



BALLANTYNE JSP20-38

BALLANTYNE JSP20-38

Public Hearing at the request of Singh Development, LLC for approval of the Preliminary Site Plan, Woodland Use Permit, Wetland Use Permit, and Stormwater Management Plan. The subject property contains 50.86 acres and is located in Section 31, on the west side of Garfield Road, north of Eight Mile Road. The site is currently undeveloped. The applicant is proposing to construct 41 single-family residential units as part of a RUD Agreement with lots ranging in size from 21,780 square feet to 44,045 square feet.

Required Action

Approve/Deny the Preliminary Site Plan, Woodland Use Permit, Wetland Use Permit, Stormwater Management Plan, and any applicable Landscape Waivers.

REVIEW	RESULT	DATE	COMMENTS
Planning	Approval recommended	2-10-21	<ul style="list-style-type: none"> Items to be addressed on the Final Site Plan submittal
Engineering	Approval recommended	1-13-21	<ul style="list-style-type: none"> Items to be addressed on the Final Site Plan submittal
Landscaping	Approval recommended	2-12-21	<ul style="list-style-type: none"> Landscape waiver is required for the deficiency in greenbelt width between 8 Mile Road and the south detention pond (<i>It is supported by staff as the layout matches that in the approved RUD</i>) Items to be addressed on the Final Site Plan Submittal
Woodland	Approval recommended	2-12-21	<ul style="list-style-type: none"> Items to be addressed on the Final Site Plan Submittal
Wetland	Approval recommended	2-10-21	<ul style="list-style-type: none"> Items to be addressed on the Final Site Plan Submittal
Traffic	Approval recommended	12-30-20	<ul style="list-style-type: none"> Items to be addressed on the Final Site Plan Submittal
Fire	Approval recommended	1-5-21	<ul style="list-style-type: none"> Items to be addressed on the Final Site Plan Submittal

MOTION SHEET

Approval – Preliminary Site Plan

In the matter of Ballantyne, JSP20-38, motion to **approve** the Preliminary Site Plan based on and subject to the following:

- a. Landscape Waiver for a deficiency in greenbelt width between Eight Mile Road and the south detention pond *because it is consistent with the approved layout plan of the RUD Agreement, which is hereby granted;*
- b. The findings of compliance with Ordinance standards in the staff and consultant review letters and the conditions and the items listed in those being addressed on the Final Site Plan; and
- c. *(additional conditions here if any)*

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

- AND -

Approval – Woodland Use Permit

In the matter of Ballantyne, JSP20-38, motion to **approve** the Woodland Use Permit subject to:

- 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 – Wetland Use Permit

In the matter of Ballantyne, JSP20-38, motion to **approve** the Wetland Use Permit subject to:

- a. The findings of compliance with Ordinance standards in the staff and consultant review letters and the conditions and the items listed in those 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 – Stormwater Management Plan

In the matter of Ballantyne, JSP20-38, motion to **approve** the Stormwater Management Plan subject to:

- a. The findings of compliance with Ordinance standards in the staff and consultant review letters and the conditions and the items listed in those 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 Ballantyne, JSP20-38, motion to **deny** the Preliminary Site Plan ... *(because the plan is not in compliance with Article 3, Article 4, and Article 5 of the Zoning Ordinance and all other applicable provisions of the Ordinance.)*

-AND-

Denial – Woodland Use Permit

In the matter of Ballantyne, JSP20-38, motion to **deny** the Woodland Use Permit ... *(because the plan is not in compliance with Chapter 37 of the Code of Ordinances and all other applicable provisions of the Ordinance.)*

-AND-

Denial – Wetland Use Permit

In the matter of Ballantyne, JSP20-38, motion to **deny** the Wetland Use Permit ... *(because the plan is not in compliance with Chapter 12, Article V of the Code of Ordinances and all other applicable provisions of the Ordinance.)*

- AND -

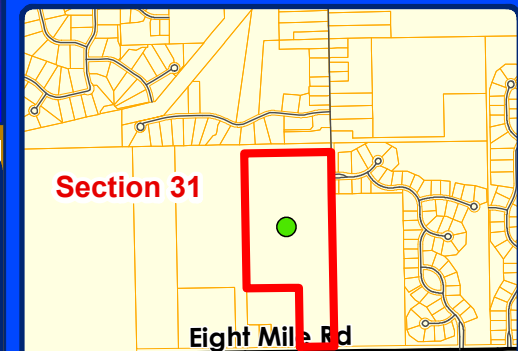
Denial – Stormwater Management Plan

In the matter of Ballantyne, JSP20-38, motion to **deny** the Stormwater Management Plan ... *(because the plan is not in compliance with Chapter 11 of the Code of Ordinances and all other applicable provisions of the Ordinance.)*

MAPS
Location
Zoning
Future Land Use
Natural Features


JSP20-38 BALLANTYNE

LOCATION



Northville Township

LEGEND

 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: Christian Carroll
Date: 2/19/21
Project: BALLANTYNE
Version #: 1



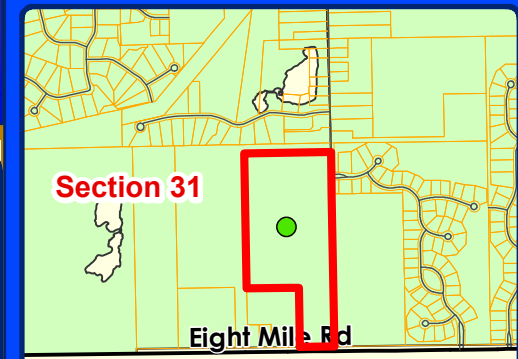
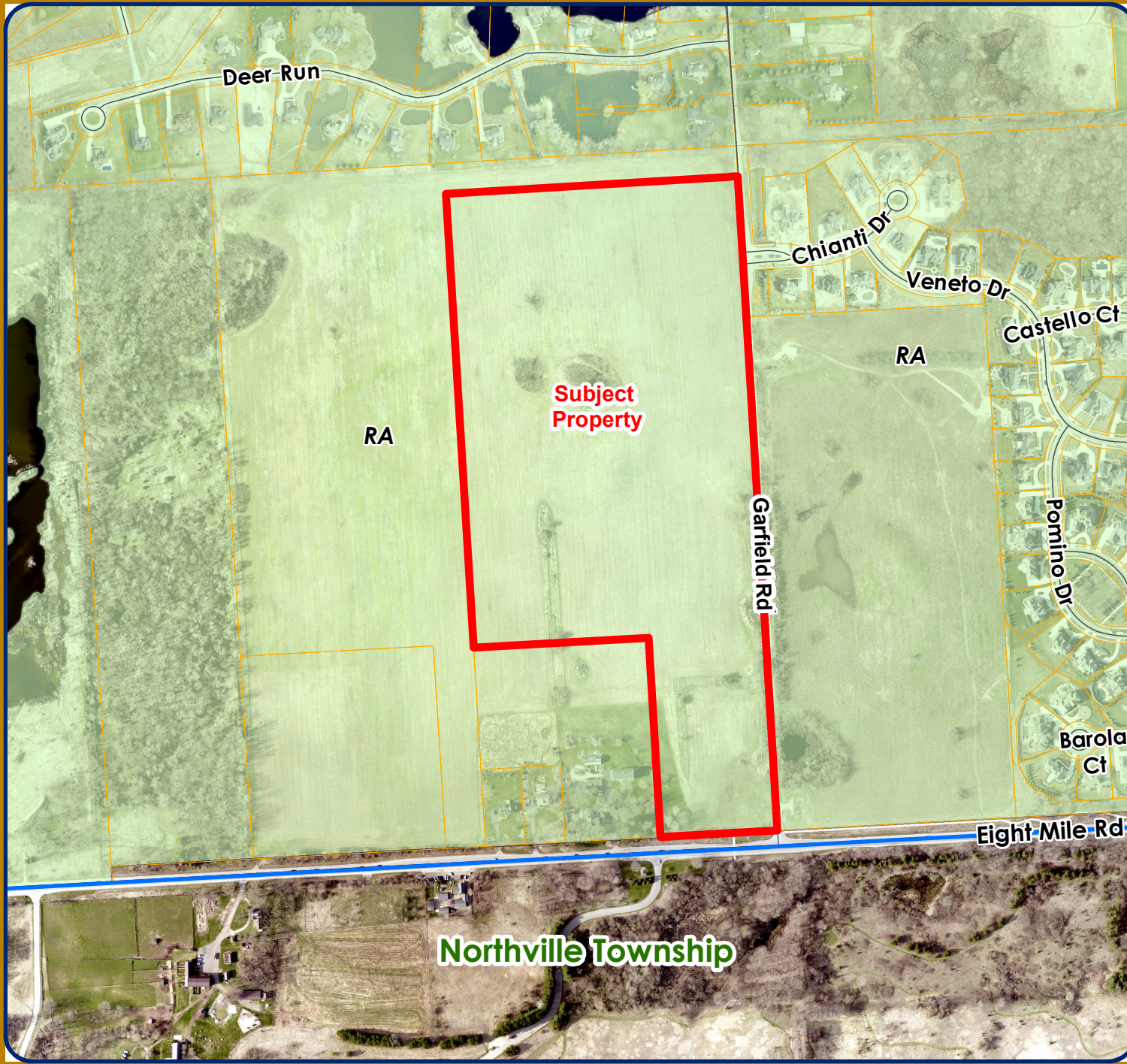
1 inch = 543 feet



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.


JSP20-38 BALLANTYNE ZONING



Section 31
Eight Mile Rd
Northville Township


LEGEND

-  R-A: Residential Acreage
-  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: Christian Carroll
Date: 2/19/21
Project: BALLANTYNE
Version #: 1

0 120 240 480 720 Feet
1 inch = 543 feet

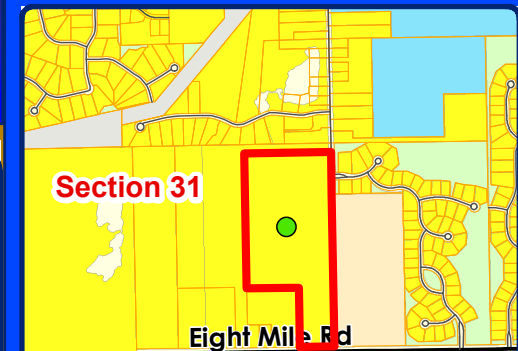
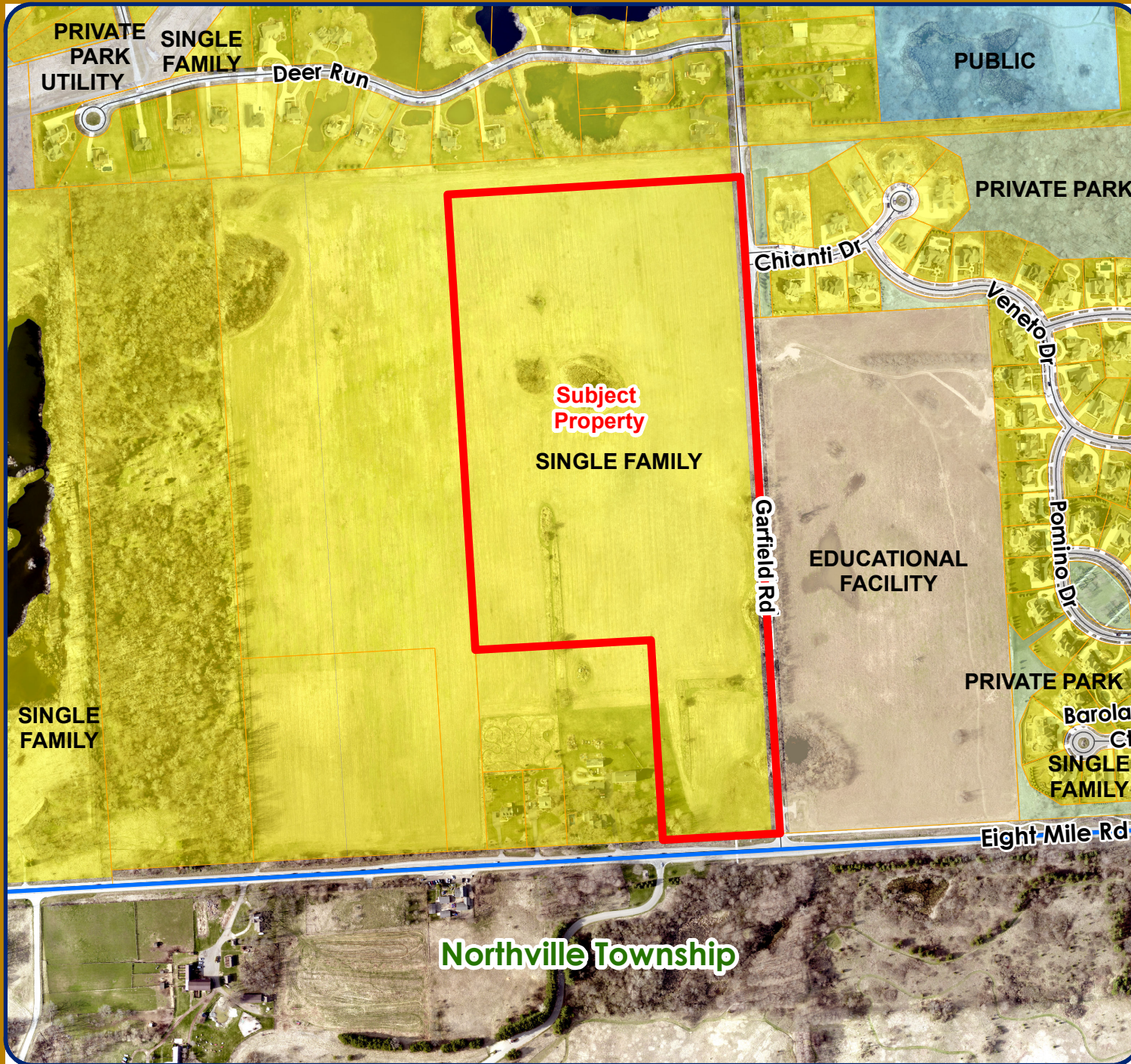


MAP INTERPRETATION NOTICE

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.

JSP20-38 BALLANTYNE

FUTURE LAND USE



Northville Township

LEGEND

- Single Family
- Educational Facility
- Public
- Private Park
- Utility
- Subject Property

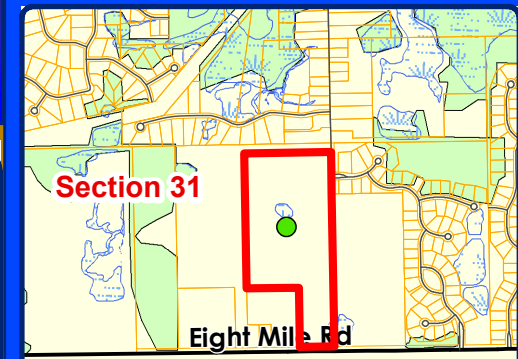
City of Novi
Dept. of Community Development
City Hall / Civic Center
45175 W Ten Mile Rd
Novi, MI 48375
cityofnovi.org

Map Author: Christian Carroll
Date: 2/19/21
Project: BALLANTYNE
Version #: 1

0 120 240 480 720 Feet
1 inch = 543 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.

JSP20-38 BALLANTYNE NATURAL FEATURES



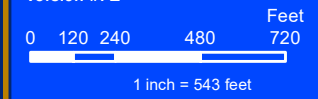
Northville Township

- LEGEND**
- WETLANDS
 - WOODLANDS
 - 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: Christian Carroll
Date: 2/19/21
Project: BALLANTYNE
Version #: 1



MAP INTERPRETATION NOTICE

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

SITE PLAN

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

PRELIMINARY SITE PLANS FOR
BALLANTYNE

A RESIDENTIAL DEVELOPMENT
SECTION 31, CITY OF NOVI
OAKLAND COUNTY, MICHIGAN

PREPARED FOR:
SINGH DEVELOPMENT, LLC

7125 ORCHARD LAKE ROAD
SUITE 200
WEST BLOOMFIELD, MICHIGAN 48325-3005
248.865.1600

LEGAL DESCRIPTION

A part of the Southeast 1/4 of Section 31, Town 1 North, Range 8 East, City of Novi, Oakland County, Michigan, being more particularly described as commencing at the Southeast Corner of said Section 31; thence North 00°15'42" West, 60.00 feet, along the East line of said Section 31 and the centerline of Garfield Road, to the Point of Beginning; thence North 89°55'05" West, 440.00 feet, along the Northerly right-of-way of Eight Mile Road (said line being 60.00 feet North of and parallel to the South line of said Section 31 and the centerline of Eight Mile Road); thence North 00°15'42" West, 750.00 feet, (previously described as North 00°07'08" West); thence North 89°55'05" West, 660.00 feet, (previously described as North 89°45'33" West); thence North 00°15'42" West, 1710.40 feet, (previously described as North 00°07'08" West, 1710.11 feet); thence North 89°43'21" East, 1099.98 feet, (previously described as North 89°51'00" East); to the East line of said Section 31 and the centerline of Garfield Road, (said point being South 00°15'42" East, 115.05 feet from the East 1/4 Corner of said Section 31); thence South 00°15'42" East, 2467.29 feet, (previously described as South 00°07'08" East), along the East line of said Section 31 and the centerline of said Garfield Road, to the Point of Beginning. All of the above containing 50.854 Acres. All of the above being subject to easements, restrictions and right-of-ways of record. All of the above being subject to the rights of the public in Garfield Road.

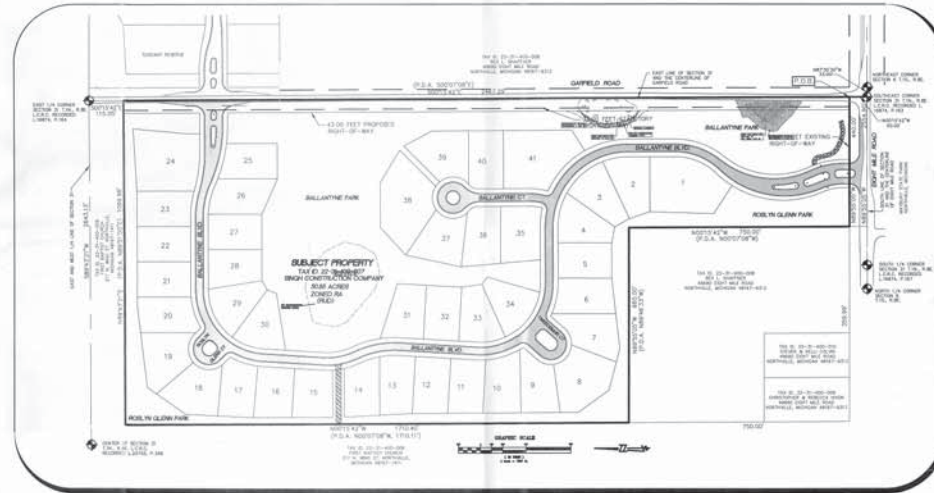
BENCHMARKS

BENCH MARK (31-5)
CITY OF NOVI R.R. SPIKE IN EAST SIDE OF 16" WALNUT 236.3'
NORTH OF CL EIGHT MILE RD. AND 17' WEST OF CL GARFIELD.
ELEV. 979.25

BENCH MARK 1
P.X. NAIL IN 15" ELM 500' NORTH OF CL EIGHT MILE RD
AND 40' WEST OF CL GARFIELD
ELEV. 983.33

FIRE DEPARTMENT NOTES

- All fire hydrants and water mains shall be installed and in service prior to above foundation building construction as each phase is built.
- All roads shall be paved and capable of supporting 35 tons prior to construction above foundation.
- Building addresses shall be posted facing the street during all phases of construction. Addresses shall be a minimum of three inches in height on a contrasting background.
- Provide 4"-6" diameter concrete filled steel posts 48" above finish grade at each hydrant as required.
- Fire lanes shall be posted with "Fire Lane - No Parking" signs in accordance with Ordinance #85.99.02.



SHEET INDEX

- ENGINEERING PLANS:**
- COVER SHEET
 - PRELIMINARY SITE PLAN
 - PRELIMINARY SITE PLAN
 - STORM WATER MANAGEMENT PLAN
 - SEC. 31/32 SANITARY SEWER S&D
- LANDSCAPE PLANS:**
- LS-1. STREET TREE PLANTING PLAN
 - LS-2. LANDSCAPE PLANTING DETAIL PLAN
 - LS-3. LANDSCAPE PLANTING DETAIL PLAN
 - LS-4. PLANT MATERIAL LIST AND DETAILS
 - LS-5. TREE REPLACEMENT PLANTING PLAN
 - LS-6. TREE REPLACEMENT PLANTING PLAN

NOTES

ALL WORK SHALL CONFORM TO THE CITY OF NOVI'S CURRENT STANDARDS AND SPECIFICATIONS.

THE CONTRACTOR MUST OBTAIN A PERMIT FROM THE CITY OF NOVI FOR ANY WORK WITHIN THE RIGHT-OF-WAY OF 8 MILE ROAD AND GARFIELD ROAD.


ALL PAVEMENT MARKINGS, TRAFFIC CONTROL SIGNS, AND PARKING SIGNS SHALL COMPLY WITH THE DESIGN AND PLACEMENT REQUIREMENTS OF THE 2011 MICHIGAN MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES.

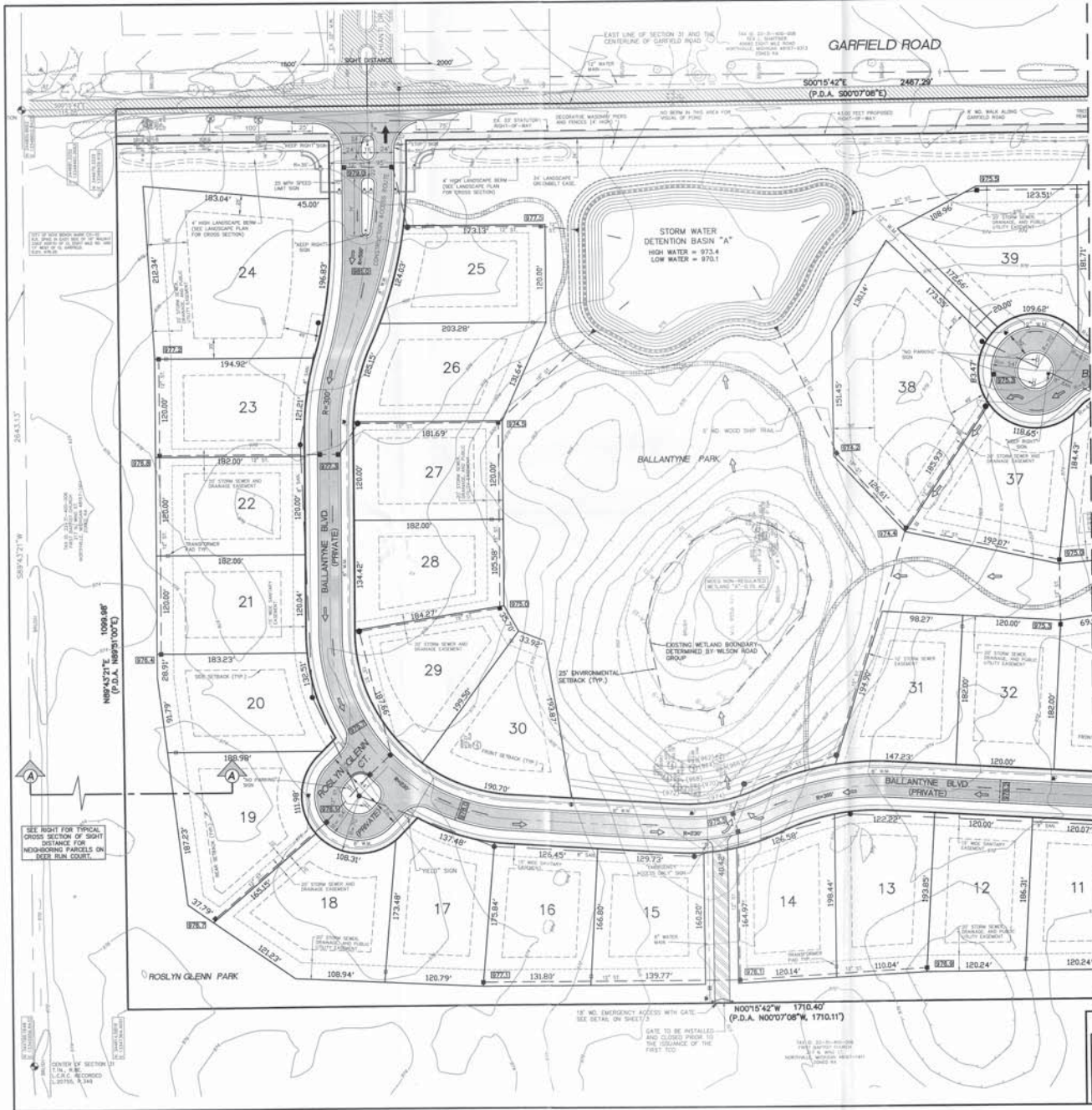
 **SEIBER, KEAST ENGINEERING, L.L.C.**
CONSULTING ENGINEERS
7125 ORCHARD LAKE ROAD • SUITE 304 • WEST BLOOMFIELD, MI • 48322
PHONE: 248.562.7357 FAX: 248.562.7397

SURVEY PROVIDED BY:
AMBIT LAND SURVEYORS, INC.
691 WING STREET
PLYMOUTH, MICHIGAN 48170
PHONE: 734.455.5501

LANDSCAPE PLANS PREPARED BY:
CALVIN HALL & ASSOCIATES
24333 ORCHARD LAKE ROAD, SUITE G
FARMINGTON HILLS, MICHIGAN 48336
PHONE: 248.557.5588

WETLAND INFORMATION PROVIDED BY:
WILSON ROAD GROUP
303 W. NEPESSING, SUITE 200
LAPEER, MICHIGAN 48446
PHONE: 810.664.6300

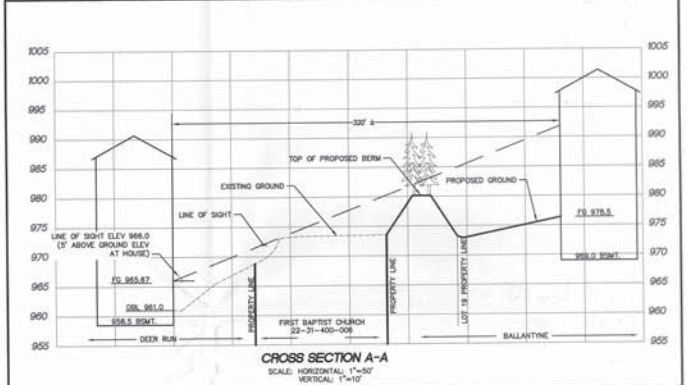
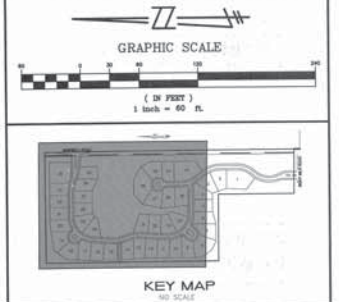
REVISIONS		ENGINEER'S SEAL
		
DATE: 4-16-14 DESIGNED BY: A.A. CHECKED BY: C.A.		JOB NUMBER: 12-020 DRAWING FILE: 12-020-01



SITE DATA

CURRENT ZONING : R-A ZONING
 GROSS SITE AREA : 50.85 Ac.
 PARK AREA : 18.17 Ac. (35.7% OF SITE)
 TREE PLANTING AREA : 15.02 Ac.
 WETLAND AREA : 1.675 Ac.
 MAX. DENSITY ALLOWED (0.8 UNITS/AC.): 41 LOTS
 PROPOSED LOTS : 41 LOTS

SETBACKS FOR ENTIRE SITE EXCEPT LOTS 1, 24, 38, & 41	SETBACKS FOR LOTS 1, 24, 38, & 41
MIN. LOT SIZE = 21,780 S.F.	43,860 S.F.
MIN. LOT WIDTH = 120.00 FEET	150.00 FEET
FRONT SETBACK = 30 FEET	45 FEET
REAR SETBACK = 35 FEET	50 FEET
SIDEYARD SETBACK = 15 FEET (MIN.)	20 FEET (MIN.)
SIDEYARD SETBACK = 40 FEET (AGG.)	50 FEET (AGG.)



