags at the time of our latest site inspection. Based on the existing vegetation, topography, and assessment of site soils by hand-digging test pits, it is ECT's assessment that Wetland A (including upland inclusion areas 1 and 2) has been adequately delineated at this time.

The applicant has now provided a minimum of 1-to-1 wetland mitigation for the proposed 0.3881-acre wetland impact. Specifically, a total of 0.431-acre of wetland mitigation area has been indicated on the Plan.

Recommendation

ECT currently recommends approval of the Revised Preliminary Site Plan for Wetlands. The Applicant shall address the items noted in the *Wetland Comments* Section of this letter prior to receiving Wetland 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.



Matthew Carmer
Senior Scientist
Professional Wetland Scientist #1746



Pete Hill, P.E.
Senior Associate Engineer

46860 West Road (JSP17-0167)
Wetland Review of the Revised Preliminary Site Plan – (PSP18-0011)
February 12, 2018
Page 8 of 13

cc: Lindsay Bell, City of Novi Planner (lbell@cityofnovi.org)
Sri Komaragiri, City of Novi Planner (skomaragiri@cityofnovi.org)
Rick Meader, City of Novi Landscape Architect (rmeader@cityofnovi.org)
Darcy Rechten, City of Novi Plan Review Engineer (drechten@cityofnovi.org)
Hannah Smith, City of Novi Planning Assistant (hsmith@cityofnovi.org)

Attachments: Figure 1 – City of Novi Regulated Wetland Boundaries Map
Figure 2 – Observed wetland boundary flagging
Figure 3 – Historic Aerial Photograph (Google earth, April 7, 2017)
Site Photos



Figure 1. City of Novi Regulated Wetland Boundaries Map. Wetland boundaries are shown in blue. The approximate project boundary is shown in red.



Figure 2. Observed wetland boundary flagging (provided by applicant).



Figure 3. Historic Aerial Photograph (Google earth, April 7, 2017).

Site Photos



Photo 1. Looking south at Wetland A (ECT, August 23, 2017).



Photo 2. Looking north at upland inclusion Area 'C' (ECT, August 23, 2017).



Photo 3. Looking southeast at upland inclusion Area 'B' (ECT, August 23, 2017).

TRAFFIC REVIEW



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

Project name:

JSP17-0035 46860 West Road PreliminaryTraffic
Review

From:
AECOM

Date:

December 8, 2017

To:

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

CC:

Sri Komaragiri, Kirsten Mellem, George Melistas,
Richelle Leskun, Darcy Rechten, Theresa Bridges

Memo

Subject: 46860 West Road Preliminary Traffic Review

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

GENERAL COMMENTS

1. The applicant, Quadrants Development, LLC, is proposing a mixed office and industrial building with a gross floor area of 36,287 square feet. The site is located on the north side of West Road, east of Hudson Drive and west of the railroad tracks.
2. West Road and Hudson Drive are under the jurisdiction of the City of Novi.
3. The site is currently zoned I-1, Light Industrial. There are not any proposed modifications to the existing zoning.

TRAFFIC IMPACTS

1. AECOM performed an initial trip generation estimate based on the ITE Trip Generation Manual, 9th Edition, as follows:

ITE Code: 710 (General Office Building) and 110 (General Light Industrial)

Development-specific Quantity: 9,642 square feet GFA (office) and 26,645 square feet GFA (shop/warehouse)

Zoning Change: N/A

Trip Generation Summary				
	City of Novi Threshold	Estimated Trips (Office)	Estimated Trips (Industrial)	Total Trips
AM Peak-Hour, Peak-Direction Trips	100	26	22	48
PM Peak-Hour, Peak-Direction Trips	100	74	23	97
Daily (One-Directional) Trips	750	222	186	408

- The applicant has provided a traffic impact analysis dated June 7, 2017. The traffic impact analysis will be reviewed in a separate letter.

