



City of Novi DPS-Gun Range Additions JSP17-42

City of Novi, DPS-Gun Range Additions JSP 17-42

Public hearing at the request of NSA Architects, Engineering, Planners for approval of Special Land Use, Preliminary Site Plan, Woodland Permit, and Stormwater Management Plan. The subject property is located in Section 14 west of Meadowbrook Road and north of Eleven Mile Road and is zoned I-1, Light Industrial. The applicant is proposing a classroom addition of approximately 2,750 square foot to the Public Safety Gun Range, and a garage addition of approximately 40,422 square foot to the Department of Public Services building.

Required Action

Approval/Denial the Special Land Use, Preliminary Site Plan, Woodland Permit, and Stormwater Management Plan

REVIEW	RESULT	DATE	COMMENTS
Planning	Approval recommended	8-24-17	<ul style="list-style-type: none"> • Special Land Use approval required • Off-street parking in front yard waiver from required wall or berm • The Planning Commission finds that the parking area and lighting is compatible with surrounding development • Special Land Use Noise Analysis waiver • Items to be addressed by the applicant on revised Final Site Plan
Engineering	Approval recommended	8-24-17	<ul style="list-style-type: none"> • Items to be addressed by the applicant on revised Final Site Plan
Landscaping	Approval recommended	8-13-17	<ul style="list-style-type: none"> • Adjacent to Freeway ROW waiver from required wall or berm • Street tree waiver for lack of trees along Lee BeGole Drive • Items to be addressed by the applicant on revised Final Site Plan
Wetland	Approval recommended	8-15-17	<ul style="list-style-type: none"> • Items to be addressed by the applicant on revised Final Site Plan
Woodland	Approval recommended	8-15-17	<ul style="list-style-type: none"> • Woodland Permit • Items to be addressed by the applicant on revised Final Site Plan
Traffic	Approval recommended	8-24-17	<ul style="list-style-type: none"> • Items to be addressed by the applicant on revised Final Site Plan
Façade	Approval recommended	8-15-17	<ul style="list-style-type: none"> • Section 9 Façade waiver for underage of brick and overage of standing seam metal • Items to be addressed by the

			applicant on revised Final Site Plan
Fire	Approval recommended	8-10-17	<ul style="list-style-type: none">• Items to be addressed by the applicant on revised Final Site Plan

MOTION SHEET

Approval – Special Land Use Permit

In the matter of City of Novi DPS-Gun Range Additions, JSP17-42, motion to **approve** the Special Land Use Permit based on the following findings relative to other feasible uses of the site:

- a. The proposed use will not cause any detrimental impact on existing thoroughfares *(the site is existing and the garage additions will house vehicles already on site)*;
- b. The proposed use will not cause any detrimental impact on the capabilities of public services and facilities *(the additions will provide better public services)*;
- c. The proposed use is compatible with the natural features and characteristics of the land *(the proposed additions and requested waivers seek to minimize impacts)*;
- d. The proposed use is compatible with adjacent uses of land *(the use is existing and the surrounding uses are compatible with the current use)*;
- e. The proposed use is consistent with the goals, objectives and recommendations of the City's Master Plan for Land Use *(fulfills the stated objective to provide improved public services)*;
- f. The proposed use will promote the use of land in a socially and economically desirable manner *(the additions expand on already impacted areas instead of building new elsewhere)*;
- g. The proposed use is (1) listed among the provision of uses requiring special land use review as set forth in the various zoning districts of this Ordinance, and (2) is in harmony with the purposes and conforms to the applicable site design regulations of the zoning district in which it is located; and
- h. *(additional comments here if any)*

(This motion is made because the plan is otherwise in compliance with Article 3.1.5, Article 4, Article 5, and Article 6 of the Zoning Ordinance and all other applicable provisions of the Ordinance.)

- AND -

Approval – Preliminary Site Plan

In the matter of City of Novi DPS-Gun Range Additions, JSP17-42, motion to **approve** the Preliminary Site Plan based on and subject to the following:

- a. The Planning Commission finds that the parking area and lighting is compatible with surrounding development, in order to proposed parking in front yard, as listed in Section 3.6.2.E;
- b. Planning Commission waiver for lack of required wall or landscaped berm for off-street parking in the front yard *(due to existing vegetation buffer along Lee BeGole Drive)*;
- c. Planning Commission waiver from Section 4.3 to waive the required Noise Analysis as part of the Special Land Use requirements, which is hereby granted;
- d. Landscape waiver from Section 5.5.3.B.ii and iii for lack of a 4 ft. high berm adjacent to the public right-of-way along the north parcel lot line *(due to existing vegetation buffer along I-96 ROW)*, which is hereby granted;
- e. Landscape waiver from Section 5.5.3.E.i.c and the Landscape Design Manual 1.d. for lack of street trees along Lee BeGole Drive (16 required; 0 provided) *(due to existing vegetation buffer along Lee BeGole Drive)*, which is hereby granted;
- f. Section 9 Façade waiver for underage of brick (30% minimum; 25% proposed), use of painted brick (0% maximum, 17% proposed), overage of flat metal panels (50% maximum; 69% proposed), and use of fiber cement siding (0% maximum, 4% proposed) *(because the deviations from the percentages are comparatively minor and are consistent with the overall design of the building)*, which is hereby granted;

- g. The findings of compliance with Ordinance standards in the staff and consultant review letters, the conditions and items listed in those letters, and with these items being addressed on the Revised Final Site Plan; and
- h. *(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 Permit

In the matter of City of Novi DPS-Gun Range Additions, JSP17-42, motion to **approve** the Woodland Permit based on and subject to the following:

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

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

- AND -

Approval – Stormwater Management Plan

In the matter of City of Novi DPS-Gun Range Additions, JSP17-42, motion to **approve** the Stormwater Management Plan based on and 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 Revised Final Site Plan; and
- b. *(additional conditions here if any)*

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

- OR -

Denial – Special Land Use Permit

In the matter of City of Novi DPS-Gun Range Additions, JSP17-42, motion to **deny** the Special Land Use Permit for the following reasons...*(because it is not in compliance with the Ordinance.)*

- AND -

Denial – Preliminary Site Plan

In the matter of City of Novi DPS-Gun Range Additions, JSP17-42, 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 Permit

In the matter of City of Novi DPS-Gun Range Additions, JSP17-42, motion to **deny** the Woodland Permit...*(because the plan is not in compliance with Chapter 37 of the Code of Ordinances and all other applicable provisions of the Ordinance.)*

- AND -

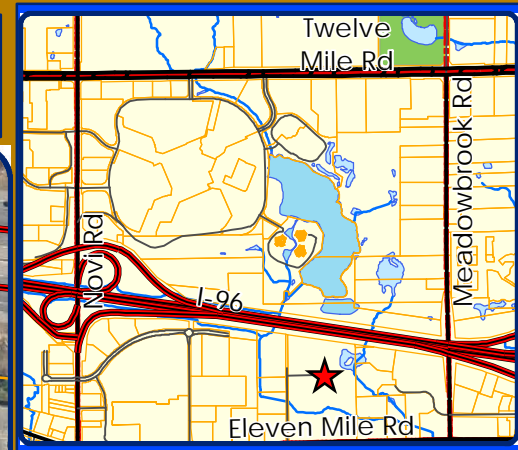
Denial – Stormwater Management Plan

In the matter of City of Novi DPS-Gun Range Additions, JSP17-42, 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

JSP17-42: DPS-Gun Range Additions

Location Map




LEGEND

- Sections

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

Map Author: Kirsten Mellem
Date: 08/29/17
Project: JSP17-42 DPS-Gun Range Additions
Version #: 1

0 62.5 125 250 375 Feet
1 inch = 250 feet

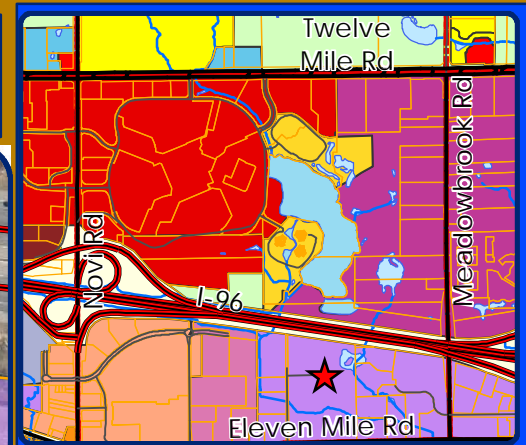
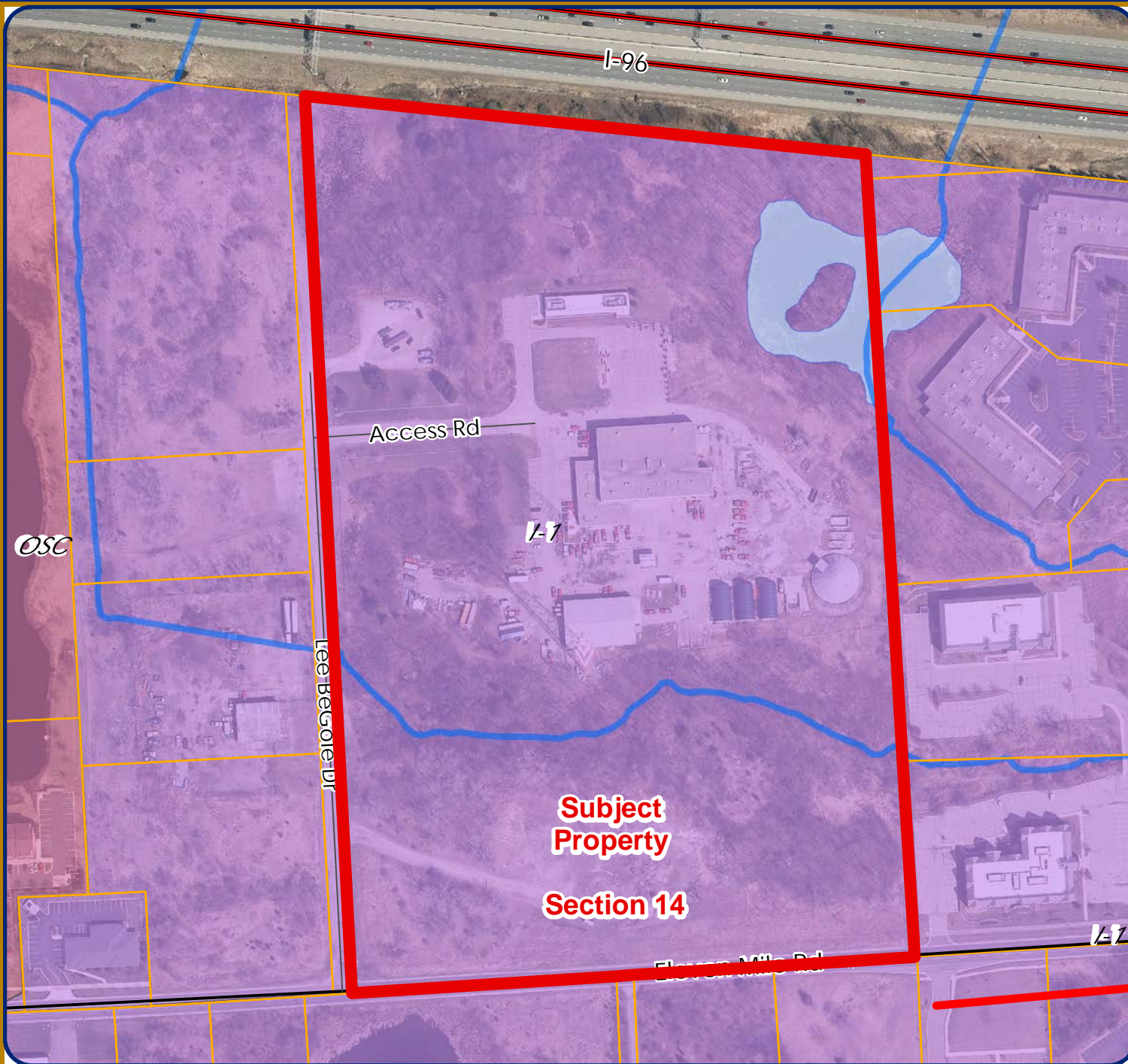


MAP INTERPRETATION NOTICE




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

JSP17-42: DPS-Gun Range Additions

Zoning Map



LEGEND

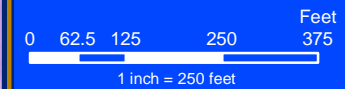
-  Sections
-  R-A: Residential Acreage
-  R-4: One-Family Residential District
-  RM-1: Low-Density Multiple Family
-  B-3: General Business District
-  C: Conference District
-  EXPO: EXPO District
-  I-1: Light Industrial District
-  OS-1: Office Service District
-  OSC: Office Service Commercial
-  OST: Office Service Technology
-  RC: Regional Center District
-  TC: Town Center District
-  TC-1: Town Center -1 District



City of Novi

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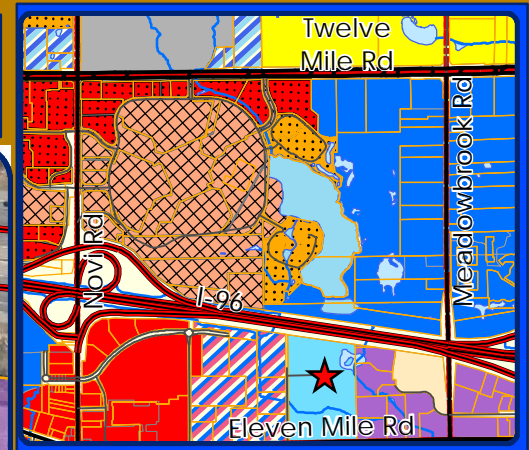
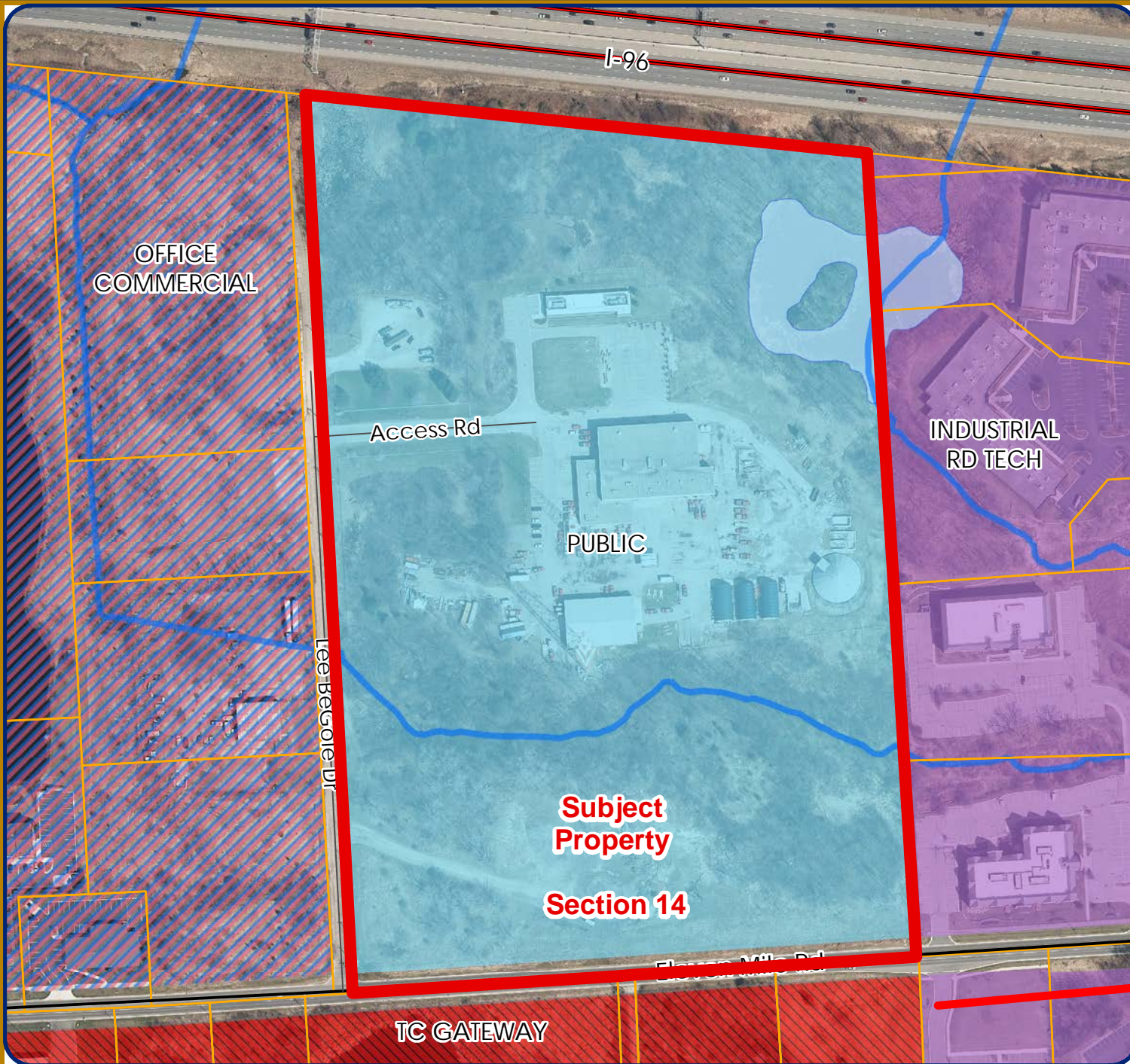


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JSP17-42: DPS-Gun Range Additions

Future Land Use



LEGEND

- Sections
- FUTURE LAND USE**
- Single Family
- PD1
- Community Office
- Office RD Tech
- Office Commercial
- Industrial RD Tech
- Regional Commercial
- TC Commercial
- PD2
- Educational Facility
- Public
- Cemetery

CITY OF NOVI
Community Development Department
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Novi, MI 48375
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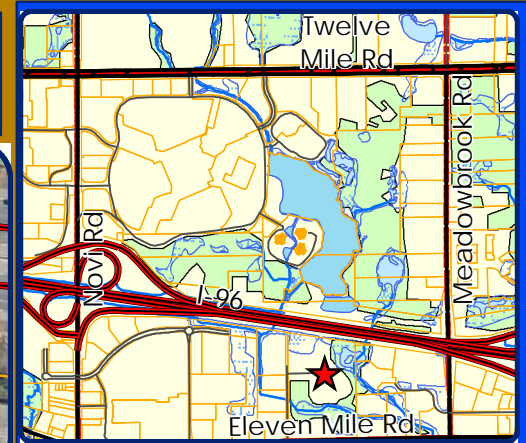
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JSP17-42: DPS-Gun Range Additions

Natural Features Map



LEGEND

- Sections
- WETLANDS
- WOODLANDS

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SITE PLAN

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

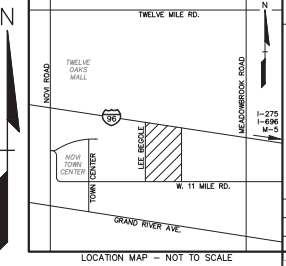
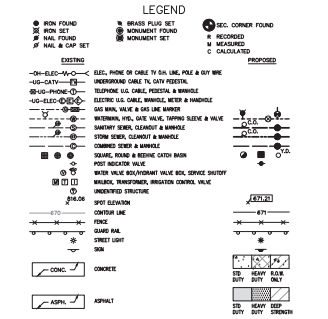
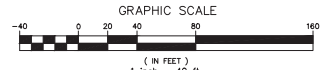
FLOODPLAIN:
(Per Flood Insurance Rate Map Number 26150627F, dated September 29, 2006
BY GRAPHICAL PLOTTING, THE SITE LIES WITHIN:
SPECIAL FLOOD HAZARD AREAS SUBJECT TO INUNDATION BY THE 1% ANNUAL CHANCE FLOOD
The 1% annual chance flood (100 year flood), also known as the base flood, is the flood that has a 1% chance of being equaled or exceeded in any given year. The Special Flood Hazard Area is the area subject to flooding by the 1% annual chance flood. Areas of Special Flood Hazard include Zones A, AE, AH, A0, AR, A99, and VE. The Base Flood Elevation is the water-surface elevation of the 1% annual chance flood.
ZONE AE - Base Flood Elevations determined.
FLOODWAY AREAS IN ZONE AE
The floodway is the channel of stream plus any adjacent floodplain areas that must be kept free of encroachment so that the 1% annual chance flood can be carried without substantial increases in flood heights.
OTHER FLOOD AREAS
ZONE X - Areas of 0.2% annual chance flood; areas of 1% annual chance flood with average depths of less than 1 foot or with drainage areas less than 1 square mile; and areas protected by levees from 1% annual chance flood.
OTHER AREAS
ZONE Y - Area to be determined outside of the 0.2% annual chance floodplain.

LEGAL DESCRIPTION
(Per Oakland County Property Gateway - Residential Property Profile)
PARCEL NO. 22-14-451-002
Part of the Southeast 1/4 Town 1 North, Range 8 East, Section 14, City of Novi, Oakland County, Michigan;
Beginning at a point distant S89°15'33.1" W, 1339.60 feet from the Southeast Section Corner; thence S89°15'33.1" W, 916.27 feet; thence N00°00'00.0" E, 1500.54 feet; thence S89°16'16.1" E, 975.13 feet; thence S00°29'32.1" E, 1390.08 feet to the point of beginning.
Containing 3.273 acres of land.

BENCHMARKS
(GPS DERIVED - NAVD83)
BM #300
A HORIZONTAL LOCATED ON THE EAST SIDE OF LEE BEGOLLE DRIVE, APPROX. 247.5' SOUTH OF THE CENTERLINE OF PUBLIC SERVICES DRIVE.
ELEV. = 903.38
BM #301
A HORIZONTAL LOCATED AT THE NORTHEAST CORNER OF LEE BEGOLLE DRIVE AND PUBLIC SERVICES DRIVE.
ELEV. = 904.25
BM #302
A HORIZONTAL LOCATED ON THE NORTH SIDE OF PUBLIC SERVICES DRIVE, APPROX. 220.9' EAST OF LEE BEGOLLE DRIVE.
ELEV. = 907.20
BM #303
A HORIZONTAL LOCATED APPROX. 327.1' NORTHWEST OF THE NORTHWEST CORNER OF BUILDING #26350 LEE BEGOLLE (EXISTING FRAME).
ELEV. = 907.87
BM #304
A HORIZONTAL LOCATED APPROX. 627.1' NORTHWEST OF THE NORTHWEST CORNER OF BUILDING #26300 LEE BEGOLLE (FIELD SERVICES COMPLEX).
ELEV. = 906.88
BM #305
A HORIZONTAL LOCATED APPROX. 477.1' NORTHWEST OF THE NORTHEAST CORNER OF BUILDING #26300 LEE BEGOLLE (FIELD SERVICES COMPLEX).
ELEV. = 906.38
BM #306
A HORIZONTAL LOCATED AT THE SOUTHEAST CORNER OF THE SOUTHEAST CORNER OF BUILDING #26300 LEE BEGOLLE (FIELD SERVICES COMPLEX).
ELEV. = 907.50

SITE DATA TABLE:
SITE AREA: 32.73 ACRES (1,425,718 SQ.FT.) NET AND GROSS
ZONING: I-1, LIGHT INDUSTRIAL
PROPOSED USE: OFFICE (30,348 SF)/RETAIL (8,124 SF)/WAREHOUSE (40,515 SF)
BUILDING INFORMATION:
MAXIMUM ALLOWABLE BUILDING HEIGHT = 40 FEET
PROPOSED BUILDING HEIGHT = 1 STORY
BUILDING FOOTPRINT AREA = 78,987 SQ.FT.
BUILDING LOT COVERAGE = 5.66%
SETBACK REQUIREMENTS:
FRONT SETBACK (WEST): 40 FEET REQUIRED 387.69' PROVIDED
SIDE SETBACK (NORTH): 20 FEET REQUIRED 215.53' PROVIDED
SIDE SETBACK (SOUTH): 20 FEET REQUIRED 766.87' PROVIDED
REAR SETBACK (EAST): 20 FEET REQUIRED 278.53' PROVIDED
PARKING SETBACK: 20 FEET REQUIRED 170.27' PROVIDED
PARKING CALCULATIONS:
PER DPS ORGANIZATIONAL CHART = 50 EMPLOYEES
SEASONAL PERSONNEL = 30 EMPLOYEES
TOTAL PARKING REQUIRED = 80 SPACES
TOTAL PROPOSED PARKING SPACES = 104 SPACES INC. 5 H/C SPACES
TOTAL PROPOSED MAINTENANCE VEHICLE PARKING SPACES = 69 SPACES

WAIVER REQUEST:
- 3.6-2.0 FRONT YARD SETBACK ADJACENT TO TREMAY ROW (SCREENING)
- 5.5-3.0 GREENBELT TREES (LANDSCAPE)
General Provisions for Collecting and Submitting Applications for Review and Approval by the Planning and Zoning Commission. The Commission shall have the authority to grant or deny a waiver of any provision of the Zoning Ordinance. A waiver shall be granted only if the applicant can demonstrate that the proposed use is in the public interest and that the proposed use is consistent with the comprehensive Zoning Ordinance and the Comprehensive Zoning Ordinance. A waiver shall be granted only if the applicant can demonstrate that the proposed use is in the public interest and that the proposed use is consistent with the comprehensive Zoning Ordinance and the Comprehensive Zoning Ordinance.