UNIT DATA

Parcel Table

LOT #	AREA (SQ. FT.)	LOT WIDTH (FT.)
11	21923	120.01
12	22810	120.00
13	23001	120.00
14	21880	126.29
15	21907	131.51
16	22053	127.31
17	22451	121.51
18	26504	120.00
19	26589	120.00
20	23173	120.25
21	21850	120.01
22	21840	120.00
23	22231	120.58
24	43622	196.12
25	22277	123.31
26	23599	124.96
27	21839	120.00
28	21840	129.67
29	21803	158.24
30	21863	163.48
31	22284	136.62
32	21840	120.00
37	24539	120.00
38	43602	150.00
39	27274	120.00

NOTE: LOT WIDTH IS THE STRAIGHT LINE DISTANCE BETWEEN THE SIDE LOT LINES MEASURED AT THE TWO POINTS WHERE THE MIN. FRONT YARD SETBACK LINE INTERSECTS THE SIDE LOT LINES.

NOTE: 500 GAL. IS LOCATED IN THE COMMON AREA MUST BE BUILT DURING SITE CONSTRUCTION.

LEGEND

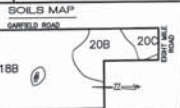
EXISTING	PROPOSED	DESCRIPTION
[Symbol]	[Symbol]	PAVEMENT (ASPHALT)
[Symbol]	[Symbol]	SIDE WALK (CONCRETE)
[Symbol]	[Symbol]	CONCRETE CURB AND GUTTER
[Symbol]	[Symbol]	WATER MAIN
[Symbol]	[Symbol]	SEWER
[Symbol]	[Symbol]	CATCH BASIN W/STORM GUARD
[Symbol]	[Symbol]	CURB INLET W/FILT. SAC
[Symbol]	[Symbol]	END SECTION
[Symbol]	[Symbol]	GATE VALVE
[Symbol]	[Symbol]	HYDRANT
[Symbol]	[Symbol]	FLOOD PLAN
[Symbol]	[Symbol]	CONTOURS
[Symbol]	[Symbol]	SPOT ELEVATION
[Symbol]	[Symbol]	SURFACE DRAINAGE
[Symbol]	[Symbol]	OVERFLOW ROUTE
[Symbol]	[Symbol]	WEE FENCE
[Symbol]	[Symbol]	SILT FENCE
[Symbol]	[Symbol]	CONCRETE RIP-RAP
[Symbol]	[Symbol]	STONE OUTLET FILTER
[Symbol]	[Symbol]	CONSTRUCTION ACCESS ROUTE
[Symbol]	[Symbol]	TRANSFORMER
[Symbol]	[Symbol]	TREE TO BE REMOVED

BALLANTYNE

SECTION 31, TOWN 1 NORTH, RANGE 8 EAST
 CITY OF NOVY, OAKLAND COUNTY, MICHIGAN

NO.	DATE	DESCRIPTION

DATE: 4-18-14
 DESIGNED BY: A.C. FOR NUMBER 11-108
 CHECKED BY: P.J. FOR NUMBER 11-108



SOIL CLASSIFICATIONS

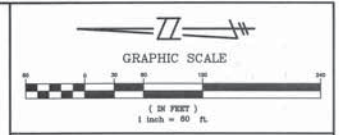
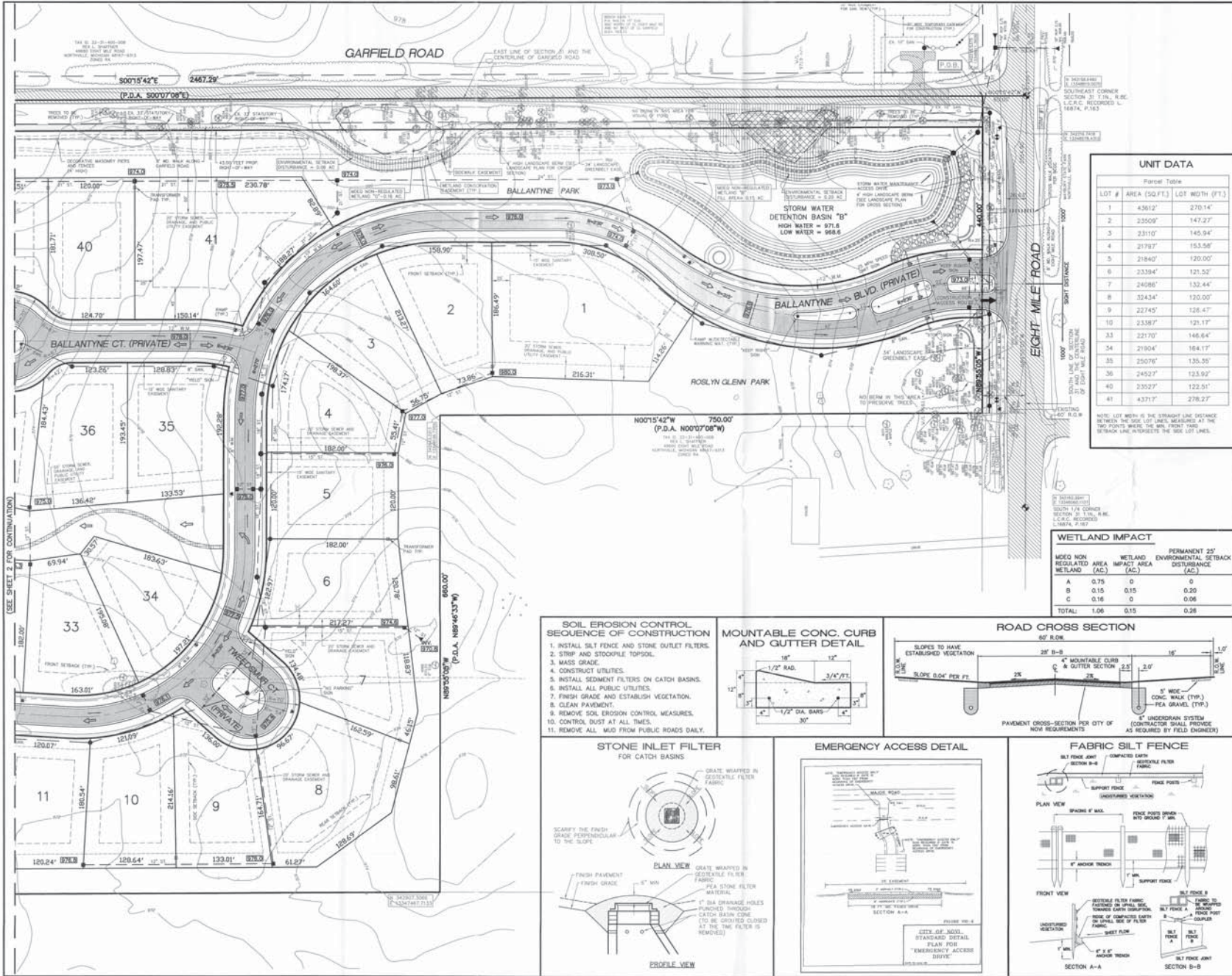
(FROM U.S.C.E. SOIL SURVEY OF GARLAND COUNTY, MI 1981)

18B - FOX SANDY LOAM, 1-6% SLOPES
 # - ORGANIC SOILS (UP TO 3 ACRES IN SIZE)
 30B - GLENWOOD LOAM, 3-6% SLOPES
 20C - GLENWOOD LOAM, 5-12% SLOPES

PRELIMINARY SITE PLAN/WETLAND PLAN

SEIBER, KEAST ENGINEERING, L.L.C.
 CONSULTING ENGINEERS
 7125 ORCHARD LAKE ROAD • SUITE 304 • WEST BLOOMFIELD, MI • 48322
 PHONE: 248.962.7327 FAX: 248.962.7327

SHEET 2



UNIT DATA

Parcel Table

LOT #	AREA (SQ.FT.)	LOT WIDTH (FT.)
1	43612	270.14
2	23509	147.27
3	23110	145.94
4	21797	153.58
5	21840	120.00
6	23394	121.52
7	24086	132.44
8	32434	120.00
9	22745	126.44
10	23387	121.17
33	22170	148.64
34	21904	164.17
35	25078	135.55
36	24527	123.92
40	23027	122.51
41	43717	278.27

- PROPOSED IMPROVEMENTS**
- MUNICIPAL SEWER TO BE PROVIDED BY CONNECTING TO EXISTING SEWER AT THE NORTHEAST CORNER OF 8 MILE RD. AND GARFIELD ROAD. SEWER SHALL BE SDR 26 PVC.
 - MUNICIPAL WATER TO BE PROVIDED BY CONNECTING TO EXISTING 12" WATERMAIN ON THE EAST SIDE OF GARFIELD RD. ALL WATERMAIN SHALL BE D.I. CUSA.
 - ON-SITE STORM WATER DETENTION SHALL BE PROVIDED.
 - 5' WIDE CONCRETE SIDEWALKS SHALL BE CONSTRUCTED ON BOTH SIDES OF ALL INTERIOR ROADS.
 - 8" W/ CONCRETE SIDEWALK SHALL BE CONSTRUCTED ALONG EIGHT MILE RD.
 - 8" W/ CONCRETE SIDEWALK SHALL BE CONSTRUCTED ALONG GARFIELD RD.
 - ALL POWER AND COMMUNICATION SHALL BE LOCATED UNDERGROUND IN THE REAR YARDS.
 - ALL STORM SEWER SHALL BE C-75 CONCRETE.

- SIGNAGE NOTES**
- STREET NAME SIGNS SHOULD BE PLACED ATOP THE INTERIOR YIELD SIGNS AND THE EXISTING STOP SIGNS.
 - ALL STREET-NAME SIGNS SHALL COMPLY WITH THE QUANTITY OF NON DESIGN STANDARDS.

SIGN QUANTITIES

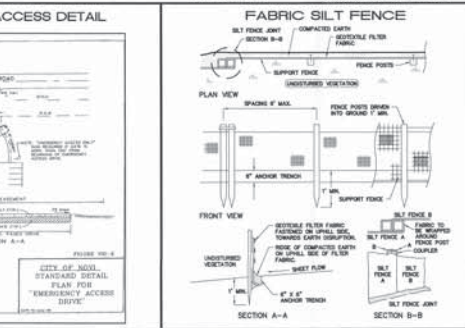
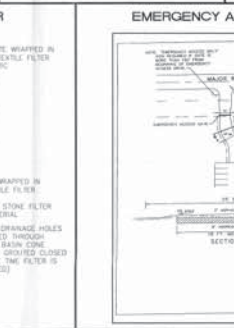
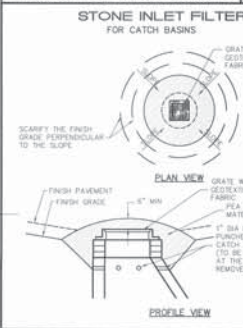
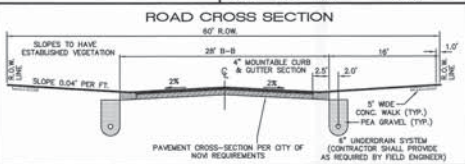
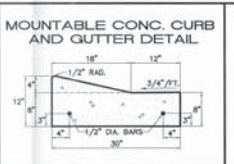
SYMBOL	DESCRIPTION	QUANTITY
RT-1 30" "STOP" SIGN		2 2
RT-2 30" "YIELD" SIGN		3 3
R2-(125) 25 MPH SPEED LIMIT SIGN		2 2
D3-1 STREET NAME ATOP "STOP" SIGN		4 0
D3-1 STREET NAME ATOP "YIELD" SIGN		2 0
RB-3 "NO PARKING" SIGN 12' x 12'		12 6
RA-7A "KEEP RIGHT" SIGN		1 1
RA-7 "KEEP RIGHT" SIGN		4 4
"EMERGENCY ACCESS ONLY" SIGN		1 1



WETLAND IMPACT

MDEQ NON REGULATED AREA (AC)	WETLAND IMPACT AREA (AC)	PERMANENT 25' ENVIRONMENTAL SETBACK DISTURBANCE (AC)
A 0.75	D 0	0
B 0.15	E 0.20	0
C 0.16	F 0.06	0
TOTAL: 1.06	0.15	0.26

- SOIL EROSION CONTROL SEQUENCE OF CONSTRUCTION**
- INSTALL SILT FENCE AND STONE OUTLET FILTERS.
 - STRIP AND STOCKPILE TOPSOIL.
 - MASS GRADE.
 - CONSTRUCT UTILITIES.
 - INSTALL SEDIMENT FILTERS ON CATCH BASINS.
 - INSTALL ALL PUBLIC UTILITIES.
 - FINISH GRADE AND ESTABLISH VEGETATION.
 - CLEAN PAVEMENT.
 - REMOVE SOIL EROSION CONTROL MEASURES.
 - CONTROL DUST AT ALL TIMES.
 - REMOVE ALL MUD FROM PUBLIC ROADS DAILY.



BALLANTYNE
SECTION 31, TOWN 1 NORTH, RANGE 6 EAST
CITY OF NOVI, OAKLAND COUNTY, MICHIGAN

REVISIONS

NO.	DATE	DESCRIPTION
1	4-10-14	ISSUED BY: J.A. SEIBER, L.L.C. NO. 14-0001
2	4-10-14	ISSUED BY: J.A. SEIBER, L.L.C. NO. 14-0001

PRELIMINARY SITE PLAN/WETLAND PLAN

SEIBER, KEAST ENGINEERING, L.L.C.
CONSULTING ENGINEERS
7125 ORCHARD LAKE ROAD • SUITE 304 • WEST BLOOMFIELD, MI • 48322
PHONE: 248.563.7337 FAX: 248.563.7397

SHEET 3

Basin "A"

DETERMINING DETENTION REQUIRED (10-YEAR STORM)

$Q_{in} = 3.25 \text{ cfs}$ (1.01 ft² A-AC)
 $Q_{out} = 25.12 \text{ cfs}$ (AREA TRIBUTARY TO THE DETENTION BASIN)
 $C = 0.92$
 $Q_{in} = Q_{in} (AC + C) = 3.02$
 $T = 28 \times (0.00015) (3.02) = 0.0007 \text{ min.}$
 $V_{in} = (1000) (7.07 \times 10^{-10}) (3.02) = 1.07 \times 10^{-7} \text{ cu ft.}$
 $V_{out} = V_{in} + C \times V = 1.79847 \text{ C.F.}$
TOTAL DETENTION VOLUME REQUIRED = 1.79847 C.F.
TOTAL DETENTION PROVIDED (USE OAS)
 ELEVATION (AREA(ft²)) VOLUME
 975.4 9760
 975.1 9892 10771 C.F.
TOTAL 10871 C.F.
OUTLET PIPE SIZE DETERMINATION
 Use a peak flow. Calculate the peak flow passing through the basin and backflow effect, using the table head, and adjust. Use 10 minutes. The outlet pipe is based on the 10-year storm storm.
 $Q = 1.92 \text{ cfs}$
 $D = 1.5 \text{ ft}$
150 ft (10 ft) Orifice Diameter
 $Q = 1.92 \text{ cfs}$
100-year Orifice Discharge
 $Q = 1.92 \times 1.2 \times 1.2 = 2.82 \text{ cfs}$

PERMANENT WATER VOLUME REQUIRED
 Volume of water below the normal water surface.
 Storage Area = 32.62 AC
 10' Factor = 0.05
 $2.8 \times 32.62 \text{ acres} \times 0.05 = 4.56 \text{ C.F.}$

PERMANENT WATER VOLUME PROVIDED
 ELEVATION (AREA(ft²)) VOLUME
 975.1 9892
 986.1 31,742
 986.1 41,742
 986.1 44,261
 987.1 45,881
 988.1 37,919
TOTAL 146,947 C.F.

BANK DRAIN FLOOD VOLUME REQUIRED
 $975 \times 22.62 \text{ AC} \times 0.05 = 10,908 \text{ C.F.}$
VOLUME PROVIDED @ 975.1 = 43,779 C.F.

FIRST FLOOD VOLUME REQUIRED
 $1071 \times 22.62 \text{ AC} \times 0.05 = 12,006 \text{ C.F.}$
VOLUME PROVIDED @ 975.1 = 22,206 C.F.

Basin "B"

DETERMINING DETENTION REQUIRED (10-YEAR STORM)

$Q_{in} = 3.10 \text{ cfs}$ (1.01 ft² A-AC)
 $Q_{out} = 17.71 \text{ cfs}$ (AREA TRIBUTARY TO THE DETENTION BASIN)
 $C = 0.92$
 $Q_{in} = Q_{in} (AC + C) = 2.92$
 $T = 28 \times (0.00015) (2.92) = 0.0007 \text{ min.}$
 $V_{in} = (1000) (7.07 \times 10^{-10}) (2.92) = 1.07 \times 10^{-7} \text{ cu ft.}$
 $V_{out} = V_{in} + C \times V = 1.0710 \text{ C.F.}$
TOTAL DETENTION VOLUME REQUIRED = 1.0710 C.F.
TOTAL DETENTION PROVIDED (USE OAS)
 ELEVATION (AREA(ft²)) VOLUME
 975.0 9897
 985.0 40,880
TOTAL 14997 C.F.
OUTLET PIPE SIZE DETERMINATION
 Use a peak flow. Calculate the peak flow passing through the basin and backflow effect, using the table head, and adjust. Use 10 minutes. The outlet pipe is based on the 10-year storm storm.
 $Q = 1.92 \text{ cfs}$
 $D = 1.5 \text{ ft}$
150 ft (10 ft) Orifice Diameter
 $Q = 1.92 \text{ cfs}$
100-year Orifice Discharge
 $Q = 1.92 \times 1.2 \times 1.2 = 2.82 \text{ cfs}$

PERMANENT WATER VOLUME REQUIRED
 Volume of water below the normal water surface.
 Storage Area = 17.71 AC
 10' Factor = 0.05
 $2.8 \times 17.71 \text{ acres} \times 0.05 = 2.48 \text{ C.F.}$

PERMANENT WATER VOLUME PROVIDED
 ELEVATION (AREA(ft²)) VOLUME
 985.0 40,880
 986.0 31,172
 986.0 37,944
 986.0 30,000
TOTAL 146,947 C.F.

BANK DRAIN FLOOD VOLUME REQUIRED
 $975 \times 17.71 \text{ AC} \times 0.05 = 8,500 \text{ C.F.}$
VOLUME PROVIDED @ 985.1 = 44,379 C.F.

FIRST FLOOD VOLUME REQUIRED
 $1071 \times 17.71 \text{ AC} \times 0.05 = 9,402 \text{ C.F.}$
VOLUME PROVIDED @ 985.1 = 12,907 C.F.