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 single site access point on West Road, west of Hudson Drive.
 - The applicant has proposed a driveway width of 32 feet along with 20' turning radii.
 - The City standard requires a driveway width of 30 feet. The applicant should consider reducing the driveway width by two feet. However, because a driveway width of 32 feet is also within the City's allowable range for driveway widths, the applicant may also request a variance for the use of the 32 foot driveway width with the appropriate reasoning and support for such. Please reference Figure IX.1 in the City's Code of Ordinances for further clarification.
 - The driveway turning radii are in compliance with City standards.
- The applicant has proposed a site driveway along an existing exiting taper from Hudson Drive. The City requires that driveways are not to be constructed along existing acceleration lanes and deceleration lanes and tapers unless no other reasonable access points are available (Novi Code of Ordinances Sec. 11-216.a.3).
 - The applicant has chosen to extend the taper to the west in addition to providing a departing lane for exiting vehicles.
 - It should be noted that the traffic impact analysis performed by Parsons indicated that right turn lanes/tapers were not required at this site.
 - The proposed departing lane length is 30 feet and a departing taper length of 75 feet. The City requires a departing lane length of 100 feet and a departing taper length of 150 feet. The applicant should revise the plans in order to comply with City standards. Please reference Figure IX.9 in the City's Code of Ordinances for further clarification. It should be noted that the departing taper is not required and may be removed if the required length interferes with the railroad.
- The traffic impact analysis determined that the warrant for left turn passing lanes were to be determined by the City. The study also did not recommend the installation of a left turn passing lane due to site conditions and the modifications necessary to the nearby railroad crossing.
 - The left turn passing lane would likely require modifications to the existing railroad. The applicant would likely be required to connect the left turn passing lane to the existing departing taper west of the railroad tracks as required per the Novi Code of Ordinances Sec. 11-216.d.5.d.

- b. The Novi Code of Ordinances (Sec. 11-216.d.5.c) also indicates that the existing left turn lane for Hudson Drive may be extended to account for left turning vehicles into the proposed development such that the centerline of the proposed drive approach is located within 250 feet at the end of the existing center left turn lane taper or such that a passing lane would otherwise be required. It should be noted that this also may require modifications to the existing railroad.
4. The applicant is required to provide the proposed sight distance at the site driveway in accordance with Figure XIII-E in the City's Code of Ordinances.
 - a. The applicant should also consider providing vehicle sight distances and train sight distances upon approaching the at-grade railroad crossing, such that an approach sight triangle may be developed. Purposes of including the approach sight triangle would be to evaluate if any site components would create obstructions between approaching vehicles and trains such that the safety of the crossing may be compromised. The Federal Highway Administration (FHWA) recommends that the approach sight triangle be kept free from obstruction. Information regarding the approach sight triangle calculations and recommendations may be found in the FHWA *Railroad-Highway Grade Crossing Handbook*.
5. The applicant should indicate the spacing and offsets of the proposed site driveway for the next nearest driveway on both sides of West Road. Please reference Sec. 11-216.d.1.d and Figure IX.12 in the City's Code of Ordinances for further clarification.
 - a. The applicant should also provide the spacing between the proposed site driveway and the existing railroad. Some agencies recommend (or require) that driveways are not to be located within the vehicle approach sight distance, which for a 35 mph roadway would be approximately 270 feet from the railroad track.
6. The applicant has blocked a connection stub along the north side of the site and should consider providing connection as an alternate access point.
7. The applicant has proposed a 24' wide emergency access path to the development located on Ryan Court off of Hudson Drive.
8. The applicant should provide clarification on the use and purpose of the 24' stub located on the east side of the site.
 - a. The applicant should provide an emergency access gate for the proposed emergency access path and provide a detail for both the path and the gateway. Please reference Figure VIII-K for further clarification.
9. Due to the location of the driveway to the railroad tracks, it is understood that there may not be adequate space to fulfill the City's design requirements; however, the operation of the roadway may be impacted by not providing safe maneuvering distances in a limited space.
 - a. An alternate driveway connecting through the two sites to the east of the property potentially could be provided through an access easement to connect to Hudson Drive. This alternative could remove the need for a driveway on West Road and improve the safety and operation of through traffic on West Road. However, since there is not an access easement in place, the applicant should confirm that an access easement has been investigated and is not a plausible solution at this time, especially if the driveway spacing standards are unable to be met.