REFERENCE DRAWINGS
CITY OF NOVI MAP, PRINTED 12/07/2008
NOVI DPW WATERSHED EXTENSION, JOB NO. 10-0864, DATED 07-25-08
CITY OF NOVI LAND RECORDS
SANDLAND COUNTY PROPERTY GATEWAY
DHW ADVISORS JOB # DW-12-0020

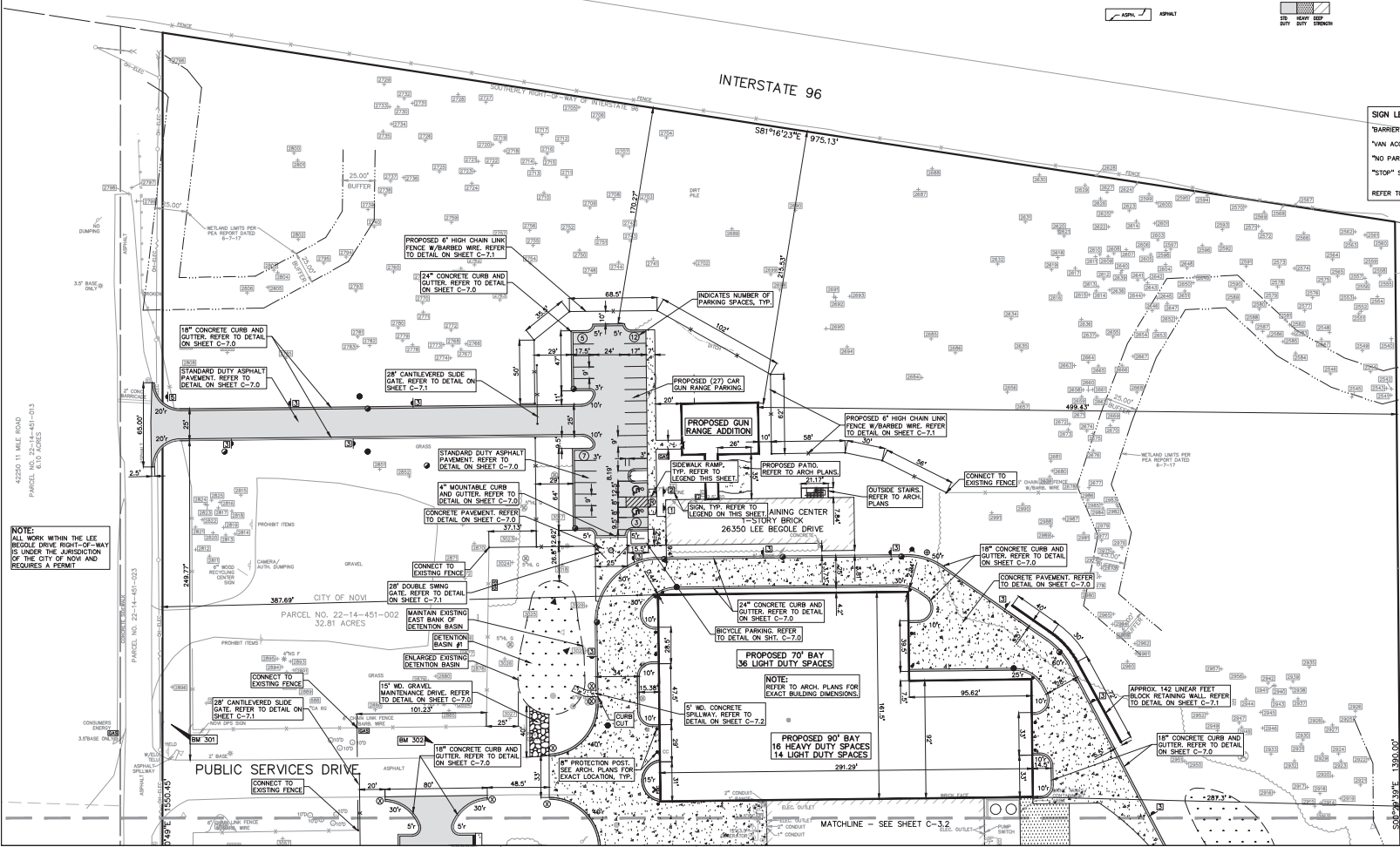
SIDEWALK RAMP LEGEND:
SIDEWALK RAMP "TYPE R"
SIDEWALK RAMP "TYPE R"
CURB DROP ONLY
REFER TO LATEST M.D.O.T. R-28 STANDARD RAMP AND DETECTABLE WARNING DETAILS

SIGN LEGEND:
"BARRIER FREE PARKING" SIGN 1 1 EA. (THIS SHEET)
"VAN ACCESSIBLE" SIGN 2 1 EA. (THIS SHEET)
"NO PARKING FIRE LANE" SIGN 3 11 EA. (THIS SHEET)
"STOP" SIGN 4 1 EA. (THIS SHEET)
REFER TO SHEET C-7.0 FOR SIGN DETAILS

CITY OF NOVI FIRE DEPARTMENT NOTES:
1. ALL WEATHER ACCESS ROADS CAPABLE OF SUPPORTING 55 TONS ARE TO BE PROVIDED FOR FIRE APPARATUS PRIOR TO CONSTRUCTION ABOVE THE FOUNDATION.
2. ALL WATER MAINS AND FIRE HYDRANTS ARE TO BE INSTALLED AND IN SERVICE PRIOR TO CONSTRUCTION ABOVE THE FOUNDATION.
3. THE BUILDING ADDRESS IS TO BE POSTED FACING THE STREET THROUGHOUT THE CONSTRUCTION. THE ADDRESS IS TO BE AT LEAST 3 INCHES HIGH ON CONTRASTING BACKGROUND.

SITE ACCESS NOTES:
1. THE CONTRACTOR IS TO START CONSTRUCTION IN DPW ENTRANCE DRIVE TO MAINTAIN ACCESS TO DPW SITE AT ALL TIMES DURING CONSTRUCTION. PART WIDTH CONSTRUCTION WILL BE REQUIRED.

GENERAL NOTES:
THESE NOTES APPLY TO ALL CONSTRUCTION ACTIVITIES ON THIS PROJECT.
1. ALL DIMENSIONS SHOWN ARE TO BACK OF CURB, FACE OF SIDEWALK, OUTSIDE FACE OF BUILDING, PROPERTY LINE, CENTER OF MANHOLE/CATCH BASIN OR CENTERLINE OF PIPE UNLESS OTHERWISE NOTED.
2. REFER TO SHEET C-7.0 FOR ON-SITE PAVING DETAILS.
3. REFER TO LATEST M.D.O.T. DETAIL R-28 FOR SIDEWALK RAMP DETAILS.
4. ALL CONSTRUCTION SHALL BE IN ACCORDANCE WITH CITY OF NOVI CURRENT STANDARDS AND REGULATIONS.
5. THE CONTRACTOR SHALL NOTIFY THE CITY ENGINEER AND/OR THE AUTHORITY HAVING JURISDICTION 3 BUSINESS DAYS PRIOR TO THE BEGINNING OF CONSTRUCTION.
6. ANY WORK WITHIN THE STREET OR HIGHWAY RIGHT-OF-WAYS SHALL BE PERFORMED IN ACCORDANCE WITH THE REQUIREMENTS OF THE AGENCIES HAVING JURISDICTION AND SHALL NOT BEGIN UNTIL ALL NECESSARY PERMITS HAVE BEEN ISSUED FOR THE WORK.
7. IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO REMOVE THE TOP OF ALL EXISTING AND PROPOSED STRUCTURES (MANHOLES, CATCH BASINS, INLETS, GATE WELLS ETC.) WITHIN GRADED AND /OR PAVED AREAS TO FINAL GRADE SHOWN ON THE PLANS. ALL SUCH ADJUSTMENTS SHALL BE INCIDENTAL TO THE JOB AND WILL NOT BE PAID FOR SEPARATELY.
8. ALL PARKING SPACE PAVEMENT MARKINGS SHALL BE 4" WHITE WITH THE EXCEPTION OF THE BARRIER FREE PARKING SPACES.
9. PROVIDE 4" BLUE STRIPING FOR BARRIER FREE PARKING SPACES AND WHITE FOR BARRIER FREE PARKING SPACES. NOTE THAT WHERE A BARRIER FREE PARKING SPACE ABUTS A NON-BARRIER FREE SPACE, THE TWO SPACES SHALL BE SEPARATED BY ABUTTING BLUE AND WHITE STRIPES.
10. SIGNS NOT TO BE MOUNTED ON BUILDING FACADE SHALL HAVE A MINIMUM MOUNTING HEIGHT OF 5 FEET AND A MAXIMUM MOUNTING HEIGHT OF 7 FEET.



NOTE:
ALL WORK WITHIN THE LEE BEGOLLE DRIVE RIGHT-OF-WAY IS UNDER THE JURISDICTION OF THE CITY OF NOVI AND REQUIRES A PERMIT.
44250 1/4 MILE ROAD
PARCEL NO. 22-14-451-003
CONTAINING 8.170 ACRES

NOTE:
ALL WORK WITHIN THE LEE BEGOLLE DRIVE RIGHT-OF-WAY IS UNDER THE JURISDICTION OF THE CITY OF NOVI AND REQUIRES A PERMIT.
PARCEL NO. 22-14-451-002
CONTAINING 32.81 ACRES

REVISIONS

NO.	DATE	DESCRIPTION	BY	CHKD.
1	06/20/2017	ISSUE FOR PERMIT	SS	SS
2	06/20/2017	ISSUE FOR PERMIT	SS	SS
3	06/20/2017	ISSUE FOR PERMIT	SS	SS
4	06/20/2017	ISSUE FOR PERMIT	SS	SS
5	06/20/2017	ISSUE FOR PERMIT	SS	SS
6	06/20/2017	ISSUE FOR PERMIT	SS	SS
7	06/20/2017	ISSUE FOR PERMIT	SS	SS
8	06/20/2017	ISSUE FOR PERMIT	SS	SS
9	06/20/2017	ISSUE FOR PERMIT	SS	SS
10	06/20/2017	ISSUE FOR PERMIT	SS	SS
11	06/20/2017	ISSUE FOR PERMIT	SS	SS
12	06/20/2017	ISSUE FOR PERMIT	SS	SS
13	06/20/2017	ISSUE FOR PERMIT	SS	SS
14	06/20/2017	ISSUE FOR PERMIT	SS	SS
15	06/20/2017	ISSUE FOR PERMIT	SS	SS
16	06/20/2017	ISSUE FOR PERMIT	SS	SS
17	06/20/2017	ISSUE FOR PERMIT	SS	SS
18	06/20/2017	ISSUE FOR PERMIT	SS	SS
19	06/20/2017	ISSUE FOR PERMIT	SS	SS
20	06/20/2017	ISSUE FOR PERMIT	SS	SS

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1-248-689-1044
www.peainc.com

NSA ARCHITECTS, ENGINEERS, PLANNERS
FARMINGTON HILLS, MICHIGAN 48335
DIMENSION & PAVING PLAN - NORTH
PART OF THE **NOVI DPS FACILITY**
CITY OF NOVI, OAKLAND COUNTY, MICHIGAN
DWS: SS DN: SS SH: SUR: GWC: P.M.: PPS
ORIGINAL ISSUE DATE:
JUNE 30, 2017
PEA JOB NO. 2016-358
SCALE: 1" = 40'
DRAWING NUMBER:
C-3.1

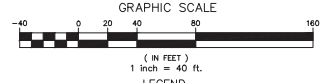
FLOODPLAIN:
 (Per Flood Insurance Rate Map Number 26150627F, dated September 29, 2006)
 BY GRAPHICAL PLOTTING, THE SITE LIES WITHIN:
SPECIAL FLOOD HAZARD AREAS SUBJECT TO INUNDATION BY THE 1% ANNUAL CHANCE FLOOD
 The 1% annual chance flood (100 year flood), also known as the base flood, is the flood that has a 1% chance of being equaled or exceeded in any given year. The Special Flood Hazard Area is the area subject to flooding by the 1% annual chance flood. Areas subject to the Flood Hazard include Zones A, AE, AH, AO, AR, A99, V, and VE. The Base Flood Elevation is the water-surface elevation of the 1% annual chance flood.
 ZONE AE - Base Flood Elevations determined.
 FLOODWAY AREAS IN ZONE AE
 The floodway is the channel of stream plus any adjacent floodplain areas that must be kept free of encroachment so that the 1% annual chance flood can be carried without substantial increases in flood heights.
 OTHER FLOOD AREAS
 ZONE X - Area of 0.2% annual chance flood; areas of 1% annual chance flood with average depths of less than 1 foot or with drainage areas less than 1 square mile, and areas protected by levees from 1% annual chance flood.
 OTHER AREAS
 ZONE U - Area to be determined outside of the 0.2% annual chance floodplain.

LEGAL DESCRIPTION
 (Per Oakland County Property Gateway - Residential Property Profile)
 PARCEL NO. 22-14-451-002
 Part of the Southeast 1/4 Town 1 North, Range 8 East, Section 14, City of Novi, Oakland County, Michigan;
 Beginning at a point distant S89°15'53.3" W, 1339.60 feet from the Southeast Section Corner; thence S89°15'53.3" W, 97.27 feet; thence N00°00'49.5" E, 1500.54 feet; thence S89°16'16.1" E, 975.13 feet; thence S00°29'32.1" E, 1390.08 feet to the point of beginning.
 Containing 0.3273 acres of land.

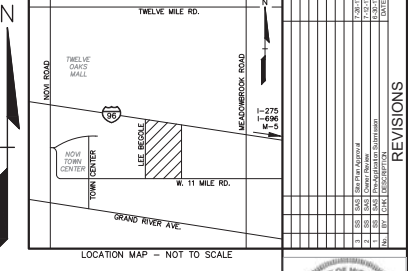
- BENCHMARKS**
 (GPS DERIVED - NAVD83)
- BM #300
 A HYDRANT LOCATED ON THE EAST SIDE OF LEE BEGOLE DRIVE, APPROX. 247% SOUTH OF THE CENTERLINE OF PUBLIC SERVICES DRIVE.
 ELEV. = 903.38
 - BM #301
 A HYDRANT LOCATED AT THE NORTHEAST CORNER OF LEE BEGOLE DRIVE AND PUBLIC SERVICES DRIVE.
 ELEV. = 904.25
 - BM #302
 A HYDRANT LOCATED ON THE NORTH SIDE OF PUBLIC SERVICES DRIVE, APPROX. 220% EAST OF LEE BEGOLE DRIVE.
 ELEV. = 907.20
 - BM #303
 A HYDRANT LOCATED APPROX. 32% NORTHWEST OF THE NORTHEAST CORNER OF BUILDING #63550 LEE BEGOLE (EXISTING FRAME).
 ELEV. = 907.87
 - BM #304
 A HYDRANT LOCATED APPROX. 62% NORTHWEST OF THE NORTHEAST CORNER OF BUILDING #63500 LEE BEGOLE (EXISTING FRAME).
 ELEV. = 906.88
 - BM #305
 A HYDRANT LOCATED APPROX. 47% NORTHEAST OF THE NORTHEAST CORNER OF BUILDING #63500 LEE BEGOLE (FIELD SERVICES COMPLEX).
 ELEV. = 906.38
 - BM #306
 A HYDRANT LOCATED AT A HYDRANT LOCATED AT THE SOUTHEAST CORNER OF BUILDING #63500 LEE BEGOLE (FIELD SERVICES COMPLEX).
 ELEV. = 907.50

- SITE ACCESS NOTES:**
- THE CONTRACTOR IS TO STAGE CONSTRUCTION IN DPW ENTRANCE DRIVE TO MAINTAIN ACCESS TO DPW SITE AT ALL TIMES DURING CONSTRUCTION. PART WIDTH CONSTRUCTION WILL BE REQUIRED.
- SIDEWALK RAMP LEGEND:**
- SIDEWALK RAMP TYPE 'R'
 - SIDEWALK RAMP TYPE 'P'
 - CURB DROP ONLY
- REFER TO LATEST M.D.O.T. R-28 STANDARD RAMP AND DETECTABLE WARNING DETAILS
- SIGN LEGEND:**
- "BARRIER FREE PARKING" SIGN (1) 2 EA. (THIS SHEET)
 - "VAN ACCESSIBLE" SIGN (2) 1 EA. (THIS SHEET)
 - "NO PARKING FIRE LANE" SIGN (4) 4 EA. (THIS SHEET)
 - "CROSSWALK" SIGN (2) 2 EA. (THIS SHEET)
- REFER TO SHEET C-7.0 FOR SIGN DETAILS

- CITY OF NOVI FIRE DEPARTMENT NOTES:**
- ALL WEATHER ACCESS ROADS CAPABLE OF SUPPORTING 35 TONS ARE TO BE PROVIDED FOR FIRE APPARATUS PRIOR TO CONSTRUCTION ABOVE THE FOUNDATION.
 - ALL WATER MAINS AND FIRE HYDRANTS ARE TO BE INSTALLED AND BE IN SERVICE PRIOR TO CONSTRUCTION ABOVE THE FOUNDATION.
 - THE BUILDING ADDRESS IS TO BE POSTED FACING THE STREET THROUGHOUT THE CONSTRUCTION. THE ADDRESS IS TO BE AT LEAST 3 INCHES HIGH ON CONTRASTING BACKGROUND.
- SITE ACCESS NOTES:**
- THE CONTRACTOR IS TO STAGE CONSTRUCTION IN DPW ENTRANCE DRIVE TO MAINTAIN ACCESS TO DPW SITE AT ALL TIMES DURING CONSTRUCTION. PART WIDTH CONSTRUCTION WILL BE REQUIRED.
- WAIVER REQUEST:**
- 3.6.2.0 FRONT YARD SETBACK ADJACENT TO FREETWAY ROW (SCREENING)
 - 5.5.3b.1 GREENBELT TREES (LANDSCAPE)



- LEGEND**
- IRON FOUND
 - WOOD SET
 - WALL & CUP SET
 - BRASS PLUG SET
 - WOUND FOUND
 - WOUND SET
 - RECORDED
 - MEASURED
 - CALCULATED
- NOTES:**
- SH-ELEC-OR-CABLE TO SIX LINE, PAIR & GUY WIRE
 - UG-DAY-TR-UNDERGROUND CABLE TO SIX FEET
 - UG-FOUR-OR-UG-ELECTRICAL CABLE, POSTER, & MANHOLE
 - UG-ELECTRICAL CABLE, MANHOLE, WITH A PARALLEL SIX INCH WALL & SIX LINE WIRE
 - 1.5' MINIMUM 4" OD GATE VALVE, TAPPING ELBOW & VALVE
 - SHUTTER VALVE, COUPLER & WRENCH
 - STORM SEWER, COUPLER & MANHOLE
 - COUPLER SEWER & MANHOLE
 - STORM SEWER & STORM SEWER MANHOLE
 - POST HOLE FOR STORM SEWER
 - STORM SEWER & STORM SEWER MANHOLE
 - WATER, TRANSPORT, BRASS/BRONZE CONTROL VALVE
 - MODIFIED STRUCTURE
 - SEWAGE
- CONCRETE**
- CONC
 - CONCRETE
- ASPHALT**
- ASPH
 - ASPHALT



REFERENCE DRAWINGS

CITY OF NOVI DPW, DRAWN 12/27/2006
 NOVI DPW WATERMAIN EXTENSION, JCK & ASSOCIATES, JOB NO. 10-0066A, DATED 5-27-05
 FEMA FIRM 26150627F, DATED SEPTEMBER 29, 2006
 CITY OF NOVI LAND RECORDS
 OAKLAND COUNTY PROPERTY GATEWAY
 OCM ADVISORS JOB # D163-12-0020



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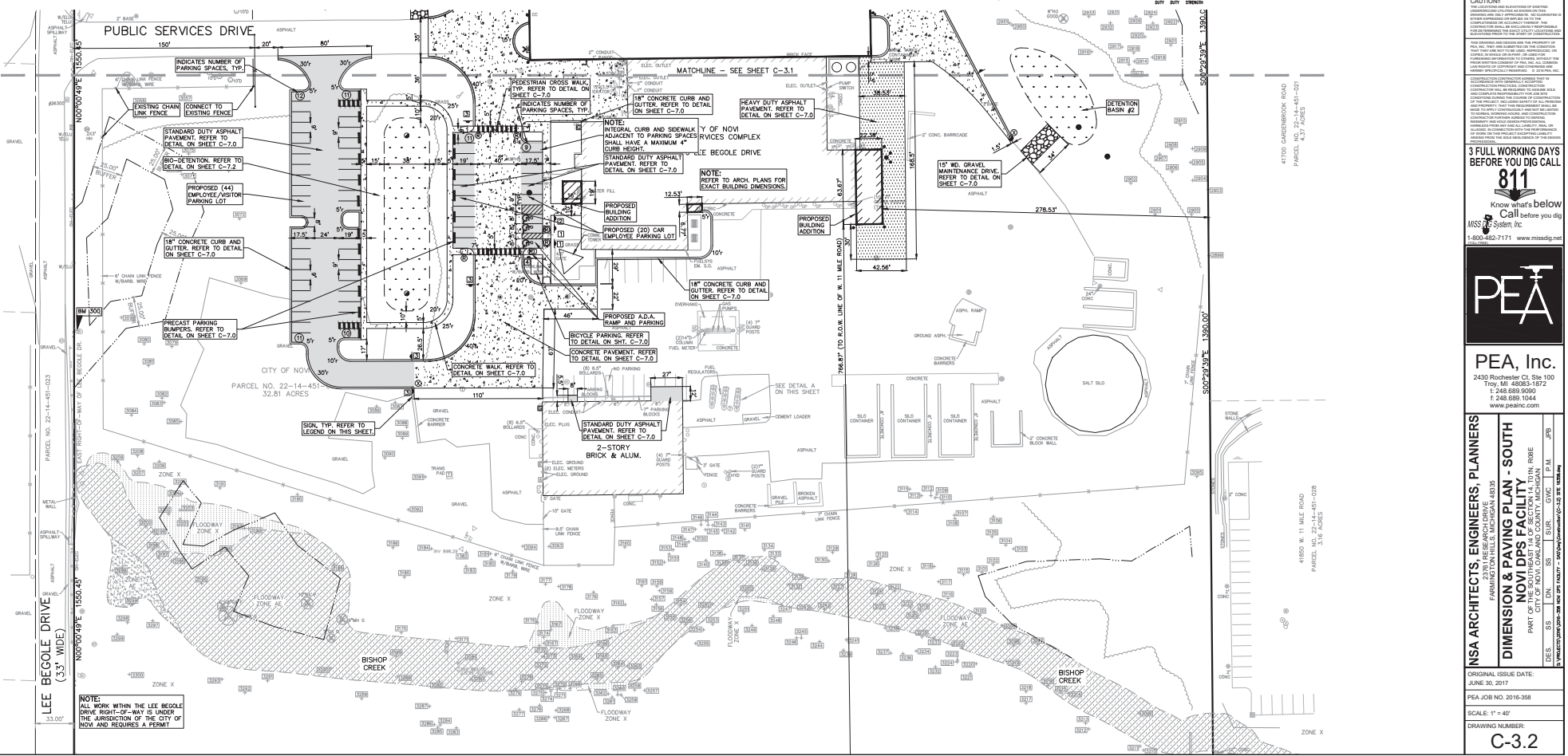
PEA, Inc.
 2430 Rochester Ct, Ste 100
 Troy, MI 48063-1872
 T: 248.689.9090
 F: 248.689.1044
 www.peainc.com

NSA ARCHITECTS, ENGINEERS, PLANNERS
 2370 FREEMARCH DRIVE
 FARMINGTON HILLS, MICHIGAN 48334

DIMENSION & PAVING PLAN - SOUTH
 PART OF THE DPW FACILITY
 CITY OF NOVI, OAKLAND COUNTY, MICHIGAN

DES. SS DN. SS SH. SUR. CIV. E. P.M. I.P.S.