DOWNSTREAM CAPACITY CALCULATIONS

CULVERT CAPACITY

EIGHT MIN. ROAD DEPTH
 $Q_{in} = 3.25 \text{ cfs}$
 $C = 0.92$
 $Q_{out} = 25.12 \text{ cfs}$
 $A = 1.03 \text{ ft}^2$
 $Q_{out} = 2.96 \text{ cfs}$

WETLAND DETENTION AREA
 From Hydrograph Routing Analysis (See Existing Wetland Detention Area Calculations this sheet)
 Detention = 3.90 cfs
TOTAL Detention = 6.35 cfs

BALLANTYNE DETENTION
 $Q_{detention} = 0.41 \text{ cfs}$
Qtot = 6.76 cfs

Use 24" RCP, headwall square edge
Outlet Controlled
 $HWD = 1.90 \text{ Chart 1B}$
 $HWD = 1.90 \text{ feet}$
Outlet Controlled
 $A = 1.2 \text{ Chart 4B}$
 $(B + D)/2 = 1.25 \text{ feet}$
 $H_u = 1.25 \text{ feet}$
 $A_u = 0.33$
 $H = 0.6 \text{ Chart 1B}$
 $HWD = 0.7 \text{ feet}$
 $HWD \text{ Depth} = 0.85 \text{ feet}$

Use 24" RCP, headwall square edge
Outlet Controlled
 $HWD = 1.00 \text{ Chart 1B}$
 $HWD = 1.00 \text{ feet}$
Outlet Controlled
 $A = 1.0 \text{ Chart 4B}$
 $(B + D)/2 = 1.25 \text{ feet}$
 $H_u = 1.25 \text{ feet}$
 $A_u = 0.33$
 $H = 0.6 \text{ Chart 1B}$
 $HWD = 0.7 \text{ feet}$
 $HWD \text{ Depth} = 0.85 \text{ feet}$

HEADWATER DEPTH FOR CONCRETE PIPE CULVERTS WITH INLET CONTROL

CHART 1B

CHART 1C

CHART 1D

CHART 1E

CHART 1F

CHART 1G

CHART 1H

CHART 1I

CHART 1J

CHART 1K

CHART 1L

CHART 1M

CHART 1N

CHART 1O

CHART 1P

CHART 1Q

CHART 1R

CHART 1S

CHART 1T

CHART 1U

CHART 1V

CHART 1W

CHART 1X

CHART 1Y

CHART 1Z

HEADWATER DEPTH FOR CONCRETE PIPE CULVERTS WITH INLET CONTROL

CHART 1A

CHART 1B

CHART 1C

CHART 1D

CHART 1E

CHART 1F

CHART 1G

CHART 1H

CHART 1I

CHART 1J

CHART 1K

CHART 1L

CHART 1M

CHART 1N

CHART 1O

CHART 1P

CHART 1Q

CHART 1R

CHART 1S

CHART 1T

CHART 1U

CHART 1V

CHART 1W

CHART 1X

CHART 1Y

CHART 1Z

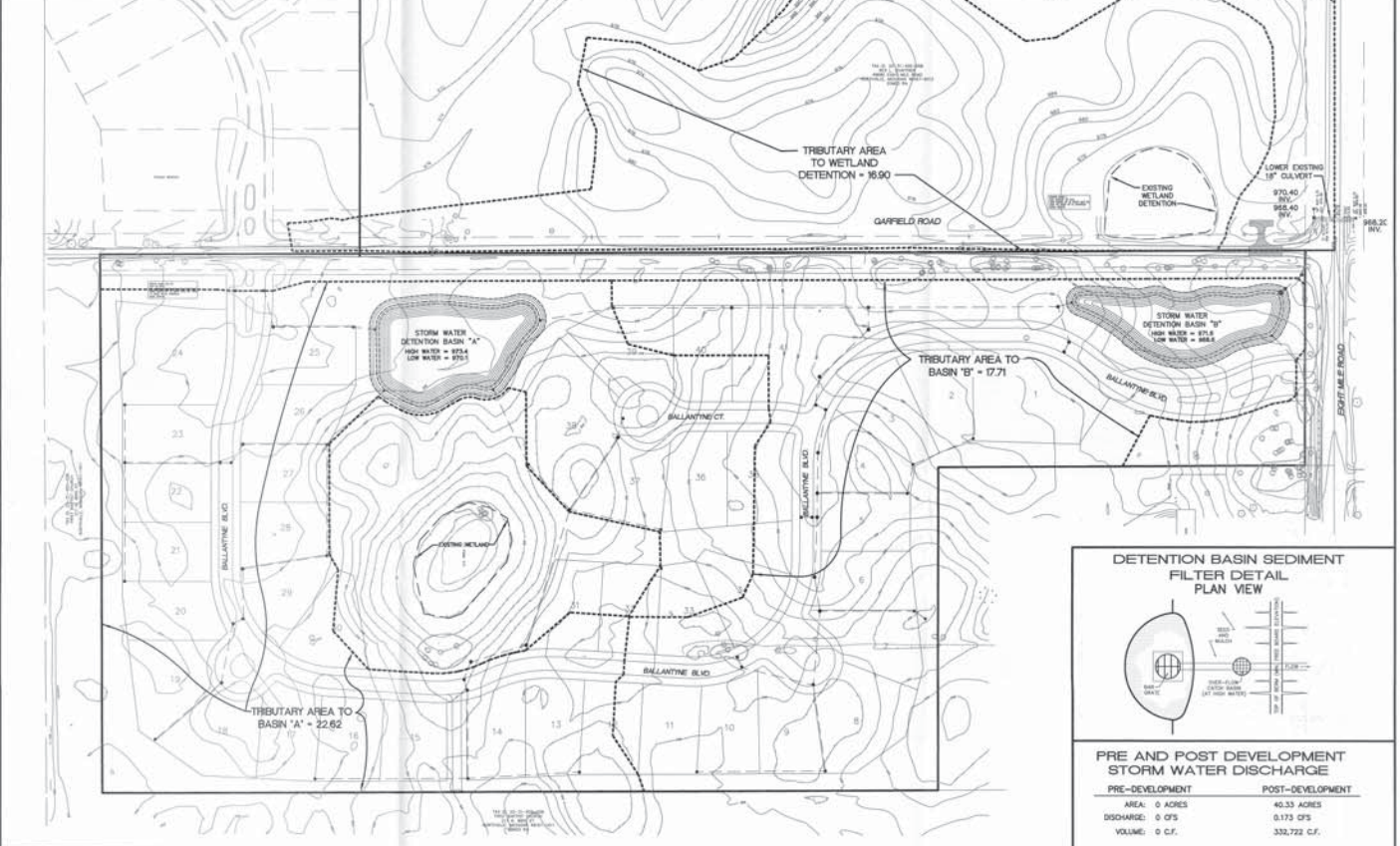
DOWNSTREAM CAPACITY SUMMARY

	EXISTING	PROPOSED	DIFFERENCE
FLOW	6.35 CFS	6.76 CFS	0.41 CFS INCREASE
DEPTH	1.85 FEET	1.92 FEET	0.07 FEET INCREASE
ELEVATION OF HEAD WATER	972.21	970.32	1.89 FEET DECREASE

MAINTENANCE SCHEDULE:

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

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



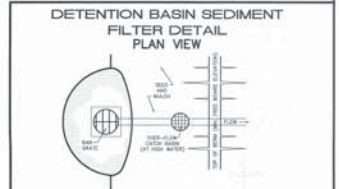
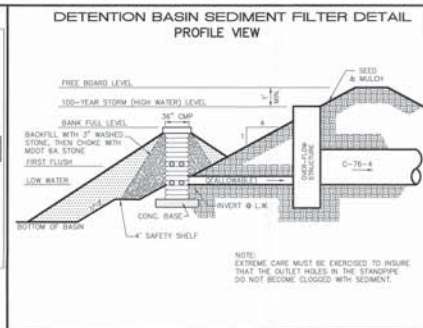
EXISTING WETLAND DETENTION CALCULATIONS

NE Garfield Road 8 Min. Road Wetland (10 yr. storm)

ELEVATION (FEET)	DESIGN FLOW (CFS)	AREA (AC)	VOLUME (C.F.)	TOTAL VOLUME (C.F.)
975.0	6.35	17.71	40,880	40,880
975.1	6.35	17.71	40,880	81,760
975.2	6.35	17.71	40,880	122,640
975.3	6.35	17.71	40,880	163,520
975.4	6.35	17.71	40,880	204,400
975.5	6.35	17.71	40,880	245,280
975.6	6.35	17.71	40,880	286,160
975.7	6.35	17.71	40,880	327,040
975.8	6.35	17.71	40,880	367,920
975.9	6.35	17.71	40,880	408,800
976.0	6.35	17.71	40,880	449,680

Modified P-1y Method

ELEVATION (FEET)	DESIGN FLOW (CFS)	AREA (AC)	VOLUME (C.F.)	TOTAL VOLUME (C.F.)
972.21	6.35	17.71	40,880	40,880
970.32	6.35	17.71	40,880	81,760
970.32	6.35	17.71	40,880	122,640
970.32	6.35	17.71	40,880	163,520
970.32	6.35	17.71	40,880	204,400
970.32	6.35	17.71	40,880	245,280
970.32	6.35	17.71	40,880	286,160
970.32	6.35	17.71	40,880	327,040
970.32	6.35	17.71	40,880	367,920
970.32	6.35	17.71	40,880	408,800
970.32	6.35	17.71	40,880	449,680



PRE AND POST DEVELOPMENT STORM WATER DISCHARGE

PRE-DEVELOPMENT	POST-DEVELOPMENT
AREA: 0 ACRES	40.33 ACRES
DISCHARGE: 0 CFS	0.173 CFS
VOLUME: 0 C.F.	332.72 C.F.

BALLANTYNE

SECTION 31, TOWN & NORTH, RANGE 6 EAST, CITY OF NOVI, OAKLAND COUNTY, MICHIGAN

REVISIONS

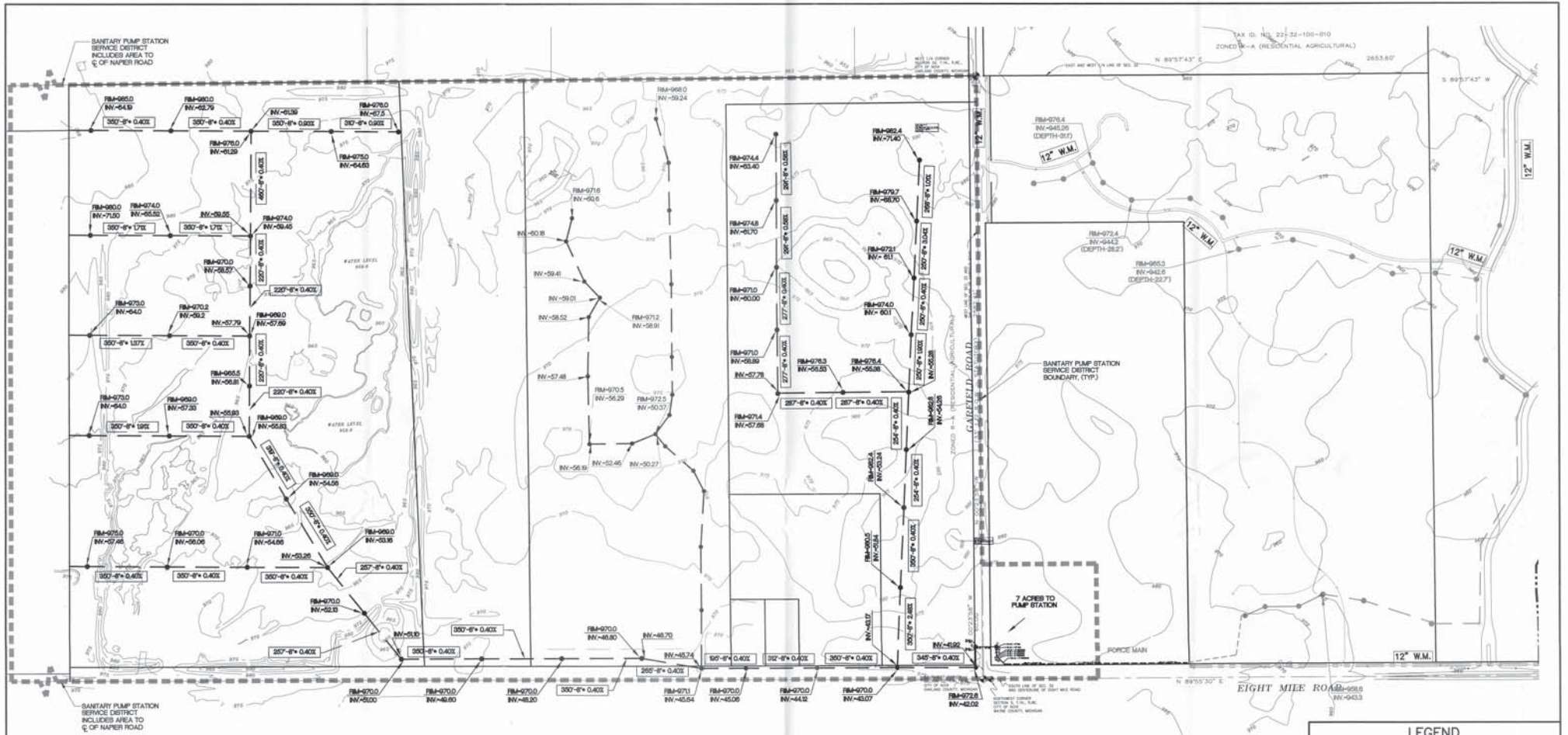
NO.	DATE	DESCRIPTION

DATE: 4-10-14
 DESIGNED BY: J.A.
 CHECKED BY: J.A.
 APPROVED BY: J.A.

STORM WATER MANAGEMENT PLAN

SEIBER, KEAST ENGINEERING, L.L.C.
 CONSULTING ENGINEERS
 7125 ORCHARD LAKE ROAD • SUITE 304 • WEST BLOOMFIELD, MI • 48312
 PHONE: 248.562.7327 FAX: 248.562.7327

SHEET 4



TAX ID. NO. 22-32-100-010
 ZONED R-1A (RESIDENTIAL AGRICULTURAL)

SANTARY PUMP STATION
 SERVICE DISTRICT
 INCLUDES AREA TO
 E. OF NAPER ROAD

SANTARY PUMP STATION
 SERVICE DISTRICT
 INCLUDES AREA TO
 W. OF NAPER ROAD

SANTARY PUMP STATION
 SERVICE DISTRICT
 BOUNDARY, (TYP)

7 ACRES TO
 PUMP STATION

FORCE MAIN

LEGEND

- SANITARY FORCE MAIN
- - - GRAVITY DESIGN
- PUMP STA./FORCE MAIN/GRAVITY DESIGN
- ▭ PUMP STATION DISTRICT BOUNDARY

SECTION 31/32 SANITARY SEWER SAD
 CITY OF NOV, OAKLAND COUNTY, MICHIGAN

REVISIONS

NO.	DATE	DESCRIPTION	BY	CHK
01	06-02-04	ISSUE FOR PERMITS	MM	MM
02	06-02-04	REVISED	MM	MM

DATE: 06-02-04 PROJECT NO.: 93-063 JOB NUMBER: 93-063

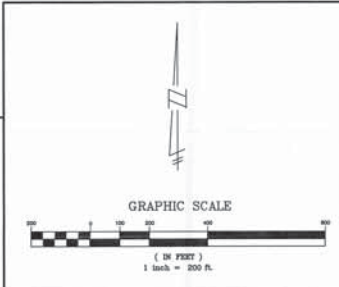
SANITARY SEWER SERVICE ALTERNATIVES

SEIBER, KRASZ & ASSOCIATES, INC. MELLETTICS AND ASSOCIATES, L.L.C.

40389 GRAND RIVER AVENUE • SUITE 110 • NOV, MI • 48375-2123
 248.473.7880

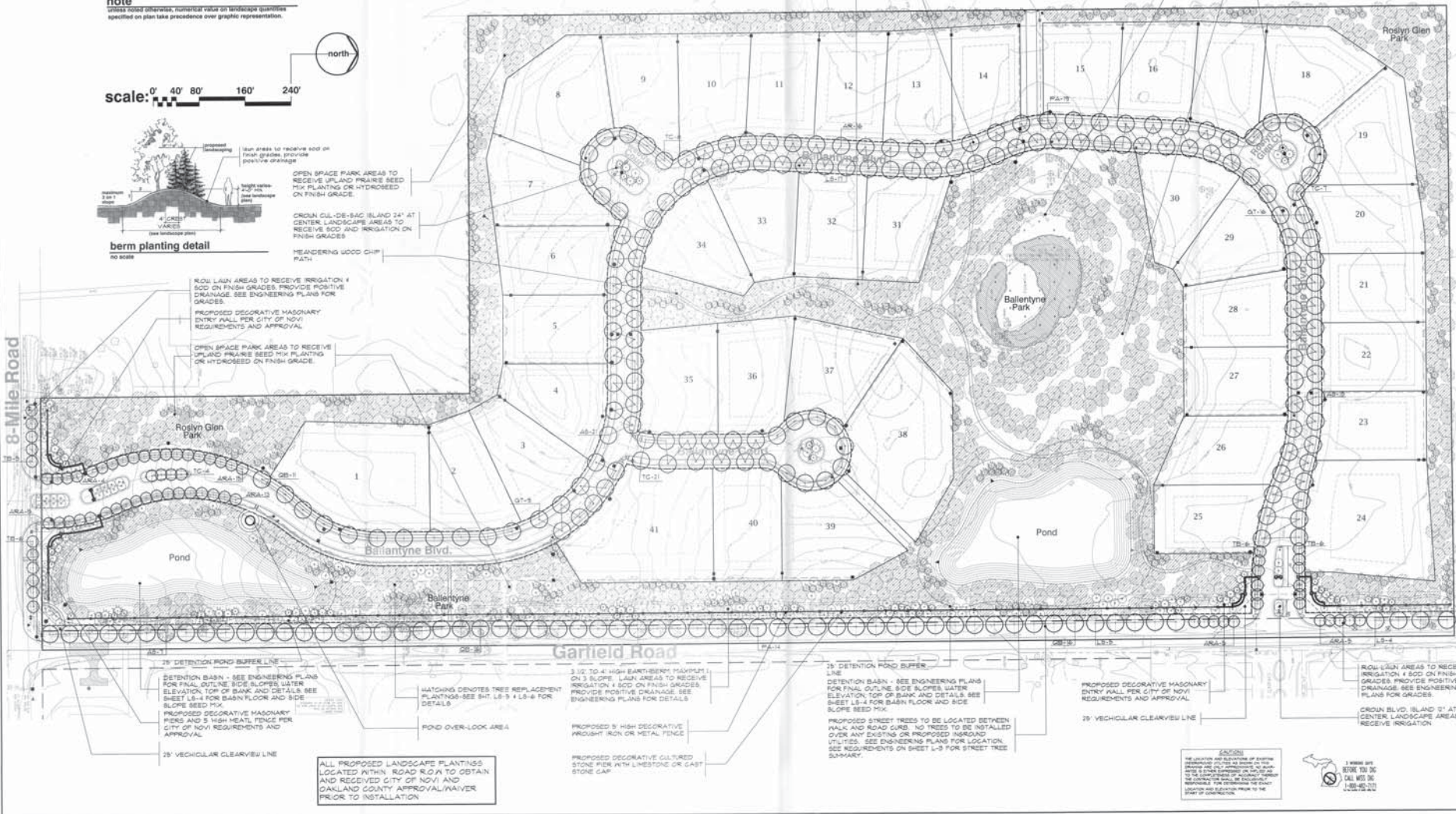
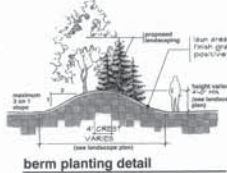
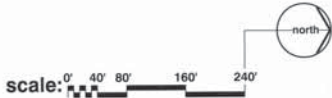
SHEET
5

SANITARY PUMP STATION DESIGN CRITERIA
 AREA = 1/2 OF SECTION 31 = 7 AC. FROM SCHOOL = 327 ACRES
 MASTER PLAN ZONING DESIGNATION = RA
 RA MAXIMUM DENSITY = 0.8 UNITS/ACRE
 327 ACRES * 0.8 UNITS/ACRE = 262 UNITS
 POPULATION (262 UNITS * 3.8 PEOPLE/UNIT) = 1000.4 PEOPLE
 AVERAGE FLOW = 938.4 PEOPLE * 100 GAL/CAP/DAY = 93,840 GAL/DAY
 93,840 GPD = 171440 DAY/IN. = 58.2 GPM
 PEAK FACTOR = (18 + √(262)) / (4 + √(938)) = 3.85
 PEAK FLOW = AVERAGE FLOW * PEAKING FACTOR
 P = 251.2 GPM @ 0.499 CFS
 Q = 224 GPM (FIRM PUMP CAPACITY OF FUTURE PUMP STATION)



street tree planting plan for:
“Ballantyne”
 a planned single family community
 City of Novi, Michigan

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



PROPOSED STREET TREES TO BE LOCATED BETWEEN PAVEMENT AND ROAD CURB. NO TREES TO BE INSTALLED OVER ANY EXISTING OR PROPOSED INGROUND UTILITIES. SEE ENGINEERING PLANS FOR LOCATION. SEE REQUIREMENTS ON SHEET L-3 FOR STREET TREE SUMMARY.

HATCHING DENOTES TREE REPLACEMENT PLANTINGS-SEE SHT. L-3 & L-4 FOR DETAILS

LIMITS OF WETLAND
 OPEN SPACE PARK AREAS TO RECEIVE IRRIGATION & SOD ON FINISH GRADES. PROVIDE POSITIVE DRAINAGE. SEE ENGINEERING PLANS FOR GRADES.

CRONIN CUL-DE-SAC ISLAND 24" AT CENTER. LANDSCAPE AREAS TO RECEIVE IRRIGATION & SOD ON FINISH GRADES.

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

PROPOSED DECORATIVE MASONRY ENTRY WALL PER CITY OF NOVI REQUIREMENTS AND APPROVAL.

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

MEANDERING WOOD CHIP PATH

CRONIN CUL-DE-SAC ISLAND 24" AT CENTER. LANDSCAPE AREAS TO RECEIVE IRRIGATION & SOD ON FINISH GRADES.

PROPOSED STREET TREES TO BE LOCATED BETWEEN PAVEMENT AND ROAD CURB. NO TREES TO BE INSTALLED OVER ANY EXISTING OR PROPOSED INGROUND UTILITIES. SEE ENGINEERING PLANS FOR LOCATION. SEE REQUIREMENTS ON SHEET L-3 FOR STREET TREE SUMMARY.

HATCHING DENOTES TREE REPLACEMENT PLANTINGS-SEE SHT. L-3 & L-4 FOR DETAILS

PROPOSED 3' HIGH DECORATIVE PROUGHT IRON OR METAL FENCE

PROPOSED DECORATIVE CULTURED STONE FENCE WITH LINED-TONE OR EAST STONE CAP

3.0% TO 4.0% HIGH BARTH-BERRY PLANTING ON 3 SLOPE. LAWN AREAS TO RECEIVE IRRIGATION & SOD ON FINISH GRADES. PROVIDE POSITIVE DRAINAGE. SEE ENGINEERING PLANS FOR DETAILS

DETENTION BASIN - SEE ENGINEERING PLANS FOR FINAL OUTLINE, SIDE SLOPES, WATER ELEVATION, TOP OF BANK AND DETAILS. SEE SHEET L-6-4 FOR BASIN FLOOR AND SIDE SLOPE SEED MIX.

PROPOSED DECORATIVE MASONRY PILES AND 5' HIGH HEAT, TPCD PER CITY OF NOVI REQUIREMENTS AND APPROVAL.

DETENTION POND BUFFER LINE

25' VEHICULAR CLEARVIEW LINE

25' DETENTION POND BUFFER LINE

DETENTION BASIN - SEE ENGINEERING PLANS FOR FINAL OUTLINE, SIDE SLOPES, WATER ELEVATION, TOP OF BANK AND DETAILS. SEE SHEET L-6-4 FOR BASIN FLOOR AND SIDE SLOPE SEED MIX.

PROPOSED DECORATIVE MASONRY ENTRY WALL PER CITY OF NOVI REQUIREMENTS AND APPROVAL.

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

ALL PROPOSED LANDSCAPE PLANTINGS LOCATED WITHIN ROAD ROW TO OBTAIN AND RECEIVE CITY OF NOVI AND OAKLAND COUNTY APPROVAL/WAIVER PRIOR TO INSTALLATION.

CAUTION
 THE LOCATION AND DEPTH OF UTILITIES SHOWN ON THIS PLAN ARE BASED ON THE DATA PROVIDED BY THE CLIENT. THE CONTRACTOR SHALL BE RESPONSIBLE FOR VERIFYING THE EXACT LOCATION AND DEPTH OF UTILITIES PRIOR TO CONSTRUCTION.



FPA
 FELINO A. PASCUAL
 and ASSOCIATES
 Community Land Planner and
 registered Landscape Architect
 24333 Orchard Lake Rd., Suite 6
 Farmington Hills, MI 48336
 ph. (248) 557-5588
 fax. (248) 557-5416



client:
SINGH DEVELOPMENT
 7125 Orchard Lake Road,
 Suite 200
 West Bloomfield TWP.,
 Michigan 48325

project:
Ballantyne

project location:
 City of Novi, Michigan
 8-Mile Road

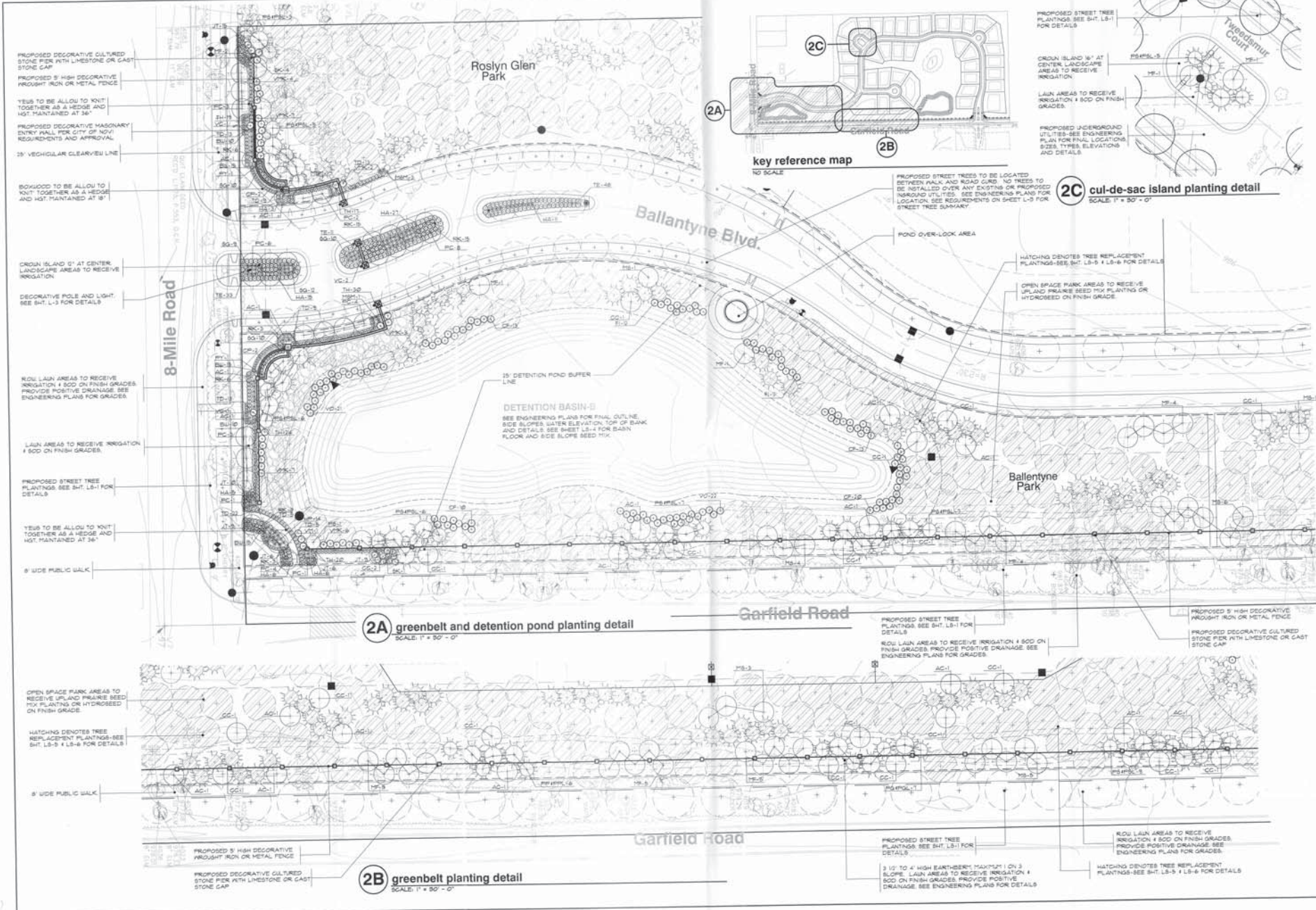
sheet title:
**street tree planting
 plan**

rev. job no./issue/revision date
LS14.01.04 city 4-9-2013
LS14.01.04 city 4-26-2013
LS14.01.10 city 10-28-2013
LS14.01.04 city 4-24-2014

drawn by:
JP, CZ, JT
 checked by:
FP
 date:
2-14-2014

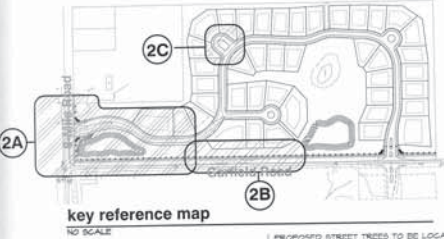
notice:
 Copyright © 2012
 This document and the subject matter contained therein is proprietary and is not to be used or reproduced without the written permission of Felino Pascual and Associates.
 Do Not scale drawings. Use figured dimensions only.
 project no:
LS14.01.9.02

sheet no:
LS-1 of 6

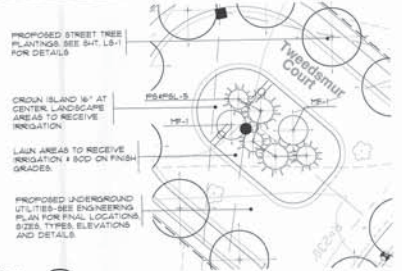


2A greenbelt and detention pond planting detail
SCALE: 1" = 30' - 0"

2B greenbelt planting detail
SCALE: 1" = 30' - 0"



key reference map
NO SCALE



2C cul-de-sac island planting detail
SCALE: 1" = 30' - 0"

PROPOSED DECORATIVE CULTURED STONE PIER WITH LIMESTONE OR CAST STONE CAP
 PROPOSED 5' HIGH DECORATIVE WROUGHT IRON OR METAL FENCE
 TREES TO BE ALLOWED TO KNIT TOGETHER AS A HEDGE AND NOT MAINTAINED AT 8"
 PROPOSED DECORATIVE MASONRY ENTRY WALL PER CITY OF NOVI REQUIREMENTS AND APPROVAL
 15' VEHICULAR CLEARVIEW LINE
 BOXWOOD TO BE ALLOWED TO KNIT TOGETHER AS A HEDGE AND NOT MAINTAINED AT 8"
 CROWN ISLAND 6" AT CENTER LANDSCAPE AREAS TO RECEIVE IRRIGATION
 DECORATIVE POLE AND LIGHT SEE SHT. L-3 FOR DETAILS
 ROW LAWN AREAS TO RECEIVE IRRIGATION + SOD ON FINISH GRADES PROVIDE POSITIVE DRAINAGE SEE ENGINEERING PLANS FOR GRADES
 LAWN AREAS TO RECEIVE IRRIGATION + SOD ON FINISH GRADES
 PROPOSED STREET TREE PLANTINGS SEE SHT. L8-1 FOR DETAILS
 TREES TO BE ALLOWED TO KNIT TOGETHER AS A HEDGE AND NOT MAINTAINED AT 36"
 8' WIDE PUBLIC WALK

8-Mile Road

25' DETENTION POND BUFFER LINE
 DETENTION BASIN-B
 SEE ENGINEERING PLANS FOR FINAL OUTLINE, SIDE SLOPES, WATER ELEVATION, TOP OF BANK FLOOR AND SIDE SLOPE SEED MIX.