INTERNAL SITE OPERATIONS

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

1. General Traffic Flow
 - a. The applicant has provided truck turning patterns throughout the site. Trucks are anticipated to have full access and maneuverability throughout the site.
 - b. The applicant has indicated a radius of 10 feet located near the sidewalk on the northeast corner of the building. The applicant should increase the radius to a minimum of 15 feet in addition to providing dimensions for turning radii that are not currently dimensioned.
 - c. The applicant should provide the proposed width of aisles near the corners of the building.

- d. The proposed loading zones and dumpster location are not expected to interfere with parking operations or emergency vehicle access.
 - i. The applicant has located the loading zone in the rear of the development as required by the City Zoning Ordinance Section 5.4.
- 2. Parking Facilities
 - a. The City requires one space for every 222 square feet of useable office floor area and one space for every 700 square feet of useable shop/warehouse floor area.
 - i. The calculation results in a total of 77 spaces. The applicant has rounded up the calculations for the parking requirements for a total of 79. To be consistent with the City's calculation methodology, the applicant should revise the required parking calculations to be 77 spaces.
 - ii. The applicant has provided a total of 84 parking spaces. The applicant should revise the parking table on sheet SD-1 to indicate 84 spaces and not 83 total spaces.
 - b. The applicant has proposed a parking space width of 9 feet and a length of 17 feet. The applicant has also indicated four inch curbs throughout the parking area. The parking space dimensions are generally in compliance with City standards.
 - i. The applicant should provide parking peninsula radii dimensions.
 - c. The applicant has proposed four accessible parking spaces, one of which is van-accessible. The proposed accessible parking quantities and dimensions are in compliance with ADA standards.
 - d. Per the Novi Zoning Ordinance, the applicant is required to provide a quantity of bicycle parking spaces equivalent to 5% of the total required parking, totaling four bicycle parking spaces. The applicant should provide a detail for the bicycle parking layout. Please reference Section 5.16 of the City's Zoning Ordinance for further clarification.
- 3. Sidewalk Requirements
 - a. Sidewalks are in compliance with City of Novi standards, with the exception of the following:
 - i. The sidewalk adjacent to the south side of the building is 6' wide. Because the proposed parking adjacent to this sidewalk is only 17' in length, the applicant should increase the width of the sidewalk to a minimum of 7' to allow 5' walkway and 2' vehicle overhang.
 - b. The applicant is proposing an 8' non-motorized path along West Road that is in compliance with the City's Bicycle and Pedestrian Master Plan.
 - c. The applicant should include ramp and detectable warning details in future submittals.
- 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 pavement markings.
 - a. The applicant should provide the locations and details for any proposed signing in addition to the proposed accessible parking signage. A signing quantities table should also be provided in future submittals.
 - i. Sign heights are required to be seven feet from the ground to the bottom of the sign in the vicinity of any curb.
 - ii. Signs are to be located at least two feet from the edge of a curb or pedestrian travel way.
 - iii. Sign posts are required to be U-channel for all signs.
 - 1. Sign posts should be two lb for signs less than 12"x18".
 - 2. Sign posts should be three lb for signs greater than 12"x18", for posts with multiple signs, or street name signs.
 - b. The applicant should indicate pavement marking details in future submittals. The following should be indicated in the plans as a note or detail:
 - i. Note that standard parking space markings are required to be 4" white; barrier free parking space markings are required to be 4" blue.
 - ii. Standard parking spaces abutting a barrier free parking space should include a blue line marking in supplement to the white line marking for the standard parking space (creating a blue line adjacent to the white line).
 - iii. The international symbol for accessibility is required to be white in color with an optional blue background and white border with rounded edges.

Memo

1. Note that the proposed plans indicate the international symbol for accessibility in an incorrect orientation. The symbols should be rotated 180 degrees and placed in the location designated in the MMUTCD.
- iv. The applicant should provide details for any proposed pavement marking modifications necessary along West Road such as the pavement markings for the railroad or the proposed departure taper and turn lane extension.