ORIGINAL ISSUE DATE:
 JUNE 30, 2017
 PEA JOB NO. 2016-356
 SCALE: 1" = 40'
 DRAWING NUMBER:



C-3.2

SHEET L-1.0

DECIDUOUS TREE PLANT LIST:

QUANTITY	KEY SYMBOL	COMMON NAME	SCIENTIFIC NAME	SIZE	SPEC	COMMENT
6	ALS	Allegheny Serviceberry	<i>Aamelancher laevis</i>	8" HL	BAB	Native
6	AR3	Red Maple	<i>Acer rubrum</i>	3" CAL	BAB	Native
4	AS3	Green Mountain Sugar Maple	<i>Acer saccharum 'Green Mountain'</i>	3" CAL	BAB	Native
8	CA8	Pagoda Dogwood	<i>Cornus alternifolia</i>	8" HL	BAB	Non-Native
4	CC8	Eastern Redbud	<i>Cornus canadensis</i>	8" HL	BAB	Native
4	GT3	Skyline Honeylocust	<i>Gleditsia triacanthos 'Skyline'</i>	3" CAL	BAB	Native
9	MP3	Prasifera Crab	<i>Malus 'Prasifera'</i>	3" CAL	BAB	Non-Native
2	PA3	Encore London Planetree	<i>Platanus x acerifolia 'Encore'</i>	3" CAL	BAB	Non-Native
13	QB3	Sweep White Oak	<i>Quercus bicolor</i>	3" CAL	BAB	Native
11	QM3	Bur Oak	<i>Quercus macrocarpa</i>	3" CAL	BAB	Native
4	QR3	Red Oak	<i>Quercus rubra</i>	3" CAL	BAB	Native
16	TB3	Boulevard Linden	<i>Tilia americana Boulevard</i>	3" CAL	BAB	Native

EVERGREEN TREE PLANT LIST:

QUANTITY	KEY SYMBOL	COMMON NAME	SCIENTIFIC NAME	SIZE	SPEC	COMMENT
13	PD8	Black Hills Spruce	<i>Picea glauca 'Densa'</i>	8" HL	BAB	Native
11	PE8	White Spruce	<i>Picea glauca</i>	8" HL	BAB	Native
4	PS8	Eastern White pine	<i>Pinus strobus</i>	8" HL	BAB	Native

PRELIMINARY LANDSCAPE CALCULATION:

PER CITY OF NOVI ZONING ORDINANCE (AMENDED 6.22.17) - ZONED I-1 DISTRICT
NOVI DPS, NOV: 2016-358

INTERIOR PARKING LOT LANDSCAPE
REQUIRED: 1 TREE PER 35 LF OF PAVED VEHICULAR PERIMETER
A. SF OF PAVED AREA UNDER 50,000 SF = 50,000 SF x .55 = 2,750 SF
B. SF OF ADDITIONAL PAVED AREA OVER 50,000 SF = 23,381 SF x .26 = 6,079 SF
A+B=C: 2,750 + 6,079 = 8,829 SF OF ISLANDS REQUIRED
E. C/200 = 2,617/200 = 13.08 CANOPY TREES REQUIRED

PROVIDED: 13,923 SF OF INTERIOR LANDSCAPE ISLAND AREA
13.37 CAL DEC. TREES

VEHICULAR PERIMETER PARKING LOT
REQUIRED: 1 TREE PER 35 LF OF PAVED VEHICULAR PERIMETER
3,116 LF OF PARKING LOT / 35 LF = 89 TREES REQUIRED

PROVIDED: 20 EXISTING TREES (WITHIN 15' OF NEW PAVING) AND - 89 3" CAL DEC OR 8" EVG. TREES

FOUNDATION PLANTINGS
REQUIRED: LF OF BUILDING PERIMETER x 8 = REQ. SF BLDG. FDN. PLANTINGS
FIREARMS TRAINING BLDG = 260 LF x 8 = 2,080 SF
FIELD SERVICES BLDG (ADDITION) = 727 LF x 8 = 5,816 SF

PROVIDED: FIREARMS TRAINING BLDG = 2,942 SF FDN. PLANTINGS
FIELD SERVICES BLDG = 6,911 SF FDN. PLANTINGS

TREE REPLACEMENT:
REQUIRED: 1 REPLACEMENT : 8" < 11" = 46 TREES (46 REPLACEMENT REQUIRED)
2 REPLACEMENT : >11" < 20" = 31 TREES (62 REPLACEMENT REQUIRED)
3 REPLACEMENT : >20" < 30" = 4 TREES (12 REPLACEMENT REQUIRED)

TOTAL REQUIRED REPLACEMENT TREES = 120

PROVIDED: 120 REPLACEMENT TREES

DETENTION BASIN LANDSCAPE

REQUIRED: 70-75% AREA NATIVE SHRUBS PLANTED ABOVE THE HIGH WATER ELEVATION. BOTTOM OF BASIN PLANTED IN NATIVE GRASSES/ GROUNDCOVER.
PROVIDED: 70-75% AREA NATIVE SHRUBS AND NATIVE SEED MIXES

LANDSCAPE MAINTENANCE

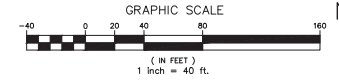
A LANDSCAPE MAINTENANCE IS BEING REQUESTED TO PROVIDE NO ROW LANDSCAPE TREES ELEVATION. BOTTOM OF BASIN PLANTED IN NATIVE GRASSES/ GROUNDCOVER.
PROVIDED: 70-75% AREA NATIVE SHRUBS AND NATIVE SEED MIXES

ROW LANDSCAPE SCREENING

REQUIRED: 1 CANOPY DEC. TREE OR LARGE EVG. TREE/ 60 LF, 1 SUB CANOPY DEC. TREE/ 40 LF

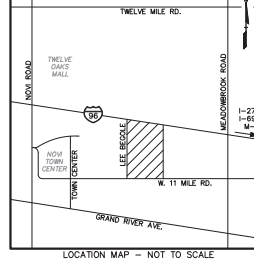
(760 LF - 24 - 30)/60 = 12 CANOPY TREES
(760 LF - 24 - 30)/40 = 18 SUB CANOPY TREES

PROVIDED: 43 EXISTING CANOPY TREES, 6 EVERGREEN TREES, AND ONE ORNAMENTAL TREE ARE TO BE SAVED ON SITE WITHIN THE 25' GREENBELT WIDTH ADJACENT TO LEE BEGOLE DRIVE.



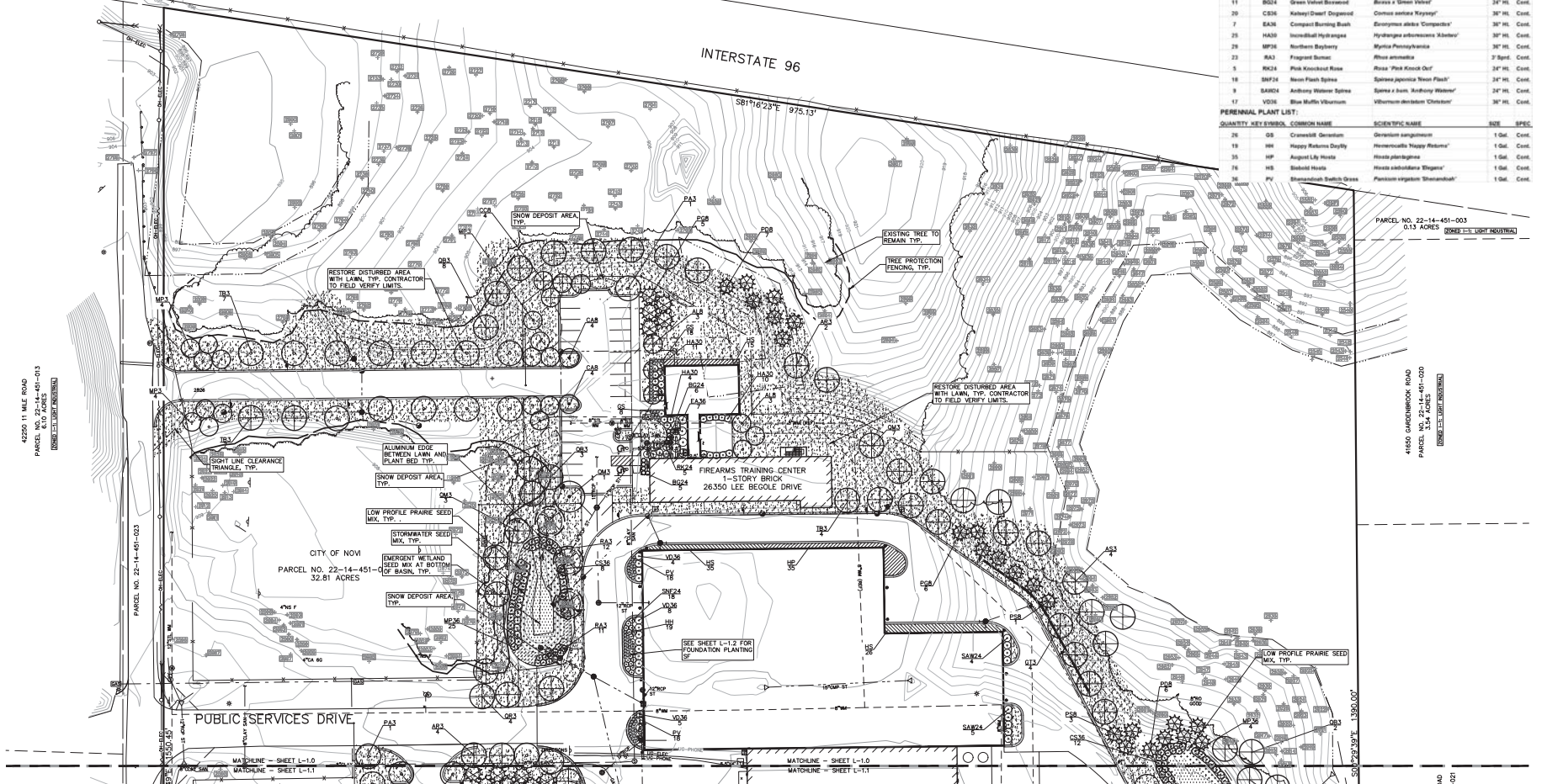
KEY:

- INTERIOR PARKING LOT TREES
- PERIMETER PARKING LOT TREES
- REPLACEMENT TREES
- PERENNIALS
- LOW PROFILE PRAIRIE SEED MIX & STAGED EROSION MAT BY CARDNO NATIVE PLANT NURSERY PHONE 574. 988. 2412
- STORMWATER SEED MIX & STAGED EROSION MAT BY CARDNO NATIVE PLANT NURSERY PHONE 574. 988. 2412
- EMERGENT SEED MIX & STAGED EROSION MAT BY CARDNO NATIVE PLANT NURSERY PHONE 574. 988. 2412
- RAIN GARDEN PLANTINGS TO BE DETAILED DURING CONSTRUCTION
- EXISTING TREES TO REMAIN WITH TREE PROTECTION FENCE
- *NOTE: PLANT MATERIAL SHALL BE PLANTED A MINIMUM OF 4' OFF OF PROPERTY LINES



REVISIONS

NO.	DATE	DESCRIPTION
1	06/20/2017	ISSUED FOR PERMIT
2	06/20/2017	ISSUED FOR PERMIT
3	06/20/2017	ISSUED FOR PERMIT
4	06/20/2017	ISSUED FOR PERMIT
5	06/20/2017	ISSUED FOR PERMIT
6	06/20/2017	ISSUED FOR PERMIT
7	06/20/2017	ISSUED FOR PERMIT
8	06/20/2017	ISSUED FOR PERMIT
9	06/20/2017	ISSUED FOR PERMIT
10	06/20/2017	ISSUED FOR PERMIT
11	06/20/2017	ISSUED FOR PERMIT
12	06/20/2017	ISSUED FOR PERMIT
13	06/20/2017	ISSUED FOR PERMIT
14	06/20/2017	ISSUED FOR PERMIT
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45	06/20/2017	ISSUED FOR PERMIT
46	06/20/2017	ISSUED FOR PERMIT
47	06/20/2017	ISSUED FOR PERMIT
48	06/20/2017	ISSUED FOR PERMIT
49	06/20/2017	ISSUED FOR PERMIT
50	06/20/2017	ISSUED FOR PERMIT



SHRUB PLANT LIST:

QUANTITY	KEY SYMBOL	COMMON NAME	SCIENTIFIC NAME	SIZE	SPEC
11	BS24	Green Yucca	<i>Yucca x Green Yucca</i>	24" HL	Cont.
26	CS8	Kalm's Dwarf Dogwood	<i>Cornus canadensis 'Kalm's'</i>	8" HL	Cont.
7	SA36	Compact Burning Bush	<i>Euonymus alatus 'Compactus'</i>	36" HL	Cont.
25	HA30	Innocent Bush	<i>Hydrangea paniculata 'Innocent'</i>	30" HL	Cont.
29	MP36	Northern Bayberry	<i>Myrica pensylvanica</i>	36" HL	Cont.
23	RA3	Fragrant Spice	<i>Rhus aromatica</i>	3" Spd.	Cont.
5	RK24	Pink Knockout Rose	<i>Rosa 'Pink Knock Out'</i>	24" HL	Cont.
18	SW24	Black Flash Spirea	<i>Spiraea japonica 'Black Flash'</i>	24" HL	Cont.
3	SAR24	Anthony's Winter Spine	<i>Spiraea x Jans. Anthony's Winter'</i>	24" HL	Cont.
17	VD36	Blue Muffs Viburnum	<i>Viburnum dentatum 'Chickadee'</i>	36" HL	Cont.

PERENNIAL PLANT LIST:

QUANTITY	KEY SYMBOL	COMMON NAME	SCIENTIFIC NAME	SIZE	SPEC
26	GS	Crabapple	<i>Malus domestica</i>	1 Gal.	Cont.
18	HS	Happy Returns Drift	<i>Hebe x Happy Returns'</i>	1 Gal.	Cont.
35	HP	August Lily Hyacinth	<i>Hyacinthus orientalis</i>	1 Gal.	Cont.
16	HS	Black Mondo Grass	<i>Ophiopogon planifolius</i>	1 Gal.	Cont.
16	PT	Stonewall Heath Grass	<i>Panicum virgatum 'Stonewall'</i>	1 Gal.	Cont.

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Farmington Hills, Michigan 48335

LANDSCAPE PLAN
NOVI DPS FACILITY
PART OF THE CITY OF NOVI, OAKLAND COUNTY, MICHIGAN

DES. JTS. DN. JS. SUR. GWC. P.M. JPS
BY: [Signature]

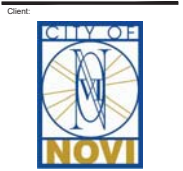
ORIGINAL ISSUE DATE: JUNE 20, 2017
PEA JOB NO. 2016-358
SCALE: 1" = 40'
DRAWING NUMBER: L-1.0



2 EXTERIOR RENDERING



1 EXTERIOR RENDERING



Project Title:
**DEPT. OF PUBLIC
 SERVICES
 RENOVATION &
 ADDITION**

Date:	Issued for:
6-30-2017	PRE-APPLICATION
	SUBMISSION
7-26-2017	SITE PLAN APPROVAL

Drawn:	Designed:
Checked:	Approved:

CAD Drawing File:
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 NSA Architects, Engineers, Planners

Project Number: **216405.00**

Sheet Title:
**EXTERIOR
 RENDERING**

Sheet Number: **A-503**



Existing/ New Metal Panels
Sherwin Williams Amazing Gray



Metal Panels @ Entry Lobby
Alucobond Dusty Charcoal



Curtain Wall & Windows
Clear Anodized



Entry Lobby



Fiber Cement Board @ Entry Lobby
Nichiha VintageWood Redwood



Utility Brick
Brick Tech TCP-#320 Grey

DPS



26300 Lee Begole Drive, Novi, MI

Exterior Material Finishes

NSA Project No. 216405.00, July 26, 2017



PLANNING REVIEW



PLAN REVIEW CENTER REPORT

August 24, 2017

Planning Review

City of Novi DPS/Gun Range Additions

JSP 17-42

Petitioner

NSA Architects, Engineers, Planners on behalf of the City of Novi

Review Type

Preliminary/Final Site Plan

Property Characteristics

Section	14	
Site Location	26300 Lee BeGole Drive; North of Eleven Mile Rd., East of Meadowbrook Rd.	
Site School District	Novi Community School District	
Site Zoning	I-1, Light Industrial	
Adjoining Zoning	North	I-96 Freeway
	East	I-1, Light Industrial
	West	I-1, Light Industrial
	South	I-1, Light Industrial
Current Site Use	City of Novi Public Services and Police Gun Range	
Adjoining Uses	North	Freeway
	East	Office buildings
	West	Industrial buildings
	South	Cell tower, open space
Site Size	32.81 acres	
Plan Date	July 26, 2017	

Project Summary

The applicant is proposing to update Department of Public Services Building and Police Gun Range in the City of Novi. The proposed plan includes an approximately 40,700 square foot new garage for 56 heavy and light duty trucks and a 2,750 square foot training classroom for 28 students. Site amenities include additional parking, a new entrance to the Gun Range that can be secured separate from the DPS facilities, and bioswales. There are no proposed changes to the Recycling facility at this time.

Recommendation

Approval of the **Preliminary Site Plan is recommended**, but **Final Site Plan is not recommended** at this time. The plan mostly conforms to the requirements of the Zoning Ordinance, with a few deviations listed in this and other review letters. **Planning Commission approval of the Special Land Use, Preliminary Site Plan, Woodland Permit, and Storm Water Management Plan are required.**

Special Land Use Considerations

The site plan is proposing a municipal use in the I-1, light industrial district, which requires a Special Land Use Permit. This must be approved by the Planning Commission in accordance with requirements of Section 6.1.2.C for special land uses and subject to the public hearing requirements set forth and regulated in Section 6.2.

Section 6.1.2.C of the Zoning Ordinance outlines specific factors the Planning Commission shall consider in the review of any Special Land Use:

- i. Whether, relative to other feasible uses of the site, the proposed use will cause any detrimental impact on existing thoroughfares in terms of overall volumes, capacity, safety, vehicular turning patterns, intersections, view obstructions, line of sight, ingress and egress, acceleration/deceleration lanes, off-street parking, off-street loading/unloading, travel times and thoroughfare level of service.
- ii. Whether, relative to other feasible uses of the site, the proposed use will cause any detrimental impact on the capabilities of public services and facilities, including water service, sanitary sewer service, storm water disposal and police and fire protection to service existing and planned uses in the area.
- iii. Whether, relative to other feasible uses of the site, the proposed use is compatible with the natural features and characteristics of the land, including existing woodlands, wetlands, watercourses and wildlife habitats.
- iv. Whether, relative to other feasible uses of the site, the proposed use is compatible with adjacent uses of land in terms of location, size, character, and impact on adjacent property or the surrounding neighborhood.
- v. Whether, relative to other feasible uses of the site, the proposed use is consistent with the goals, objectives and recommendations of the City's Master Plan for Land Use.
- vi. Whether, relative to other feasible uses of the site, the proposed use will promote the use of land in a socially and economically desirable manner.
- vii. Whether, relative to other feasible uses of the site, the proposed use is
 - a. Listed among the provision of uses requiring special land use review as set forth in the various zoning districts of this Ordinance, and
 - b. Is in harmony with the purposes and conforms to the applicable site design regulations of the zoning district in which it is located.