Ballantyne Blvd

Garfield Road

Ballantyne Park

PROPOSED STREET TREE PLANTINGS SEE SHT. L8-1 FOR DETAILS

CROWN ISLAND 6" AT CENTER LANDSCAPE AREAS TO RECEIVE IRRIGATION

LAWN AREAS TO RECEIVE IRRIGATION + SOD ON FINISH GRADES

PROPOSED LASERGROUND UTILITIES-SEE ENGINEERING PLANS FOR FINAL LOCATIONS, TYPES, TRENCH ELEVATIONS AND DETAILS

PROPOSED STREET TREES TO BE LOCATED BETWEEN PAVEMENT AND ROAD CURB. NO TREES TO BE INSTALLED OVER ANY EXISTING OR PROPOSED BURIED UTILITIES. SEE ENGINEERING PLANS FOR LOCATION, SEE REQUIREMENTS ON SHEET L-9 FOR STREET TREE SUMMARY

POND OVER-LOOK AREA

HATCHING DENOTES TREE REPLACEMENT PLANTINGS-SEE SHT. L8-5 + L8-6 FOR DETAILS

OPEN SPACE PARK AREAS TO RECEIVE UPLAND PRAIRIE SEED MIX PLANTINGS OR HYDROSEED ON FINISH GRADE

PROPOSED STREET TREE PLANTINGS SEE SHT. L8-1 FOR DETAILS
 ROW LAWN AREAS TO RECEIVE IRRIGATION + SOD ON FINISH GRADES PROVIDE POSITIVE DRAINAGE SEE ENGINEERING PLANS FOR GRADES

PROPOSED 5' HIGH DECORATIVE WROUGHT IRON OR METAL FENCE
 PROPOSED DECORATIVE CULTURED STONE PIER WITH LIMESTONE OR CAST STONE CAP

OPEN SPACE PARK AREAS TO RECEIVE UPLAND PRAIRIE SEED MIX PLANTINGS OR HYDROSEED ON FINISH GRADE

HATCHING DENOTES TREE REPLACEMENT PLANTINGS-SEE SHT. L8-5 + L8-6 FOR DETAILS

8' WIDE PUBLIC WALK

PROPOSED 5' HIGH DECORATIVE WROUGHT IRON OR METAL FENCE
 PROPOSED DECORATIVE CULTURED STONE PIER WITH LIMESTONE OR CAST STONE CAP

Garfield Road

PROPOSED STREET TREE PLANTINGS SEE SHT. L8-1 FOR DETAILS

3 1/2" TO 4" HIGH EARTH-BERRY MAXIMUM 1 ON 3 SLOPE LAWN AREAS TO RECEIVE IRRIGATION + SOD ON FINISH GRADES PROVIDE POSITIVE DRAINAGE SEE ENGINEERING PLANS FOR DETAILS

HATCHING DENOTES TREE REPLACEMENT PLANTINGS-SEE SHT. L8-5 + L8-6 FOR DETAILS



client:
SINGH DEVELOPMENT
 7125 Orchard Lake Road, Suite 200
 West Bloomfield TWP, Michigan 48325

project:
Ballantyne

project location:
 City of Novi, Michigan
 8-Mile Road

sheet title:
Landscape Planting Detail Plan

rev.	job no./issue/revision date
1513.041.04	city 4-9-2013
1513.041.04	city 4-26-2013
1513.041.04	city 10-30-2013
1514.019.04	city 4-24-2014

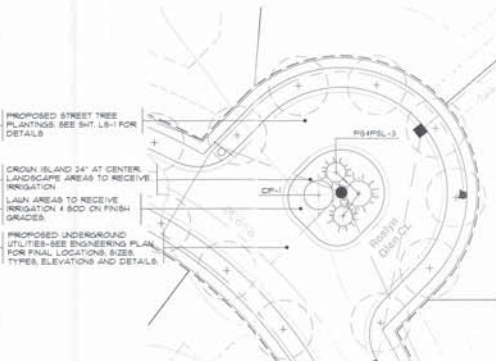
drawn by:
JP, CZ, JT
 checked by:
FP
 date:
2-14-2014

notice:
 Copyright © 2012
 This document and the subject matter contained therein is proprietary and is not to be used or reproduced without the written permission of Felino Pasquali and Associates

Do Not scale drawings. Use figured dimensions only
 project no:
1514.019.02
 sheet no:



3A cul-de-sac island planting detail
SCALE: 1" = 30' - 0"



3B cul-de-sac island planting detail
SCALE: 1" = 30' - 0"



decorative pole and light
TOTAL OF 3 CONDITIONS

landscape requirements:

greenbelt (Garfield Road)

REQUIRED	PROVIDED
TOTAL LIN. FT. OF GARFIELD ROAD FRONTAGE LESS ACCESS POINTS	2572 L
ONE (1) 3" DECIDUOUS OR EVERGREEN TREE PER 35 LIN. FT.	67.8 60
ONE (1) SUBCANYON TREE PER 20 LIN. FT.	128.6 114

greenbelt (8 Mile Road)

REQUIRED	PROVIDED
TOTAL LIN. FT. OF 8 MILE ROAD FRONTAGE LESS ACCESS POINTS	268 L
ONE (1) 3" DECIDUOUS OR EVERGREEN TREE PER 35 LIN. FT.	10.5 11
ONE (1) SUBCANYON TREE PER 20 LIN. FT.	13.4 20

street trees

REQUIRED	PROVIDED
GARFIELD RD. ONE (1) 3" DECIDUOUS TREE PER 35 LIN. FT.	67.8 72
8 MILE RD. ONE (1) 3" DECIDUOUS TREE PER 35 LIN. FT.	10.5 10

cul-de-sac

REQUIRED	PROVIDED
NO. OF CUL-DE-SAC WITHIN PHASE	1
COMBINATION OF CANOPY TREES, SUBCANYON TREES AND SHRUBS	75% 75%

detention

REQUIRED	PROVIDED
HIGH WATER PERIMETER	2040 L
10% - 15% LARGE NATIVE SHRUBS ABOVE HIGH WATER BASIN RIM AREA	75% 75%

tree replacement

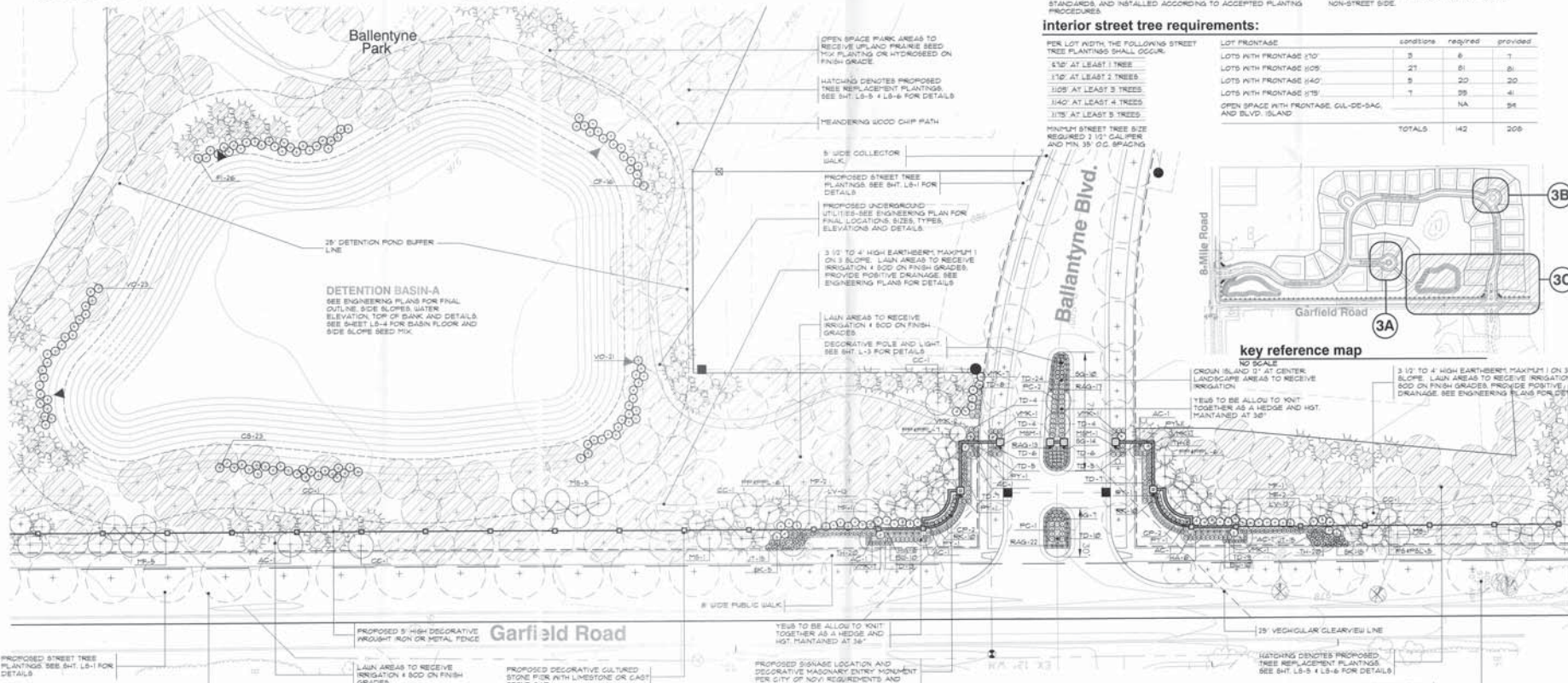
REQUIRED	PROVIDED
SEE SHT L-5 AND L-6 FOR SUMMARY AND DETAILS	

general street tree notes:

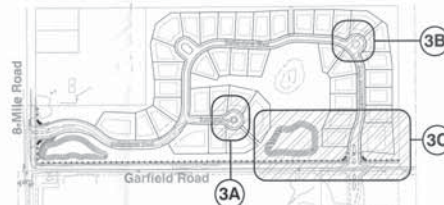
STREET TREES SHALL BE PLANTED 10' FROM ANY DRIVEWAYS, 4' FROM ANY CURBS AND SIDEWALKS (2' FOR SUBCANYON TREES), 9' FROM OVERHEAD UTILITY LINES, 10' FROM ANY MAN HOLE OR FIRE HYDRANT, AND 20' FROM THE INTERSECTION OF CURB LINES ON CORNER LOTS. STREET TREES SHALL HAVE THE FOLLOWING CHARACTERISTICS: 2 1/2" CAL PER NO. 1 GRADE BAR, NORTHERN GROUND PER CURRENT PLAN STANDARDS, AND INSTALLED ACCORDING TO ACCEPTED PLANTING PROCEDURES. STREET TREES SHALL HAVE A CENTRAL LEADER AND RADIAL BRANCHING STRUCTURE. ANY BRANCHES THAT MAY DEVELOP INTO "V" GROTTESHS SHALL BE PRUNED SO AS NOT TO BECOME DOMINANT BRANCHES. THE BRANCHES ON CANOPY TREES SHALL BE LIMBED UP 14' ON THE SIDE OF THE STREET AND 10' ON THE NON-STREET SIDE.

interior street tree requirements:

LOT FRONTAGE	conditions	required	provided
PER LOT WIDTH THE FOLLOWING STREET TREE PLANTINGS SHALL OCCUR:			
430' AT LEAST 1 TREE	3	8	7
150' AT LEAST 2 TREES	21	81	81
100' AT LEAST 3 TREES	9	20	20
130' AT LEAST 4 TREES	7	39	41
175' AT LEAST 5 TREES		NA	54
MINIMUM STREET TREE SIZE REQUIRED: 3 1/2" CALIPER AND MIN 35' O.C. SPACING			
TOTALS	42	142	208



3C greenbelt and detention pond planting detail
SCALE: 1" = 30' - 0"



key reference map
NO SCALE



client:
SINGH DEVELOPMENT
7125 Orchard Lake Road,
Suite 200
West Bloomfield TWP.,
Michigan 48325

project:
Ballantyne

project location:
City of Novi, Michigan
8-Mile Road

sheet title:
**Landscape Planting
Detail Plan**

rev. job no./issue/revision date

1514.01.04	09	4.9.2013
1514.01.04	09	4.26.2013
1514.01.04	09	10.28.2013
1514.01.04	09	4.24.2014

Drawn by:
JP, CZ, JT
checked by:
FP
date:
2-14-2014
notice:
Copyright © 2012
This document and the subject matter contained therein is proprietary and is not to be used or reproduced without the written permission of Felino Pasquali and Associates.

project no:
LS14.019.02
sheet no:
LS-3 of 6





client:
SINGH DEVELOPMENT
 7125 Orchard Lake Road,
 Suite 200
 West Bloomfield TWP.,
 Michigan 48325

project:
Ballantyne

project location:
 City of Novi, Michigan
 8-Mile Road

sheet title:
 site of woodland tree
 replacement planting
 plan for Oberlin

rev. job no./issue/revision date:

1513.041.04	019	4-9-2011
1513.041.04	019	4-28-2011
1513.041.10	019	10-28-2011
1514.019.04	019	4-24-2014

drawn by:
J.P. CZ, JT
 checked by:
FP
 date:
2-14-2014

notice:
 Copyright © 2012

This document and the subject matter contained therein is proprietary and is not to be used or reproduced without the written permission of Felino Pascual and Associates.

Do Not scale drawings. Use figured dimensions only.
 project no:
1514.019.02
 sheet no:
15-5 of 6

tree replacement plant material list

key	quantities	SHT.L6	SHT.L4	totals	botanical name	common name	size	cost	totals	
DECIDUOUS TREES										
NRK	2	38	48	86	NYRS BIVAYATI	BLACK SWIFT MAPLE	2 1/2" DB	1400	121,600.00	
ZAK	2	38	73	111	ACER BACQUIMET	BUSAR MAPLE	2 1/2" DB	1400	155,400.00	
ANK	2	37	10	47	ACER N. FRANKFRED	RED SUNSET RED MAPLE	2 1/2" DB	1400	66,000.00	
LME	2	24	67	91	LIQUIDAMBAR STYRACIFLUA	AMERICAN BEECHMAP	2 1/2" DB	1400	126,000.00	
LTK	2	30	33	63	LIRIODENDRON TULIPIFERA	TULIP TREE	2 1/2" DB	1400	88,000.00	
FOR	2	8	42	50	PLATANUS OCCIDENTALIS	AMERICAN ST. CYPRESS	2 1/2" DB	1400	70,000.00	
QTN	2	16	61	77	QUERCUS T. NORTONI BRICOLE	SCOTCH LOGSQT	2 1/2" DB	1400	108,000.00	
GQR	2	18	32	50	QUERCUS GLAUDUS D'OCOS	KENTUCKY COFFEE TREE	2 1/2" DB	1400	70,000.00	
GCK	2	11	8	19	QUERCUS CANADENSIS	EASTERN REDBUD	2 1/2" DB	1400	26,600.00	
OVR	2	4	-	4	OSTRYA VIRGINIANA	AMERICAN HOPHORNBEAT	2 1/2" DB	1400	5,600.00	
TAK	2	5	39	44	TILIA AMERICANA	AMERICAN BAMBWOOD	2 1/2" DB	1400	61,600.00	
CON	2	-	8	8	CELTIS OCCIDENTALIS	NORTHERN HICKORY	2 1/2" DB	1400	11,200.00	
GDR	2	14	31	45	QUERCUS COCCINEA	SCARLET OAK	2 1/2" DB	1400	63,000.00	
QNR	2	18	16	34	QUERCUS RUBRA	RED OAK	2 1/2" DB	1400	47,600.00	
QBR	2	18	48	66	QUERCUS BICOLOM	SWAMP WHITE OAK	2 1/2" DB	1400	92,400.00	
EVERGREEN TREES										
FOR	2	78	58	136	PINUS SAEUGA	WHITE SPRUCE	1" DB	400	54,400.00	
FOR	2	69	101	170	PINUS STROBUS	EASTERN WHITE PINE	1" DB	400	68,000.00	
TCR	2	21	171	192	TRIFIDA CANADENSIS	CANADIAN HEMLOCK	1" DB	400	76,800.00	
									TOTAL	699,000.00

woodland tree replacement summary

TOTAL NO OF TREE REPLACEMENT CREDITS REQUIRED (REPLACEMENT PROVIDED ON OBERLIN AND BALLANTYNE SITE) 124
 *SEE TREE SURVEY/TREE REMOVAL PLAN FOR OBERLIN PREPARED BY GERRI KEAST ENGINEERING, L.L.C. FOR SUMMARY TREE REPLACEMENT CALCULATIONS AND DETAILS
 TOTAL NO OF TREE REPLACEMENT CREDITS PROVIDED (REPLACEMENT PROVIDED ON OBERLIN AND BALLANTYNE SITE) 124.48
 NO OF ON-SITE TREE REPLACEMENT CREDITS PROVIDED (OBERLIN SITE) 61
 NO OF OFF-SITE TREE REPLACEMENT CREDITS PROVIDED (BALLANTYNE SITE) 173.48

woodland tree replacement summary (Ballantyne Site-off site)

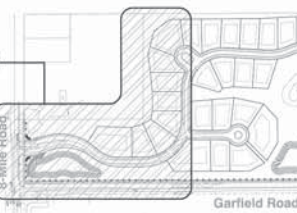
TOTAL NO OF WOODLAND TREE REPLACEMENT CREDITS PROVIDED 173.48
 NO OF WOODLAND TREE REPLACEMENT PLANTINGS 369.22
 214 - 2 1/2" DECIDUOUS TREE # 110-CREDITS 274
 88- 1" EVERGREEN # 87-CREDITS 112.22
 NO OF WOODLAND TREE REPLACEMENT PLANTINGS PROVIDED (SHEET L6-8) 108.26
 602-2 1/2" DECIDUOUS TREE # 110-CREDITS 602
 278-1" EVERGREEN # 87-CREDITS 262.26

misc. notes:

- REFERENCE ENGINEERING PLANS FOR EXISTING AND PROPOSED FINAL UTILITIES (WALLS AND FENCE LOCATIONS)
- REFERENCE ENGINEERING PLANS FOR GRADING WITH 1% INTERVALS
- REFERENCE ENGINEERING PLANS FOR WOODLAND SURVEY OF EXISTING TREES OVER #1 INCLUDING PROPOSED PROTECTION FENCE LOCATIONS
- REFERENCE ENGINEERING PLANS FOR EXISTING SOLA PER ULCA

City of Novi landscape notes:

- GENERAL NOTES:**
- PLANT MATERIALS TO BE INSTALLED ACCORDING TO THE CITY OF NOVI AND CURRENT AMERICAN ASSOCIATION OF NURSERYMEN STANDARDS
 - PLANT MATERIALS TO BE GUARANTEED FOR 2 YEARS REPLACE FALLING MATERIAL WITHIN 1 YEAR ON THE NEXT APPROPRIATE PLANTING PERIOD
 - PLANT MATERIALS TO BE OF PREMIUM QUALITY. NO 1/2 GRADE NORTHERN NURSERY GROWN IN HEALTHY CONDITION FREE OF PESTS AND DISEASES
 - MULCH IS TO BE NATURAL COLORED FINELY SHREDDED HARDWOOD BARK OF 4" THICK BARK MULCH FOR TREES IN 4" DIA. CIRCLES NOT PULLED AWAY FROM TRUNK. 2" THICK BARK MULCH FOR SHRUBS AND 2" THICK BARK MULCH FOR PERENNIALS
 - CALL 888 DIG AT 1-800-481-7111 PRIOR TO ANY CONSTRUCTION
 - DATE OF INTENDED LANDSCAPE INSTALLATION TO BE FALL 2008
- DECIDUOUS & EVERGREEN TREES:**
- TREES SHALL BEAR SAME RELATIONSHIP TO FINISH GRADE AS IT BORE ORIGINALLY OR 1/2" HIGHER THAN FINISH GRADE TO 4" ABOVE GRADE. IF DIRECTED BY LANDSCAPE ARCHITECT FOR HEAVY CLAY SOIL AREAS
 - DO NOT PRUNE TERMINAL LEADER. PRUNE ONLY DEAD OR BROKEN BRANCHES
 - REMOVE ALL TAGS, STING, PLASTICS AND OTHER MATERIALS THAT ARE UNSIGHTLY AND COULD CAUSE GROUNDING
 - REMOVE TREE STAKES, SAW NIXES AND TREE WRAP AFTER ONE WINTER SEASON
- SHRUBS:**
- SHRUBS SHALL BEAR SAME RELATIONSHIP TO FINISH GRADE AS IT BORE ORIGINALLY OR 1/2" HIGHER THAN FINISH GRADE TO 4" ABOVE GRADE. IF DIRECTED BY LANDSCAPE ARCHITECT FOR HEAVY CLAY SOIL AREAS
 - DO NOT PRUNE TERMINAL LEADER. PRUNE ONLY DEAD OR BROKEN BRANCHES
 - REMOVE ALL TAGS, STING, PLASTICS AND OTHER MATERIALS THAT ARE UNSIGHTLY AND COULD CAUSE GROUNDING
- PERENNIALS:**
- PERENNIALS TO BE PLANTED UP TO SAUCER AROUND TREE OR SHRUB IN THE AREA
- TREE PROTECTION:**
- IF TREE PLASTIC OR WOOD GRADE PROTECTING SHALL BE INSTALLED AT OR BEYOND THE DAPLINE UNLESS MORE SUBSTANTIAL FENCING IS REQUIRED
 - STAKES SHALL BE METAL T POLES SPACED NO FURTHER THAN 8' ON CENTER
 - FENCING SHALL NOT BE INSTALLED CLOSER TO THE TREE THAN THE DAPLINE OR THOSE TREES TO BE SAVED. SPECIAL CIRCUMSTANCES SHALL BE REVIEWED BY THE CITY.
- PROTECTION:**
- FENCING SHALL BE ERECTED PRIOR TO CONSTRUCTION. THE CITY SHALL BE NOTICED AMERICAN ASSOCIATION OF NURSERYMEN IS INSTALLED FOR PROTECTION. UNDER NO CIRCUMSTANCES SHALL THE PROTECTIVE FENCING BE REMOVED WITHOUT PROPER APPROVAL FROM THE CITY.
 - NO PERSON SHALL CONDUCT ANY ACTIVITY WITHIN THE AREAS PROPOSED TO REMAIN. THIS SHALL INCLUDE BUT NOT LIMITED TO:
 - NO SOLVENTS OR CHEMICALS WITHIN THE PROTECTED AREAS
 - NO BUILDING MATERIALS OR CONSTRUCTION EQUIPMENT WITHIN THE PROTECTED AREAS
 - NO GRADE CHANGES, INCLUDING FILL, WITHIN THE PROTECTED AREAS
 - NO REMOVAL OR DISEMBODIMENT FROM THE GROUND OR WITHOUT PERMISSION FROM THE PROPER REVIEWING AUTHORITY, INCLUDING THE WOODLAND REVIEW BOARD
 - IF ANY REQUIRED SHALL NEED TO BE DIRECTED AROUND THE PROTECTED AREA. IN INSTANCES WHERE STAKES ARE APPROVED THRU A PROTECTED AREA, THE STAKES NEED TO BE HAND DIG TAGMENT OF ANY KIND IS PROHIBITED.
 - ISOLATED WOODLANDS OR ISOLATED TREES ADJACENT TO ADJACENT TO THE PROPERTY ARE ALSO REQUIRED TO BE PROTECTED WHETHER OR NOT THEY ARE SHOWN ON THE PLAN.