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

Sincerely,

AECOM



Sterling Frazier, E.I.T.
Reviewer, Traffic/ITS Engineer



Maureen N. Peters, PE
Senior Traffic/ITS Engineer



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

Project name:
JSP17-0035 48680 West Road Traffic Impact
Analysis Review

From:
AECOM

Date:
December 8, 2017

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

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

Memo

Subject: 48680 West Road Traffic Impact Analysis Review

The traffic impact analysis (TIA) was reviewed to the level of detail provided and AECOM **recommends approval** for the applicant to move forward with the condition that the comments provided below are adequately addressed to the satisfaction of the City.

GENERAL COMMENTS

1. Parsons completed a TIA in order to analyze the traffic impacts of an industrial development on the north side of West Road between North Beck Road and Hudson Drive.
2. The proposed development will incorporate a 26,645 square foot general light industrial facility and a 9,642 square foot office building consisting of two stories.
3. The build-out year of the development is 2019.
4. West Road is under the jurisdiction of the City of Novi.
5. The site is located adjacent to the CSX Railroad, which intersects West Road west of the development.

EXISTING CONDITIONS

1. Traffic volume counts were collected east of the CSX Railroad tracks on West Road. Counts were collected from May 24, 2017 to May 26, 2017 (Wednesday-Friday).
2. The results of the traffic count indicated a two-way, 24-hour traffic volume of 7,703 vehicles on West Road.
 - a. Due to a disruption in the count process, four hours of the eastbound traffic count were collected on Friday from 7-11 AM. It should be noted that the Friday traffic volumes may typically be less than a standard week day, especially during the AM peak period.
3. The peak hours of traffic were determined to be 7:00-8:00 AM and 5:00-6:00 PM.

SITE TRIP GENERATION AND DISTRIBUTION

1. The study uses the ITE Trip Generation Manual (9th Edition) to estimate the number of trips produced by the development.
 - a. The study provides two estimations: one for the proposed land use of industrial and office and one for if the entire development was of industrial use.

- b. For the land use including both office use and industrial use, trip estimates indicated approximately 408 trips per day and 115 trips during the PM peak hour (55 trips for the AM peak hour).
 - c. For the estimate including only industrial land use, trip estimates indicated 252 trips per day with 35 trips during the PM peak hour (33 trips for the AM peak hour).
2. Traffic was distributed to the existing roadway by analyzing existing traffic counts. It was found that 55% of traffic will likely access the site from the west of the development. The study should indicate if traffic counts other than the counts collected specifically for the study were used in determining the distribution pattern. If so, the separate traffic counts should be included in an Appendix.

FUTURE TRAFFIC

1. The study indicates two background developments that have, or will be, completed prior to the build-out of the proposed site.
 - a. The two developments are of similar land-use to the proposed development.
 - b. The two developments combined are expected to generate approximately 966 trips per day and 179 trips during the PM peak hour (130 trips in the AM peak hour)
2. The study indicates a growth rate of 1.51% and applied the growth rate to the existing traffic volumes. The SEMCOG data used to determine the growth rate should be submitted in an Appendix.
3. The study indicates a table of future directional turning movement counts which accounts for existing traffic, background traffic, background developments, and site generated traffic.
4. The site does not require right turn lanes or tapers based on existing traffic volumes on West Road and site generated traffic.
5. The site does not require a left turn passing lane; however, the warrant does suggest that the implementation of a left turn passing lane be determined at the City's discretion.
 - a. The study gives the following reasons against a left turn passing lane:
 - i. Vicinity of the passing lane to the railroad track and the modifications to the railroad that would be required.
 - ii. Would tie-in to a right turn acceleration lane upstream of the development. The lane may be perceived as a through lane.
 - iii. The driveway is not expected to experience capacity issues.
 - b. The study does not address the applicability of extending the existing left-turn lane for Hudson Drive; however, it would also be expected to interfere with the existing railroad.
6. The study does recommend that the site driveway be placed at the easternmost possible location.

Conclusions

1. AECOM is generally in agreement with the findings and results of the traffic impact analysis.

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

Sincerely,

AECOM



Sterling Frazier, E.I.T.
Reviewer, Traffic/ITS Engineer

Memo

A handwritten signature in blue ink that reads "Maureen Peters". The signature is written in a cursive, flowing style.