Ordinance Requirements

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

Ordinance Deviations

1. Planning Commission Waivers
 - I. Off-street Parking in Front Yard (Sec. 3.6.2.E) – waiver from required wall or landscaped berm
 - II. Adjacent to Freeway ROW (Sec. 3.14.4 & 5.5.3.B.ii) – waiver from required wall or landscaped berm
 - III. Noise Analysis (Sec. 4.43) – waiver from required noise analysis required for Special Land Use permit
 - IV. Street Tree Requirement (Sec. 5.5.3.E.i.c) – waiver for lack of street trees along Lee BeGole Drive (16 required; 0 provided)
 - V. Section 9 Façade Waiver for DPS addition – underage of brick (min 30%, 25% proposed), use of painted brick (0% allowed, 17% proposed), overage of flat metal panels (max 50%, 69% proposed), and use of fiber cement siding (max 0%, 4% proposed)

Please see the attached chart for information pertaining to ordinance requirements. Items in **bold** below must be addressed and incorporated as part of the Revised Final Site Plan:

1. Off-street parking in Front Yard (Sec. 3.6.2.E): Provide the percentage of the front yard that is occupied by the proposed parking. **Applicant is requesting a waiver from the required wall or landscaped berm because of existing natural vegetation. Planning Commission determination about parking in front yard is required based on standards in Sec. 3.6.2.Q.**
2. Adjacent to Freeway ROW (Sec. 3.14.4): Uses abutting a freeway right-of-way require no parking within 20 ft. and a 4.5 ft. wall or landscape berm. **The applicant is requesting a landscape waiver from the required wall or landscaped berm because of existing natural vegetation and 170.27 ft. setback provided.**

3. Number of Parking Spaces (Sec. 5.2.12.E): DPS is considered a warehouse facility with accessory offices. Based on the provided square footage of 77,550 – 111 parking spaces are required. The closest parking category for the Police Gun Range is a private club or lodge hall. Based on the provided maximum occupancy of 44 – 15 parking spaces are required. In total 126 parking spaces are required. The applicant has provided 104 spaces. **Provide the usable square footage of the DPS building in order to accurately compute the required parking.**
4. Noise Analysis (Sec. 4.43): All special land use permits require a noise analysis to be performed. **The applicant is requesting a waiver from the required noise analysis because the uses are not changing and noise will be reduced by storing of vehicles indoors.**
5. Lighting Plan (Sec. 5.7.2.A.ii): Lighting plan requires the following information to be on the photometric sheet PE-01: **fixture height, hours of operation, notes (Sec. 5.7.3.B), security lighting, and walkway illumination levels.**
6. Wayfinding Signage: **The applicant should consider wayfinding signage throughout the development to aid visitors and employees in navigating the new configuration.**
7. Emergency Access between DPS and Gun Range: The proposed development provides a new entrance for the Gun Range and to use the current connection as an emergency access point in order to be able to provide classes at the Gun Range without providing access to the DPS facilities. **The plans show curbs being proposed along this emergency access route that would be in conflict with Fire Code. Please clarify the emergency access route and confirm with the Fire Marshal that the emergency access proposed meets standards.**
8. Community Impact Statement (Site Plan and Development Manual): A Community Impact Statement is required for all non-residential projects over 10 acres in size for a special land use. **The applicant should provide a Community Impact Statement prior to the Planning Commission meeting submittal (due Sept. 6th).**

Other Reviews

- a. Engineering Review: **Engineering recommends approval of the Preliminary Site Plan**, however does not recommend approval of the Final Site Plan.
- b. Landscape Review: **Landscape recommends approval of the Preliminary and Final Site Plan.**
- c. Traffic Review: **Traffic recommends approval of the Preliminary Site Plan**, however does not recommend approval of the Final Site Plan.
- d. Wetland Review: **Wetland recommends approval of the Preliminary and Final Site Plan.**
- e. Woodland Review: **Woodland recommends approval of the Preliminary and Final Site Plan.**
- f. Facade Review: **Façade recommends a Section 9 Façade waiver for the DPS addition and approval of the firing range addition.**
- g. Fire Review: **Fire recommends approval with conditions** at this time.

NEXT STEP: Planning Commission Meeting

This Site Plan is scheduled to go before Planning Commission for consideration on September 13, 2017. Please provide the following via email to Sri Komaragiri **no later than 12:00pm, September 6, 2017** if you wish to keep the schedule.

1. Original Site Plan submittal in PDF format (maximum of 10MB). **NO CHANGES MADE.**
2. A response letter addressing ALL the comments from ALL the review letters and **a request for waivers as you see fit.**
3. A color rendering of the Site Plan, if any.

Revised Site Plan Submittal

Engineering, Planning, and Traffic are not recommending approval of the Final Site Plan. Once Planning Commission has reviewed the plans, please provide a Revised Final Site Plan submittal. Refer to each of the review letters for more details. Please submit the following for reconsideration:

1. A site plan revision application
2. 4 copies of revised site plan addressing pending comments from reviews which are currently not recommending approval.
3. Response letter **addressing all comments and refer to sheet numbers where the change is reflected.**

Stamping Set Approval

Stamping sets are still required for this project. After having received all of the review letters from City staff the applicant should make the appropriate changes on the plans and submit **10 size 24" x 36" copies with original signature and original seals**, to the Community Development Department for final Stamping Set approval.

Pre-Construction Meeting

A Pre-Construction meeting is required for this project. Prior to the start of any work on the site, Pre-Construction (Pre-Con) meetings must be held with the applicant's contractor and the City's consulting engineer. Pre-Con meetings are generally held after Stamping Sets have been issued and prior to the start of any work on the site. There are a variety of requirements, fees and permits that must be issued before a Pre-Con can be scheduled. If you have questions regarding the checklist or the Pre-Con itself, please contact Sarah Marchioni [248.347.0430 or smarchioni@cityofnovi.org] in the Community Development Department.

Chapter 26.5

Chapter 26.5 of the City of Novi Code of Ordinances generally requires all projects be completed within two years of the issuance of any starting permit. Please contact Sarah Marchioni (248.347.0430 or smarchioni@cityofnovi.org) for additional information on starting permits. The applicant should review and be aware of the requirements of Chapter 26.5 before starting construction.

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



Kirsten Mellem, Planner



PLANNING REVIEW CHART

Review Date: August 24, 2017
Review Type: Preliminary/Final Site Plan
Project Name: JSP17-42: **City of Novi DPS Renovation & Gun Range Addition**
Plan Date: 7-26-2017
Prepared by: Kirsten Mellem, Planner
E-mail: kmellem@cityofnovi.org; **Phone:** 248.347.0484

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

Item	Required Code	Proposed	Meets Code	Comments
Zoning and Use Requirements				
Master Plan <i>(Adpt. 8-25-2010)</i>	Public	Public	Yes	
Area Study	The site does not fall under any special category	NA	NA	
Zoning <i>(Eff. 12-25-2013)</i>	I-1: Light Industrial District	Same	Yes	
Uses Permitted (Sec 3.1.18.B & C)	Sec 3.1.18.B Principal Uses Permitted. Sec 3.1.18.C Special Land Uses	Municipal Use (not abutting residential)	Yes	Municipal Use requires Special Land Use approval from the Planning Commission
Height, bulk, density and area limitations (Sec 3.1.18)				
Frontage on a Public Street. <i>(Sec. 5.12)</i>	Frontage on a Public Street is required	Existing frontage on Lee BeGole Dr.	Yes	
Access to Major Thoroughfare <i>(Sec. 5.13)</i>	Vehicular access shall be provided only to an existing or planned major thoroughfare or freeway service drive	Access to Eleven Mile Road is provided	Yes	
Minimum Zoning Lot Size for each Unit in Ac <i>(Sec 3.6.2.D)</i>	Except where otherwise provided in this Ordinance, the minimum lot area and width, and the maximum percent of lot coverage shall be determined on the basis of off-street parking, loading, greenbelt screening, yard setback or usable open space		Yes	
Minimum Zoning Lot Size for each Unit: Width in Feet			Yes	
Open Space Area	----	----	NA	---
Maximum % of Lot Area Covered (By All Buildings)	<i>(Sec 3.6.2.D)</i>	8.66%	Yes	

Item	Required Code	Proposed	Meets Code	Comments
Building Height (Sec. 3.1.18.D)	40 ft.	29' 4" – DPS 23' 4" – Gun Range	Yes	Provide in site data table height of building
Building Setbacks (Sec 3.1.18.D)				
Front (west)	40 ft.	387.69 ft.	Yes	Parcel has three front yards: Lee BeGole, Eleven Mile and I-96
Rear (east)	20 ft.	278.53 ft.	Yes	
Exterior Side (north)	40 ft. (Sec. 3.6.2.C)	215.53 ft.	Yes	
Exterior Side (south)	40 ft. (Sec. 3.6.2.C)	766.87 ft.	Yes	
Parking Setback (Sec 3.1.18.D)& Refer to applicable notes in Sec 3.6.2				
Front (west)	40 ft. (See 3.6.2.E)	170.27 ft.	Yes	Provide parking setback dimensions on the site plan and in site data table for each side.
Rear (east)	10 ft.	> 10 ft.	Yes	
Exterior Side (north)	40 ft.	> 40 ft.	Yes	
Exterior Side (south)	40 ft.	> 40 ft.	Yes	
Note To District Standards (Sec 3.6.2)				
Exterior Side Yard Abutting a Street (Sec. 3.6.2.C)	All exterior side yards abutting a street shall be provided with a setback equal to front yard.	Both of the side yards abut a street	Yes	
Off-Street Parking in Front Yard (Sec. 3.6.2.E)	Off-street parking is allowed in front yard if: <ul style="list-style-type: none"> - the site is a minimum 2 acre site, - does not extend into the minimum required front yard setback of the district, - cannot occupy more than 50% of the area between min. front yard setback & bldg. setback, - must be screened by brick wall or landscaped berm - lighting compatible with surrounding neighborhood 	32.81 acres Greater than 40 ft. Not Known Waiver requested Lighting proposed	Yes?	Provide the percentage of the front yard that the parking spaces occupy. Applicant is requesting a Planning Commission waiver if conditions in Sec. 3.6.2.Q are met
Off-Street Parking in Side and Rear Yards (Sec. 3.6.2.F)	Off-street parking is allowed in side and rear yards if the site does not abut residential. If it does, additional conditions apply.	Does not abut residential	NA	
Setback from Residential District (Sec. 3.6.2.H)	I-1 and I-2 districts, five (5) feet of horizontal setback for each foot of building height, or one-hundred (100) feet, whichever is greater. Except when a site or rear yard is separated from a residential district by a railroad right-of-way, the right-of-way may be included as part of the	Does not abut residential	NA	

Item	Required Code	Proposed	Meets Code	Comments
	setback requirement.			
Wetland/Watercourse Setback (Sec. 3.6.2.M)	A setback of 25 ft. from wetlands and from high watermark course shall be maintained	Wetlands on site and setback proposed	Yes	
Additional Height (Sec. 3.6.2.O)	Additional heights for selected building is allowed based on conditions listed in Sec 3.6.2.O	NA	NA	
Parking setback screening (Sec. 3.6.2.P)	Required parking setback area shall be landscaped per sec 5.5.3.		Yes?	See Landscape Review Chart
Modification of parking setback requirements (Sec. 3.6.2.Q)	The Planning Commission may modify parking setback requirements based on conditions listed in Sec 3.6.2.Q	Lack of front yard parking screening adjacent to I-96 and Lee BeGole Dr.	Yes?	Waiver requested because of existing natural vegetative buffer
Parking, Loading and Dumpster Requirements				
Number of Parking Spaces Warehouses and wholesale establishments and related accessory offices (Sec. 5.2.12.E) Private clubs or lodge halls (Sec. 5.2.12.B)	DPS One (1) space for each seven hundred (700) square feet of usable floor area or five (5) plus one (1) for each one and one-half (1 ½) employees in the largest working shift, whichever is greater. 77,550 sq. ft. / 700 = 111 spaces OR 5 + (80/1.5)=58 spaces Gun Range 1 for each 3 persons allowed within the maximum occupancy load. 44/3 = 15 parking spaces Total Required: 126 spaces	DPS 63 spaces Gun Range 28 spaces 104 total spaces proposed	No	Provide the usable floor area for the DPS building. Site data table is inaccurate, please update to the appropriate parking calculations detailed in this chart.
Parking Space Dimensions and Maneuvering Lanes (Sec. 5.3.2)	- 90° Parking: 9 ft. x 19 ft. - 24 ft. two way drives - 9 ft. x 17 ft. parking spaces allowed along 7 ft. wide interior sidewalks as long as detail indicates a 4" curb at these locations and along landscaping	Proposed	Yes	
Parking stall located adjacent to a parking lot entrance (public or private)	- Shall not be located closer than twenty-five (25) feet from the street right-of-way (ROW) line, street easement or sidewalk,	NA	NA	

Item	Required Code	Proposed	Meets Code	Comments
(Sec. 5.3.13)	whichever is closer			
End Islands (Sec. 5.3.12)	<ul style="list-style-type: none"> - End Islands with landscaping and raised curbs are required at the end of all parking bays that abut traffic circulation aisles. - The end islands shall generally be at least 8 feet wide, have an outside radius of 15 feet, and be constructed 3' shorter than the adjacent parking stall as illustrated in the Zoning Ordinance 		Yes	See Landscape Letter regarding width of landscaped islands.
Barrier Free Spaces <i>Barrier Free Code</i>	5 barrier free parking spaces (for provided 101-150) including 1 van barrier free parking space are required	5 barrier free proposed; 3 are van accessible	Yes	
Barrier Free Space Dimensions <i>Barrier Free Code</i>	<ul style="list-style-type: none"> - 8' wide with an 8' wide access aisle for van accessible spaces - 5' wide with a 5' wide access aisle for regular accessible spaces 	Proposed	Yes	
Barrier Free Signs <i>Barrier Free Code</i>	One sign for each accessible parking space.	Proposed	Yes	
Minimum number of Bicycle Parking (Sec. 5.16.1)	Five (5) percent of required automobile spaces, minimum two (2) spaces 6 spaces required	Proposed	Yes	
Bicycle Parking General requirements (Sec. 5.16)	<ul style="list-style-type: none"> - No farther than 120 ft. from the entrance being served - When 4 or more spaces are required for a building with multiple entrances, the spaces shall be provided in multiple locations - Spaces to be paved and the bike rack shall be inverted "U" design - Shall be accessible via 6 ft. paved sidewalk 	Proposed	Yes	
Bicycle Parking Lot layout (Sec 5.16.6)	Parking space width: 6 ft. One tier width: 10 ft. Two tier width: 16 ft. Maneuvering lane width: 4 ft.	Proposed	Yes	

Item	Required Code	Proposed	Meets Code	Comments
	Parking space depth: 2 ft. single, 2 ½ ft. double			
Loading Spaces (Sec. 5.4.1)	Loading area in the rear yard; Loading area in interior side yard if it is adjacent to I, EXPO or EXO district	Existing	NA	
Accessory Structures				
Dumpster (Sec 4.19.2.F)	<ul style="list-style-type: none"> - Located in rear yard - Attached to the building or - No closer than 10 ft. from building if not attached - Not located in parking setback - If no setback, then it cannot be any closer than 10 ft, from property line. - Away from Barrier Free Spaces 	Existing	NA	
Dumpster Enclosure (Sec. 21-145. (c))	<ul style="list-style-type: none"> - Screened from public view - A wall or fence 1 ft. higher than height of refuse bin - And no less than 5 ft. on three sides - Posts or bumpers to protect the screening - Hard surface pad. - Screening Materials: Masonry, wood or evergreen shrubbery 	Existing	NA	
Roof top equipment and wall mounted utility equipment (Sec. 4.19.2.E.ii)	All roof top equipment must be screened and all wall mounted utility equipment must be enclosed and integrated into the design and color of the building	Screening proposed	Yes	See façade review for additional comments
Roof top appurtenances screening	Roof top appurtenances shall be screened in accordance with applicable facade regulations, and shall not be visible from any street, road, or adjacent property.	Screening proposed	Yes	
I-1 District Required Conditions (Sec 3.14)				
Outdoor Storage of above ground storage tanks	Outdoor placement of above-ground storage tanks of not more than 600	Existing	NA	

Item	Required Code	Proposed	Meets Code	Comments
(Sec. 3.14.1.B.ii)	capacity per tank and accessory to an otherwise permitted use. Additional conditions apply.			
Outdoor Storage of Recreational Equipment (Sec. 3.14.1.B.iii)		Not Proposed	NA	
Other (Sec 3.14.2)	Unless otherwise provided, dealing directly with consumer at retail, is prohibited.	Not Proposed; municipal use	NA	
Adjacent to Freeway ROW (Sec 3.14.4)	Where a permitted use abuts a freeway right-of way, special conditions listed in section 3.14.4 apply: - No parking within 20 ft. of ROW - 4.5 ft. brick wall or landscaped berm required	Adjacent to I-96 ROW; Parking proposed 170.27 ft. from ROW; No wall or berm proposed	Yes?	Applicant is seeking a Planning Commission waiver; consideration is based on if conditions in Sec. 3.6.2.Q are met
Adjacent to Residential Dist. (Sec 3.14.5)	Where a permitted use abuts a residential district	Proposed use does not abut residential	NA	
Planning Commission findings for permitted uses (Sec 3.14.3.A)	Protecting current and future residential uses from development impact	Not adjacent to residential	NA	
Long term truck parking Sec 3.14.3.B	No long term delivery truck parking on site	Not proposed	Yes	Long term delivery truck parking is not allowed on site. Please add a note to the site plan
Performance standards Sec 3.14.3.C	The lighting, noise, vibration, odor and other possible impacts are in compliance with standards and intent of the article and performance standards of Section 5.14		Yes	
Storage and/use of material Sec 3.14.3.D	The storage and/or use of any volatile, flammable or other materials shall be fully identified in application and shall comply with any city ordinances regarding toxic or hazardous materials.	Checklist provided	Yes	
Hazardous material checklist Sec 3.14.3.E	Compliance of City's hazardous materials checklist	Checklist provided	Yes	
Use Standard – Municipal Use (Sec. 4.43)				

Item	Required Code	Proposed	Meets Code	Comments
Noise Analysis	A noise analysis is required subject to the standards of Section .14.10.B	Not provided	Yes?	Applicant is requesting a Planning Commission waiver
Sidewalks and Pathways				
Article XI. Off-Road Non-Motorized Facilities	8 ft. wide pathway is existing along Eleven Mile Road		NA	<i>Lee BeGole Drive is considered an industrial drive and the Non-Motorized Master Plan does not require a sidewalk.</i>
Pedestrian Connectivity	<ul style="list-style-type: none"> - Whether the traffic circulation features within the site and parking areas are designed to assure safety and convenience of both vehicular and pedestrian traffic both within the site and in relation to access streets - Building exits must be connected to sidewalk system or parking lot. 	<p>Sidewalk within parking lots to connect to Buildings</p> <p>Unknown</p>	Yes	
Other Requirements				
Exterior lighting (Sec. 5.7)	Photometric plan and exterior lighting details needed at time of Final Site Plan submittal	Provided	Yes	
Design and Construction Standards Manual	Land description, Sidwell number (metes and bounds for acreage parcel, lot number(s), Liber, and page for subdivisions).	Provided	Yes	
General layout and dimension of proposed physical improvements	Location of all existing and proposed buildings, proposed building heights, building layouts, (floor area in square feet), location of proposed parking and parking layout, streets and drives, and indicate square footage of pavement area (indicate public or private).	Provided	Yes	
Economic Impact Information	<ul style="list-style-type: none"> - Total cost of the proposed building & site improvements - Number of anticipated jobs created (during construction & after building is occupied, if known) 	\$7 million. 70 jobs during construction. No additional staff after construction completed.	Yes	

Item	Required Code	Proposed	Meets Code	Comments
Development and Street Names	Development and street names must be approved by the Street Naming Committee before Preliminary Site Plan approval	Not Applicable	NA	
Development/ Business Sign	<ul style="list-style-type: none"> - Signage if proposed requires a permit. - Exterior Signage is not regulated by the Planning Division or Planning Commission. 	Proposed	NA	Contact the Ordinance Division for sign permit application at 248-735-5678
Lighting and Photometric Plan (Sec. 5.7)				
Intent (Sec. 5.7.1)	Establish appropriate minimum levels, prevent unnecessary glare, reduce spillover onto adjacent properties & reduce unnecessary transmission of light into the night sky	Provided	Yes	
Lighting Plan (Sec. 5.7.A.i)	Site plan showing location of all existing & proposed buildings, landscaping, streets, drives, parking areas & exterior lighting fixtures	Proposed	Yes	
Building Lighting (Sec. 5.7.2.A.iii)	Relevant building elevation drawings showing all fixtures, the portions of the walls to be illuminated, illuminance levels of walls and the aiming points of any remote fixtures.	Proposed	Yes	
Lighting Plan (Sec. 5.7.2.A.ii)	Specifications for all proposed & existing lighting fixtures	Provided	Yes	
	Photometric data	Provided	Yes	
	Fixture height	Not Provided	No	
	Mounting & design	Provided	Yes	
	Glare control devices (Also see Sec. 5.7.3.D)	Provided	Yes	
	Type & color rendition of lamps	LED	Yes	
	Hours of operation	Not Provided	No	
Photometric plan illustrating all light sources that impact the subject site, including spill-over information from neighboring properties	Provided	Yes		
Maximum Height (Sec. 5.7.3.A)	Height not to exceed maximum height of zoning	Not provided	No	

Item	Required Code	Proposed	Meets Code	Comments
	district (or 25 ft. where adjacent to residential districts or uses)			
Standard Notes (Sec. 5.7.3.B)	<ul style="list-style-type: none"> - Electrical service to light fixtures shall be placed underground - Flashing light shall not be permitted - Only necessary lighting for security purposes & limited operations shall be permitted after a site's hours of operation 	Not provided	No	Add notes to sheet PE-01
Security Lighting (Sec. 5.7.3.H) Lighting for security purposes shall be directed only onto the area to be secured.	<ul style="list-style-type: none"> - All fixtures shall be located, shielded and aimed at the areas to be secured. - Fixtures mounted on the building and designed to illuminate the facade are preferred 	Unknown	Yes?	Provide note and location of security lighting on site
Average Light Levels (Sec.5.7.3.E)	Average light level of the surface being lit to the lowest light of the surface being lit shall not exceed 4:1	4:1 proposed	Yes	
Type of Lamps (Sec. 5.7.3.F)	Use of true color rendering lamps such as metal halide is preferred over high & low pressure sodium lamps	LED	Yes	
Min. Illumination (Sec. 5.7.3.k)	Parking areas: 0.2 min	0.4 min	Yes	Provide photometrics on sidewalks
	Loading & unloading areas: 0.4 min	NA	NA	
	Walkways: 0.2 min	Not provided	No	
	Building entrances, frequent use: 1.0 min	1.0 min	Yes	
	Building entrances, infrequent use: 0.2 min	0.4 min	Yes	
Max. Illumination adjacent to Non-Residential (Sec. 5.7.3.K)	When site abuts a non-residential district, maximum illumination at the property line shall not exceed 1 foot candle	0.0 min at property line	Yes	
Cut off Angles (Sec. 5.7.3.L)	When adjacent to residential districts: <ul style="list-style-type: none"> - All cut off angles of fixtures must be 90° - maximum illumination at the property line shall not exceed 0.5 foot candle 	NA	NA	

Item	Required Code	Proposed	Meets Code	Comments
<p>NOTES:</p> <ol style="list-style-type: none"><li data-bbox="118 264 1471 327">1. This table is a working summary chart and not intended to substitute for any Ordinance or City of Novi requirements or standards.<li data-bbox="118 331 1455 394">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.<li data-bbox="118 399 1487 453">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



PLAN REVIEW CENTER REPORT

August 24, 2017

Engineering Review

City of Novi DPS Renovation and Gun Range Addition
JSP17-0042

Applicant

City of Novi

Review Type

Preliminary/Final Site Plan

Property Characteristics

- Site Location: Novi Public Services complex – 26300 Lee BeGole Drive
- Site Size: 32.73 acres
- Plan Date: June 30, 2017
- Design Engineer: PEA, Inc.

Project Summary

- Building addition to the existing Gun Range building and addition of additional garage bays and parking modifications to the Department of Public Services building.
- Water service will be provided from existing water main on site. The existing water main will be relocated to accommodate building additions.
- Storm water would be collected on site with proposed rain garden and detention on site.

Recommendation

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

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

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 revised Final Site Plan submittal. The following must be addressed prior to resubmittal:

General

1. Provide a minimum of two ties to established section or quarter section corners.
2. Revise the plan set to reference at least one city established benchmark. An interactive map of the City's established survey benchmarks can be found under the 'Map Gallery' tab on www.cityofnovi.org.
3. Provide an overall site layout plan in addition to sheet C3.1 and C3.2 which show the north and south site plan views.
4. Provide all the details for stormwater management on one sheet or sheets entitled Storm Water Management Plan.
5. On Sheet C2.2, provide a note indicating that the contractor should coordinate with Field Operations staff to relocate the 2 foot concrete barrier shown east of the existing DPS building to a different location on site.
6. Provide a note that compacted sand backfill shall be provided for all utilities within the influence of paved areas, and illustrate on the profiles.
7. Provide a construction materials table on the Paving Plan listing the quantity and material type for each pavement cross-section being proposed.
8. 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. Provide the City's standard detail sheets for water main (5 sheets-March 2014), sanitary sewer (3 sheets-March 2014), storm sewer (2 sheets-June 2012), and pathway and board walks (1 sheet-September 2015) at the time of the Stamping Set submittal. These details are available on the City's website (www.cityofnovi.org/DesignManual).