reference key map
 NO SCALE



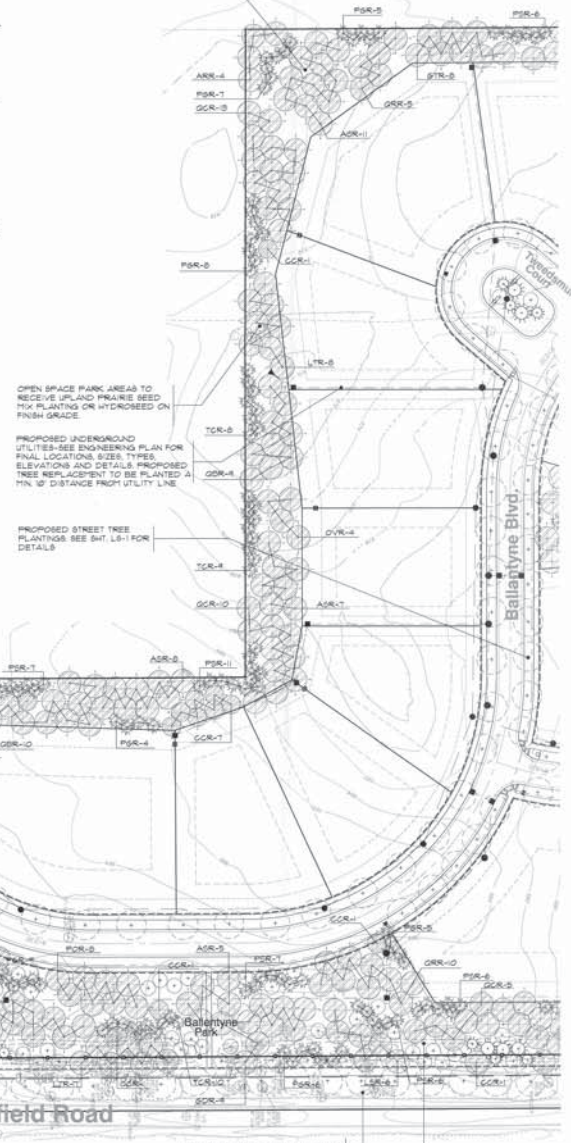
OPEN SPACE PARK AREAS TO RECEIVE UPLAND PRAIRIE SEED MIX PLANTING OR HYDROSEED ON FINISH GRADE

SIGNAGE MONUMENT AND ENTRY WALLS. FINAL LOCATION, SIZE, MATERIAL AND METHOD OF CONSTRUCTION AND DETAILS PER CITY OF NOVI REQUIREMENTS AND APPROVAL

PROPOSED GREENBELT LANDSCAPE PLANTINGS-SEE SH-T L6-2 AND L6-3 FOR DETAILS

5A tree replacement planting detail
 SCALE: 1" = 60' - 0"

OPEN SPACE PARK AREAS TO RECEIVE UPLAND PRAIRIE SEED MIX PLANTING OR HYDROSEED ON FINISH GRADE



OPEN SPACE PARK AREAS TO RECEIVE UPLAND PRAIRIE SEED MIX PLANTING OR HYDROSEED ON FINISH GRADE

PROPOSED UNDERGROUND UTILITIES-SEE ENGINEERING PLAN FOR FINAL LOCATIONS, SIZES, TYPES, ELEVATIONS AND DETAILS. PROPOSED TREE REPLACEMENT TO BE PLANTED A 1% 10' DISTANCE FROM UTILITY LINE

PROPOSED STREET TREE PLANTINGS SEE SH-T L6-1 FOR DETAILS

PROPOSED STREET TREE PLANTINGS SEE SH-T L6-1 FOR DETAILS
 LAWN AREAS TO RECEIVE IRRIGATION. 1" 800 ON FINISH GRADES PROVIDE POSITIVE DRAINAGE. SEE ENGINEERING PLANS FOR GRADES.

PLANNING REVIEW



PLAN REVIEW CENTER REPORT

Planning Review

BALLANTYNE

JSP 20-38

February 10, 2021

PETITIONER

Singh Development, LLC

REVIEW TYPE

Preliminary Site Plan

PROPERTY CHARACTERISTICS

Section	31	
Site Location	North of Eight Mile, West of Garfield Road; 22-31-400-007	
Site School	Northville Public Schools	
Site Zoning	RA: Residential Acreage	
Adjoining Zoning	North	RA: Residential Acreage
	East	RA: Residential Acreage
	West	RA: Residential Acreage
	South	R-1: Single Family Residential (Northville Township)
Current Site Use	Vacant	
Adjoining Uses	North	Single Family Residential
	East	Single Family Residential
	West	Single Family Residential / Vacant
	South	Park
Site Size	50.86 acres	
Plan Date	April 16, 2014	

PROJECT SUMMARY

The applicant is proposing to construct 41 single-family residential units as part of a RUD (Residential Unit Development) Agreement, which was approved by City Council on February 3, 2014. The site is north of Eight Mile Road and west of Garfield Road, and is zoned RA (Residential Acreage). The Future Land Use map indicates Single Family Residential for the entirety of the property.

The overall density generally shall not exceed the density permitted in the underlying zoning district. The proposed density of 0.8 dwelling units per acre (DUA) is consistent with the RA zoning district. The proposed lots range in size from 21,780 square feet to 44,045 square feet, which is permitted under the RUD ordinance.

The development includes two parks with woodchip trails for the benefit of the residents, including the intent to plant woodland replacement trees throughout the open spaces as a result of the removal of a significant number of regulated woodland trees from the Oberlin Condominium Development. Two gated boulevard entrances are proposed on Eight Mile Road and Garfield Road (directly adjacent from the Tuscany Reserve Entrance). Emergency access is proposed and required as part of the RUD agreement in order to allow cross access for future development to the west.

PLANNING COMMISSION & CITY COUNCIL ACTION

The Ballantyne RUD Plan and Agreement were approved by the City Council on February 3, 2014 with the following motions:

“Motion to approve the Residential Unit Development Plan for the Ballantyne. This motion is based on the following findings, lot size modifications, building setback reductions and conditions: Determinations (Zoning Ordinance Section 2402.8.A):”

- a. *The site is zoned for and appropriate for the proposed single-family residential use;*
- b. *Council is satisfied that with the proposed pathway and sidewalk network and added open space, the development will not have detrimental effects on adjacent properties and the community;*
- c. *Council is satisfied with the applicant's commitment and desire to proceed with construction of 41 new homes as demonstrating a need for the proposed use;*
- d. *Care has been taken to maintain the naturalness of the site and to blend the use within the site and its surroundings through the preservation of 18.17 acres (or 35.7%) of the proposed development area as open space;*
- e. *Council is satisfied that the applicant has provided clear, explicit, substantial and ascertainable benefits to the City as a result of the RUD;*
- f. *Factors evaluated (Zoning Ordinance Section 2402.8.B):*
 1. *Subject to the lot size modifications and building setbacks reductions, all applicable provisions of the Zoning Ordinance, including those in Section 2402 and for special land uses, and other ordinances, codes, regulations and laws have been or will be met;*
 2. *Council is satisfied with the adequacy of the areas that have been set aside in the proposed RUD development area for walkways, parks, recreation areas, and other open spaces and areas for use by residents of the development;*
 3. *Council is satisfied that the traffic circulation, sidewalk and crosswalk features and improvements for within the site have been designed to assure the safety and convenience of both vehicular and pedestrian traffic both within the site and in relation to access streets;*
 4. *Based on and subject to the recommendations in the traffic consultant's review letter, Council is satisfied that the proposed use will not cause any detrimental impact in existing thoroughfares in terms of overall volumes, capacity, safety, travel times and thoroughfare level of service;*
 5. *The plan provides adequate means of disposing of sanitary sewage, disposing of stormwater drainage, and supplying the development with water;*
 6. *The RUD will provide for the preservation and creation of approximately 35.7% of the site as open space and result in minimal impacts to provided open space and the most significant natural features;*
 7. *The RUD will be compatible with adjacent and neighboring land uses for the reasons already stated;*
 8. *The desirability of conventional residential development on this site in strict conformity with the otherwise applicable minimum lot sizes and widths being modified by this motion is outweighed by benefits occurring from the preservation and creation of the open space that will result from the RUD;*
 9. *Any detrimental impact from the RUD resulting from an increase in total dwelling units over that which would occur with conventional residential development is outweighed*

- by benefits occurring from the preservation and creation of open space that will result from the RUD;
10. Council is satisfied that the proposed reductions in lot sizes are the minimum necessary to preserve and create open space and to ensure compatibility with adjacent and neighboring land uses;
 11. The RUD will not have a detrimental impact on the City's ability to deliver and provide public infrastructure and public services at a reasonable cost;
 12. Council is satisfied that the applicant has made or will make satisfactory provisions for the financing of the installation of all streets, necessary utilities and other proposed improvements;
 13. Council is satisfied that the applicant has made or will make satisfactory provisions for future ownership and maintenance of all common areas within the proposed development; and
 14. Proposed deviations from the area, bulk, yard, and other dimensional requirements of the Zoning Ordinance applicable to the property enhance the development, are in the public interest, are consistent with the surrounding area, and are not injurious to the natural features and resources of the property and surrounding area.
- g. Modification of proposed lot sizes to a minimum of 21,780 square feet and modification of proposed lot widths to a minimum of 120 is hereby approved with this approval based on and limited to the lot configuration shown on the concept plan as last revised, as the requested modification will result in the preservation of open space for those purposes noted in Section 2402.3.8 of the Zoning Ordinance and the RUD will provide a genuine variety of lot sizes;
 - h. Applicant extending the proposed pathway along both sides of Emery Boulevard as indicated in the response letter;
 - i. Reduction of permitted building setbacks consistent with the proposed reduction in lot size and width;
 - j. Same-side driveway spacing waiver for the Eight Mile Road access drive (275' required, 218' provided) being approved at the time of Preliminary Site Plan approval;
 - k. The applicant providing a cross section of the area around the Deer Run Subdivision, the vacant property to the north and the subject property in order to identify the need for minor berming and/or rearrangement of the tree replacement plantings to provide screening; and
 - l. This approval is subject to all plans and activities related to it being in compliance with all applicable provisions of the Zoning Ordinance, including Articles 3, 24 and 25, and all applicable City Zoning Ordinance approvals, decisions, conditions and permits."

"Motion to approve of the Residential Unit Development Agreement for Ballantyne, with any changes and/or conditions as discussed at the City Council meeting, and any final minor alterations required in the determination of the City Manager and City Attorney to be incorporated by the City Attorney's office prior to the execution of the final agreement."

EXPIRED - The Preliminary Site Plan, Woodland Permit, Wetland Permit and Stormwater Management Plan were approved by the Planning Commission on June 11, 2014 with the following motions:

"In the matter of Ballantyne, JSP13-43, motion to approve the Preliminary Site Plan with Site Condominium 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 the items listed in those letters being addressed on the Final Site Plan;*
- b) *The applicant provides the pedestrian safety connections to the properties to the East and West per Section 4.05.E of the Subdivision Ordinance and Section 2516 of the Zoning Ordinance;*
- c) *The applicant provides on the Final Landscaping plans details of the berm running along the North property line behind lots 19 through 24, maximizing the 3:1 slope with a 3 foot crest up to a height of 7 feet.*

This motion is made because the plan is otherwise in compliance with the RUD agreement, Article 3, Article 24 and Article 25 of the Zoning Ordinance and all other applicable provisions of the Ordinance."

"In the matter of Ballantyne, JSP13-43, motion to approve the Woodland Permit based on and subject to 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. This motion is made because the plan is otherwise in compliance with the RUD agreement and Chapter 37 of the Code of Ordinances and all other applicable provisions of the Ordinance."

"In the matter Ballantyne, JSP13-43, motion to approve the Wetlands Permit based on and subject to 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. This motion is made because the plan is otherwise in compliance with the RUD agreement and Chapter 12, Article V of the Code of Ordinances and all other applicable provisions of the Ordinance."

"In the matter of Ballantyne, JSP13-43, motion to approve the Stormwater Management Plan based on and subject to 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. This motion is made because the plan is otherwise in compliance with the RUD agreement and Chapter 11 of the Code of Ordinances and all other applicable provisions of the Ordinance."

RECOMMENDATION

Approval of the Preliminary Site Plan is recommended by staff. The plan mostly conforms to the requirements of the Zoning Ordinance, with any deviations noted below. All reviewers recommend approval of the Preliminary Site Plan. **Planning Commission approval of the Preliminary Site Plan, Stormwater Management Plan, Woodland Use Permit, and Wetland Use Permit will be required.**

ORDINANCE REQUIREMENTS

This project was reviewed for compliance with the Zoning Ordinance, with respect to Article 3 (Zoning Districts), Article 4 (Use Standards), Article 5 (Site Standards), and any other areas of the ordinance, as noted. The plans show general compliance with ordinance requirements. Please address the items in **bold** with the next submittal.

1. Building Height: **Please indicate the maximum building height of the structures or provide a note indicating that the building height shall not exceed 35 feet or 2.5 stories, whichever is less.**
2. Emergency Access: An emergency access drive on the westerly end of the development shall be required as indicated in the RUD Agreement.
3. Pedestrian Circulation: A portion of sidewalk along Eight Mile Road was constructed by the City. **Please indicate the existing sidewalk and proposed sidewalk on the plans. Per the RUD Agreement, the developer may have to pay the City for the sidewalk construction costs. Also, please verify if a boardwalk will be necessary near the wetland abutting Garfield Road and revise the plans accordingly if it is needed.**
4. Natural Resource Preservation, Wetlands: The existing wetlands on the site shall be preserved and enhanced with additional supplementary wetland plantings as shown on the RUD Plan, including the removal of existing invasive species and replacement with native wetland plantings. **Please include additional details and clarification of the removal of existing invasive species and replacement with native wetland plantings.**
5. Residential Entryway Lighting: **Please indicate whether any residential entryway lighting is proposed and where it is located on the plans.**

6. Economic Impact Information: Please provide updated economic impact information for the development (including total cost of the proposed buildings & site improvements, home size, and expected sale price of new homes).
7. Planning Chart: Please refer to the attached Planning Chart for additional comments to address in the Revised Preliminary and/or Final Site Plan submittal.

OTHER REVIEWS

- a. Engineering Review: Engineering is recommending approval of the Preliminary Site Plan with conditions to be addressed as part of the Final Site Plan Submittal.
- b. Landscape Review: Landscape is recommending approval of the Preliminary Site Plan with comments to be addressed in a Final Site Plan submittal.
- c. Traffic Review: Traffic is recommending approval of the Preliminary Site Plan with conditions to be addressed as part of the Final Site Plan submittal.
- d. Wetland Review: Woodland is recommending approval of the Preliminary Site Plan with comments to be addressed in a Final Site Plan submittal.
- e. Fire Review: Fire is recommending approval of the Preliminary Site Plan with conditions to be addressed as part of the Final Site Plan submittal.

NEXT STEP: PLANNING COMMISSION MEETING

This Site Plan will be scheduled to go before the Planning Commission as a Public Hearing on **February 24, 2021**. Please provide the following via email by **February 17, 2021**:

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/variances as you see fit.
3. A color rendering of the Site Plan (optional, to be used for Planning Commission presentation).

FINAL SITE PLAN SUBMITTAL

After receiving Planning Commission's approval of the Preliminary Site Plan, please follow the [Final Site Plan Checklist](#) and submit for approval:

1. **Seven** copies of Final Site Plan sets (24" x 36", folded) addressing ALL comments from Preliminary Site Plan Review.
2. Response letter addressing ALL comments from ALL review letters and **refer to sheet numbers where the change is reflected**.
3. [Final Site Plan Application](#)
4. [No Revision Façade Affidavit](#) (if no façade changes have been made)
5. An itemized engineering cost estimate including sanitary sewer, watermain, storm sewer, paving and grading costs, size 8.5" x 11" (The cost estimate should not include soil erosion or demolition costs.)
6. An itemized landscaping cost estimate including greenbelt and greenbelt ornamental trees, perennials, pond plantings, shrubs, edging, mulch, seed mix and seeded lawn, size 8.5" x 11" (The cost estimate should not include woodland trees, replacement trees or mitigation.)
7. Recommended, but not required: A [Soil Erosion Permit Application](#)

ELECTRONIC STAMPING SET SUBMITTAL AND RESPONSE LETTER

After receiving Final Site Plan approval, plans addressing the comments in all 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**.

If required, drafts for all legal documents with a legal transmittal are to be submitted along with stamping sets.

STAMPING SET APPROVAL

Stamping sets will be required for this project. After having received all the review letters from City staff the applicant should make the appropriate changes on the plans and submit **12 size 24" x 36" copies with original signature and original seals on the cover sheet (subsequent pages may use electronic seal with signature)**, to the Community Development Department for final Stamping Set approval.

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, so it is suggested you contact Sarah Marchioni [248.347.0430 or smarchioni@cityofnovi.org] once the Final Site Plan has been approved to begin the Pre-Con checklist. If you have questions regarding the checklist or the Pre-Con itself, please contact Sarah.

CHAPTER 26.5

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

If the applicant has any questions concerning the above review or the process in general, do not hesitate to contact me at 248.735.5607 or ccarroll@cityofnovi.org.



Christian Carroll, Planner



PLANNING REVIEW CHART: Residential Unit Development (RUD) in RA

Review Date: February 10, 2021
Review Type: Preliminary Site Plan
Project Name: JSP20-38 Ballantyne (2020)
Location: North of Eight Mile, West of Garfield Road; 22-31-400-007
Plan Date: April 16, 2014
Prepared by: Christian Carroll, Planner
Contact: E-mail: ccarroll@cityofnovi.org Phone: (248) 735-5607

Items in **Bold** need to be addressed by the applicant and/or the Planning Commission before approval of the Preliminary Site Plan. Underlined items need to be addressed on the Final Site Plan. *Italicized* items should be noted.

Item	Required Code	Proposed	Meets Code	Comments
Zoning and Use Requirements				
Master Plan <i>(adopted July 26, 2017)</i>	Single Family, with master planned 0.8 maximum dwelling units per acre.	41 unit Single-Family Residential. 0.8 dwelling units per acre.	Yes	
Zoning <i>(Effective January 8, 2015)</i>	RA: Residential Acreage	RA: Residential Acreage	Yes	<i>RUD Agreement</i>
Uses Permitted <i>(Sec. 3.1.1)</i>	One-Family Dwellings	One-Family Dwellings	Yes	
Phasing	One Phase per RUD	Phasing is not proposed	Yes	
Height, bulk, density and area limitations <i>(Sec. 3.1.1; Sec. 3.29) - Shall not be lower than R3 Standards</i>				
Maximum Dwelling Unit Density	0.8 DUA	0.8 DUA	Yes	
Minimum Lot Area	12,000 sf	~ 23,000 sq. ft.	Yes	
Minimum Lot Width	90 ft	120 ft	Yes	
Building Setbacks <i>(Sec. 3.1.1; Sec. 3.29) – Shall not be lower than R3 Standards</i>				
Front	30 ft	30 ft	Yes	
Side	10 ft one side 30 ft total two sides	15 ft one side 40 ft total two sides	Yes	
Rear	35 ft	35 ft	Yes	
Maximum % of Lot Area Covered	25% <i>(By All Buildings)</i>	Appears to comply	Yes	<i>To be reviewed with Building Permits</i>
Minimum Floor Area	1000 SF	Complies	Yes	

Item	Required Code	Proposed	Meets Code	Comments
Building Height	35 ft. or 2.5 stories whichever is less	Not shown	No	Indicate building heights
Frontage on a Public Street (Sec. 5.12)	No lot or parcel of land shall be used for any purpose permitted by this Ordinance unless said lot or parcel shall front directly upon a public street, unless otherwise provided for in this Ordinance.	All units front on a proposed private drive within the proposed development, with access to Eight Mile & Garfield Rd	No	<i>RUD allows</i>
Note to District Standards (Sec 3.6.2)				
Area Requirements (Sec. 3.6.2.A)	Lot width shall be measured between the two points where the front setback line intersects the side lot lines. Within the residential districts, where a main building is placed behind the front set back line, the distance between the side lot lines shall not be reduced below ninety 90% of the required minimum lot width at any point between the front setback line and such main building.	Complies	Yes	
Additional Setbacks (Sec 3.6.2.B)	NA – only applicable to non-residential uses	NA	NA	
Exterior Side yard abutting Streets (Sec 3.6.2.C)	All exterior side yards abutting a street shall be provided with a setback equal to the front yard setback requirement of the district in which located and all regulations applicable to a front yard shall apply.	Complies	Yes	
Wetland/Water-course Setback (Sec 3.6.2.M)	25 ft from boundary of a wetland and 25 ft from the ordinary high water mark of a watercourse.	Appears to comply	Yes	
RUD Agreement Requirements (Approved by City Council on February 3, 2014; Sec. 3.29)				

Item	Required Code	Proposed	Meets Code	Comments
Use (<i>RUD Agreement</i>)	The project shall consist of single-family, detached residences.	Complies	Yes	
Lot Conformity (<i>RUD Agreement</i>)	The home sites shall be situated on lots conforming with RA, Residential Acreage, regulations, as made and provided in the RUD provisions within the Zoning Ordinance.	Complies	Yes	
Density (<i>RUD Agreement</i>)	The project shall consist of 41 residential units	Complies	Yes	
Lot Area & Location (<i>RUD Agreement</i>)	The area and location of the lots shall be substantially as shown on the RUD Plan, and in accordance with the approved final site plan	Complies	Yes	
Perimeter Buffer/Transition (<i>RUD Agreement</i>)	Perimeter buffer and transition shall be as approved on the final site plan	Buffer Provided	Yes	
Yard Setbacks (<i>RUD Agreement</i>)	Yard setbacks and lots shall conform to the RA Regulations, as made and provided in the RUD provisions of the Zoning Ordinance, as amended	Complies	Yes	<i>Shall not be lower minimums than R3 Standards</i>
Traffic Circulation (<i>RUD Agreement</i>)	- Boulevard Entrances shall provide access from Eight Mile Road and Garfield Road as shown on the RUD plan and in accordance with the final site plan.	Complies	Yes	
	- Eight Mile Road: A continuous right turn lane on the north side of the road and together with modifications to the existing passing lane and acceleration/deceleration lanes on the south side of Eight Mile Road shall be constructed by the Developer.	Complies	Yes	
	- The entrances to the development shall be gated	Complies	Yes	

Item	Required Code	Proposed	Meets Code	Comments
	<ul style="list-style-type: none"> - The internal streets shall be designed as local residential streets with 60 ft. ROW - All streets in the development shall be private - No residence shall have direct driveway access from or to Eight Mile Road or Garfield Road - Further consideration shall be given to the use of additional traffic-control devices to be determined by the City during final site plan review, and also following construction, drawing upon experiences as they occur in the use of the development - All traffic/road improvements shall be in accordance with the Design & Construction Manual -Construction access shall be directly from Eight Mile Road - An emergency access drive shall be installed on the westerly end of the development and grant the necessary Emergency Access Easement in a form acceptable to the City 	<ul style="list-style-type: none"> Complies Complies Complies Complies, review as necessary Complies Indicated on Plans Complies/ Shall Comply 	<ul style="list-style-type: none"> Yes Yes Yes Yes Yes Yes Yes 	<ul style="list-style-type: none"> <i>See Engineering Review</i> An emergency access drive shall be provided on the westerly end of the development as required in the RUD.
<p>Recreational Areas (RUD Agreement)</p>	<p>Active/Passive recreation areas required and designated on plan. All such areas shall be constructed and maintained by the developer or the association of homeowners created for the project.</p>	<p>Complies</p>	<p>Yes</p>	