Maureen N. Peters, PE
Senior Traffic/ITS Engineer

FAÇADE REVIEW



February 13, 2017

Review Status Summary:
Approved, Section 9 Waiver Recommended

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

Re: FACADE ORDINANCE – Revised Facade Review
46860 West Rd., PSP18-0011, (FKA PSP17-0167)
 Façade Region: 1, Zoning District: I-1

Dear Ms. McBeth;

The following is the Facade Review for Preliminary Site Plan Approval of the above referenced project based on the drawings prepared by GAV Architects, dated 1/5/18. The percentages of materials proposed for each façade are as shown below. Materials that are in violation of the Ordinance, if any, are shown on bold.

	South (Front)	East	West	North	Façade Ordinance Section 5.15 Maximum
Brick	50%	35%	32%	30%	100%
Flat Metal Panels (Alukobond or equal)	20%	15%	0%	0%	50%
Flat Metal Panels (Insulated, Non-ribbed)	30%	50%	68%	70%	50%

As shown above the percentage of Flat Metal Panels (Non-Ribbed) exceeds the maximum amount allowed by the Façade Ordinance on the West and North elevations. A Section 9 Waiver would be required for these deviations.

Recommendation – The proposed building exhibits a well-proportioned south elevation with a strongly defined main entrance. In response to our prior comments the applicant has eliminated the Split Faced CMU and added a significant amount of brick on all facades. The overage of Flat Metal Panels occurs on facades with a lower degree of visibility for the major thoroughfare. Therefore, it is our recommendation that the design is consistent with the intent and purpose of the Façade Ordinance and that a Section 9 Waiver be granted for the overage of Flat Metal Panels (non-ribbed) on the west and north elevations.

A dumpster detail provided indicates stained and sealed Split Faced CMU. This is acceptable due to its remote location on the site. The stain color should match the brick on the primary building.

Notes to the Applicant:

1. Inspections – The Façade Ordinance requires inspection(s) for all projects. It is the applicant’s responsibility to request the inspection of each façade material at the appropriate time (before installation). In this case the materials should match the adjacent existing materials with respect to color and texture. 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>.

Sincerely,
DRN & Associates, Architects PC



Douglas R. Necci, AIA

FIRE REVIEW



November 16, 2017

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

CITY COUNCIL

Mayor
Bob Gatt

Mayor Pro Tem
Dave Staudt

Andrew Mutch

Wayne M. Wrobel

Laura Marie Casey

Gwen Markham

Kelly Breen

City Manager
Peter E. Auger

City Clerk
Cortney Hanson

RE: Preliminary Site Plan - 46860 West Rd (unknown building name)

JSP #17-35

PSP #17-0167

Project Description:

Erect a two story structure on the Northwest corner of West Rd. and Hudson Dr. Building is proposed to be 36,287 sq. ft.

Comments:

1. Fire department connections shall be located on the street side of buildings, fully visible and recognizable from the street or nearest point of fire department vehicle access or as otherwise approved by the code official. (International Fire Code). Immediate access to fire department connections shall be maintained at all times and without obstruction by fences, bushes, trees, walls or any other object for a minimum of 3 feet (914 mm). (International Fire Code)
2. All roads MUST meet City of Novi weight requirements of 35 ton. (Novi City Ordinance 15-17 503.2.3).
3. Secondary emergency gate access detail should be included on prints. Construction must follow Novi City ordinance 99-124.11
4. A hazardous chemical survey is required to be submitted to the Planning & Community Development Department for distribution to the Fire Department at the time any Preliminary Site Plan is submitted for review and approval. Definitions of chemical types can be obtained from the Fire Department at (248) 735-5674. (See Attachment B)
5. An unobstructed outside turning radius of 50 feet minimum and an inside turning radius of 30 feet maximum are to be provided

City of Novi
45175 Ten Mile Road
Novi, Michigan 48375
248.347.0460
248.347.0577 fax

cityofnovi.org

Recommendation:

Pending the above items are followed, the Fire Department has no objection at this time.