Water Main

10. Provide a profile for all proposed water main 8-inch and larger.
11. Sheet C6.1 water main comments:
 - a. At northeast corner of the Gun Range building addition, northeast corner of existing Firearm Training Center, and the proposed garage addition, provide the maximum amount of clearance possible between the building and water main, and call out an actual dimension for the clearance rather than 10' minimum.
 - b. The water main connection west of the Gun Range should be done with a 45 degree bend connecting to the west and remove the existing water main to the east.
 - c. The existing valve label west of the proposed connection should be made visible on the sheet.
 - d. The existing water main should be labeled as D.I. pipe (rather than STL).

12. Sheet C6.2 water main comments:
 - a. Use two 45-degree bends in lieu of any 90-degree water main bends proposed.
 - b. Water main cannot be routed under any building. Re-route proposed 8 inch water main around proposed building addition.
 - c. Provide a valve on the new fire lead to building addition.
 - d. The existing water main does not continue south toward Bishop Creek as shown in the existing topo, rather, the existing water main stops in-line with south end of the 2-story back building, and heads west to the 2-story back building and east toward neighboring parcel.

Sanitary Sewer

13. Sheet C6.2 existing sanitary sewer comments:
 - a. Show existing sanitary sewer that continues east of the existing manhole shown at the southwest corner of the proposed DPS garage addition.
 - b. Show existing sanitary sewer lead from the northwest corner of the 2-story back building going north to the sanitary sewer main in Public Services Drive.

Paving and Grading

14. The proposed 25-foot wide drive aisles fall within the acceptable range of two way traffic driveways depicted in Figure IX.1. The standard width is 30 feet. The large maintenance and operational vehicles require the 30 foot width to maintain two way traffic operations.
15. Revise the Site Access Notes on sheets C3.1 and C3.2 to refer to the site as DPS rather than DPW.
16. Provide a 4 inch curb height or 4 inch bumper height on parking spaces 17 feet in length. Parking spaces that are 19 feet in length should have a 6 inch curb or bumper height.
17. Revise the 18 inch curb and gutter detail on sheet C7.0 to indicate 4 inch or 6 inch curb height, as necessary.
18. Add a detail of the 24-inch curb to Sheet C7.0 or indicate an 18-inch curb and gutter along the narrow driveway between the proposed garage and existing Gun Range building. A 6 inch curb height should be provided in this area for maximum building protection.
19. Provide additional bollards at the northwest and northeast proposed garage building corners.
20. Provide additional spot grades along the proposed retaining wall east of the proposed garage addition.
21. Provide top of curb/walk and pavement/gutter grades to indicate height of curb adjacent to parking stalls or drive areas.
22. Provide existing rim elevations of the existing storm structures in detention pond 1.

23. Provide FG spot elevation adjacent to the rim of the structures in the bio-detention area and refer to the details on sheet C7.2.
24. On sheet C7.2, label the elevations on the bio-detention detail.
25. Site grading shall be limited to 1V:4H (25-percent), excluding landscaping berms. Revise the grading east of the proposed retaining wall.

Storm Sewer

26. A minimum cover depth of 3 feet shall be maintained over all storm sewers. Currently, a few pipe sections do not meet this standard. Grades shall be elevated and minimum pipe slopes shall be used to maximize the cover depth. In situations where the minimum cover cannot be achieved, Class V pipe must be used with an absolute minimum cover depth of 2 feet. An explanation shall be provided where the cover depth cannot be provided.
27. Match the 0.80 diameter depth above invert for pipe size increases.
28. Storm manholes with differences in invert elevations exceeding two feet shall contain a 2-foot deep plunge pool.
29. Remove the concrete spillway to detention basin #1. Provide a 2 foot structure in its place, connecting to CB13.
30. Remove ES18, and connect CB19 to CB13.
31. Provide a four-foot deep sump and an oil/gas separator in the last storm structure prior to discharge, at CB13 and CB4.
32. Provide storm sewer profiles for all storm sewers 12 inch and larger. Label the 10-year HGL on the storm sewer profiles, and ensure the HGL remains at least 1-foot below the rim of each structure. The downstream HGL at the end sections should be set at 0.8 of the pipe diameter above the invert.
33. Show and label all roof conductors, and show where they tie into the storm sewer.
34. Provide information about drainage from inside garage bays. Indicate where and how this drainage connects to the storm sewer system. Provide oil/gas separators as necessary where drainage from mechanical bays may tie in to storm sewer.
35. Remove item 15 from General Utility Notes on all sheets where it appears.

Storm Water Management Plan

36. Clarify the storage volume required and provided in detention area #1. Add pre- and post-development runoff calculations.
37. Provide a geotextile filter fabric under the planting material to separate it from the underdrain/base material or in-situ soils.
38. Provide soil borings in the vicinity of the bio-detention facility to determine soil conditions and to establish the high water elevation of the groundwater table. Verify the ground water elevation is at least 3 feet below the bio-detention facility.
39. Provide a cross-section of Detention Basin #2, including the elevation of secondary overflow.

40. Provide a 5-foot wide stone bridge allowing direct access to the standpipe from the bank of the basin during high-water conditions (i.e. stone 6-inches above high water elevation). Provide a detail and include in the cross-section of Detention Basin #2.
41. Provide a soil boring in the vicinity of the storm water basin to determine soil conditions and to establish the high water elevation of the groundwater table.
42. A 4-foot wide safety shelf is required one-foot below the permanent water surface elevation within Detention Basin #2.
43. The planting soil media shall consist of a mixture such as 50% topsoil/50% sand or 20% topsoil/60% sand/20% compost, or similar.

Soil Erosion and Sediment Control

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

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

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

The following must be addressed prior to construction:

47. 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).
48. 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.

49. Material certifications must be submitted to Spalding DeDecker for review prior to the construction of any utilities on the site. Contact Ted Meadows at 248-844-5400 for more information.
50. Construction inspection fees in an amount to be determined based on the revised cost estimate must be paid to the Community Development Department.
51. A storm water performance guarantee 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.
52. 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 any applicable fees.
53. A street sign financial guarantee of \$400 per traffic control sign proposed must be posted at the Community Development Department. Signs must be installed in accordance with MMUTCD standards.
54. 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.
55. Permits for the construction of each retaining wall greater than four feet in height must be obtained from the Community Development Department (248-347-0415).

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



Darcy N. Rechtien, P.E.

cc: Kirsten Mellem, Community Development
Ben Croy, Water and Sewer
Darcy Rechtien, Engineering
George Melistas, Engineering
T. Meadows, T. Reynolds, B. Allen; Spalding DeDecker

LANDSCAPE



PLAN REVIEW CENTER REPORT

August 13, 2017

Preliminary/Final Site Plan

Gun & DPS Building Expansions

Review Type

Preliminary/Final Site Plan Landscape Review

Job

JSP17-0042

Property Characteristics

- Site Location: Lee Begole Drive
- Site Zoning: I-1
- Adjacent Zoning: I-1
- Plan Date: 7/26/2017

Ordinance Considerations

This project was reviewed for general 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 and on the accompanying landscape chart must be addressed and incorporated as part of the Preliminary Site Plan submittal. Please follow guidelines of the Zoning Ordinance and Landscape Design Guidelines. This review and the accompanying Landscape Chart are summaries and are not intended to substitute for any Ordinance.

Recommendation:

This project is **recommended for approval** with the understanding that the items listed below will be addressed satisfactorily in the Final Site Plans. While the revised plans may be submitted as part of Electronic Stamping Sets, please provide a printed set for my review.

Landscape Waiver:

A single Landscape Waiver from the Planning Commission is required for the submitted landscape plans. This is:

- No street trees or greenbelt landscaping are provided along Lee Begole Drive because the existing natural landscaping is being preserved. Staff supports this waiver because there is a great deal of natural landscaping existing, and additional landscaping is being installed near the parking lot.

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

A full tree survey, including size and species of trees 8" dbh and greater, has been provided, and trees to be removed/saved are clearly indicated.

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

No berm is required and none is provided. In addition, none of the required large trees or subcanopy trees are provided because the applicant seeks to preserve the existing natural landscaping that currently exists. The distance to the DPS building is about 215 ft and this is mostly forested. Additional trees are proposed between the right-of-way and the parking lot. **A landscape waiver is required and is supported by staff.**

Screening Between Residential and Non-residential – Berm (Wall) & Buffer (Zoning Sec. 5.5.3.A)

The site does not abut any residentially zoned property.

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

1. No street trees are provided because there is insufficient room between the right-of-way line and the street. **A landscape waiver is required for this insufficiency (16 trees).**
2. The landscape waiver required for this shortage is supported by staff.

Parking Lot Landscape (Zoning Sec. 5.5.3.C.) – Commercial Section

1. Interior trees need to be placed within the boundaries of the parking lot, and/or in the parking lot corners. **Please locate all interior trees appropriately.**
2. Islands need to have unpaved areas for planting at least 10' wide and 200sf per tree planted in it. **Please widen all landscape islands used for plantings if necessary.**

Parking Lot Perimeter Canopy Trees (Zoning Sec. 5.5.3.C.(3)(iv))

1. According to the calculations, the required number of trees (89) are provided, with 20 of them being existing trees within 15 feet of the parking lot.
2. **Please clearly mark the existing trees counted toward the requirement. The trunk should be within 15 feet, not the canopy.**
3. All planted trees should be planted within 15 feet of the curb. **Please move periphery trees to within 15 feet.**
4. All but 25% of the periphery trees shall be deciduous canopy trees with a minimum canopy of 20 feet. Prairiefire crabapples do not have a large enough canopy to count as deciduous canopy trees. **Please use a larger species.**

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

1. No new transformers are proposed.
2. **If any are added, please screen them per the detail on Sheet L1.2**

Building Foundation Landscape (Zoning Sec 5.5.3.D.)

1. **The required amount of foundation landscaping is provided for both the Gun Range and DPS building additions. If desired, the landscaping provided along the north side of the Gun Range addition can be moved to the south side of the existing building where it will be more visible.**
2. The fronts of the buildings are not visible from Lee Begole, but the landscaping for each does cover 60% of their façades in greenspace.

Planting Notations and Details (LDM)

1. The standard notes and details have been provided and are acceptable. Please see the landscape chart for additional notes about the details.
2. **Please use species native to Michigan for at least 50% of the foundation and other accessory plantings (this is met for the trees).**

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

1. Storm basin landscaping provides the required coverage.
2. **Please use a larger cultivar than *Cornus sericea* Kelsey or Grow Low Fragrant Sumac for the detention basins.**

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

An automatic irrigation system is not required, but there must be a method for the plantings to achieve sufficient water for their establishment and long-term survival. If no system is provided, please provide information and instructions as to how the plantings will get this water.

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

Proposed topography has been provided.

Snow Deposit (LDM.2.q.)

Do not locate periphery trees behind the snow storage locations. Consider having fewer snow locations provided.

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

Trees to be removed and saved are clearly shown.

Corner Clearance (Zoning Sec 5.9)

Provided.

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



Rick Meader – Landscape Architect

LANDSCAPE REVIEW SUMMARY CHART

Review Date: August 13, 2017
Project Name: JSP17 – 0042: GUN RANGE & DPS BUILDING EXPANSIONS
Plan Date: July 26, 2017
Prepared by: Rick Meader, Landscape Architect E-mail: rmeader@cityofnovi.org
 Phone: (248) 735-5621

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

Item	Required	Proposed	Meets Code	Comments
Landscape Plan Requirements (LDM (2))				
Landscape Plan (Zoning Sec 5.5.2, LDM 2.e.)	<ul style="list-style-type: none"> ▪ New commercial or residential developments ▪ Addition to existing building greater than 25% increase in overall footage or 400 SF whichever is less. ▪ 1"=20' minimum with proper North. Variations from this scale can be approved by LA ▪ Consistent with plans throughout set 	Yes	Yes	Scale 1"=40'
Project Information (LDM 2.d.)	Name and Address	Yes	Yes	
Owner/Developer Contact Information (LDM 2.a.)	Name, address and telephone number of the owner and developer or association	Yes	Yes	
Landscape Architect contact information (LDM 2.b.)	Name, Address and telephone number of RLA	Yes	Yes	
Sealed by LA. (LDM 2.g.)	Requires original signature	Yes	Yes	<u>Need for Final Site Plans</u>
Miss Dig Note (800) 482-7171 (LDM.3.a.(8))	Show on all plan sheets	Yes	Yes	
Zoning (LDM 2.f.)	Include all adjacent zoning	Parcel: R4 North: Walled Lak East, South, West: R-4	Yes	
Survey information (LDM 2.c.)	<ul style="list-style-type: none"> ▪ Legal description or boundary line survey ▪ Existing topography 	Yes	Yes	Sheets C1.1, 1.2
Existing plant material Existing woodlands or	▪ Show location type and size. Label to be	Yes	Yes	1. Sheets C2.1, C2.2, T-1.0, T1.1

Item	Required	Proposed	Meets Code	Comments
wetlands (LDM 2.e.(2))	<ul style="list-style-type: none"> saved or removed. Plan shall state if none exists. 			<ul style="list-style-type: none"> 2. Trees to be saved in project area are shown with tree fencing. 3. Removals shown on C2.1, C2.2 and tree chart. 4. Replacement calculations on T-1.0
Soil types (LDM.2.r.)	<ul style="list-style-type: none"> As determined by Soils survey of Oakland county Show types, boundaries 	Yes	Yes	Sheets C-5.1, C-5.2
Existing and proposed improvements (LDM 2.e.(4))	Existing and proposed buildings, easements, parking spaces, vehicular use areas, and R.O.W	Yes	Yes	
Existing and proposed utilities (LDM 2.e.(4))	Overhead and underground utilities, including hydrants	Yes	Yes	
Proposed grading. 2' contour minimum (LDM 2.e.(1))	Provide proposed contours at 2' interval	Yes	Yes	Sheets C-4.1, C-4.2
Snow deposit (LDM.2.q.)	Show snow deposit areas on plan	Yes	Yes	
LANDSCAPING REQUIREMENTS				
Parking Area Landscape Requirements LDM 1.c. & Calculations (LDM 2.o.)				
General requirements (LDM 1.c)	<ul style="list-style-type: none"> Clear sight distance within parking islands No evergreen trees 	Yes	Yes	
Name, type and number of ground cover (LDM 1.c.(5))	As proposed on planting islands	Yes	Yes	Seed lawn or hydrophilic seeding is indicated on islands.
General (Zoning Sec 5.5.3.C.ii)				
Parking lot Islands (a, b. i)	<ul style="list-style-type: none"> A minimum of 200 SF to qualify 200sf / tree in island 6" curbs Islands minimum width 10' BOC to BOC 	Islands less than 10 feet wide	No	<ul style="list-style-type: none"> 1. Please widen end caps and interior islands' side-to-side width to 10 feet at back of curb. 2. Please label islands with their area in SF.
Curbs and Parking stall reduction (c)	Parking stall can be reduced to 17' and the curb to 4" adjacent to a sidewalk of minimum 7 ft.	Yes		
Contiguous space limit (i)	Maximum of 15 contiguous spaces	Maximum bay is 15 spaces	Yes/No	1. Islands must have a tree planted in them

Item	Required	Proposed	Meets Code	Comments
				to count as a landscaped island. 2. Please plant trees in each island intended to meet requirement.
Plantings around Fire Hydrant (d)	<ul style="list-style-type: none"> No plantings with matured height greater than 12' within 10 ft. of fire hydrants Trees should be located at least 10 feet away from utility structures. 	Yes	No	1. Please clearly show all hydrants and utility structures on landscape plan and keep all trees at least 10 feet from them. 2. Trees should also be no closer than 5 feet from underground utility lines.
Landscaped area (g)	Areas not dedicated to parking use or driveways exceeding 100 sq. ft. shall be landscaped	Yes	Yes	
Clear Zones (LDM 2.3.(5))	25 ft corner clearance required. Refer to Zoning Section 5.5.9	Yes	Yes	
Category 1: For OS-1, OS-2, OSC, OST, B-1, B-2, B-3, NCC, EXPO, FS, TC, TC-1, RC, Special Land Use or non-residential use in any R district (Zoning Sec 5.5.3.C.iii)				
A = Total square footage of parking spaces not including access aisles x 10%	$A = 50,000 \text{ sf} * 5.0\% = 2500 \text{ sf}$			
B= Total square footage of additional paved vehicular use areas over 50,000 SF) x 1 %	$B = 23,381 \text{ sf} * 0.5\% = 117 \text{ sf}$	NA		
Category 2: For: I-1 and I-2 (Zoning Sec 5.5.3.C.iii)				
A. = Total square footage of parking spaces not including access aisles x 7%	$A = xx \text{ sf} * 5\% = xx \text{ sf}$	NA		
B= Total square footage of additional paved vehicular use areas over 50,000 SF) x 0.5%	$B = xx \text{ sf} * 0.5\% = xx \text{ sf}$	NA		
All Categories				
C = A+B Total square footage of landscaped islands	$2500 + 117 = 2617 \text{ SF}$	12,923 sf	Yes	Please label island areas within parking lot intended to meet requirement with their area in SF.
E = D/200 Number of canopy	$2617 / 200 = 13 \text{ trees}$	13 trees	Yes	Interior trees should be located within the

Item	Required	Proposed	Meets Code	Comments
trees required				boundaries of the parking lot or in the lots' corner islands. Please locate them in these locations.
Perimeter Green space	1 tree per 35lf parking lot perimeter	89 including 20 existing trees within 15 feet of the curb.	No	<ol style="list-style-type: none"> 1. All new trees should be planted no further than 15 feet of the back of curb (the center of the tree at 15'). A number of the proposed trees are well beyond this limit. Please move all perimeter trees to within 15 feet of the curb (10 feet would be preferable). 2. All but 25% of the perimeter trees must be deciduous canopy trees with a minimum canopy of at least 20 ft. Prairiefire crabs do not meet this requirement. 3. Please reduce the number of evergreen perimeter trees to 25% or less. 4. Please indicate which existing trees are counting toward the perimeter requirement. The trunk should be no further than 15' from the back of curb.
Parking land banked	None	NA		
Berms, Walls and ROW Planting Requirements				
Berms				
<ul style="list-style-type: none"> ▪ All berms shall have a maximum slope of 33%. Gradual slopes are encouraged. Show 1ft. contours ▪ Berm should be located on lot line except in conflict with utilities. ▪ Berms should be constructed with 6" of top soil. 				
Residential Adjacent to Non-residential (Sec 5.5.3.A) & (LDM 1.a)				
Berm requirements	None required	None	Yes	No residential property

Item	Required	Proposed	Meets Code	Comments
(Zoning Sec 5.5.A)				abuts the property.
Planting requirements (LDM 1.a.)	LDM Novi Street Tree List	NA		
Adjacent to Public Rights-of-Way (Sec 5.5.B) and (LDM 1.b)				
Berm requirements (Zoning Sec 5.5.3.A.(5))	No berm is required since parking is not adjacent to right-of-way	None	Yes	
Cross-Section of Berms (LDM 2.j)				
Slope, height and width	<ul style="list-style-type: none"> ▪ Label contour lines ▪ Maximum 33% ▪ Constructed of loam ▪ 6" top layer of topsoil 	NA		
Type of Ground Cover		NA		
Setbacks from Utilities	Overhead utility lines and 15 ft. setback from edge of utility or 20 ft. setback from closest pole	NA		
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	Retaining walls proposed behind DPS building along drive	Yes	
Walls greater than 3 ½ ft. should be designed and sealed by an Engineer		Standard wall detail provided on Sheet 7.1	TBD	Grading plan indicates walls are about 3.5 feet tall.
ROW Landscape Screening Requirements (Sec 5.5.3.B. ii)				
Greenbelt width (2)(3) (5)	25 ft	215 ft min	Yes	
Min. berm crest width	0 ft	None	Yes	
Minimum berm height (9)	0 ft	None	Yes	
3' wall	(4)(7)	None	Yes	
Canopy deciduous or large evergreen trees Notes (1) (10)	<ul style="list-style-type: none"> ▪ 1 tree per 60 lf ▪ (760-24-30)/60 = 12 trees 	None	No	1. No trees are proposed because there is significant vegetation between the road and the parking lots which is to remain. Additional replacement and parking lot parking will increase this natural screening.

Item	Required	Proposed	Meets Code	Comments
				2. This waiver is supported by staff.
Sub-canopy deciduous trees Notes (2)(10)	<ul style="list-style-type: none"> ▪ 1 tree per 40 lf ▪ (760-24-30)/40 = 18 trees 	None	No	See above
Canopy deciduous trees in area between sidewalk and curb (<i>Novi Street Tree List</i>)	<ul style="list-style-type: none"> ▪ 1 tree per 45 lf ▪ (760-24-30)/45 = 16 trees 	None	No	1. These trees are not provided because there is insufficient room between the right-of-way/fence and the pavement. 2. The waiver request is supported by staff.
Non-Residential Zoning Sec 5.5.3.E.iii & LDM 1.d (2)				
Refer to Planting in ROW, building foundation landscape, parking lot landscaping and LDM				
Interior Street to Industrial subdivision (<i>LDM 1.d.(2)</i>)	<ul style="list-style-type: none"> ▪ 1 canopy deciduous or 1 large evergreen per 35 l.f. along ROW ▪ No evergreen trees closer than 20 ft. ▪ 3 sub canopy trees per 40 l.f. of total linear frontage ▪ Plant massing for 25% of ROW 	NA		
Screening of outdoor storage, loading/unloading (<i>Zoning Sec. 3.14, 3.15, 4.55, 4.56, 5.5</i>)		Existing vegetation to remain	Yes	1. No screening/loading areas are provided so no screening is required. 2. The existing trees to remain provide screening for the entire complex.
Transformers/Utility boxes (<i>LDM 1.e from 1 through 5</i>)	<ul style="list-style-type: none"> ▪ A minimum of 2ft. separation between box and the plants ▪ Ground cover below 4" is allowed up to pad. ▪ No plant materials within 8 ft. from the doors 	No	Yes	1. No new transformers or utility boxes are proposed. 2. If any are added later, they need to be screened per the detail provided on Sheet L-1.2
Building Foundation Landscape Requirements (Sec 5.5.3.D)				
Interior site landscaping SF	<ul style="list-style-type: none"> ▪ Equals to entire perimeter of the building x 8 with a minimum width of 4 ft. ▪ Gun range addition: 260 lf x 8ft = 2080 SF ▪ DPS addition: 727 lf x 8 ft = 5816 sf 	Gun range: 2942 sf DPS bldg: 6911 sf	Yes	Please label each area of foundation landscaping provided in SF.