Item	Required Code	Proposed	Meets Code	Comments
Open Space <i>(RUD Agreement)</i>	35.7% of the total site area, or approximately 18.17 acres, shall be dedicated to open space.	Indicated on Plans	Yes	
Pedestrian Circulation <i>(RUD Agreement)</i>	- An eight foot wide sidewalk shall be constructed adjacent to the Eight Mile Road frontage of the property	Complies	Yes	Indicate existing sidewalk and proposed sidewalk.
	- An eight foot wide sidewalk shall be constructed adjacent to the Garfield Road frontage of the property	Complies	Yes	
	- In the event that the City constructs any portion of the required sidewalk in connection with a City project before the developer constructs the sidewalk, the developer shall pay the City its proportionate share of the cost of constructing the required sidewalk, which such costs shall not exceed those that would be incurred by the developer if construction had been completed prior to the City's project	Does not comply?	No	Developer may need to pay the City for sidewalk construction along Eight Mile Road.
	- A system of five foot sidewalks on both sides of all internal roads with the project and a wood chip path system (as shown on the RUD plan) shall be constructed by the developer, and thereafter by the developer or the association - Boardwalks required if any pathway passes through a wetland or other natural area (built to City Standard)	Complies	Yes	Verify if a boardwalk is necessary near the Wetland abutting Garfield Road.
Natural Resource Preservation				

Item	Required Code	Proposed	Meets Code	Comments
<p><i>(RUD Agreement)</i></p> <p>Wetlands</p> <p>Woodlands</p>	<p>- The existing wetlands on the site shall be preserved and enhanced with additional supplementary wetland plantings as shown on the RUD Plan, including the removal of existing invasive species and replacement with native wetland plantings.</p> <p>- All wetlands and buffer areas shall be placed into a conservation easement</p> <p>- Approximately 14.26 acres of open space not utilized for stormwater retention or other purposes shall be planted in areas throughout the site, with an estimated 908 woodland replacement trees (resulting in 817 woodland credits)</p> <p>- Those areas of planted woodland trees shall be placed into a conservation easement</p>	<p>Shall comply</p> <p>Shall comply</p> <p>Complies</p> <p>Shall comply</p>	<p>Yes</p> <p>Yes</p> <p>Yes</p> <p>Yes</p>	<p>Include details of replacements and removals. Refer to Environmental Consultant Review.</p> <p><i>See Environmental Consultant Review</i></p> <p><i>See Landscape/Woodland Review</i></p> <p><i>See Landscape/Woodland Review</i></p>
<p>Miscellaneous <i>(RUD Agreement)</i></p>	<p>-Footprints for buildings, including decks, together with an additional 25' buffer area, shall be entirely separated from woodland and wetland preservation areas</p> <p>- Final Site Plan Review: the City and Developer shall mutually agree upon a means by which the preservation areas shall be physically separated from residences and yard</p>	<p>Complies</p> <p>Shall comply, include language in Master Deed</p>	<p>Yes</p> <p>Yes</p>	

Item	Required Code	Proposed	Meets Code	Comments
	areas in a manner that provides adequate notice to the occupants and guests of such residences, and appropriate language shall be included in the Master Deed.			
On and Off-Site Improvements (RUD Agreement)	The Developer shall be solely responsible for all costs and expenses of and associated with such on and off-site improvements.	Complies	Yes	
Stormwater Management (RUD Agreement)	Stormwater shall be released from Ballantyne in a manner to be approved by the City as part of final site plan review	Complies	Yes?	See Engineering Review
Sanitary Sewer (RUD Agreement)	All off-site and on-site facilities shall be provided in order to connect and appropriately serve each lot with public sanitary sewage disposal service, approved by the City and all other governmental entities having jurisdiction	Complies	Yes?	See Engineering Review
Water Supply (RUD Agreement)	At the developer's expense, all required off-site and on-site facilities shall be provided in accordance with final site plan approval in order to connect and appropriately serve each lot with public water service, approved by the City and all other governmental entities having jurisdiction	Complies	Yes?	See Engineering Review
Landscaping and Signage (RUD Agreement)	Landscaping & signage shall be provided as set forth in the final site plan	Complies	Yes?	See Landscape Review

Item	Required Code	Proposed	Meets Code	Comments
Phasing (<i>RUD Agreement</i>)	The project shall be developed in one single phase	1 phase	Yes	
General Provisions (<i>RUD Agreement</i>)	The ZBA shall have no jurisdiction over the property	NA	NA	
Subdivision Ordinance (<i>Appendix C, City Code of Ordinances</i>)				
Blocks (<i>Subdivision Ordinance: Sec. 4.01</i>)	<ul style="list-style-type: none"> - Maximum length for all blocks shall not exceed 1,400 ft. - Widths of blocks shall be determined by the conditions of the layout. 	Complies	Yes	
		Complies	Yes	
Lot Depth Abutting a Secondary Thoroughfare (<i>Subdivision Ordinance: Sec. 4.02.A5</i>)	Lots abutting a major or secondary thoroughfare must have a depth of at least 140'	NA	NA	
Depth to Width Ratio (<i>Subdivision Ordinance: Sec. 4.02.A6</i>)	Lots shall not exceed a 3:1 depth to width ratio	Complies	Yes	
Arrangement (<i>Subdivision Ordinance: Sec. 4.02.B</i>)	<ul style="list-style-type: none"> - Every lot shall front or abut on a street. - Side lot lines shall be at right angles or radial to the street lines, or as nearly as possible thereto. 	Complies	Yes	
Streets (<i>Subdivision Ordinance: Sec. 4.04</i>)	Extend streets to boundary to provide access intervals not to exceed 1,300 ft. unless one of the following exists: <ul style="list-style-type: none"> - practical difficulties because of topographic conditions or natural features - Would create undesirable traffic patterns 	Complies	Yes	
Topographic Conditions (<i>Appendix C of City Code: Subdivision Ordinance Sec 4.03</i>)				

Item	Required Code	Proposed	Meets Code	Comments
A. Floodplain	Compliance with applicable state laws and City Code Areas in a floodplain cannot be platted	NA	NA	
B. Trees and Landscaping	Compliance with Chapter 37 Woodland protection and Article 5 of Zoning Ordinance	Complies	Yes?	<i>See Environmental Consultant Review</i>
C. Natural Features	To be preserved Lots cannot extend into a wetland or watercourse	Complies	Yes?	<i>See Environmental Consultant Review</i>
D. Man-made Features	To be built according to City standards	Complies	Yes	
E. Open Space Areas	Any Open Space Area shall meet the following: - Require performance guarantee - Shall be brought to a suitable grade - Compliance with zoning ordinance - Except for wooded areas, all ground area should be top dressed with a minimum of 25% of red fescue and a maximum of 20% perennial rye.	Complies	Yes?	<i>See Environmental Consultant Review</i>
F. Non-Access Greenbelt Easements	For lots abutting major thoroughfares: - Shall be 15 feet wide - Shall be 20 feet wide where power lines exist	NA	NA	
G. Zoning Boundary Screening	A non-residential development abutting a residential development would need screening	NA	NA	
Other Requirements				
Residential Entryway Lighting (Sec 5.8)	A residential development entrance light must be provided at the entrances to the development off of both entrances	Not shown on plans	No	Indicate whether any entrance lighting is proposed.

Item	Required Code	Proposed	Meets Code	Comments
Corner Clearance (Sec. 5.9)	No fence, wall, plant material, sign or other obstruction to vision above a height of 2 feet from the established street grades shall be permitted within the clear view zone which is the triangular area formed at the intersection of any existing public street right-of-way lines by a straight line drawn between said right-of-way lines at a distance along each line of twenty-five (25) feet from their point of intersection.	Complies	Yes	
Development and Street Names	Development and street names must be approved by the Street Naming Committee before Preliminary Site Plan approval	Name has been approved by Project and Street Naming Committee	Yes	<i>Contact Madeleine Daniels at 248-347-0475 to schedule a meeting with the Committee</i>
Development/ Business Sign	Signage if proposed requires a permit.	<u>Show any proposed signage with the Final Site Plan submittal</u>	NA	<i>For sign permit information contact Maureen Underhill 248-735-5602.</i>
Economic Impact Information	<ul style="list-style-type: none"> - Total cost of the proposed building & site improvements - Home size & expected sales price of new homes 	Not provided	No	Provide updated information for Planning Commission consideration.
Legal Requirements				
Master Deed	Master Deed shall be reviewed and approved by the Community Development Department and City Attorney prior to recording.	Not provided	NA	<u>Provide draft(s) with Electronic Stamping Set Submittal</u>
Conservation Easements	The Applicant shall provide conservation easements for any areas of remaining wetlands and woodland.	Not provided	NA	<u>Provide draft(s) with Electronic Stamping Set Submittal</u>

Item	Required Code	Proposed	Meets Code	Comments
<p>NOTES:</p> <ol style="list-style-type: none">1. This table is a working summary chart and not intended to substitute for any Ordinance or City of Novi requirements or standards.2. The section of the applicable ordinance or standard is indicated in parenthesis. Please refer to those sections in Article 3, 4 and 5 of the zoning ordinance for further details.3. Please include a written response to any points requiring clarification or for any corresponding site plan modifications to the City of Novi Planning Department with future submittals.				

ENGINEERING REVIEW



PLAN REVIEW CENTER REPORT

January 13, 2021

Engineering Review

Ballantyne

JSP20-0038 (formerly JSP13-0043)

Applicant

Todd Rankine

Review Type

Preliminary Site Plan

Property Characteristics

- Site Location: Northwest corner of Eight Mile Road and Garfield Road
- Site Size: 50.85 acres
- Plan Date: 04/16/2014
- **Previous Stamping**
Set Date: **02/27/2015 (site plan approval expired December 2020)**
- Design Engineer: Seiber, Keast Engineering, LLC

Project Summary

- Construction of a 41-unit single family private residential site condominium. Site access would be provided via a primary entrance on Eight Mile Road and a secondary entrance on Garfield Road.
- Water service would be provided by an extension from the existing 12-inch water main on Garfield Road.
- Sanitary sewer service would be provided by an extension from the existing SAD 170 pump station at the northeast corner of Eight Mile Road and Garfield Road, and by furnishing said pump station as the completion of SAD 170.
- Storm water would be detained by two on-site detention basins, with final discharge to the existing Eight Mile Road storm system.

Recommendation

Approval of the Preliminary Site Plan is recommended, with items to be addressed at Final Site Plan submittal.

Comments:

The Preliminary Site Plan meets the general requirements of Chapter 11 of the Code of Ordinances, the Storm Water Management Ordinance, and the Engineering Design Manual with the following exceptions, which can be addressed at Final Site Plan submittal:

General

1. Replace the benchmark labeled as a City benchmark with one currently listed on the City's website at this location:
<https://novi.maps.arcgis.com/apps/webappviewer/index.html?id=5ce841f86197461c9f146e1330330bcf>
2. **Only at the time of the printed Stamping Set submittal**, provide the City's standard detail sheets for water main (5 sheets), sanitary sewer (3 sheets), storm sewer (2 sheets), and paving (2 sheets). The details included with the previous stamping set have been revised. The most updated details can be found on the City's website at this location:
<http://cityofnovi.org/Government/City-Services/Public-Services/Engineering-Division/Engineering-Standards-and-Construction-Details.aspx>
3. As noted on the plans, a right-of-way permit will be required from the City of Novi and Oakland County. Note the City permit had not yet been granted at the time of the previous stamping set, and the issued RCOC permit will need to be revised and renewed.
4. As shown on the previous stamping set, show and label the master planned 43-foot half width right-of-way for Garfield Road.
5. As shown on the previous stamping set, provide a traffic control plan for the proposed road work activity.
6. As shown on the previous stamping set, provide a note that compacted sand backfill (MDOT sand Class II) shall be provided for all utilities within the influence of paved areas, and illustrate and label on the profiles.
7. As shown on the previous stamping set, 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. As shown on the previous stamping set, provide a utility crossing table indicating that at least 18-inch vertical clearance will be provided, or that additional bedding measures will be utilized at points of conflict where adequate clearance cannot be maintained.
9. Where the minimum 18-inch clearance at utility crossings cannot be achieved, provide a prominent note stating the substandard clearance and that proper bedding/encasement will be determined by the inspecting engineer.
10. As shown on the previous stamping set, provide a note stating if dewatering is anticipated or encountered during construction, then a dewatering plan must be submitted to the Engineering Division for review.

11. Provide a backflow prevention device on all irrigation systems. The backflow prevention device shall be an RPZ, or another approved device based on site conditions such as irrigation head heights (pop-ups), grade changes, berms etc. Installation of the backflow preventer shall be in such a manner as to not require blowing out the system through the backflow preventer. Drain ports and blow out ports shall be included. Please contact Kevin Roby in the Water and Sewer Division at 248-735-5640 with any questions.

Water Main

12. Provide all profiles, pipe labels, and other information as designed for the previous stamping set and as submitted for the issued EGLE permit.

Sanitary Sewer

13. Provide all profiles, pipe labels, and other information as designed for the previous stamping set and as submitted for the issued EGLE permit, except:
 - a. Sanitary sewer easements shall be a minimum of 20 feet wide. Since the streets are proposed as private, there is no right-of-way to make up the difference for the 15-foot-wide easements proposed.
 - b. Unless substantial changes to the pipe layout/profiles are proposed for (a.) above, no change to the permit is anticipated.
14. Per section XV. "Sanitary Sewer" of the site's 2014 RUD agreement, the Developer may be required to complete the SAD 170 pump station improvements and, in turn be reimbursed from the SAD.

Storm Sewer

15. Provide all profiles, pipe labels, and other information as designed for the previous stamping set.
16. Ensure the 10-year HGL remains at least 1 foot below the rim of each structure, or else provide justification. Structures #21, 22, 30, 31, 32, 33, and 34 on the previous stamping set did not meet this requirement.

Storm Water Management Plan

17. The Storm Water Management Plan (SWMP) for this development shall be designed in accordance with the Storm Water Ordinance and Chapter 5 of the Engineering Design Manual.
18. As proposed in the Preliminary Site Plan, the detention basins providing three feet of storage below the permanent/low water level is sufficient for providing sedimentation. Sedimentation forebays *in addition to* the basin storage are allowable, but not required.
19. As shown on the previous stamping set, an adequate maintenance access route to the basin outlet structure shall be provided (15 feet wide, maximum slope of 1V:5H, and able to withstand the passage of heavy equipment). Verify the access route does not conflict with proposed landscaping.
20. As shown on the previous stamping set, provide a 5-foot-wide stone bridge/access route allowing direct access to each standpipe from the bank of each basin during high-water conditions (i.e. stone 6-inches above high

- water elevation). Show and note in both plan view and on the Detention Basin Sediment Filter Detail on sheet 4.
21. As part of the Storm Drainage Facility Maintenance Easement Agreement, 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.
 22. As shown on the previous stamping set, provide release rate calculations for the three design storm events (first flush, bank full, 100-year). Be aware the bankfull volume detention time must be between 24 and 40 hours.
 23. Due to maintenance concerns, each restricting orifice in the control structure shall be a minimum of **1 square-inch in size**, even though this may result in a flow rate above that calculated.
 24. The flow restriction shall be accomplished by methods other than a pipe restriction in an oversized pipe due to the potential for clogging and restrictor removal. A perforated standpipe, weir design, baffle wall, etc. should be utilized instead.
 25. Provide soil borings in the vicinity of each storm water basin to determine soil conditions and to establish the high water elevation of the groundwater table. Note the bottom of the detention facility must be a minimum of three (3) feet above the groundwater elevation.
 26. Provide supporting calculations for the overall runoff coefficient determination. A runoff coefficient of 0.35 shall be used for all turf grass lawns (mowed lawns) and 0.95 shall be used for all impervious surfaces.
 27. A 4-foot-wide safety shelf is required one foot below the permanent water surface elevation within the basin.
 28. As shown on the previous stamping set, a 25-foot vegetated buffer shall be provided around the perimeter of each storm water basin. This buffer cannot encroach onto adjacent lots or property.

Paving & Grading

29. Provide a construction materials table on the Paving Plan listing the quantity and material type for each pavement cross-section being proposed.
30. **Revise plans to reflect the now-existing, eight-foot-wide Eight Mile Road frontage sidewalk. Per section IX. "Pedestrian Circulation" of the site's 2014 RUD agreement, the Developer may be required to pay the City its proportionate share of the cost of constructing the required sidewalk.**
31. As shown on the previous stamping set, provide a minimum of 6 spot elevations where the pathway crosses each driveway (one at each corner and two in the center of the driveway on each side of the pathway). Spot elevations shall be provided to demonstrate a level landing adjacent to each side of the pathway crossing.
32. Revise the pathway cross-section to indicate a maximum cross-slope of 2%.
33. As shown on the previous stamping set, provide a pathway connection to the west along the emergency access drive.

34. As shown on the previous stamping set, provide an emergency access gate at the end of the proposed emergency access drive. The City's break-away gate detail (Figure VIII-K) can be found in Section 11-194 of the Code of Ordinances.
35. Provide a note on the plan stating that the emergency access gate is to be installed and closed prior to the issuance of the first building permit in the subdivision.
36. Provide the latest version of the MDOT standard detail for detectable surfaces.
37. Specify the product proposed and provide a detail for the detectable warning surface for barrier free ramps. The product shall be the concrete-embedded detectable warning plates, or equal, and shall be approved by the Engineering Division. Stamped concrete will not be acceptable.
38. Provide existing and proposed contours on the Grading Plan at the time of the Final Site Plan submittal.
39. Provide at least 3-foot of buffer distance between the sidewalk and any fixed objects, including hydrants and irrigation backflow devices. Include a note on the plan where the 3-foot separation cannot be provided.
40. Show proposed grades for all adjusted sanitary, water, and storm structures.
41. The sidewalks continuing through the drive approaches within the right-of-way shall be striped through the approaches. As shown on the previous stamping set, provide additional spot grades as necessary to verify the maximum 2-percent cross-slope is being maintained along the walk.
42. Revise the on-site road cross-section to 1.5 inches of MDOT 5E1 on 2.5 inches of MDOT 3C on 8 inches of 21AA [limestone only if within 100 feet of a watercourse] aggregate base.
43. The City standard straight-faced curb (MDOT F-4 curb detail) shall be provided.
44. Provide top of curb/walk and pavement/gutter grades to indicate height of curb adjacent to drive areas.
45. Add the maximum 2-percent cross-slope to the sidewalk detail.
46. Soil borings along the proposed road will be required at 500-foot intervals per Section 11-195(d) of the Design and Construction Standards.
47. Per Section 26.5-35(c), a statement is required on any plan containing a private street with the following language: "City of Novi has no responsibility to improve or maintain the private streets contained within or private streets providing access to the property described in this plan".

Flood Plain

48. The 100-year flood plain does not appear to traverse the site.

Soil Erosion and Sediment Control

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

The following must be submitted with the Final Site Plan:

50. 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. **Additionally, a statement must be provided stating that all changes to the plan have been discussed in the applicant's response letter.**
51. An itemized construction cost estimate must be submitted to the Community Development Department 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 estimate must be itemized** for each utility (water, sanitary, storm sewer), on-site paving (square yardage), right-of-way paving (including proposed right-of-way), grading, and the storm water basin (basin construction, control structure, pre-treatment structure and restoration).

The following must be submitted with the Stamping Set:

(Please note that all documents must be submitted together as a package with the Stamping Set submittal with a legal review transmittal form that can be found on the City's website. Partial submittals will not be accepted.)

52. A draft copy of the Storm Drainage Facility Maintenance Easement Agreement (SDFMEA), as outlined in the Storm Water Management Ordinance, must be submitted to the Community Development Department. Once the agreement is approved by the City's Legal Counsel, this agreement will then be sent to City Council for approval/acceptance. The SDFMEA will then be recorded at the office of the Oakland County Register of Deeds. This document is available on our website.
53. A draft copy of the 20-foot wide easement for the water main to be constructed onsite must be submitted to the Community Development Department. This document is available on our website.
54. A draft copy of the 20-foot wide easement for the sanitary sewer to be constructed onsite must be submitted to the Community Development Department. This document is available on our website.
55. A draft copy of the warranty deed for the additional proposed 43-foot wide right-of-way along Garfield Road must be submitted for review and acceptance by the City.

The following must be addressed prior to construction:

56. A pre-construction meeting shall be required prior to any site work being started. Please contact Sarah Marchioni in the Community Development Department to setup a meeting (248-347-0430). **Be advised that scheduling the pre-construction meeting can take 2-4 weeks.**
57. A City of Novi Grading Permit will be required prior to any grading on the site. This permit will be issued at the pre-construction meeting (no application required). No fee is required for this permit.
58. Material certifications must be submitted to Spalding DeDecker for review prior to the construction of any onsite utilities. Contact Ted Meadows at 248-844-5400 for more information.
59. Construction inspection fees in an amount to be determined must be paid to the Community Development Department.
60. Legal escrow fees in an amount to be determined must be deposited with the Community Development Department. **All unused escrow will be returned to the payee at the end of the project.** This amount includes engineering legal fees only. There may be additional legal fees for planning legal documents.
61. A storm water performance guarantee in an amount to be determined (equal to 120% of the cost required to complete the storm water management facilities) as specified in the Storm Water Management Ordinance must be posted at the Community Development Department.
62. 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.
63. A street sign financial guarantee in an amount to be determined (\$400 per traffic control sign proposed) must be posted at the Community Development Department. Signs must be installed in accordance with MMUTCD standards.
64. A Soil Erosion Control Permit must be obtained from the City of Novi. Contact Sarah Marchioni in the Community Development Department, Building Division (248-347-0430) for forms and information. The financial guarantee and inspection fees will be determined during the SESC review.
65. A permit for all proposed work activities within the road right-of-way must be obtained from the City of Novi. This application is available from the City Engineering Division or on the City website and can be filed once the Final Site Plan has been submitted. Please contact the Engineering Division at 248-347-0454 for further information. Please submit the cover sheet, standard details, and plan sheets applicable to the permit only.
66. A permit for work within the Eight Mile Road right-of-way must be obtained from the Road Commission for Oakland County (RCOC). Please contact the

- RCOC (248-858-4835) directly with any questions. The applicant must forward a copy of this permit to the City. Provide a note on the plans indicating all work within the road right-of-way will be constructed in accordance with the RCOC standards. **Be advised that review by the RCOC may take four weeks or longer.**
67. A permit for water main construction has been obtained from EGLE (#144300 / W184014).
 68. A permit for sanitary sewer construction has been obtained from EGLE (1008259 / P41001316).
 69. An NPDES permit must be obtained from EGLE since the site is over 5 acres in size. EGLE may require an approved SESC plan to be submitted with the Notice of Coverage.
 70. An inspection permit for the sanitary sewer tap must be obtained from the Oakland County Water Resources Commissioner (OCWRC).
 71. An incomplete site work performance guarantee in an amount to be determined (equal to 1.2 times the amount required to complete the site improvements, excluding the storm water facilities), as specified in the Performance Guarantee Ordinance, must be posted at the Community Development Department. This guarantee will be reduced prior to the Temporary Certificate of Occupancy (TCO), at which time it will be based on the percentage of construction completed.

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

72. All easements and agreements referenced above must be executed, notarized, and approved by the City Attorney and Engineering Division.
73. A Bill of Sale for the utilities conveying the improvements to the City of Novi must be submitted to the Community Development Department. This document is available on our website.
74. The City's consultant Engineer Spalding DeDecker will prepare the record drawings for this development. The record drawings will be prepared in accordance with Article XII, Design and Construction Standards, Chapter 11 of the Novi Code of Ordinances.
75. Submit to the Community Development Department, Waivers of Lien from any parties involved with the installation of each utility as well as a Sworn Statement listing those parties and stating that all labor and material expenses incurred in connection with the subject construction improvements have been paid.
76. Submit an up-to-date Title Policy (dated within 90 days of City Council consideration of acceptance) for the purpose of verifying that the parties signing the Easement and Bill of Sale documents have the legal authority to do so. Please be sure that all parties of interest shown on the title policy

(including mortgage holders) either sign the easement documents themselves or provide a Subordination Agreement. Please be aware that the title policy may indicate that additional documentation is necessary to complete the acceptance process.

77. Provide a warranty deed for the additional proposed road right-of-way along Garfield Road for acceptance by the City.

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

To the extent this review letter addresses items and requirements that require the approval of or a permit from an agency or entity other than the City, this review shall not be considered an indication or statement that such approvals or permits will be issued.

Please contact Victor Boron at (248) 735-5695 with any questions.



Victor Boron
Project Engineer

cc: Christian Carroll, Community Development
Ben Croy, P.E., Engineering
Kate Richardson, Engineering



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 dams as necessary. Drainage ditches steeper than 3% shall be sodded.	<input type="checkbox"/>	

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:

LANDSCAPE & WOODLAND REVIEW



PLAN REVIEW CENTER REPORT
February 12, 2021
Ballantyne
Preliminary Site Plan – Landscaping & Woodlands

Review Type

Preliminary Landscape Review

Job #

JSP20-0038

Property Characteristics

- Site Location: NW corner of 8 Mile Road and Garfield
- Site Acreage: 50.85 ac.
- Site Zoning: R-A
- Adjacent Zoning: North, East, South, West: R-A
- Plan Date: 4/24/2014

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 Final Site Plan submittal. These are summaries and are not intended to substitute for any Ordinance. Please follow guidelines of the Zoning Ordinance and Landscape Design Guidelines.

Recommendation

This project is **recommended for approval for Preliminary Site Plan if the plan can be revised to remove the one unsupported waiver noted below.** The revisions noted in this letter and the landscape chart can be addressed on Final Site Plans. Please follow the revised ordinance and landscape design manual in revising the plans.