Sincerely,

Andrew Copeland – Acting Fire Marshal
City of Novi – Fire Dept.

APPLICANT RESPONSE LETTER



Quadrants Development, LLC

February 21, 2018
City of Novi
Lindsay Bell – Planner

RE: 46860 West Road
SP 17-35
Responses to 2/15/18 letter

Dear Ms. Bell,

In response to your email dated 2/15/18, we offer the following responses:

Item #1 – We forwarded the Full Site Plan Drawings to your attention yesterday in three (3) separate emails.

Item #2 – The Response letters from our three (3) Professionals are attached to this letter. We will be requesting a variance for the DTE Transformer. In addition, we are requesting a Section 9 Waiver for the facades on the West and North elevations.

Item #3 – A color rendering will not be provided as we have ample graphics to illustrate the design intent.

Item #4 – We will provide the color sample board at the Site Plan Meeting.

Respectfully,

William Clark

Attachments:

- Eric Olson, PLLC response letter dated 2/20/18
- GAV & Associates response letter dated 2/19/18
- Engineering & Surveying Services, Inc response letter dated 2/19/18

Eric A. Olson, PLLC
114 1/2 South Saginaw Street
Holly, Michigan 48442

Landscape Architect, Certified Arborist, Municipal Consultant

(248) 634-4320
EOlsonRLA@sbcglobal.net

February 20, 2018

Mr. William Clark, CEO
Quadrants Development, LLC
49132 Wixom Tech Drive
Wixom, Michigan 48393

Subject: Response to comments from the Plan Review Center Report dated February 15, 2018 for the **Spec. Building at 46860 West Road** in the City of Novi.

To Mr. Clark:

REVISED PRELIMINARY SITE PLAN - LANDSCAPING, Dated February 2, 2018

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

3. Please move the northern storm sewer line out of the landscape islands at the north end of the site to remove the tree/utility conflict. The islands are required to have canopy trees planted in them.
 - ◊ *We will propose to move the storm sewer as much as possible for Final Site Plan Approval, without negatively affecting the grades and location of boulder wall. Location of proposed Ginkgo trees will be moved as close to the center of the parking lot islands while remaining at least 5 feet from the storm sewer.*

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

2. Please show tree fencing at the Critical Root Zone (1' beyond dripline) for all existing trees to remain near the project area (including any along the property line) on the Demolition or Grading Plan when it is created.
 - ◊ *No trees are proposed to be saved on site. No woodland trees regulated by the City of Novi are proposed to be impacted within the Critical Root Zones. Any trees on neighboring properties which may be impacted will be protected per City of Novi requirements on future plans.*
3. Please show existing trees within the grading easement east of the detention pond. Any of these removed during construction need to be replaced.
 - ◊ *Our team has met with the neighboring property owner regarding the grading easement to the parcels to the east. We plan to remove 2 planted trees, and replace with 8, 2 1/2" caliper trees.*

Woodland Replacement Trees

See ECT's review for a more detailed discussion of woodland replacement trees.

page 2
Mr. William Clark
Spec. Building at 46860 West Road
February 20, 2018

- ◊ *ECT's letter requests a Conservation Easement to be executed for the replacement trees. We will work with ECT for acceptable language and locations of replacement trees.*

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

3. Please show the building street number location (on the building and/or any sign proposed) on the plan and create clear views to the number from the road for use by emergency vehicles.
 - ◊ *We propose to add a monument sign between the berm and the sidewalk.*

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

3. 3 of the islands are undersized and need to be enlarged, and one island also needs a tree. See the landscape chart for more details.
 - ◊ *For Final Site Plan we will propose to reduce the islands near the northeast corner of the building and the southwest corner of the building, and increase the landscape islands near the east-center, south-center, and southeast of the building, so that all five islands will be at least 200 square feet. Also, a tree will be proposed in the island near the southeast corner of the building.*

Parking Lot Perimeter Canopy Trees (Zoning Sec. 5.5.3.C.iv)

2. Please space out the trees to no closer than 1/30lf.
 - ◊ *For Final Site Plan, we will space trees as far as allowable with the constraints of the site. Per discussions with the City, we will also consider some subcanopy trees underneath the overhead utilities along the southwest property line (at 1 ½ to 1).*

Utility Box Screening (LDM 6)

Please add more of the narrow boxwood to completely screen the DTE box per the detail.