Item	Required	Proposed	Meets Code	Comments
<i>Zoning Sec 5.5.3.D.ii. All items from (b) to (e)</i>	If visible from public street a minimum of 60% of the exterior building perimeter should be covered in green space	90% Gun Range addition Approx. 60% DPS addition	Yes	The buildings are not visible from Lee Begole Drive.
Detention/Retention Basin Requirements (Sec. 5.5.3.E.iv)				
Planting requirements (Sec. 5.5.3.E.iv)	<ul style="list-style-type: none"> ▪ Clusters shall cover 70-75% of the basin rim area ▪ 10" to 14" tall grass along sides of basin ▪ Refer to wetland for basin mix 	Appropriate coverage is provided.	Yes	<ol style="list-style-type: none"> 1. Please show HWL on ponds and locate shrubs at or near the high-water level. 2. Please use <i>Arctic Fire</i> or another large form of <i>Cornus sericea</i> instead of <i>Kelseyi</i>, which doesn't attain a large size.
LANDSCAPING NOTES, DETAILS AND GENERAL REQUIREMENTS				
Landscape Notes – Utilize City of Novi Standard Notes				
Installation date (LDM 2.i. & Zoning Sec 5.5.5.B)	Provide intended date	Between Mar 15 and Nov 15.	Yes	
Maintenance & Statement of intent (LDM 2.m & Zoning Sec 5.5.6)	<ul style="list-style-type: none"> ▪ Include statement of intent to install and guarantee all materials for 2 years. ▪ Include a minimum one cultivation in June, July and August for the 2-year warranty period. 	Yes	Yes	
Plant source (LDM 2.n & LDM 3.a.(2))	Shall be northern nursery grown, No.1 grade.	Yes	Yes	
Irrigation plan (LDM 2.s.)	A method for ensuring that plantings receive sufficient watering for establishment and long-term survival must be provided.	None	No	<ol style="list-style-type: none"> 1. <u>If an irrigation system is to be provided, the plan for that system should be provided with Final Site Plans.</u> 2. <u>If a system is not provided, notes regarding how plantings will receive sufficient water for establishment and survival must be part of the Final Site Plans.</u>
Other information (LDM 2.u)	Required by Planning Commission	NA		
Establishment period (Zoning Sec 5.5.6.B)	2 yr. Guarantee	Yes	Yes	

Item	Required	Proposed	Meets Code	Comments
Approval of substitutions. (Zoning Sec 5.5.5.E)	City must approve any substitutions in writing prior to installation.	Yes	Yes	
Plant List (LDM 2.h.) – Include all cost estimates				
Quantities and sizes	Refer to LDM suggested plant list	Yes	Yes	
Root type		Yes	Yes	
Botanical and common names		Yes	Yes/No	Please use at least 50% species native to Michigan in foundation and rain garden plantings.
Type and amount of lawn		Yes	Yes	Seed is indicated.
Cost estimate (LDM 2.t)		For all new plantings, mulch and sod as listed on the plan	Yes	No
Planting Details/Info (LDM 2.i) – Utilize City of Novi Standard Details				
Canopy Deciduous Tree	Refer to LDM for detail drawings	Yes	Yes	1. Please add a callout stating that the root ball dirt should be removed to expose the root flare. 2. If desired, the mulch depth can be reduced to 3".
Evergreen Tree		Yes	Yes	See above
Shrub		Yes	Yes	If desired, the mulch depth can be reduced to 2".
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	Yes	Yes	
Plant Materials & Existing Plant Material (LDM 3.b)	Clearly show trees to be removed and trees to be saved.	Yes	Yes	
Landscape tree credit (LDM3.b.(d))	Substitutions to landscape standards for preserved canopy trees outside woodlands/wetlands should be	No		

Item	Required	Proposed	Meets Code	Comments
	approved by LA. Refer to Landscape tree Credit Chart in LDM			
Plant Sizes for ROW, Woodland replacement and others (LDM 3.c)	Canopy Deciduous shall be 3" and sub-canopy deciduous shall be 2.5" caliper. Refer to section for more details	Yes	Yes	
Plant size credit (LDM3.c.(2))	NA	No		
Prohibited Plants (LDM 3.d)	No plants on City Invasive Species List	No	Yes	
Recommended trees for planting under overhead utilities (LDM 3.e)	Label the distance from the overhead utilities	No	TBD	Please clearly indicate any overhead lines on Landscape Plan.
Collected or Transplanted trees (LDM 3.f)		No		
Nonliving Durable Material: Mulch (LDM 4)	<ul style="list-style-type: none"> ▪ Trees shall be mulched to 3" depth and shrubs, groundcovers to 2" depth ▪ Specify natural color, finely shredded hardwood bark mulch. Include in cost estimate. ▪ Refer to section for additional information 	Yes	Yes	

NOTES:

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

WETLANDS

August 15, 2017
ECT No. 170521-0100

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

Re: Novi DPS & Gun Range Additions (JSP17-0042)
Wetland Review of the Preliminary & Final Site Plan (PSP17-0114)

Dear Ms. McBeth:

Environmental Consulting & Technology, Inc. (ECT) has reviewed the Preliminary & Final Site Plan for the proposed Novi DPS & Gun Range Additions project prepared by Professional Engineering Associates dated July 26, 2017 and stamped "Received" by the City of Novi Community Development Department on July 27, 2017 (Plan). The Plan was reviewed for conformance with the City of Novi Wetland and Watercourse Protection Ordinance and the natural features setback provisions in the Zoning Ordinance.

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

The following wetland related items are required for this project:

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

The site is located at the City of Novi Department of Public Service (DPS) complex, north of W. Eleven Mile Road off of Lee BeGole Drive (Section 14). The Plan proposes the construction of an addition to the existing Firearms Training Center, additional parking spaces directly adjacent to the Firearms Training Center at its northwest corner, additional light duty and heavy duty parking bays south of the Firearms Training Center building, a bioretention basin and additional employee/visitor parking to the west of the main Field Services Complex Building, and a building addition on the east side of the Field Services Complex Building.

Based on our review of the application, Novi aerial photos, Novi GIS, the City of Novi Official Wetlands and Woodlands Maps (see Figure 1, attached) it appears as if the overall DPS complex site contains City-Regulated Wetlands and Woodlands. The Plan proposes to fill one small isolated emergent wetland area (~1,370 square feet) for the construction of the proposed Firearms Training Center building addition.

Wetland Evaluation

Based on ECT's in-office review of available materials including the City of Novi Regulated Wetland and Watercourse map, and an on-site wetland evaluation conducted on August 15, 2017, it appears as if the overall proposed project area (i.e., limits of disturbance area) contains one (1) small area of City-regulated wetland as well as regulated 25-foot wetland setback/buffer. The Plan, as well as the City of Novi Regulated Wetland Map (Figure 1), indicates several areas of existing wetlands on the overall site property, however only one (1) wetland is located within the limits of disturbance area of the project.

This area of proposed wetland impact is located on the north end of the site in an area that based on historic aerial imagery, has been potentially disturbed by previous site activities. The wetland area consist almost entirely of invasive species of vegetation including giant reed (*Phragmites australis*) and reed canary grass (*Phalaris arundinacea*).

Wetland Impact Review

As noted above, the current Plan indicates one (1) relatively small area of impact to City-regulated wetland and 25-foot wetland setback/buffer. The impact to this small emergent wetland area (~1,370 square feet/0.03-acre) is for the construction of the proposed Firearms Training Center building addition. Additional wetland areas are located on this site (including in the northwest, west, and east portions of the site) however these areas are all outside of the proposed limits of disturbance.

The applicant shall show the following information on subsequent site plans:

- The area of all existing on-site wetland/watercourse areas (square feet or acres);
- The area of all existing 25-foot buffer areas (square feet or acres);
- Area (square feet) and volume (cubic yards) of all wetland/watercourse impacts (both permanent and temporary);
- Area (square feet) of all wetland buffer impacts (both permanent and temporary).

The currently proposed wetland impacts will not likely require wetland mitigation as the City's threshold for wetland mitigation is 0.25-acre of wetland impact and the MDEQ's threshold is 0.30-acre. The proposed wetland impact is 1,370 square feet (0.03-acre).

It appears as though a City of Novi Minor Use Wetland Permit and Authorization to Encroach the 25-Foot Natural Features Setback would be required for the proposed impacts as the total wetland impacts appear to be less than 10,000 square feet (0.23-acre) and likely less than 300 cubic yards of impact (i.e., threshold for City of Novi Non-Residential Minor Wetland Permits).

It is the Applicant's responsibility to contact MDEQ in order to determine if the proposed development would require a wetland use permit from the MDEQ. The on-site wetlands could be regulated by the Michigan Department of Environmental Quality (MDEQ). MDEQ regulates wetlands that are located within 500-feet of a pond, stream, drain or lake or are greater than 5-acres in size. Final determination of regulatory status should be made by the MDEQ. A permit from this agency may be required for any direct impacts, or potentially for storm water discharge from any proposed detention basin to existing wetlands (if applicable). The wetland to be filled appears to be within 500-feet of a drainage course located south of the I-96 corridor.

If applicable, the Applicant shall provide wetland conservation easements as directed by the City of Novi Community Development Department for any areas of remaining wetland as well as for any proposed wetland

mitigation areas (if necessary). A Conservation Easement shall be executed covering all remaining wetland areas on site as shown on the approved plans. This language shall be submitted to the City Attorney for review. The executed easement must be returned to the City Attorney within 60 days of the issuance of the City of Novi Wetland and Watercourse permit.

City of Novi Ordinance Requirements

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

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

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

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

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

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

Permits & Regulatory Status

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

As proposed, the project shall require a City of Novi *Wetland Minor Use Permit* and an *Authorization to Encroach the 25-Foot Natural Features Setback* for impacts to the City-regulated 25-foot wetland setback.

Wetland Comments

ECT recommends that the Applicant address the items noted below prior to the approval of the Final Stamping Set plans for the project:

1. The applicant shall show the following information on subsequent site plans:
 - a. The area of all existing on-site wetland/watercourse areas (square feet or acres);
 - b. The area of all existing 25-foot buffer areas (square feet or acres);
 - c. Area (square feet) and volume (cubic yards) of all wetland/watercourse impacts (both permanent and temporary);
 - d. Area (square feet) of all wetland buffer impacts (both permanent and temporary).
2. It is the Applicant's responsibility to contact MDEQ in order to determine if the proposed development would require a wetland use permit from the MDEQ. The on-site wetlands could be regulated by the Michigan Department of Environmental Quality (MDEQ) as MDEQ regulates wetlands that are located within 500-feet of a pond, stream, drain or lake or are greater than 5-acres in size. Correspondence from the MDEQ should be provided as a City of Novi Wetland Permit cannot be issued prior to receiving this information.
3. The Applicant shall provide wetland conservation easements as directed by the City of Novi Community Development Department for any areas of remaining wetland as well as for any proposed wetland mitigation areas (if applicable). A Conservation Easement shall be executed covering all remaining wetland areas on site as shown on the approved plans. This language shall be submitted to the City Attorney for review. The executed easement must be returned to the City Attorney within 60 days of the issuance of the City of Novi Wetland and Watercourse permit. All proposed preservation/conservation easements shall be indicated on the Final Stamping set plan.

Conclusion

The plan proposes to fill a small area of City-regulated wetland. This impact will require a City of Novi *Wetland Minor Use Permit*. A City of Novi *Authorization to Encroach the 25-Foot Natural Features Setback* will be required for the proposed impacts to the 25-foot wetland setback.

Novi DPS & Gun Range Additions (JSP17-0042)
Wetland Review of the Preliminary & Final Site Plan (PSP17-0114)
August 15, 2017
Page 5 of 7

Recommendation

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

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

Sincerely,

ENVIRONMENTAL CONSULTING & TECHNOLOGY, INC.



Pete Hill, P.E.
Senior Associate Engineer

cc: Sri Komaragiri, City of Novi Planner
Rick Meader, City of Novi Landscape Architect
Kirsten Mellem, City of Novi Planner

Attachments: Figure 1. City of Novi Regulated Wetlands Map
Site Photos

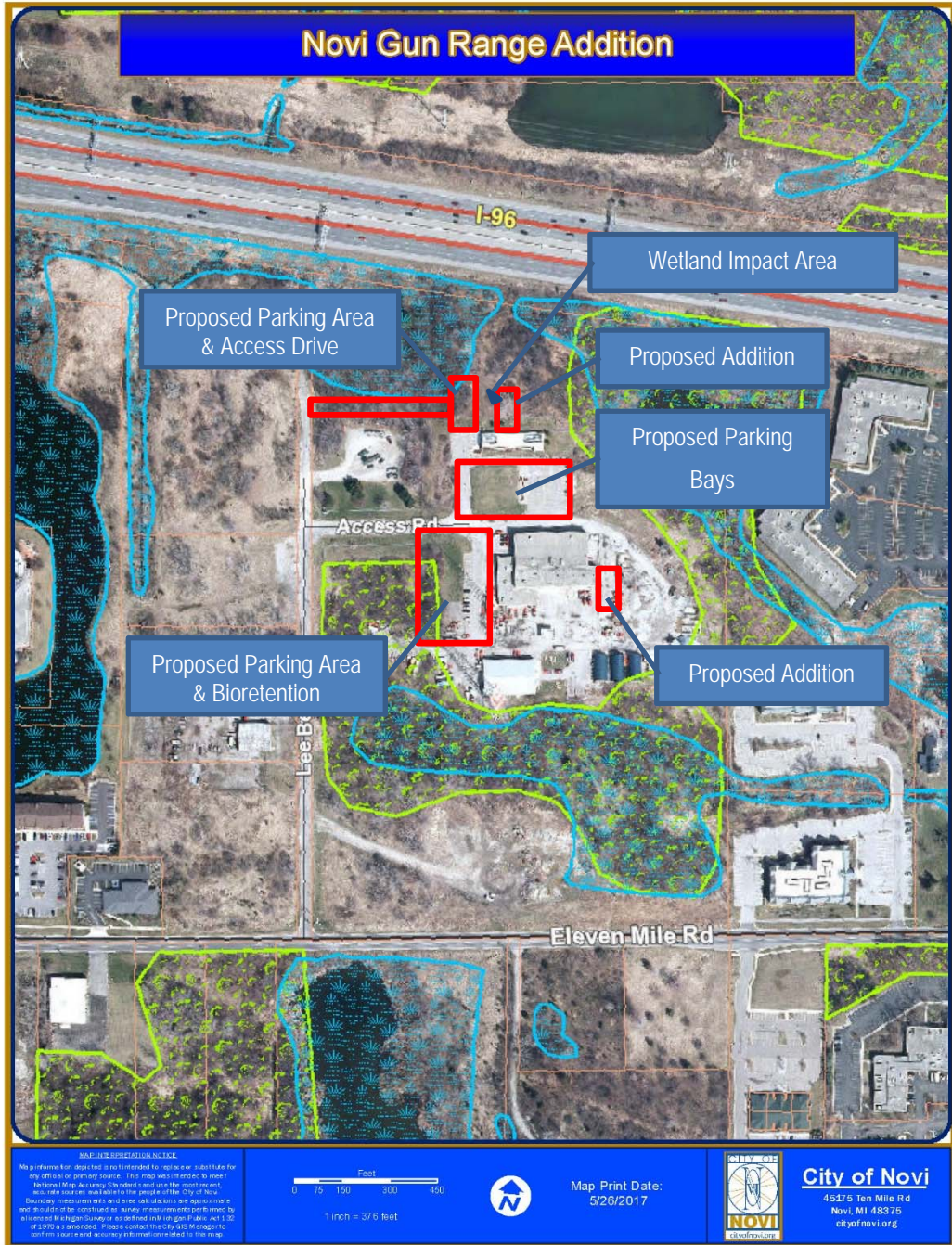


Figure 1. City of Novi Regulated Wetland & Woodland Map (approximate project limits shown in red). Regulated Woodland areas are shown in green and regulated Wetland/Watercourse areas are shown in blue.

Site Photos



Photo 1. Looking southeast at area of existing wetland located north of Firearms Training Center. Fence is to be removed and this small area of wetland is to be filled (ECT, August 15, 2017).



Photo 2. Looking east at area of existing wetland located north of Firearms Training Center. Fence is to be removed and this small area of wetland is to be filled. Wetland area consist almost entirely of invasive species of vegetation including giant reed (*Phragmites australis*) and reed canary grass (*Phalaris arundinacea*) (ECT, August 15, 2017).

WOODLANDS



August 15, 2017
ECT No. 170521-0200

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

Re: Novi DPS & Gun Range Additions (JSP17-0042)
Woodland Review of the Preliminary & Final Site Plan (PSP17-0114)

Dear Ms. McBeth:

Environmental Consulting & Technology, Inc. (ECT) has reviewed the Preliminary & Final Site Plan for the proposed Novi DPS & Gun Range Additions project prepared by Professional Engineering Associates dated July 26, 2017 and stamped "Received" by the City of Novi Community Development Department on July 27, 2017 (Plan). The Plan was reviewed for conformance with the City of Novi Woodland Protection Ordinance Chapter 37. ECT conducted a woodland evaluation for the property on August 15, 2017.

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

The following woodland related items are required for this project:

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

The site is located at the City of Novi Department of Public Service (DPS) complex, north of W. Eleven Mile Road off of Lee BeGole Drive (Section 14). The Plan proposes the construction of an addition to the existing Firearms Training Center, additional parking spaces directly adjacent to the Firearms Training Center at its northwest corner, additional light duty and heavy duty parking bays south of the Firearms Training Center building, a bioretention basin and additional employee/visitor parking to the west of the main Field Services Complex Building, and a building addition on the east side of the Field Services Complex Building.

Based on our review of the proposed Plan, Novi aerial photos, Novi GIS, the City of Novi Official Wetlands and Woodlands Maps (see Figure 1, attached) it appears as if the overall DPS complex site contains City-Regulated Woodlands and Wetlands.

The purpose of the Woodlands Protection Ordinance is to:

- 1) *Provide for the protection, preservation, replacement, proper maintenance and use of trees and woodlands located in the city in order to minimize disturbance to them and to prevent damage from erosion and siltation, a loss of wildlife and vegetation, and/or from the destruction of the natural habitat. In this regard, it is the intent of this chapter to protect the integrity of woodland areas as a*

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whole, in recognition that woodlands serve as part of an ecosystem, and to place priority on the preservation of woodlands, trees, similar woody vegetation, and related natural resources over development when there are no location alternatives;

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

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

On-Site Woodland Evaluation

ECT has reviewed the City of Novi Official Woodlands Map and completed an onsite Woodland Evaluation on August 15, 2017. ECT's in-office review of available materials included the City of Novi Regulated Woodland map and other available mapping. The subject property includes area that is indicated as City-regulated woodland on the official City of Novi Regulated Wetland and Watercourse Map (Figure 1). The entire site is approximately 33 acres and a significant portion of the site has been disturbed or built on by the City/DPW operations. However, a few areas of regulated woodland remain on the site. These areas are generally located along in northeastern and southern section of the property.

An existing tree survey has been completed for the site and is included as Sheet T-1.0 and T-1.1 (*Tree Preservation Plan*). The Plan also includes an *Existing Tree List* (Sheets T-1.2, T-1.3, and T-1.4) that identifies tree tag numbers, diameter-at-breast-height (DBH), common/botanical name, and condition of all surveyed trees. The *Tree Preservation Plan* (Sheet T-1.1) includes a Tree Replacement Calculation table that lists the total woodland replacements credits that are required for the proposed tree removals.

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

The highest quality woodlands on site are found in and around the forested wetland area on the northeast side of the project site as well as northwest of the existing Firearms Training Center building. In general, the on-site trees include silver maple (*Acer saccharinum*), red oak (*Quercus rubra*), green ash (*Fraxinus pennsylvanica*), sugar maple (*Acer saccharum*), white oak (*Quercus alba*), Norway spruce (*Picea abies*), bitternut hickory (*Carya cordiformis*), black walnut (*Juglans nigra*), American elm (*Ulmus americana*), basswood (*Tilia americana*) and several other species. Several large white oak trees are located in the area of the proposed stormwater bioretention area to be located east of the existing Field Services Building. This includes Tree No. 3042 (49-inch DBH), that is proposed for removal. ECT recommends that the applicant minimize impacts to existing woodlands to the greatest extent possible, including to this and other healthy, large diameter trees in the area of the proposed bioretention area.

In terms of habitat quality and diversity of tree species, the wooded areas of the subject site consist of fair to good quality trees. In terms of a scenic asset, wildlife habitat, windblock, noise buffer or other environmental

asset, the forested areas located on the subject site are considered to be of fair to good quality. There are a number of trees to be removed for the proposed development. While some of the trees indicated for removal fall outside of the City of Novi's mapped Woodland Boundaries, the City's Woodland Ordinance contains the following:

Where uncertainty exists with respect to the boundaries of designated woodland areas shown on the regulated woodland map, the following rules shall apply:

- *Distances not specifically indicated on the map shall be determined by the scale on the map;*
- *Where physical or natural features existing on the ground are at variance with those shown on the regulated woodland map, or in other circumstances where uncertainty exists, the community development director or his or her designee shall interpret the woodland area boundaries;*
- *On any parcel containing any degree of regulated woodland, the applicant shall provide site plan documentation showing the locations, species, size and condition of all trees of eight-inch caliper or larger. Existing site understory trees, shrubs and ground cover conditions must be documented on the site plan or woodland use permit application plan in the form of a brief narrative. The woodland conditions narrative should include information regarding plant species, general quantities and condition of the woodland vegetation*

It is ECT's opinion that the areas containing surveyed trees on the Plan, including within the project's proposed limits of disturbance, should be considered as Regulated Woodland area. As such, there are physical and natural features existing on the site that are at variance with those shown on the regulated woodland map. The Woodland Ordinance also defines Woodland Areas as:

All lands (including all trees, shrubs and ground cover thereon regardless of size) which are subject to this chapter under section 37-4 as designated on the regulated woodland map and/or on an approved site plan. Woodlands areas are identified by such factors as: soil quality, habitat quality, tree species and diversity, health and vigor of tree stand, understory species and quality, presence of wildlife, and other factors such as the value of the woodland area as a scenic asset, windblock, noise buffer, healthy environment, and the value of historic or specimen trees.

Proposed Woodland Impacts and Replacements

There are two (2) main areas of proposed tree removal indicated on the Plan. The first, is for the proposed access to the Firearms Training Center in the northwest section of the site. The second, is for the construction of the proposed stormwater bioretention area located west of the Field Services Complex.

Per the *Tree Replacement Calculations* on the *Tree Preservation Plan* (Sheet T-1.0) the following trees are proposed for removal:

- 8" ≤ 11" diameter trees – 46 trees (requiring 46 replacement credits);
- > 11" ≤ 20" diameter trees – 31 trees (requiring 62 replacement credits);
- > 20" ≤ 29" diameter trees – 4 trees (requiring 12 replacement credits);

- TOTAL – 81 trees to be removed (requiring 120 Woodland Replacement Credits)

Review of the overall list of trees on the *Existing Tree List* (Sheets T-1.2, T-1.3, and T-1.4) indicates that a total of fifteen (15) trees that are greater than 8-inches DBH have been listed as 'Exempt (EX-1)' from replacement. The Plan notes that 'EX-1' signifies a tree that is less than 50% in health per ISA rating (poor, very poor, or dead, and recommended for exemption from replacement). These 15 trees listed as 'EX-1' currently amount to a total of nineteen (19) Woodland Replacement Credits.