LANDSCAPE WAIVERS REQUIRED FOR PROPOSED PLAN:

- A landscape waiver is required for the deficiency in greenbelt width between 8 Mile Road and the south detention pond. *It is supported by staff as the layout matches that in the approved RUD.*
- A landscape waiver is required for any deficiency in interior street trees provided. *It is not supported by staff but can be eliminated with conformance to the current ordinance requirements.*

RECENTLY REVISED ORDINANCE AND LANDSCAPE DESIGN MANUAL CAN BE FOUND AT:

- Landscape Ordinance: <https://www.cityofnovi.org/Reference/Code-of-Ordinances-and-City-Charter/Ordinance-18-293.aspx>
- Landscape Design Manual: <https://www.cityofnovi.org/Reference/Code-of-Ordinances-and-City-Charter/LandscapeDesigManual.aspx>

Please revise the plan calculations and plantings per the current ordinance and landscape design manual.

Ordinance Considerations

Existing topography (LDM 10)

Please provide an up-to-date topographical survey of the site without any proposed improvements.

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

Existing Trees (Sec 37 Woodland Protection, Preliminary Site Plan checklist #17 and LDM 2.3 (2)) & Wetlands (Sec 12)

Please provide an up-to-date tree survey and chart, and wetland delineation.

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

The project is not adjacent to any non-residential property so no screening buffer is required.

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

1. **Please revise the calculations per the revised ordinance.**
2. **Please provide the required 4-foot tall undulating berm along both frontages and show the actual contours for it.**
3. **Please reconfigure the southern pond to widen the space between the 8 Mile right-of-way and the south detention pond access drive to 34 feet, or as close to that as possible. Additional greenbelt plantings in that area would provide additional privacy and audible buffering from 8 Mile Road for the development. It's not required as the layout matches that approved in the RUD, but is requested and suggested.**
4. **Please provide details for the entry walls and decorative fencing along the frontages.**

Interior Street Trees for Residential Subdivisions (Zoning Sec 5.5.3.F and LDM 2)

1. Per the new ordinance, 239 deciduous canopy trees are required but only 219 are provided.
2. **Please revise the calculations per the current ordinance**
3. **Please provide the required trees.**

Woodland Replacement Trees (Section 37)

1. Currently 1320 trees, including 444 evergreen trees, are shown as woodland replacement trees on the plan, for a total of 1173 credits.
2. The applicant is permitted to reduce the number of replacement tree credits shown to just the 816 replacement credits required by the RUD.
3. Per the current ordinance, a maximum of 10% of the credits planted, or 82 trees, can be evergreens.
4. **Please revise the plan to meet the above notes.**

Plant List (LDM 4, 11)

1. Provided
2. 9 of 34 species used (26%) are native to Michigan. **Please revise the species composition such that at least 50% (preferably more) of the non-woodland replacement species used are native to Michigan.**
3. **Please remove *Pyrus calleryana* and *Ligustrum x 'Vicary'* from the plant list as they are prohibited species.**
4. **Do not use Armstrong maple as a deciduous canopy tree as its mature canopy width is less than 20 feet.**
5. The plan is generally in conformance with the Landscape Tree Diversity Standards (LDM 4), but *Acer rubrums* total 63 trees (11.4% of the total number of trees) and the limit for a species is 10%. **Please reduce the number of *Acer rubrums* used in the plan.**
6. **Please do not use *Liquidambar styraciflua* or *Tsuga canadensis* as woodland replacement trees as they are no longer on the Woodland Replacement Chart.**
7. Evergreens currently comprise 25% of the trees proposed that must meet the requirements of Section 37-8 and the landscape design manual as they were originally proposed as required woodland replacement trees. **Please don't use evergreen trees for**

more than 10% of the woodland replacement and "extra" credits planted to conform to the Landscape Design Manual.

Planting Notations and Details (LDM)

1. Provided
2. **Please break out mulch and woodland replacement trees from the other miscellaneous costs in the cost table.**
3. **Please respond to the other comments regarding notes and details on the landscape chart.**

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

1. **Please add shrubs around both ponds per the revised ordinance.**
2. **Please ensure that trees meeting the new requirement (LDM 3a) are located to meet that requirement.** Woodland replacement trees can be used to meet the requirement, and they do not need to be arranged in a line – some variation would actually be preferred to create a more natural look.
3. **Please identify all areas of the site with *Phragmites australis* and/or *Japanese Knotweed*.** If any is found, please show the locations on the topographic survey and add a plan for their removal to the plans. If none is found, please note that on the landscape plans.

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

1. The proposed landscaping must be provided with sufficient water to become established and survive over the long term.
2. **Please provide an irrigation plan or note how this will be accomplished if an irrigation plan is not provided on Final Site Plans.**
3. **If an irrigation system will be provided, an actual irrigation plan must be provided in the Final Site Plans.**

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



Rick Meader – Landscape Architect

LANDSCAPE & WOODLAND REVIEW SUMMARY CHART

Project name: JSP20-0038: Ballantyne
 Property size: 50.85 acres
 Plan Date: April 24, 2014
 Review Date: February 12, 2021
 Reviewed by: Rick Meader, Landscape Architect, LLA rmeader@cityofnovi.org, (248) 735-5621

Items in **Bold** need to be addressed by the applicant on the Final Site Plans.

RECENTLY REVISED ORDINANCE AND LANDSCAPE DESIGN MANUAL CAN BE FOUND AT:

- Landscape Ordinance: <https://www.cityofnovi.org/Reference/Code-of-Ordinances-and-City-Charter/Ordinance-18-293.aspx>
- Landscape Design Manual: <https://www.cityofnovi.org/Reference/Code-of-Ordinances-and-City-Charter/LandscapeDesigManual.aspx>

Please revise the calculations and provide the plantings required by the current ordinance on Final Site Plans.

LANDSCAPE WAIVERS REQUIRED FOR PROPOSED PLAN:

- A landscape waiver is required for the deficiency in greenbelt width between 8 Mile Road and the south detention pond. *It is supported by staff because the layout was previously approved as part of the RUD agreement.*
- A landscape waiver is required for any deficiency in interior street trees provided. *It is not supported by staff but can be corrected on Final Site Plans.*

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 	<ul style="list-style-type: none"> ▪ Overall plan 1" = 80' ▪ Frontage plans and other detail plans 1"=30' 	Yes	
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/PLA/LLA who	<ul style="list-style-type: none"> ▪ Calvin Hall & Associates is shown on the 	No	1. Calvin Hall & Associates are no longer in business.

Item	Required	Proposed	Meets Code	Comments
	created the plan	cover sheet <ul style="list-style-type: none"> ▪ Felino A. Pascual & Associates on the plans. 		2. Please change the cover sheet to show Felino A. Pascual & Associates.
Sealed by LA. (LDM 2.g.)	Requires original signature	No		<u>Live signature is required on stamping sets.</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	Site: RA North, East & West: RA South: RA & Northville Twp	No	Please show zoning of adjacent parcels on Sheet LS-1
Survey information (LDM 2.c.)	<ul style="list-style-type: none"> ▪ Legal description or boundary line survey ▪ Existing topography 	<ul style="list-style-type: none"> ▪ Description on Cover Sheet ▪ No topographical survey is provided 	<ul style="list-style-type: none"> ▪ Yes ▪ No 	Please provide a complete and up-to-date topographical survey with no site improvements shown.
Existing plant material Existing woodlands or wetlands (LDM 2.e.(2))	<ul style="list-style-type: none"> ▪ Show location type and size. Label to be saved or removed. ▪ Plan shall state if none exists. 	<ul style="list-style-type: none"> ▪ No tree survey is provided. ▪ Sheet 2 shows the site's sole wetland as surveyed in 2014. 	<ul style="list-style-type: none"> ▪ No ▪ No 	<ol style="list-style-type: none"> 1. Please provide a current tree survey of all trees 8" dbh or greater on the site, along Garfield Road and 8 Mile Road and within 50 feet of disturbance. The survey should include a chart including each tree's number, species, size (dbh) and whether it will be saved or removed. 2. Please clearly show all trees to be removed on the Demolition Plan, which also needs to be provided. 3. Please provide a current wetland delineation.
Soil types (LDM.2.r.)	<ul style="list-style-type: none"> ▪ As determined by Soils survey of Oakland Co. ▪ Show types, boundaries 	Sheet 2	Yes	
Existing and proposed improvements	Existing and proposed buildings, easements, parking spaces,	Yes	Yes	

Item	Required	Proposed	Meets Code	Comments
(LDM 2.e.(4))	vehicular use areas, and R.O.W			
Existing and proposed utilities (LDM 2.e.(4))	<ul style="list-style-type: none"> Overhead and underground utilities, including hydrants Proposed light fixtures 	<ul style="list-style-type: none"> Utility lines and structures are provided. Light posts are not provided 	<ul style="list-style-type: none"> Yes No 	<ol style="list-style-type: none"> Please clearly show and call out the overhead utility lines along 8 Mile Road. Please add proposed light posts to the plan
Proposed grading. 2' contour minimum (LDM 2.e.(1))	Provide proposed contours at 2' interval	Only existing contours, proposed detention pond contours and some faint conceptual berm contours are provided.	No	Please show proposed contours for the entire site on the Landscape Plan
Snow deposit (LDM.2.g.)	Show snow deposit areas on plan	No	No	Please show areas for snow deposits.
LANDSCAPING REQUIREMENTS				
Parking Area Landscape Requirements LDM 1.c. & Calculations (LDM 2.o.)				
General requirements (LDM 1.c)	<ul style="list-style-type: none"> Clear sight distance within parking islands No evergreen trees 	NA		
Name, type and number of ground cover (LDM 1.c.(5))	As proposed on planting islands	NA		
General (Zoning Sec 5.5.3.C.ii)				
Parking lot Islands (a, b. i)	<ul style="list-style-type: none"> A minimum of 300 SF to qualify 6" curbs Islands minimum width 10' BOC to BOC 	NA		
Curbs and Parking stall reduction (c)	Parking stall can be reduced to 17' and the curb to 4" adjacent to a sidewalk of minimum 7 ft.	NA		
Contiguous space limit (i)	Maximum of 15 contiguous spaces	NA		
Plantings around Fire Hydrant (d)	No plantings with matured height greater than 12' within 10 ft. of fire hydrants or other utility structures, and 5 feet from underground utility lines	It appears that trees are correctly spaced.	Yes	<ol style="list-style-type: none"> Please add a note to all sheets with plantings clearly stating that trees must be planted at least 10 feet from utility structures and 5 feet from underground utility lines. Please show lines a

Item	Required	Proposed	Meets Code	Comments
				little heavier so conflicts can more easily noticed and corrected.
Landscaped area (g)	Areas not dedicated to parking use or driveways exceeding 100 sq. ft. shall be landscaped	NA		
Clear Zones (LDM 2.3.(5))	<ul style="list-style-type: none"> ▪ 25 ft corner clearance required at Garfield Road entry. Refer to diagram from Section 5.5.9 ▪ RCOC guidelines to determine required clear vision zone for 8 Mile Road entry. 	City of Novi clear vision zones are shown for both entries	Yes/No	Please show the Road Commission for Oakland County required clear vision zone at the 8 Mile Road entry since it is under their jurisdiction and locate trees per that clear vision zone.
Berms, Walls and ROW Planting Requirements				
Berms				
<ul style="list-style-type: none"> ▪ All berms shall have a maximum slope of 33%. Gradual slopes are encouraged. Show 1ft. contours ▪ Berm should be located on lot line except in conflict with utilities. ▪ Berms should be constructed with 6" of topsoil. 				
Residential Adjacent to Non-residential (Zoning Sec 5.5.3.A and LDM 1.a)				
Berm requirements (Zoning Sec 5.5.A)	Adjacent Zoning is RA	NA		
Planting requirements (LDM 1.a.)	LDM Novi Street Tree List	NA		
Adjacent to Public Rights-of-Way (Zoning Sec 5.5.3.A and LDM 1.b)				
Cross-Section of Berms (Zoning Sec 5.5.3.B and LDM 2.j)				
Slope, height and width (Zoning Sec 5.5.3.A.v)	<ul style="list-style-type: none"> ▪ Label contour lines ▪ Maximum 33% slope ▪ Min. 4 feet crest 	None provided	No	Please provide a standard cross-section for the right-of-way greenbelt berms.
Type of Ground Cover		Seed indicated on plan view	Yes	Please indicate cover on cross section
Setbacks from Utilities	Overhead utility lines and 15 ft. setback from edge of utility or 20 ft. setback from closest pole	No	No	Please show all overhead utilities – existing or proposed, and dimension closest trees.
Walls (LDM 2.k & Zoning Sec 5.5.3.vi)				
Material, height and type of construction footing	Freestanding walls should have brick or stone exterior with masonry or concrete interior	None proposed		
Walls greater than 3		NA		

Item	Required	Proposed	Meets Code	Comments
½ ft. should be designed and sealed by an Engineer				
ROW Landscape Screening Requirements (Sec 5.5.3.B. ii)				
Greenbelt width (2)(3) (5)	34 ft./40 foot non-access easement	<ul style="list-style-type: none"> ▪ 8 Mile Rd: 10 ft min to detention pond access path ▪ Garfield Rd: 53' min 	<ul style="list-style-type: none"> ▪ No ▪ Yes 	<ol style="list-style-type: none"> 1. If possible, please reconfigure the southeast detention pond to provide the required 34 feet between the pond access drive and the right-of-way line for the required greenbelt. 2. As the proposed configuration was approved as part of the RUD, this is not required, but the appearance of the subdivision from 8 Mile Road, and the additional quiet and privacy from additional 8 Mile Road screening south of the pond would be a benefit to the subdivision.
Min. berm crest width	4 ft.	Notes indicate a 4 foot berm with 4 foot crest but correct contours are not provided	TBD	Please show the correct contours, showing a meandering, undulating berm with 4 feet crest
Minimum berm height (9)	4 ft.	See above	TBD	See above
3' wall (4) (7)	NA	Decorative walls are proposed at the entries and a decorative fence is proposed along the frontages.	TBD	<u>Please provide details for the walls and fence in the landscape plans.</u>
Canopy deciduous or large evergreen trees (Sec 5.5.3.B)	<ul style="list-style-type: none"> ▪ 1 tree per 40 l.f.; ▪ 8 Mile Road (408-84)/40= 8 trees ▪ Garfield Road (2497-88)/40 = 60 trees 	<u>8 Mile Road:</u> 11 <u>Garfield Road:</u> 68 trees	<ul style="list-style-type: none"> ▪ Yes ▪ Yes 	<ol style="list-style-type: none"> 1. Please correct the calculations per the newly revised ordinance. 2. If the applicant wishes to reduce the number of trees provided per the revised ordinance,

Item	Required	Proposed	Meets Code	Comments
				they may
Sub-canopy deciduous trees (Sec 5.5.3.B)	<ul style="list-style-type: none"> ▪ 1 tree per 25 l.f.; ▪ 8 Mile Road (408-84)/25= 13 trees ▪ Garfield Road (2497-88)/25 = 96 trees 	<p><u>8 Mile Road:</u> 20 trees</p> <p><u>Garfield Road:</u> 119 trees</p>	<ul style="list-style-type: none"> ▪ Yes ▪ Yes 	<ol style="list-style-type: none"> 1. Please correct the calculations per the newly revised ordinance. 2. If the applicant wishes to reduce the number of trees provided per the revised ordinance, they may
Street Trees (Sec 5.5.3.B and LDM 2)	<p><u>External Trees</u></p> <ul style="list-style-type: none"> ▪ 1 tree per 35 l.f.; ▪ 8 Mile Road (408-xx)/35= xx trees ▪ Garfield Road (2497-96)/35 = 69 trees <p><u>Internal streets</u> 1 tree per 35 lf of street frontage (including cul-de-sacs and eyebrows) 8353lf/35 = 239 trees</p>	<p><u>8 Mile Road:</u> 10 trees</p> <p><u>Garfield Road:</u> 72 trees</p> <p><u>Internal streets:</u> 219 trees</p>	<ul style="list-style-type: none"> ▪ Yes ▪ Yes ▪ No 	<p><u>External Trees</u></p> <ol style="list-style-type: none"> 1. Revise the calculations per the newly revised ordinance. 2. Provide the required trees <p><u>Internal Streets</u></p> <ol style="list-style-type: none"> 1. Revise the calculations per the revised Landscape Design Manual. NOTE: The requirement has changed since the plan was originally approved. 2. Provide the required trees 3. Please use trees with a mature canopy width of at least 20 feet. Armstrong Maples are too narrow.
Island & Boulevard Planting LDM	<ul style="list-style-type: none"> ▪ Must be landscaped & irrigated ▪ Mix of canopy/sub-canopy trees, shrubs, groundcovers, etc. ▪ No plant materials between heights of 3-6 feet as measured from street grade 	Trees shown in all islands, additional plantings in entry islands		Please add some shrubs or other smaller plantings to the islands in the cul-de-sac and the eyebrows.
Woodland Replacements Section 37 – Woodland Protection	<ul style="list-style-type: none"> ▪ On May 29, 2013, Planning Commission approved Oberlin site plan (JSP 12-33) and Woodland permit 	<ul style="list-style-type: none"> • The plans show a total of 1320 trees planted as replacement trees, 444 of 	Yes	<ol style="list-style-type: none"> 1. The number of total credits required to be planted is 816, so the number of “replacement” tree

Item	Required	Proposed	Meets Code	Comments
	<p>conditions include 816 trees to be planted on Ballantyne site. After further calculations, it was determined that a total of 1173 trees are counted towards woodlands replacements. Stamping sets for Ballantyne indicate 1173 woodland replacements and RUD agreement indicates 816 trees.</p> <ul style="list-style-type: none"> ▪ When Oberlin was developed, the developers paid all the money that is required for off-site replacements into tree fund. ▪ On June 28, 2017 Planning Commission approved woodland permit for 'Bolingbroke' site allowing 537 off-site replacements to be planted on Ballantyne site. ▪ In 2018, Singh paid into the tree fund for the 537 replacement trees ▪ Per the original RUD, 816 credits are still required to be planted on the site as supplemental trees to the other landscape requirements. Those trees must follow the standards for woodland replacement trees since that was the original purpose of those trees. 	<p>which were evergreen trees that only account for 297 credits (444x0.67 credits per tree)</p> <ul style="list-style-type: none"> • Total credits proposed = 876 deciduous credits + 297 evergreen credits = 1173 credits 		<p>credits provided can be reduced to 816.</p> <ol style="list-style-type: none"> 2. Only 10% of the replacement credits can be evergreens, so a maximum of 122 evergreen trees can be used as "replacements". Fewer can be used, but not more. 3. The above limitation regarding evergreens does not carry over to greenbelt plantings. 4. Please see the notes regarding the species composition of trees used in the Plant List discussion below.
<p>Transformers/Utility boxes <i>(LDM 1.e from 1</i></p>	<ul style="list-style-type: none"> ▪ A minimum of 2ft. separation between box and the plants 	<p>None shown</p>	<p>TBD</p>	<ol style="list-style-type: none"> 1. When location of transformer/utility boxes is determined,

Item	Required	Proposed	Meets Code	Comments
through 5)	<ul style="list-style-type: none"> ▪ Ground cover below 4" is allowed up to pad. ▪ No plant materials within 8 ft. from the doors 			<ul style="list-style-type: none"> add landscaping per city requirements. 2. Add a note to this effect to the plans. 3. Please revise the detail on the plans to match the attached detail. 4. Add an estimate of the shrubs necessary for the utility boxes to the plant list and cost estimate.
Detention/Retention Basin Requirements (Sec. 5.5.3.E.iv)				
<p>Planting requirements (Sec. 5.5.3.E.iv, LDM 3))</p>	<ul style="list-style-type: none"> ▪ Clusters of large native shrubs shall cover 70-75% of the basin rim area at 10 feet from the bottom or permanent water level. ▪ Canopy trees at 1/35 lf measured at 10 feet above the bottom or permanent water level around the east, west and south sides of the basins -woodland replacement trees may be used to meet this requirement. ▪ 10" to 14" tall grass along sides of basin ▪ Refer to wetland for basin mix 	<ul style="list-style-type: none"> ▪ It appears that less than 70% of the basins have the required shrubs. ▪ It appears that the woodland replacements, as placed, may meet the requirement for the trees. 	<ul style="list-style-type: none"> ▪ No ▪ Yes 	<ol style="list-style-type: none"> 1. Please add the calculation for the trees that are now required. 2. Please provide the required trees around the east, south and west sides of the basins. 3. Please provide sufficient shrub coverage, located per the new requirements in the Landscape Design Manual 4. Please add notes for the proper site preparation, seeding and maintenance of the seeded areas. A sample is attached. 5. Please add a note to the plans near the seed mixes stating that the landscaper shall send proof of the seed mixes being used prior to putting it down – invoices and/or photos of the seed bags are sufficient.
<p>Phragmites and Japanese Knotweed Control (Sec 5.5.6.B.i)</p>	<ul style="list-style-type: none"> ▪ Any and all populations of Phragmites australis and/or Japanese 	None indicated	TBD	<ol style="list-style-type: none"> 1. Please survey the site for any populations of Phragmites australis and show its

Item	Required	Proposed	Meets Code	Comments
	Knotweed on site shall be included on tree survey. ▪ Treat populations per MDEQ guidelines and requirements to eradicate the weed from the site.			location on the topographic survey or landscape plan. 2. If some is found, add plans for its removal. 3. If none is found, please indicate that on the survey.
LANDSCAPING NOTES, DETAILS AND GENERAL REQUIREMENTS				
Landscape Notes – Utilize City of Novi Standard Notes				
Installation date <i>(LDM 2.i. & Zoning Sec 5.5.5.B)</i>	Intended dates of planting should be between Mar 15 – Nov 15	▪ Dec plants – Mar 1-Jun 1 and Oct 1 until soil is frozen ▪ Evergreen plants Mar 1 – Jun1	Yes	Please correct the year stated in City of Novi Landscape Note General Note #6
Maintenance & Statement of intent <i>(LDM 2.m & Zoning Sec 5.5.6)</i>	▪ 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.	No	No	1. Please add cultivation note. 2. Please revise Landscape Maintenance note #4 to state that all plantings shall be replaced within 3 months, not 6 months
Plant source <i>(LDM 2.n & LDM 3.a.(2))</i>	Shall be northern nursery grown, No.1 grade	Yes	Yes	
Irrigation plan <i>(LDM 2.s.)</i>	A fully automatic irrigation system and a method of draining is required with Final Site Plan or alternative means of providing sufficient water for plant establishment and long-term survival	No		Need for final site plan
Other information <i>(LDM 2.u)</i>	Required by Planning Commission	Woodchip paths are shown but not dimensioned	TBD	Please show the width and depth of the woodchip paths on the site.
Establishment period <i>(Zoning Sec 5.5.6.B)</i>	2 yr. Guarantee	Yes	Yes	
Approval of substitutions. <i>(Zoning Sec 5.5.5.E)</i>	City must approve any substitutions in writing prior to installation.	Yes	Yes	Please add "in writing" to General Landscape Note #6.
Plant List (LDM 4, 11) – Include all cost estimates				
Quantities and sizes	See Table 11.b.(2)(a).i	Shown in plant lists	Yes	
Root type	▪ B&B or Cont	Shown in plant lists	Yes	

Item	Required	Proposed	Meets Code	Comments
Botanical and common names	<ul style="list-style-type: none"> ▪ Species native to Michigan shall constitute at least 50% (preferably more) of the plants used, not including woodland replacements or seed mix species. ▪ The "extra" trees that were formerly woodland replacement trees shall be selected from the Woodland Replacement Chart in Section 37. ▪ Non-woodland replacement trees shall conform to the LDM Section 4 standards for diversity <ul style="list-style-type: none"> o 15% of trees per genus o 10% of trees per species 	<ul style="list-style-type: none"> ▪ 9 of 34 (26%) of species used for site landscaping (not woodland replacements) are native to Michigan ▪ Tree diversity meets the standard of LDM 4 for all but <i>Acer rubrum</i> 	<ul style="list-style-type: none"> ▪ No ▪ Yes 	<ol style="list-style-type: none"> 1. Please revise the plant list to use species native to Michigan for at least 50% of the non-woodland replacement species used. 2. Please reduce the number of <i>Acer rubrums</i> used for non-replacement trees to 55 or less, 3. Please replace the Armstrong maple with a variety that has a mature canopy width of at least 20 feet. 4. Evergreen trees are proposed to compose 25% of the replacement credits planted, which is above the 10% maximum. Please reduce the total number of evergreen trees to no more than 10% of the woodland replacement credits planted on the site and "extra" trees that were originally woodland replacement trees.
Type and amount of lawn		Seed of various types is proposed	Yes	Please clearly indicate which areas are to be seeded with which type of seed on plan view
Cost estimate (LDM 2.t)	For all new plantings, mulch and sod as listed on the plan	No		Need for Final Site Plan
Planting Details/Info (LDM 2.i) – Utilize City of Novi Standard Details				
Canopy Deciduous Tree	Refer to LDM for detail drawings	Yes	Yes	
Evergreen Tree		Yes	Yes	
Multi-stem Tree		No	TBD	Please add to the plans if multi-stem trees are proposed.