- ◊ *For Final Site Plan, will add more DeRunk Boxwood and space at 2' on center to fully screen the proposed transformer near the southwest corner of the building.*

Planting Notations and Details (LDM)

2. Please add a cross section detail for the berm.
 - ◊ *A berm detail will be added.*

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

The proposed landscaping must be provided with sufficient water to become established and survive over the long term. Please note how this will be accomplished if an irrigation plan is not provided on the final site plans.

- ◊ *For Final Site Plan, an Irrigation Plan will be provided.*

page 3
Mr. William Clark
Spec. Building at 46860 West Road
February 20, 2018

ECT'S LETTER - WETLAND REVIEW, Dated February 12, 2018

Wetland Comments

5. The Preliminary Site Plan (Sheet SP-1) notes that the wetland mitigation area associated with the stormwater sediment forebay is 0.359-acres in size. The Landscape & Tree Replacement Plan (Sheet L-1 of 2) notes that 0.3087-acre of Wetland Mitigation Seed Mix will be provided in this area. The applicant shall address this small discrepancy in the wetland mitigation area on the Plan.

∅ We will correct this discrepancy on the Final Site Plan.

Wetland Comments

6. A note on the Landscape & Tree Replacement Plan (Sheet L-1 of 2) should be removed that points to the proposed bioswale. This "typical" note reads: Landscape islands to be seeded with lawn, except 4-foot diameter mulch area around trees (typ.). It should be clear that the bioswale island should be planted with the proposed bioswale seed mix and not "lawn". This "typical" note should be deleted or moved on the Plan.

∅ Will make it clear on the Final Site Plan that this note does not apply to this island.



& ASSOCIATES, INC.

Residential
Commercial
Industrial

Architectural Design / Planners

February 19, 2018

Re; 48680 West Road
Planning Review JSP 17-35

Mr. William Clark
Quadrants Development, LLC
49132 Wixom Tech Drive
Wixom, MI.

Dear Bill

The following is response to the planning review comments received from the City of Novi for 48680 West Road dated February 19, 2018. The responses are directed from the architectural items on the Planning Review Chart.

Accessory Structures:

A variance shall be requested for the location of the DTE electrical transformer being in the front yard with the proposed landscape screening.

I-1 District Required Conditions:

A note shall be added to sheet SD-1 for the prohibiting of retail sales to the consumer.

Lighting and Photometric Plan:

The Luminaire Schedule on the Site Lighting Plan shall be updated to provide the requested lamp type and color. The color of all proposed lamps are in the "cool white" range.

Development/Business Sign:

A future proposed ground sign shall be located west of the parcel entrance with the building address and occupant company name. This is to be submitted under a separate permit.

Façade Review:

A Section 9 Waiver shall be requested from the Planning Commission for the West and North Elevations. Mr. Douglas Necci of DNR Associates supports the wavier.

This should address all architectural items per the city review comments.


Al Valentine
Owner

ENGINEERING and SURVEYING SERVICES, INC.

7741 SCHAEFER ROAD
DEARBORN, MICHIGAN 48126
TELEPHONE: (313) 945 5890
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mail@eccadd.com



February 19, 2018

REF: Engineering Review (JSP 17-0035)

46860 West Road
Novi, Michigan

To accommodate some of the landscape requirements, the following changes will be made to the plans when submitting for Final Site Plan review:

- Modify the size of some landscape islands around the building to meet the 200 s.f. minimum.
- Shift the proposed northern east-west storm line out of the islands' center for tree planting purposes.

As noted on page 2 of 6 of the "Engineering Review of revised Preliminary Site Plan" letter dated February 14, 2018, the additional comments on pages 2 of 6 thru 6 of 6 will be addressed with the Final Site Plan submittal.

Sincerely,

Engineering and Surveying Services, Inc.

Ibrahim Seblini, P.E.