It should also be noted that the *Existing Tree List* sheets indicate a number of trees as 'EX-2', which is a tree that has a DBH less than 8-inches and is therefore exempt from replacement. **Please review and revise the Plan as necessary as some of the trees that are less than 8-inches in diameter appear to include the 'EX-1' indication, when these should be 'EX-2'.**

ECT does not agree with the assessment that all 15 trees that appear to be currently indicated as 'EX-1' should be Exempt from Replacement. It is ECT's assessment that the following five (5) existing trees to be removed are less than 50% health and can be exempted from replacement. Some of these poor quality trees have broken or split main stems, or are otherwise in poor condition. These trees amount to seven (7) Woodland Replacement Credits that do not require replacement:

Trees Not Requiring Replacement				
Number	Tag #	Diameter (DBH)	Species	Replacement Credit Required for Healthy Tree
1	2861	12	Elm	2
2	2959	9	Ash	1
3	3001	11	Apple	1
4	3055	18	Apple	2
5	3070	8	Ash	1
TOTAL	-	-	-	7

It is ECT's assessment that the following ten (10) trees listed on the current Plan as 'Exempt/EX-1' are not less than 50% in health per ISA rating, and therefore require Woodland Tree replacement. These trees require a total of twelve (12) Woodland Replacement trees credits. Some of these trees have some dead smaller/lower branches, however these trees are in fair/good condition and are not less the 50% healthy. The applicant should review and revise the *Existing Tree List* to include replacement of the following trees:

Trees Requiring Replacement				
Number	Tag #	Diameter (DBH)	Species	Replacement Credit Required
6	2789	10	silver maple	1
7	2839	9	silver maple	1
8	2843	10	silver maple	1
9	2850	20	silver maple	2
10	2853	8	silver maple	1
11	2857	10	white oak	1
12	2970	9	sugar maple	1
13	3014	9	bitternut hickory	1

14	3015	8	bitternut hickory	1
15	3049	13	black cherry	2
TOTAL	-	-	-	12

City of Novi Woodland Review Standards & Woodland Permit Requirements

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

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

In addition,

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

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

The current *Landscape Plan* (Sheet L-1.0) states that the 120 required Woodland Replacement Trees will be provided on-site for the regulated trees to be removed. It appears as if some of the symbols used on the landscape plans as Woodland Replacement Trees may not be correct. A review of the Woodland Replacement Tree symbols indicated on Sheets L-1.0 and L-1.1 appear show a total of seventy (70) deciduous replacement trees (totaling 70 Woodland Replacement Credits, i.e., 1-to-1 Replacement Credit). These plans also appear to indicate a total of fifty-six (56) coniferous replacement trees (totaling 37.3 Woodland Replacement Credits, i.e., 1.5-to-1 Replacement Credit). The Woodland Replacement Credit provided appear to total 107.3, as opposed to the 120 required. The applicant shall review and revise the *Landscape Plan* as necessary.

The applicant shall review and revise the *Landscape Plan* and the associated Plant Schedule to list the quantities and species of Woodland Replacement Trees in table-form (i.e., indicate which trees are being proposed as Woodland Replacement trees in the *Tree Plant List*). The Plan needs to clearly indicate the locations and species of all Woodland Replacement Trees being provided on-site. In addition, the total number of Woodland Replacement Credits required needs to be reviewed and revised based on the changes to the number of trees that qualify for exemption, as discussed above.

Woodland Review Comments

ECT recommends that the Applicant address the items noted below in subsequent site plan submittals:

1. The current Plan indicates that fifteen (15) of the trees proposed for removal are listed as 'Exempt (EX-1)' from replacement. The Plan notes that EX-1 is a tree that is less than 50% in health per ISA rating

(poor, very poor, or dead, and recommended for exemption from replacement). ECT does not agree with the assessment that 15 trees should be Exempt from Replacement. It is ECT's assessment that five (5) existing trees to be removed are less than 50% health and can be exempted from replacement. These trees amount to seven (7) Woodland Replacement Credits that do not require replacement. It is ECT's assessment that the remaining ten (10) trees listed on the current Plan as "Exempt" are not less than 50% in health per ISA rating, and therefore require replacement. These trees require a total of twelve (12) Woodland Replacement trees. The applicant should review and revise the *Existing Tree List* to include replacement of the trees listed in the previous table, above. The total number of Woodland Replacement Credits required indicated on the Plan needs to be reviewed and revised.

2. Please add a column to the *Existing Tree Lists* (Sheets T-1.2, T-1.3, and T-1.4) that indicates how many Woodland Replacement Credits are required for each tree to be removed.
3. Please review and revise the *Existing Tree List* sheets as necessary as some of the trees that are less than 8-inches in diameter appear to include the 'EX-1' indication, when these should be 'EX-2' (i.e., a tree that has a DBH less than 8-inches and is therefore exempt from replacement).
4. The current *Landscape Plan* (Sheet L-1.0) states that the 120 required Woodland Replacement Trees will be provided on-site for the regulated trees to be removed. It appears as if some of the symbols used on the landscape plans as Woodland Replacement Trees may not be correct. A review of the Woodland Replacement Tree symbols indicated on Sheets L-1.0 and L-1.1 appear indicate a total of seventy (70) deciduous replacement trees (totaling 70 Woodland Replacement Credits, i.e., 1-to-1 Replacement Credit). These plans also appear to indicate a total of fifty-six (56) coniferous replacement trees (totaling 37.3 Woodland Replacement Credits, i.e., 1.5-to-1 Replacement Credit). The Woodland Replacement Credits provided appear to total 107.3, as opposed to the 120 required. Please review and revise the Plan as necessary keeping in mind the Woodland Replacement Credits required shall change.
5. The applicant shall review and revise the *Landscape Plan* and the associated Plant Schedule to list the quantities and species of Woodland Replacement Trees in table-form (i.e., indicate which trees are being proposed as Woodland Replacement trees in the *Tree Plant List*). The Plan needs to clearly indicate the locations and species of all Woodland Replacement Trees being provided on-site. In addition, the total number of Woodland Replacement Credits required needs to be reviewed and revised based on the changes to the number of trees that qualify for exemption, as discussed above.
6. ECT recommends that the applicant minimize impacts to existing woodlands to the greatest extent possible, including to Tree No. 3042 (49-inch DBH), that is proposed for removal. This, and other healthy, large diameter trees are located in the area of the proposed bioretention area east of the existing Field Services Complex building.
7. A Woodland Replacement financial guarantee for the planting of replacement trees will be required. This financial guarantee will be based on the number of on-site woodland replacement trees (credits) being provided at a per tree value of \$400.
8. Based on a successful inspection of the installed on-site Woodland Replacement trees, the Woodland Replacement financial guarantee will be returned to the Applicant. A Woodland Maintenance financial guarantee in the amount of twenty-five percent (25%) of the original Woodland Replacement financial guarantee shall then be provided by the applicant. This Woodland Maintenance financial guarantee will

be kept for a period of 2-years after the successful inspection of the on-site woodland replacement tree installation.

9. The Applicant shall provide preservation/conservation easements as directed by the City of Novi Community Development Department for any areas of remaining woodland and woodland replacement trees. The applicant shall demonstrate that the all proposed woodland replacement trees and existing regulated woodland trees to remain will be guaranteed to be preserved as planted with a conservation easement or landscape easement to be granted to the city. This language shall be submitted to the City Attorney for review. The executed easement must be returned to the City Attorney within 60 days of the issuance of the City of Novi Woodland permit.
10. Replacement material should not be located 1) within 10' of built structures or the edges of utility easements and 2) over underground structures/utilities or within their associated easements. In addition, replacement tree spacing should follow the *Plant Material Spacing Relationship Chart for Landscape Purposes* found in the City of Novi *Landscape Design Manual*.

Recommendation

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

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

Sincerely,

ENVIRONMENTAL CONSULTING & TECHNOLOGY, INC.



Pete Hill, P.E.
Senior Associate Engineer

cc: Sri Komaragiri, City of Novi Planner
Rick Meader, City of Novi Landscape Architect
Kirsten Mellem, City of Novi Planner

Attachments: Figure 1. City of Novi Regulated Wetland and Woodlands Map
Site Photos



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

Site Photos



Photo 1. Tree No. 3027 (19" Bitternut hickory) located near the existing entrance to the Firearms Training Center. This tree is to be preserved (ECT, August 15, 2017).



Photo 2. Tree No's. 2996 and 2997 (both 6-inch DBH). These tree are located just north of the existing Firearms Training Center and are proposed for removal. As these trees are less than 8-inches DBH, they are exempt from replacement (i.e., EX-2). ECT, August 15, 2017.

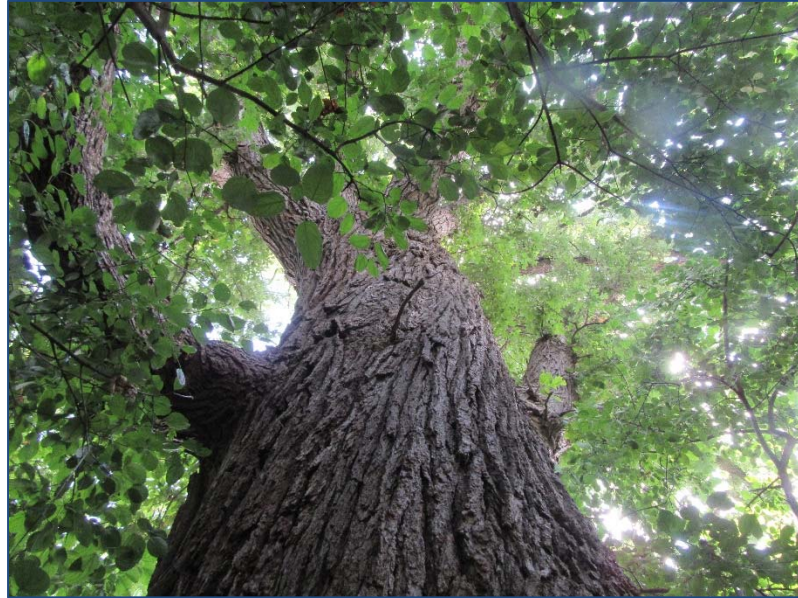


Photo 3. Tree No. 3042 (49-inch DBH white oak). This tree is to be removed to construct the stormwater bioretention area located west of the Field Services Complex (ECT, August 15, 2017).



Photo 4. Looking north at area of proposed tree removal located north of the recycling drop-off center. An access drive to the proposed Firearms Training Center is proposed in this location (ECT, August 15, 2017).

TRAFFIC



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

Project name:
 JSP17-0042 Novi DPS Reno and Gun Range
 Preliminary/Final Traffic Review

From:
 AECOM

Date:
 August 24, 2017

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

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

Memo

Subject: JSP17-0042 Novi DPS Reno and Gun Range Preliminary/Final Traffic Review

The preliminary/final site plan was reviewed to the level of detail provided and AECOM **recommends denial** for the applicant to move forward with stamping set and recommends that a revised Final site plan be submitted to respond to the comments provided below until they are adequately addressed to the satisfaction of the City. The preliminary site plan is recommended; however, the final site plan cannot be approved at this time.

GENERAL COMMENTS

1. The applicant, NSA Architects, Engineers, Planners, is proposing a gun range addition and parking lot modifications at the City Services buildings on Lee BeGole Drive and Public Services Drive.
2. Lee BeGole Drive is under the jurisdiction of the City of Novi.
3. The site is currently zoned I-1, Light Industrial.

TRAFFIC IMPACTS

1. It is expected that the number of trips will not increase with the proposed modifications to the site under the assumption that the proposed building is for City employee use only and will not be open to the general public. If this assumption is incorrect, please let AECOM know and a traffic study determination will be discussed at that time. AECOM recommends performing the following traffic impact study in accordance with the City's requirements:

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

EXTERNAL SITE ACCESS AND OPERATIONS

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

1. The proposed driveway to the gun range facility is 25' wide. While this is within the acceptable range for the driveway, the applicant should consider increasing the width to the City's standard value of 30' (Figure IX.1) or provide information to support the reduced width and seek an administrative variance.
2. The applicant has indicated that the driveway on Lee Begole Drive will not facilitate truck traffic.
3. The site does not require any modifications to the external roadway such as a right turn lane or taper.

4. Driveway spacing as indicated on the plans is in compliance with City standards.

INTERNAL SITE OPERATIONS

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

1. General Traffic Flow
 - a. The applicant should increase the radii of the access to the northern parking lot to a minimum of 15 feet to ensure adequate truck/emergency vehicle access.
 - b. The applicant should provide radii of at least 15 feet throughout the site. The proposed 10 foot radii providing access to the maintenance vehicle parking is not adequate.
 - c. Near the southwest corner of the proposed detention basin on sheet 3.2, the inside and outside radii are 10' and 30', respectively, and should be updated to 30' minimum inside and 50' minimum outside to accommodate a firetruck.
 - d. The following comments pertain to the proposed travel way on the north side of the proposed DPS garage.
 - i. The proposed travel way is designed at 25' with approximately 3.75' and 4.2' buffers on either side. While this is within the range of Figure IX.1 of the City Ordinance for driveway width, the applicant should consider increasing the travel way to a minimum of 28' in width if two-way operation is desired due to the size of the vehicles that are expected to traverse the site.
 - ii. Similarly, if this travel way were to be considered a "marginal access street," the two-way operation width requirement is 28' per Table VIII-A of the Ordinance.
 - iii. If one-way operation is desired, the applicant may maintain 25' width, but should include applicable signing and striping throughout the site.
 - iv. The same criteria (min 28' width) should be considered for the travel way along the south side of the property connecting the parking areas. This travel way is not currently dimensioned.
 - e. The applicant should provide sidewalk dimensions and radii dimensions for the proposed/modified landscape areas near the existing Field Services Complex.
 - f. The applicant should identify any existing trash collection areas and loading zones throughout the site.
2. Parking Facilities
 - a. A total of 80 parking spaces are required and 104 total parking spaces have been proposed. In addition, a total of 66 maintenance vehicle parking spaces have been proposed.
 - b. The applicant has proposed five (5) accessible parking spaces, which is in compliance with the 2010 Standards for Accessible Design.
 - c. Accessible parking space dimensions are in compliance with the 2010 Standards for Accessible Design.
 - d. The applicant has proposed 17' long parking spaces throughout the development. All proposed 17' long parking spaces are abutting a six (6) inch curb. In order to comply with City standards, the applicant is required to use a four (4) inch curb when providing a 17' long parking space. Please see Section 5.3 of the City's Zoning Ordinance for more information.
 - e. The applicant has proposed parking spaces throughout the development that utilize bumper blocks. The bumper blocks effectively shorten the 19' long parking space to 17' while providing two (2) feet of vehicle overhang for the 17' long space. However the proposed bumper blocks are six (6) inches in height and should be reduced to four (4) inches in height to comply with Section 5.3 of the City's Zoning Ordinance.
 - f. The applicant should consider the use of bumper blocks in the gun range parking lot in areas where the pedestrian walk is flush with the pavement.
 - g. The applicant should dimension the locations of the proposed bumper blocks to verify that two (2) feet of overhang is provided in front of the pedestrian walk. And provide one bumper block per space.
 - h. The applicant has indicated that they have proposed bicycle parking. However, the applicant should also indicate on the plans:
 - i. The number of bicycle spaces required vs. bicycle spaces provided.
 - ii. The bicycle parking detail should be revised to show compliance with Figure 5.16.6 in the City's Zoning Ordinance.

3. Sidewalk Requirements
 - a. Sidewalk design is generally in compliance with City standards.
 - b. Include details of ADA compliant sidewalk ramps.
4. All on-site signing and pavement markings shall be in compliance with the Michigan Manual on Uniform Traffic Control Devices.
 - a. The applicant should revise the accessible parking signing to include one R7-8 per each accessible parking space and one R7-8 sign with an additional R7-8p plaque per each van accessible parking space.
 - b. The applicant should increase the size of proposed stop signs to 30"x30".
 - c. The applicant has indicated two "crosswalk" signs; however, only one "crosswalk" sign is indicated in the plans.
 - d. The applicant should revise the proposed sign posts to be U-channel in shape and indicate the size of the sign post, which is required to be 3#.
 - e. It appears there are two (2) sets of crosswalk markings between two (2) parking spaces in the southern parking lot. These should be angled, hatched pavement markings and a detail included in the plans.

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

Sincerely,

AECOM



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



Maureen N. Peters, PE
Senior Traffic/ITS Engineer

FACADE



August 15, 2017

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

Façade Review Status Summary:
DPS Addition - Section 9 Waiver recommended
Firing Range Addition – full compliance.

Re: **FACADE ORDINANCE - Façade Review (for PSP and FSP)**
Novi DPS Addition & Police Firing Range Addition, PSP17-0114
 Façade Region: 1, Zoning District: I-1

Dear Ms. McBeth;

The following is the Façade Review for Final Site Plan Approval of the above referenced project based on the drawings prepared by NSA Architects, dated 7/26/17. The percentages of materials proposed for each façade are as shown on the table below. The maximum percentages allowed by the Schedule Regulating Façade Materials (AKA Façade Chart) of Ordinance Section 5.15 are shown in the right hand column. Materials in non-compliance with the Façade Chart, if any, are highlighted in bold. The project is located within 500’ of the I-96 ROW and is therefore falls within Façade Region 1.

DPS Addition (30,000 SF Exst., 40,000 SF Addn.)	North	South	East	West	Ordinance Maximum (Minimum)
Brick	31%	23%	25%	31%	100% (30% Minimum)
Brick (existing, painted)	0%	10%	17%	0%	0%
Flat Metal Panels	50%	69%	66%	41%	50%
Fiber Cement Siding	0%	1%	0%	4%	0%

DPS Addition – As shown above the minimum percentage of Brick is not provided on the south and east facades, the percentage of Painted Brick and Flat Metal exceeds the maximum amount allowed by the Ordinance on the south and east facades, and the percentage of Fiber Cement Siding exceeds the maximum amount allowed by the Ordinance on the south and west facades. Section 5.15.7 requires that the entire building be brought into full compliance when the proposed addition exceeds 100% of the existing floor area. In this case the deviations from the percentages listed in the Façade Ordinance are comparatively minor and are consistent with the overall design of the building. A Section 9 Waiver is therefore recommended for the aforementioned deviations. The equipment that is currently visible on the existing roof should be screened as part of this project.

Firing Range Addition (5,400 SF Exst., 2,750 SF Addn.)	North	South	East	West	Ordinance Maximum (Minimum)
Brick	85%	85%	85%	85%	100% (30% Minimum)
Flat Metal (Roof Screens)	15%	15%	15%	15%	50%

Firing Range Addition - As shown above the proposed addition is in full compliance with the Façade Ordinance.

Notes to the Applicant:

1. The façade Ordinance requires that roof top equipment be screened from view from all vantage points both on and off site using approved materials. The equipment that is currently visible on the existing roof should be screened as part of this project.
2. Façade Ordinance requires inspection(s) for all projects. Materials displayed on the approved sample board will be compared to materials delivered to the site. It is the applicant’s responsibility to request the inspection of each façade material at the appropriate time. Inspections may be requested using the Novi Building Department’s Online Inspection Portal with the following link. Please click on “Click here to Request an Inspection” under “Contractors”, then click “Façade”.
<http://www.cityofnovi.org/Services/CommDev/OnlineInspectionPortal.asp>.

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

Sincerely,
DRN & Associates, Architects PC



Douglas R. Necci, AIA

FIRE



August 10, 2017

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

CITY COUNCIL

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Mayor Pro Tem
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Gwen Markham

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Assistant Chief of Police
Erick W. Zinser

Assistant Chief of Police
Jerrod S. Hart

RE: Novi DPS Renovation and Gun Range

PSP# 17-0114

Project Description:

Addition to both DPS and Gun Range

Comments:

1. Bench Mark for hydrants not the same through out plans.
2. Bench Mark for hydrants doesn't show new location with water mains. (BM300, BM301, BM302, BM304, BM305 and BM306).
3. Existing water mains need to be added to plans with hydrants.
4. Please submit detailed plans for Fire Alarm and Fire Suppression systems to the Fire Marshals office.

Recommendation:

APPROVED WITH CONDITIONS

Sincerely,

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

cc: file

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

cityofnovi.org

APPLICANT RESPONSE LETTER



City of Novi
DPS/Gun Range Additions

September 6, 2017

Attention: Ms. Sri Komaragiri

Reference: **Novi Department of Public Services Facility Expansion**
NSA Project No.: 216405.00
Plan Review Center Project: JSP 17-42

Dear Ms. Sri Komaragiri,

In response to the Plan Review Center Report dated August 24, 2017; we have included your comments and offer our responses in **bold** below:

DESCRIPTION

This project proposes to update Department of Public Services Building and Police Gun Range in the City of Novi. The proposed plan includes an approximately 40,7000 square foot new garage for 56 heavy and light duty trucks and a 2,750 square foot training classroom for 28 students. Site amenities include additional parking, a new entrance to the Gun Range that can be secured separate from the DPS facilities, and bio-swales. There are no proposed changes to the Recycling facility at this time.

PLANNING REVIEW

Zoning and Use Requirements

1. Item: Uses Permitted (Sec 3.1.18.B & C). Required Code: Sec 3.1.18.B Principle Uses Permitted. Sec 3.1.18.C Special Land Uses. Proposed: Municipal Use (not abutting residential). Meets Requirement: Yes. *Municipal Use requires Special Land Use approved from the Planning Commission.*

Response: Applicant is requesting a Special Land use approval from the Planning Commission.

Height, Bulk, Density and Area Limitations (Sec 3.1.18)

2. Item: Building Height. Required Code: 40 ft. Proposed: 29' 4" – DPS; 23' 4" – Gun Range. Meets Code: Yes. *Provide in site data table height of drawing.*

Response: Building Height will be provided in the Site Data Table.

23761 Research Drive
Farmington Hills, MI 48335
248.477.2444
248.477.2445 fax

www.nsa-ae.com

Founded 1960

Building Setbacks (Sec 3.1.18.D)

3. Items: a) Front (west). Required Code: 40 ft. Proposed: 387.39 ft. Meets Code: Yes. b) Rear (east). Required Code: 20 ft. Proposed: 278.53 ft. Meets Code: Yes. c) Exterior Side (north). Required Code: 40 ft (Sec 3.6.2.C). Proposed: 215.53 ft. Meets Code: Yes. d) Exterior Side (south). Required Code: 40 ft. (Sec 3.6.2.C). Proposed: 766.87 ft. Meets Code: Yes. *Parcel has three front yards: Lee BeGole, Eleven Mile and I-96.*

Response: Dimensions will be added to the plans. (Refer to Sheet C-3.1 and C-3.2)

Parking Setback (Sec 3.1.18.D) & Refer to applicable notes in Sec 3.6.2

4. Items: a) Front (west). Required Code: 40 ft (Sec 3.6.2.E). Proposed: 170.27 ft. Meets Code: Yes. b) Rear (east). Required Code: 10 ft. Proposed: > 10 ft. Meets Code: Yes. c) Exterior Side (north). Required Code: 40 ft. Proposed: > 40 ft. Meets Code: Yes. d) Exterior Side (south). Required Code: 40 ft. Proposed: > 40 ft. Meets Code: Yes. *Provide parking setback dimensions on the site plan and in site data table for each side.*

Response: Parking setback dimensions will be added to the plans. (Refer to Sheet C-3.1 and C-3.2)

Note to District Standards (Sec 3.6.2)

5. Item: Off-Street Parking in Front Yard (Sec 3.6.2.E). Required Code: Off-street parking is allowed in the front yard if: the site is a minimum 2 acres site; does not extend into the minimum required front yard setback of the district; cannot occupy more than 50% of the area between minimum front yard setback and building setback; must be screened by brick walls or landscaped berm; lighting compatible with surrounding neighborhood. Proposed: 32.81 acres; greater than 40 ft.; Not known; Waiver requested; Lighting proposed. Meets Code: Yes?
1) *Provide the percentage of the front yard that the parking spaces can occupy.*
2) *Applicant is requesting a Planning Commission waiver if conditions in Sec 3.6.2.O are met.*

1) Response: Percentage of front yard that the parking space can occupy will be added to the plans. (Refer to Sheet C-3.0)

2) Response: Applicant is requesting a waiver for front yard setback – 3.6.2.Q. (Refer to Sheet C-3.0)

6. Item: Parking Setback Screening (Sec 3.6.2.P). Required Code: Required parking setback area shall be landscaped per Sec 3.6.2.O. Meets Code: Yes? *See Landscape Review Chart.*

Response: Noted.