Item	Required	Proposed	Meets Code	Comments
Shrub		Yes	Yes	
Perennial/ Ground Cover		Yes	Yes	
Tree stakes and guys. (Wood stakes, fabric guys)		Yes	Yes	
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	No	No	Please add note near property lines.
Plant Materials & Existing Plant Material (LDM 3.b)	Clearly show trees to be removed and trees to be saved.	No	No	Please leave tree labels for trees to be saved on Landscape Plans L-1 and L-2 to be sure of counts and screening.
Landscape tree credit (LDM3.b.(d))	Substitutions to landscape standards for preserved canopy trees outside woodlands/wetlands should be approved by LA. Refer to Landscape tree Credit Chart in LDM	None		
Plant Sizes for ROW, Woodland replacement and others (LDM 3.c)	Refer to Chapter 37, LDM for more details	Sizes are shown on plant lists	Yes	
Plant size credit (LDM3.c.(2))	NA			
Prohibited plants (LDM 11.b(2)b)	No plants on City Invasive Species List	<i>Pyrus calleryana</i> and <i>Ligustrum x vicary</i> are prohibited species.	No	Please replace those species with plants that are not on the prohibited species list
Recommended trees for planting under overhead utilities (LDM 3.e)	Label the distance from the overhead utilities			
Collected or Transplanted trees (LDM 3.f)		NA		
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 	Yes	Yes	

Item	Required	Proposed	Meets Code	Comments
	hardwood bark mulch. Include in cost estimate. ■ 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 REVIEW



February 10, 2021

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

RE: Ballantyne Residential Development JSP 20-0038
Wetland Review of Preliminary Site Plans (PSP20-0038)

Dear Ms. McBeth:

The Mannik & Smith Group, Inc. (MSG) has reviewed the Preliminary Site Plans for the proposed Ballantyne 41-unit residential development submitted by Singh Development (Plan). The Plan consists of multiple sheets having dates of August 8, 2005, April 16, 2014; and April 24, 2014. The Plan was evaluated for compliance with the City of Novi Wetland and Watercourse Protection Ordinance and natural features setback provisions in the Zoning Ordinance. The proposed project is located at the northwest corner of Eight Mile Road and Garfield Road in the southeast ¼ of Section 31 (Tax ID No. 22-31-400-007) (Site). MSG visited the Site on January 27, 2021 to inspect existing conditions and compare wetland boundaries with those depicted on the Plan. Photos showing the Site during MSG's visit are found at the end of this letter.

Wetland Characteristics and Setting

The observed conditions at the Site consisted of a gently rolling fallow farm field dominated by short herbaceous vegetation with about 2-inches of snow cover. Three wetland areas, Wetlands A, B, and C as shown on the Plan, were identified at the Site in topographic depressions and MSG concludes that the wetland mapping is mostly accurate. An apparent wetland delineation flag labeled C-12 observed at the Site, approximately corresponding to Wetland A delineation point A-10 on Sheet 2 of the Plan, in MSG's opinion should be moved 10-feet to the west.

Wetland A, found in the interior of the Site, appears to be a City of Novi Regulated Wetland (essential) based on, but not necessarily limited to, its hydrologic and wildlife functions. The wetland contains multiple vegetation community types including woodland/shrub fringe largely consisting of red maple (*Acer rubrum*) and cottonwood (*Populus deltoides*) trees, herbaceous shallow marsh and wet meadow with reed canary grass and narrow-leaf cattail (*Typha angustifolia*), and some open water, which was frozen at the time of MSG's Site visit. The diversity of the wetland structure provides potential opportunities for a variety of wildlife including songbirds, raptors and waterfowl. Surrounding uplands drain toward the wetland, reducing the offsite transport of runoff. The applicant states and the wetland does not appear to be regulated by the Michigan Department of Environmental Quality (MDEQ), as it is isolated (i.e., not within 500-feet of an inland lake, pond, stream or river) and is not greater than 5 acres in size.

Wetlands B and C are similar in size and structure and found along the eastern edge of the property adjacent to Garfield Road. Wetland B is an emergent wetland dominated by herbaceous plants including reed canary grass (*Phalaris arundinacea*) and some invasive common reed (*Phragmites australis*). Wetland C is an emergent wetland

containing narrow-leaved cattail (*Typha angustifolia*), willow (*Willow spp.*) as well as some invasive buckthorn (*Rhamnus cathartica*). Both of these wetlands, although smaller and of lower habitat quality compared to Wetland A, meet essentiality criteria including, but not necessarily limited to, hydrologic function listed in the City's wetland ordinance. Wetland B and C boundaries appear to be accurately depicted on Sheet 3 of the Plan. Figure 1, the City of Novi Wetland and Woodland map pertaining to the Site, is included at the end of this document.

Proposed Impacts and MSG Recommendations

No construction impacts are currently proposed for Wetland A, the largest and highest quality wetland on the Site. The Plan proposes to fill Wetland B (0.15-acre) and its entire associated 25-foot setback (0.20-acre) to construct an 8-foot wide sidewalk along Garfield Road and for grading the proposed Storm Water Detention Basin "B" near the corner of Garfield Road and Eight Mile Road. No impacts are proposed to Wetland C; however, the Plan proposes 0.06-acre of impacts to its 25-foot wetland buffer to build the aforementioned sidewalk.

1. After reviewing project history including a 2014 Final Site Plan review letter provided by the City's previous consultant, Environmental Consulting & Technology, Inc., MSG is aware of a Residential Unit Development (RUD) agreement for a 41-unit development on the Site dated February 13, 2014. The RUD agreement calls for restoration, enhancement, invasive species removal, and preservation of existing wetland areas as described in a *Wetland Restoration Summary*, which is apparently not part of the current Plan. Restoration would include excavating 0.25-acre of Wetland A and replacement of topsoil with new "clean" topsoil, tree and shrub plantings, and custom seed mix. The restoration included additional plantings and placing the remaining wetland and buffer areas into a conservation easement. Apparently, some of the restoration plan elements were intended to offset impacts associated with Singh project Oberlin Site Condos, which was proposed south of Eleven Mile Road between Beck and Wixom Roads. Sheets LS-5 and LS-6 are entitled "site off (sic) woodland tree replacement planting plan for Oberlin." Many of the trees shown are slated for "Ballantyne Park", which includes Wetland A, and would likely enhance the overall habitat quality of that wetland. Is this RUD agreement with its wetland "joint project" restoration provisions still in effect? If so, the Plan needs to be updated to differentiate between mitigation/restoration for the Oberlin vs. Ballantyne Plans and include the elements that were agreed to in the Applicant's RUD agreement with the City.
2. The Applicant states the wetlands on Site and included in the Plan are not state-regulated. Although the Plan calls for impacts to only Wetland B, the Applicant should provide a copy of the EGLE Level 3 Wetland Review to the City (and our office) for review for verification of state non-jurisdictional status.
3. The Natural Features Setback line is mislabeled on Sheet 2 of the Plan and should be corrected.
4. The City of Novi Wetland and Watercourse Protection Ordinance (Section 12-176 – Mitigation) states that design, construction plan and a monitoring plan must be approved for wetland mitigation projects. These items pertaining to specific impacts associated with the current plan need to be clarified on subsequent Plan submittals.

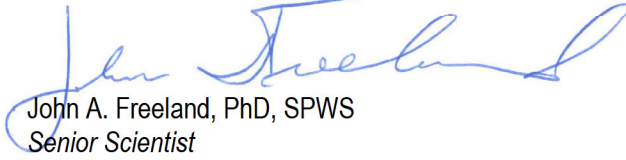
Permits and Regulatory Status

The project as proposed requires a City of Novi *Wetland Minor Use Permit* as well as an *Authorization to Encroach the 25-Foot Natural Features Setback* for proposed impacts to Wetland B as well as the 25-foot wetland setbacks associated with both Wetland B and Wetland C along Garfield Road.

MSG currently recommends conditional approval of the Preliminary Site Plan for Wetlands, conditional upon the Applicant's satisfactory response to above listed items 1-4.

Sincerely,

The Mannik & Smith Group, Inc.



John A. Freeland, PhD, SPWS
Senior Scientist



Craig S. Willey
Project Manager

Cc: Lindsay Bell, City of Novi Planner
Christian Carroll, City of Novi Planner
Madeleine Daniels, City of Novi Planning Assistant

FIGURES



Figure 1

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



APPENDIX A
SITE PHOTOGRAPHS





Photo 1: Wetland B, facing west.



Photo 2: Wetland B facing northwest.



Photo 3: Wetland C facing northeast.



Photo 4: Wetland C facing northeast.



Photo 5: Wetland A facing east.



Photo 6: Wetland A facing west.



Photo 7: Wetland A and surrounding idle upland farm field, facing north.

TRAFFIC REVIEW



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

Project name:
 JSP20-38 – Ballantyne Preliminary Traffic Review

From:
 AECOM

Date:
 December 30, 2020

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

CC:
 Lindsay Bell, Madeleine Kopko, Kate Richardson,
 Victor Boron, Christian Carroll

Memo

Subject: JSP20-38 – Ballantyne Preliminary Traffic Review

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

GENERAL COMMENTS

1. The applicant, Singh Development, LLC, is proposing a 41 unit residential development.
2. The development is located on the northwest corner of the intersection of Eight Mile Road and Garfield Road. Garfield Road is under the jurisdiction of the City of Novi. Eight Mile Road is under the jurisdiction of the Road Commission for Oakland County (RCOC).
3. The site is currently zoned RA (Residential Acreage).
4. The following traffic-related waivers/variances may be required:
 - a. Possible variance for opposite side driveway spacing along Eight Mile Road.

TRAFFIC IMPACTS

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

ITE Code: – 210 – Single-Family Detached Housing
 Development-specific Quantity: 41 Dwelling Units
 Zoning Change: N/A

Trip Generation Summary				
	Estimated Trips	Estimated Peak-Direction Trips	City of Novi Threshold	Above Threshold?
AM Peak-Hour Trips	34	26	100	No
PM Peak-Hour Trips	43	27	100	No
Daily (One-Directional) Trips	458	N/A	750	No

2. The City of Novi generally requires a traffic impact study/statement if the number of trips generated by the proposed development exceeds the City’s threshold of more than 750 trips per day or 100 trips per either the AM or PM peak hour, or if the project meets other specified criteria.

Trip Impact Study Recommendation	
Type of Study:	Justification
None	-

TRAFFIC REVIEW

The following table identifies the aspects of the plan that were reviewed. Items marked O are listed in the City’s Code of Ordinances. Items marked with ZO are listed in the City’s Zoning Ordinance. Items marked with ADA are listed in the Americans with Disabilities Act. Items marked with MMUTCD are listed in the Michigan Manual on Uniform Traffic Control Devices.

The values in the ‘Compliance’ column read as ‘met’ for plan provision meeting the standard it refers to, ‘not met’ stands for provision not meeting the standard and ‘inconclusive’ indicates applicant to provide data or information for review and ‘NA’ stands for not applicable for subject Project. The ‘remarks’ column covers any comments reviewer has and/or ‘requested/required variance’ and ‘potential variance’. A potential variance indicates a variance that will be required if modifications are not made or further information provided to show compliance with the standards and ordinances. The applicant should put effort into complying with the standards; the variances should be the last resort after all avenues for complying have been exhausted. Indication of a potential variance does not imply support unless explicitly stated.

EXTERNAL SITE ACCESS AND OPERATIONS				
No.	Item	Proposed	Compliance	Remarks
1	Driveway Radii O Figure IX.3	35’	Met	In range, not standard
2	Driveway Width O Figure IX.3	24’	Met	
2a	Boulevard Island Width O Figure IX.3	Garfield: 16’ 8 Mile: 24’	Met	In range, not standard
2b	Boulevard Island Length O Figure IX.3	Garfield: 31’ 8 Mile: 66’	Met	In range, not standard
3	Driveway Taper O Figure IX.11	Garfield only		
3a	Taper length	100’	Met	
3b	Tangent	25’	Met	
4	Emergency Access O 11-194.a.19	3 access points	Met	Emergency access detail provided. The applicant should provide more detail for what the emergency access road is leading to as it doesn’t appear to be a road.
5	Driveway sight distance O Figure VIII-E	Garfield Drive: 1500’ and 2000’ 8 Mile: 1000’ both directions	Met	

EXTERNAL SITE ACCESS AND OPERATIONS				
No.	Item	Proposed	Compliance	Remarks
6	Driveway spacing			
6a	Same-side O 11.216.d.1.d	Not provided	Inconclusive	Provide details.
6b	Opposite side O 11.216.d.1.e	Garfield directly across 8 Mile not indicated	Inconclusive	Indicate opposite side spacing to existing drive west of proposed 8 Mile driveway. A variance may be required if not met.
7	External coordination (Road agency)	Permit required	Inconclusive	Indicate coordination with RCOC for work on 8 Mile Road.
8	External Sidewalk Master Plan & EDM	8' along both Garfield and existing along 8 Mile	Met	The applicant should indicate what sidewalk along 8 Mile Road is existing and what is proposed.
9	Sidewalk Ramps EDM 7.4 & R-28-J	Provided	Met	
10	Any Other Comments:	N/A		

INTERNAL SITE OPERATIONS				
No.	Item	Proposed	Compliance	Remarks
11	Loading zone ZO 5.4	N/A	N/A	
12	Trash receptacle ZO 5.4.4	N/A	N/A	
13	Emergency Vehicle Access	Not indicated	Inconclusive	Indicate emergency vehicle turning movements to confirm access.
14	Maneuvering Lane ZO 5.3.2	N/A	N/A	
15	End islands ZO 5.3.12			
15a	Adjacent to a travel way	N/A	N/A	
15b	Internal to parking bays	N/A	N/A	
16	Parking spaces ZO 5.2.12	N/A	N/A	
17	Adjacent parking spaces ZO 5.5.3.C.ii.i	N/A	N/A	
18	Parking space length ZO 5.3.2	N/A	N/A	
19	Parking space Width ZO 5.3.2	N/A	N/A	
20	Parking space front curb height ZO 5.3.2	N/A	N/A	
21	Accessible parking – number ADA	N/A	N/A	
22	Accessible parking – size ADA	N/A	N/A	
23	Number of Van-accessible space ADA	N/A	N/A	
24	Bicycle parking			
24a	Requirement ZO 5.16.1	N/A	N/A	
24b	Location ZO 5.16.1	N/A	N/A	
24c	Clear path from Street ZO 5.16.1	N/A	N/A	
24d	Height of rack ZO 5.16.5.B	N/A	N/A	

INTERNAL SITE OPERATIONS				
No.	Item	Proposed	Compliance	Remarks
24e	Other (Covered / Layout) ZO 5.16.1	N/A	N/A	
25	Sidewalk – min 5' wide Master Plan	5' indicated in road cross section	Met	
26	Sidewalk ramps EDM 7.4 & R-28-J	Provided	Met	Applicant could consider providing more frequent ramps to cross Ballantyne Blvd. Ramps are provided on the north side of Ballantyne at Ballantyne Court but not on the south side. Provide the latest MDOT standard sidewalk ramp detail.
27	Sidewalk – distance back of curb EDM 7.4	16'	Met	
28	Cul-De-Sac O Figure VIII-F	70' ROW, 54' B/C, 22' Center, 32' lane	Met	
29	EyeBrow O Figure VIII-G	N/A		
30	Minor/Major Drives ZO 5.10	28' back-of-curb to back-of-curb	Met	
31	Any Other Comments:	The applicant should indicate if parking is to be allowed on the street. No parking signs are present on the islands in the cul-de-sacs, however, no signs are indicated elsewhere in the development, suggesting on-street parking is to be allowed on both sides throughout.		

SIGNING AND STRIPING				
No.	Item	Proposed	Compliance	Remarks
32	Signing: Sizes MMUTCD	Not included	Not Met	Stop sign should be 30"x30"
33	Signing table: quantities and sizes	Not included	Not Met	Include quantities, sizes, and MMUTCD codes.
34	Signs 12" x 18" or smaller in size shall be mounted on a galvanized 2 lb. U-channel post MMUTCD	Not included	Not Met	Provide details
35	Signs greater than 12" x 18" shall be mounted on a galvanized 3 lb. or greater U-channel post MMUTCD	Not included	Not Met	Provide details
36	Sign bottom height of 7' from final grade MMUTCD	Not included	Not Met	Provide details
37	Signing shall be placed 2' from the face of the curb or edge of the nearest sidewalk to the near edge of the sign MMUTCD	Not included	Not Met	Provide details

SIGNING AND STRIPING				
No.	Item	Proposed	Compliance	Remarks
38	FHWA Standard Alphabet series used for all sign language MMUTCD	Not included	Not Met	Provide details
39	High-Intensity Prismatic (HIP) sheeting to meet FHWA retro-reflectivity MMUTCD	Not included	Not Met	Provide details
40	Parking space striping notes	N/A	N/A	
41	The international symbol for accessibility pavement markings ADA	N/A	N/A	
42	Crosswalk pavement marking detail	N/A	N/A	
43	Maintenance of Traffic Plans	Not included	Not Met	Provide details for maintenance of traffic on Garfield and 8 Mile Road during work in the right-of-way.
44	Any Other Comments:	The applicant could include crosswalks at the intersections where ramps are currently provided and additional crosswalks whenever ramps are present to cross Ballantyne Blvd to improve pedestrian visibility. Detail should be included if crosswalks are added.		

Note: Hyperlinks to the standards and Ordinances are for reference purposes only, the applicant and City of Novi to ensure referring to the latest standards and Ordinances in their entirety.

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

Sincerely,

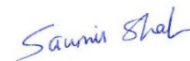
AECOM



Patricia Thompson, EIT
Traffic Engineer



Paula K. Johnson, PE
Senior Transportation Engineer



Saumil Shah, PMP
Project Manager

FIRE REVIEW



January 5, 2021

TO: Barbara McBeth- City Planner
Lindsay Bell-Plan Review Center
Christian Carroll-Plan Review Center
Madeleine Kopko-Planning Assistant

CITY COUNCIL

Mayor

Bob Gatt

Mayor Pro Tem

Dave Staudt

Andrew Mutch

Laura Marie Casey

Kelly Breen

Hugh Crawford

Justin Fischer

City Manager

Peter E. Auger

Director of Public Safety

Chief of Police

David E. Molloy

Fire Chief

Jeffery R. Johnson

Assistant Chief of Police

Erick W. Zinser

Assistant Chief of Police

Scott R. Baetens

Assistant Fire Chief

John B. Martin

RE: Ballantyne Residential Development, Eight Mile & Garfield Rds.

PSP# 20-0090

PSP# 14-0151

PSP# 14-0065

PSP# 13-0175

Project Description:

41-unit Single Family Detached home development

Comments:

- All fire hydrants **MUST** be installed and operational prior to any combustible material is brought on site. **IFC 2015 3312.1**
- Gated entrances **MUST** conform to City of Novi standards for fire apparatus clearances and have an approved entry device.
- The emergency access between units 14 and 15 is **NOT** required due to two entrances in the development. One off of Eight Mile and one off of Garfield Rds.

Recommendation:

APPROVED WITH CONDITIONS

Conditions:

- **9/13/2014** – Any gates that need to be secure **MUST** have a device that the fire department can have rapid access to the development. The Novi Fire Department uses Knox Box devices for the rapid access. (knoxbox.com)

Sincerely,

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

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

cityofnovi.org

cc: file

APPLICANT RESPONSE LETTER



SEIBER, KEAST ENGINEERING, LLC
CONSULTING ENGINEERS

Robert J. Emerine, P.E.
Jason M. Emerine, P.E.
Patrick Keast, P.E.

100 MainCentre
Suite 10
Northville, Michigan 48167
(248) 308-3331

February 18, 2021

Mr. Christian Carroll
Planner
City of Novi
45175 W 10 Mile Road
Novi, MI 48375

RE: JSP 20-38 Ballantyne
Response to City of Novi Preliminary Site Plan Review dated February 10, 2021

Dear Mr. Carroll,

Seiber, Keast Engineering LLC (“SKE”) is in receipt of your Plan Review Center Report dated February 10, 2021 regarding the Preliminary Site Plan Application for the JSP20-38 Ballantyne Site Condominium. In response to your comments, SKE offers the following:

Planning Review

1. A note will be added to the plan regarding building height.
2. Noted.
3. The frontage sidewalk along 8 Mile was paved by others since the first site plan was approved. The Applicant will work with the City of Novi Staff to determine if the RUD requires payment to the City for the sidewalk that has been constructed by others.
4. Removal of existing invasive species and replacement with native plantings will be addressed on future submittals.
5. Entryway lighting is proposed and is shown on the Landscape Plans. It is difficult to read. Future submissions will provide further clarity on the proposed entryway lighting.
6. The Applicant will provide updated economic impact information for the development on future submittals.

Approval of the Preliminary Site Plan is recommended by Planning Staff.

Engineering Review

The applicant previously received Final Site Plan and Stamping Set plan approval from the City of Novi for this project. Several comments on the Engineering Review indicate “as shown on the previous stamping set...” which indicates that we have previously complied with those requirements. The Applicant will continue to meet the requirements of the City’s Engineering Standards and Ordinances on future submittals.



Items in the Engineering Review with **BOLD** text appear to require responses at this time. Responses to those comments are:

Water Main

12. Additional Water Main information will be provided at the time of Final Site Plan submittal.

Sanitary Sewer

13. Additional Sanitary Sewer information will be provided at Final Site Plan.
14. The requirements of the sanitary sewer and the 2014 RUD Agreement are noted.

Storm Sewer

15. Additional Storm Sewer information will be provided at Final Site Plan.

Paving & Grading

30. The sidewalk along 8 Mile Road will be revised and be shown as existing. The Applicant will work with the City of Novi Staff to determine if the RUD requires payment to the City for the sidewalk that has been constructed by others.

All other items not indicated in **BOLD** text will be addressed at the time of Final Site Plan.

All items in subsequent sections of the Engineering review will be addressed at Final Site Plan, Stamping Set, prior to construction, or prior to the issuance of building permits as noted in the Engineering Review.

Approval of the Preliminary Site Plan is recommended by Engineering Staff.

Landscape Review

The Landscape Review Letter notes that two (2) Landscape Waivers are required based on the current Preliminary Site Plan. Those waivers and the Applicant's response to those waivers are:

Deficiency in Greenbelt Width Between 8 Mile Road and the South Detention Pond

The Landscape Review indicates that this waiver **IS** supported by City Staff as this layout matches the approved RUD agreement. The Applicant does not intend on modifying the location of the southerly detention basin and increasing the Greenbelt Width. This waiver is requested.

Deficiency in Interior Street Trees

This waiver is NOT supported by City Staff. As a result, The Applicant agrees increase quantity of Street Trees to meet the ordinance requirements. Updated Landscape Plans showing this change will be provide at Final Site Plan. This waiver is not required, nor is it requested.



The Applicant will work with the City of Novi Staff to satisfy the remaining Landscaping & Woodlands review comments.

Landscaping & Woodlands Staff recommends approval of the Preliminary Site Plan now that the Applicant has agreed to provide the ordinance required quantity of street trees and the need for a street tree waiver has been removed.

Wetlands Review

1. The requirements of the RUD will be met in this Development.
2. A copy of a EGLE Level 3 Wetland Review was not required in the previously approved Preliminary Site Plan and Final Site Plan. It is unclear why this additional requirement is being requested.
3. The Natural Features Setback on Sheet 2 is labeled correctly with a double arrow indicating the 25-foot width of the setback. The arrow heads on the leader are a little difficult to read and will be revised so the labels will be more legible.
4. A wetland mitigation monitoring plan will be provided at the time of Final Site Plan, if required.

Traffic Review

4. The emergency access road between lots 14 and 15 was required as a condition of the RUD.
6. The same side driveway spacing was previously reviewed and approved the City of Novi in the Preliminary Site Plan and Final Site Plan. The Road Commission for Oakland County previously approved both the above ground and below ground permit applications.
7. The Road Commission for Oakland County previously approved both the above ground and below ground permit applications.
8. The sidewalk along 8 Mile will be revised to indicated what is existing and what is proposed.
11. The Emergency Vehicle Turning movements will be confirmed at the time of Final Site Plan. It is noted the the City of Novi centerline radii have been met, truck turning should not be an issue and that a truck turning plan was not required as part of the previously issued Preliminary or Final Site Plan.
26. The latest MDOT Sidewalk ramp detail will be provided at the time of Final Site Plan.
31. Parking is typically permissible on 28 foot wide roads. The signage shown on Sheet 3 was previously approved as part of the Preliminary and Final Site Plans.

Signing and Striping review comments will be addressed at the time of Final Site Plan submittal.



Fire Department Review

- A note will be added to the plan indicating all fire hydrants must be installed and operational prior to any combustible materials being brought on site.
- A note will be added to the plans indicating all gated entrances must conform to City of Novi standards for fire apparatus clearances and have an approved entry device.
- The emergency access between units 14 & 15 is required by the RUD.
- A note will be added indicating that any gates that need to be secured need to have knock box.

Based on the approvals recommended by the City of Novi Staff and the response comments above, SKE respectfully requests the City of Novi Planning Commission to approve the Preliminary Site Plan for JSP 20-38 Ballantyne.

Sincerely,
Seiber, Keast Engineering, LLC.

A handwritten signature in blue ink, appearing to read 'Jason M. Emerine', is located below the typed name.

Jason M. Emerine, PE

Cc: Barb McBeth, City of Novi Community Development.
Avi Grewal, Singh Development Company