7. Item: Modification of Parking Setback Requirements (Sec 3.6.2.O). Required Code: The Planning Commission may modify parking setbacks requirements based on conditions listed in Sec 3.6.2.O. Proposed: Lack of front yard park screening adjacent to I-96 and Lee BeGole Drive. Meets Code: Yes? *Waiver requested because of existing natural vegetative buffer.*

Response: Applicant is requesting a waiver for front yard screening – 3.6.2.O. (Refer to Sheet C-3.0)

Parking, Loading and Dumpster Requirements

8. Item: Number of Parking Spaces – a) Warehouses and wholesale establishments and related accessory offices (Sec 5.2.12.E); b) Private clubs or lodge halls (Sec 5.2.12.B). Required Code: DPS – One (1) space for each seven hundred (700) square feet of usable floor area or five (5) plus one (1) for each one and one-half (1 ½) employees in the largest working shift, whichever is greater. $77,550 \text{ sq. ft.} / 700 = 111 \text{ spaces}$ OR $5 + (80/1.5) = 58 \text{ parking spaces}$. Gun Range – One (1) for each three (3) persons allowed within the maximum occupancy load. $44/3 = 15 \text{ parking spaces}$. Total required: 126 parking spaces. Proposed: DPS – 63 spaces. Gun Range – 28 spaces. 104 total spaces proposed. Meets Code: No. 1) *Provide the usable floor area for the DPS building.* 2) *Site data table is inaccurate, please update to the appropriate parking calculations detailed in this chart.*

1) Response: Net Floor Areas will be revised on the plan. (Refer to Sheet C-3.0).

2) Response: Site Data Table will be revised on the plan. (Refer to Sheet C-3.0).

9. Item: End Islands (Sec 5.3.12). Required Code: End islands with landscaping and raised curbs are required at the end of all parking bays that abut traffic circulation aisles. The end island shall generally be at least 8 feet wide, will an outside radius of 15 feet, and be constructed 3 feet shorter than the adjacent parking stall as illustrated in the Zoning Ordinance. Meets Code: Yes. *See Landscape Letter regarding width of landscaped islands.*

Response: Landscape Island will be revised. (Refer to Sheet C-3.1 and Sheet C-3.2)

Accessory Structures

10. Item: Rooftop Equipment and Wall Mounted Utility Equipment (Sec 4.19.2.E.ii). Required Code: All rooftop equipment must be screened and all wall mounted utility equipment must be enclosed and integrated into the design and color of the building. Proposed: Screening proposed. Meets Code: Yes. *See façade review for additional comments.*

Response: We will provide additional screening. (Refer to sheet A-501).

I-1 District Required Conditions (Sec 3.14)

11. Item: Adjacent to Freeway ROW (Sec 3.14.4). Required Code: Where a permitted use abuts a freeway right-of-way, special conditions listed in Sec 3.14.4 apply: no parking within 20 ft. of ROW; 4.5 ft. brick wall or landscaped berm required. Proposed: Adjacent to I-96 ROW; Parking proposed 170.27 ft. from ROW; No wall or berm proposed. Meets Code: Yes? *Applicant is seeking a Planning Commission waiver; consideration is based on if conditions in Sec 3.6.2.0 are met.*

Response: Drawing has a note stating this waiver is required. (Refer to Sheet C-3.0)

12. Item: Long-Term Truck Parking (Sec 3.14.3.B). Required Code: No long-term delivery truck parking on site. Proposed: Not proposed. Meets Code: Yes. *Long-term delivery truck parking is not allowed on site. Please add a note to the site plan.*

Response: The note shall be added to the plans. (Refer to Sheet C-3.0).

Use Standard – Municipal Use (Sec 4.43)

13. Item: Noise Analysis. Required Code: A noise analysis is required subject to the standards of Sec 14.10.B. Proposed: Not provided. Meets Code: Yes? *Applicant is requesting a Planning Commission waiver.*

Response: Drawing has a note stating this waiver is requested. (Refer to Sheet C-3.0)

Other Requirements

14. Item: Development/Business Sign. Required Code: Signage if proposed requires a permit. Exterior Signage is not regulated by the Planning Division or Planning Commission. Proposed: Proposed. Meets Code: NA. *Contact the Ordinance Division for sign permit application at 248-735-5678.*

Response: We are not proposing any exterior signage at this time.

Lighting and Photometrics Plan (Sec 5.7)

15. Item: Lighting Plan (Sec. 5.7.2.A.ii). Fixture height. Proposed: Not Provided. Meets code: No. Hours of Operation. Proposed: Not Provided. Meets Code: No.

Response: Fixture heights will be listed on sheet PE-01 and will not exceed 25'. Lights will be operated from dusk to dawn. These lights will be operated via photocell and motion detectors. This note will be added to Sheet PE-01.

16. Item: Standard Notes (Sec 5.7.3.B). Required Code: Electrical service to light fixtures shall be placed underground. Flashing light shall not be permitted. Only necessary lighting for security purposes and limited operations shall be permitted after a site's hours of operation. Proposed: Not provided. Meets Code: No. *Add notes to sheet PE-01.*

Response: Notes indicated on Sec. 5.7.3.B will be provided on Sheet PE-01.

17. Item: Security Lighting (Sec 5.7.3H) – Lighting for security purposes shall be directed only onto the area to be secured. Required Code: All fixtures shall be located, shielded and aimed at the areas to be secured. Fixtures mounted on the building and designed to illuminate the façade are preferred. Proposed: Unknown. Meet Code: Yes? *Provide note and location of security lighting on site.*

Response: There is no lighting intended for security purposes. All lighting is indicated for general use.

18. Item: Minimum Illumination (Sec 5.7.3.K). Required Code: Walkways - 0.2 minimum. Proposed: Not Provided. Meets Code: No. *Provide photo metrics on sidewalks.*

Response: Walkway illumination levels will be provided on Sheet PE-01 and will exceed the 0.2 fc min. required by the ordinance.

ENGINEERING REVIEW

General

1. Provide a minimum of two ties to established section or quarter section corners.

Response: Section corner ties will be added to the plans sheet (Refer to Sheets C-1.1 and C-1.2).

2. Revise the plan set to reference at least one city establishment benchmark. An interactive map of the City's established survey benchmarks can be found under the "Map Gallery" tab on www.cityofnovi.org.

Response: We will add a city of Novi bench mark to the set. (Refer to Sheet C-3.0)

3. Provide an overall site layout plan in addition to sheet C3.1 and C3.2 which show the north and south site plan views.

Response: We will add sheet C-3.0 to the overall set. (Refer to Sheet C-3.0)

4. Provide all the details for storm water management on one sheet or sheets entitled Storm Water Management Plan.

Response: Storm water details will be placed on one sheet. (Refer to Sheet C-7.2).

5. On Sheet C2.2, provide a note indicating that the contractor should coordinate with Field Operations staff to relocate the 2 foot concrete barrier shown east of the existing DPS building to a different location on site.

Response: A note will be placed on the plan to coordinate relocate concrete barriers with field operations. (Refer to Sheet C-2.0)

6. Provide a note that compacted sand backfill shall be provided for all utilities within the influence of paved areas, and illustrate on the profiles.

Response: A note will be added to the plans and profiles showing the location of compacted sand backfill. (Refer to Sheets C-6.1, C-6.2 and C-6.3)

7. Provide a construction materials table on the Paving Plan listing the quantity and material type for each pavement cross-section being proposed.

Response: A construction material and quantity table will be added to the set. (Refer to Sheet C-3.0).

8. 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.

Response: A utility crossing table will be added to the set. (Refer to Sheets C-6.1 and C-6.2).

9. Provide the City's standard detail sheets for water main (5 sheets – March 2014), sanitary sewer (3 sheets – March 2014), storm sewer (2 sheets – June 2012), and pathway and board walks (1 sheet – September 2015) at the time of the Stamping Set submittal. These details are available on the City's website (www.cityofnovi.org/DesignManual).

Response: The latest City Standard Detail sheets will be downloaded and will be incorporated into the set of plans.

Water Main

10. Provide a profile for all proposed water main 8-inch and larger.

Response: Watermain profiles will be added into the set (Refer to Sheet C-6.3)

11. Sheet C6.1 water main comments:

- a) At northeast corner of the Gun Range building addition, northeast corner of existing Firearm Training Center, and the proposed garage addition, provide the maximum amount of clearance possible between the building and water main, and call out an actual dimension for the clearance rather than 10' minimum.
- b) The water main connection west of the Gun Range should be done with a 45 degree bend connecting to the west and remove the existing water main to the east.
- c) The existing valve label west of the proposed connection should be made visible on the sheet.
- d) The existing water main should be labeled as D.I. pipe (rather than STL).

a) Response: We will revise the waterline location to minimize the amount of bends required. (Refer to Sheet C-6.1)

b) Response: We will utilize 45-degree bends for our connections. The line continuing East is require to maintain existing service leads. (Refer to Sheet C-6.1)

c) Response: We will relocate the label for clarity. (Refer to Sheet C-1.1 and C-6.1)

d) Response: We will revise the STL label to D.I. (Refer to Sheet C-1.1 and C-6.1)

12. Sheet C6.2 water main comments:

- a) Use two 45-degree bends in lieu of any 90-degree water main bends proposed.
- b) Water main cannot be routed under any building. Re-route proposed 8-inch water main around proposed building addition.
- c) Provide a valve on the new fire lead to building addition.
- d) The existing water main does not continue south toward Bishop Creek as shown in the existing topo, rather, the existing water main stops in-line with south end of the 2-story back building, and heads west to the 2-story back building and east toward neighboring parcel.

a) Response: We will utilize 45-degree bends for our connections. The line continuing East is require to maintain existing service leads. (Refer to Sheet C-6.1)

b) Response: We will reroute the water main connection to the building. (Refer to Sheet C-6.2)

c) Response: We will add a new valve on the fire main line. (Refer to Sheet C-6.2)

d) Response: We will update the topographic survey. (Refer to Sheet C-2.1)

Sanitary Sewer

13. Sheet C-6.2 existing sanitary sewer comments:

- a) Show existing sanitary sewer that continues east of the existing manhole shown at the southwest corner of the proposed DPS garage addition.
- b) Show existing sanitary sewer lead from the northwest corner of the 2-story back building going north to the sanitary sewer main in Public Services Drive.

a) Response: We will add the existing sanitary sewer line to the field operations building. (Refer to Sheet C-2.2)

b) Response: We will add the existing sanitary sewer line to the 2 story brick and aluminum building. (Refer to Sheet C-2.2)

Paving and Grading

14. The proposed 25-foot wide drive aisles fall within the acceptable range of two way traffic driveways depicted in Figure IX.1. The standard width is 30 feet. The large maintenance and operational vehicles require the 30 foot width to maintain two way traffic operations.

Response: Drive Aisle widths will be revised. (Refer to Sheets C-3.1 and C-3.2).

15. Revise the Site Access Notes on sheets C3.1 and C3.2 to refer to the site as DPS rather than DPW.

Response: We will revise the note from DPW to DPS. (Refer to Sheet C-3.0)

16. Provide a 4 inch curb height or 4 inch bumper height on parking spaces 17 feet in length. Parking spaces that are 19 feet in length should will a 6 inch curb or bumper height.

Response: We will revise the curb heights accordingly. (Refer to Sheets C-3.1, C-3.2 & C-7.0)

17. Revise the 18 inch curb and gutter detail on sheet C7.0 to indicate 4 inch or 6 inch curb height, as necessary.

Response: We will revise the curb heights accordingly. (Refer to Sheet C-7.0)

18. Add a detail of the 24-inch curb to Sheet C7.0 or indicate an 18-inch curb and gutter along the narrow driveway between the proposed garage and existing Gun Range building. A 6 inch curb height should be provided in this area for maximum building protection.

Response: We will revise the curb details accordingly. (Refer to Sheets C-3.1 & C-3.2)

19. Provide additional bollards at the northwest and northeast proposed garage building corners.

Response: Additional building bollards will be added to the plans. (Refer to Sheets C-3.1 & C-3.2)

20. Provide additional spot grades along the proposed retaining wall east of the proposed garage addition.

Response: Additional spot grades will be added to the plans. (Refer to Sheet C-4.1)

21. Provide top of curb/walk and pavement/gutter grades to indicate height of curb adjacent to parking stalls or drive areas.

Response: Detail grades will be added to the plan set. (Refer to Sheets C-4.1, C-4.2 and C-7.3).

22. Provide existing rim elevations of the existing storm structures in detention pond 1.

Response: Existing rim elevations will be added to the plans. (Refer to Sheet C-2.1)

23. Provide FG spot elevation adjacent to the rim of the structures in the bio-detention area and refer to the details on sheet C7.2.

Response: Finished grade elevations will be provided. (Refer to Sheet C-4.1).

24. On sheet C7.2, label the elevations on the bio-detention detail.

Response: Elevation will be added to the detail (Refer to Sheet C-7.2).

25. Site grading shall be limited to 1V:4H (25-percent, excluding landscaping berms. Revise the grading east of the proposed retaining wall.

Response: Grades will be revised to show 4 on 1 max. (Refer to Sheets C-4.1 & C-4.2)

Storm Sewer

26. A minimum cover depth of 3 feet shall be maintained over all storm sewers. Currently, a few pipe sections do not meet this standard. Grades shall be elevated and minimum pipe slopes shall be used to maximize the cover depth. In situations where the minimum cover cannot be achieved, Class V pipe must be used with an absolute minimum cover depth of 2 feet. An explanation shall be provided where the cover depth cannot be provided.

Response: The site will be raise around buildings with minimal pitched slope to achieve 3 feet of cover above storm pipes (Refer to Sheets C-6.1 and C-6.2).

27. Match the 0.80 diameter depth above invert for pipe size increases.

Response: The storm system will be revised to shoe 0.80 tenths above pipe invert for increased pipe sizes (Refer to Sheet C-8.1).

28. Storm manholes with differences in invert elevations exceeding two feet shall contain a 2-foot deep plunge pool.

Response: 2 foot sumps will be placed in all storm manhole exceeding 2 foot invert elevation difference. (Refer to Sheets C-6.1 and C-6.2).

29. Remove the concrete spillway to detention basin #1. Provide a 2 foot structure in its place, connecting to CB13.

Response: The concrete spillway will be removed. (Refer to Sheets C-3.1 & C-7.0)

30. Remove ES18, and connect CB19 to CB13.

Response: Revise the storm sewer system. (Refer to Sheet C-6.1)

31. Provide a four-foot deep sump and an oil/gas separator in the last storm structure prior to discharge, at CB13 and CB4.

Response: We will revise the location of the oil/gas separator. (Refer to Sheet C-6.1)

32. Provide storm sewer profiles for all storm sewers 12 inches and larger. Label the 10-year HGL on the storm sewer profiles, and ensure the HGL remains at least 1-foot below the rim of each structure. The downstream HGL at the end sections should be set at 0.8 of the pipe diameter above the invert.

Response: The HGL will be set at 0.8 of the pipe diameter. (Refer to Sheet C-6.3).

33. Show and label all roof conductors, and show where they tie into the storm sewer.

Response: Roof conductors and connections are provided on the plans. (Refer to Sheets C-6.1 and C-6.2)

34. Provide information about drainage from inside garage bays. Indicate where and how this drainage connects to the storm sewer system. Provide oil/gas separators as necessary where drainage from mechanical bays may tie in to storm sewer.

Response: Drainage from inside the garage bays will be re-routed through the existing facility. (Refer to Sheet P-103)

35. Remove item 15 from General Utility Notes on all sheets where it appears.

Response: General note #15 will be removed. (Refer to Sheet C-6.1)

Storm Water Management Plan

36. Clarify the storage volume required and provided in detention area #1. Add pre- and post-development runoff calculations.

Response: Pre and post calculations for Detention Area #1 will be provided. (Refer to Sheet C-7.2).

37. Provide a geotextile filter fabric under the planting material to separate it from the underdrain/base material or in-situ soils.

Response: Geotextile fabric is shown on the detail (Refer to Sheet C-7.2).

38. Provide soil borings in the vicinity of the bio-detention facility to determine soil conditions and to establish the high water elevation of the groundwater table. Verify the ground water elevation is at least 3 feet below the bio-detention facility.

Response: Soil Boring information will be added to the plans. (Refer to Sheet C-4.2)

39. Provide a cross-section of Detention Basin #2, including the elevation of secondary overflow.

Response: A Cross Section of Detention Area #2 will be added to the plans. (Refer to Sheet C-7.2).

40. Provide a 5-foot wide stone bridge allowing direct access to the standpipe from the bank of the basin during high-water conditions (i.e. stone 6-inches above high water elevation). Provide a detail and include in the cross-section of Detention Basin #2.

Response: A 5 foot wide stone walk bridge will be added to the plans (Refer to Sheets C-3.2 and C-7.2).

41. Provide a soil boring in the vicinity of the storm water basin to determine soil conditions and to establish the high water elevation of the groundwater table.

Response: Soil Boring information will be added to the plans. (Refer to Sheet C-4.1 and C-4.2)

42. A 4-foot wide safety shelf is required one-foot below the permanent water surface elevation within Detention Basin #2.

Response: A 4 foot wide safety shelf will be added to the Detention Basin. (Refer to Sheet C-4.2).

43. The planting soil media shall consist of a mixture such as 50% topsoil/50% sand or 20% topsoil/60% sand/20% compost, or similar.

Response: We will revise the planting material section to show proper mixture percentages. (Refer to Sheet C-7.2).

Soil Erosion and Sediment Control

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

Response: We will apply for a SESC permit.

The Following Must Be Submitted with the Revised Final Site Plan

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

Response: A letter will be submitted highlighting all changed made to the plans.

46. 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, pretreatment structure and restoration).

Response: A detailed cost opinion will be provided.

The Following Must Be Addressed Prior to Construction

47. A pre-construction meeting shall be required prior to any site work being started. Please contact Sarah Machioni in the Community Development Department to set up a meeting (248-347-0430).

Response: The selected Contractor will Contact Sarah Machioni to schedule a Pre-Construction Meeting.

48. 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.

Response: The selected Contractor will apply for a City of Novi Grading permit.

49. Material certifications must be submitted to Spalding DeDecker for review prior to the construction of any utilities on the site. Contact Ted Meadows at 248-844-5400 for more information.

Response: We will submit material certificates to Ted Meadows at Spalding DeDecker.

50. Construction inspection fees in an amount to be determined based on the revised cost estimate must be paid to the Community Development Department.

Response: We will forward the required fees to the Community Development Department.

51. A storm water performance guarantee 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.

Response: A Performance Guarantee, if required, will be posted at the Community Development Department.

52. 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 any applicable fees.

Response: We will contact the Water and Sewer Division to determine any required fees.

53. A street sign financial guarantee of \$400 per traffic control sign proposed must be posted at the Community Development Department. Signs must be installed in accordance with MMUTCD standards.

Response: A Street Sign Financial Guarantee, if required, will be posted at the Community Development Department.

54. 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.

Response: A SESC permit will be applied for at the City of Novi.

55. Permits for the construction for each retaining wall greater than four feet in height must be obtained from the Community Development Department (248-347-0415).

Response: A permit to construct a retaining wall over 4 feet high will be applied for at the Community Development Department.

56. 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.

Response: Any sheets added to the set will be forwarded to the Engineering Division for their review and approval.

57. 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.

Response: Noted.

PRELIMINARY/FINAL SITE PLAN LANDSCAPE REVIEW

Landscape Waiver

1. A single Landscape Waiver from the Planning Commission is required for the submitted landscape plans. This is:
- No street trees or greenbelt landscaping are provided along Lee Begole Drive because the existing natural landscaping is being preserved. Staff supports this waiver because there is a great deal of natural landscaping existing, and additional landscaping is being installed near the parking lot.

Response: A Landscape Waiver has been requested by PEA, Inc. and is supported by City of Novi staff.

LANDSCAPING REQUIREMENTS

General (Zoning Sec 5.5.3.C.ii)

1. Item: Parking Lot Islands (a, b.i). Required Code: A minimum of 200 SF to qualify; 200 SF/tree in island; 6" curbs; islands with minimum width of 10' BOC to BOC. Proposed: Islands less than 10 feet wide. Meets Code: No. 1) *Please widen end caps and interior islands' side-to-side width to 10 feet at back of curb.* 2) *Please label islands with their area in SF.*
 - 1) **Response: End caps and interior islands' side-to-side width will be widened to 10' at back of curb.**
(Refer to Sheets L-1.0 and L-1.1)
 - 2) **Response: All islands and end caps will be labeled with their area in SF.**
(Refer to Sheet L-1.2)
2. Item: Contiguous Space Limit (i). Required Code: Maximum of 15 contiguous spaces. Proposed: Maximum bay is 15 spaces. Meets Code: Yes/No. 1) *Islands must will a tree planted in them to count as a landscaped island.* 2) *Please plant trees in each island intended to meet requirement.*
 - 1) **Response: All islands and end caps that can be planted will be planted with a tree. There are multiple islands that can't be planted due to utility, hydrant, sign, etc. conflicts which don't allow adequate space for a tree.**
(Refer to Sheets L-1.0 and L-1.1)
3. Planting Around Fire Hydrant (g). Required Code: No plantings with matured height greater than 12' within 10 feet of fire hydrants. Trees should be located at least 10 feet away from utility structures. Proposed: Yes. Meets Code: No. 1) *Please clearly show all hydrants and utility structures on landscape plan and keep all trees at least 10 feet from them.* 2) *Trees should also be no closer than 5 feet from underground utility lines.*
 - 1) **Response: All hydrants will be labeled on landscape plans. All trees will be located no closer than 10' from any hydrant.**
(Refer to Sheets L-1.0 and L-1.1)
 - 2) **Response: All trees on landscape plan will be no closer than 5' from any underground utility lines.**
(Refer to Sheets L-1.0 and L-1.1)

All Categories

4. Item: C = A + B (total square footage of landscaped islands). Required Code: 2,500 + 117 = 2,617 SF. Proposed: 12,923 SF. Meets Code: Yes. *Please label island areas within parking lot intended to meet requirements with their area in SF.*

Response: All islands and end caps will be labeled within the parking lot that are intended to meet requirement with their area in square feet. (Refer to Sheet L-1.2)

5. Item: E = D/200 (number of canopy trees required). Required Code: 2,617/200 = 13 trees. Proposed: 13 trees. Meets Code: Yes. *Interior trees should be located within the boundaries of the parking lot or in the lots' corner islands. Please locate them in these locations.*

Response: All interior parking lot trees will be located within the parking lot or in the lots' corner islands. (Refer to Sheet L-1.0 and L-1.1)

6. Item: Perimeter Green Space. Required Code: 1 tree per 35 LF parking lot perimeter. Proposed: 89 including 20 existing trees within 15 feet of the curb. Meets Code: No. 1) *All new trees should be planted no further than 15 feet of the back of curb (the center of the tree at 15'). A number of the proposed trees are well beyond this limit. Please move all perimeter trees to within 15 feet of the curb (10 feet would be preferable).* 2) *All but 25% of the perimeter trees must be deciduous canopy trees with a minimum canopy of at least 20 feet. Prairiefire crabs do not meet this requirement.* 3) *Please reduce the number of evergreen perimeter trees to 25% or less.* 4) *Please indicate which existing trees are counting toward the perimeter requirement. The trunk should be no further than 15' from the back of curb.*

1) Response: All perimeter parking lot trees will be moved to a maximum of 15' from the center of the tree to the back of curb. In many cases the trees will be closer to the back of curb (10') where the site allows. (Refer to Sheets L-1.0 and L-1.1)

2) Response: The Prairie Fire Crab trees will be substituted with Downy Serviceberry Trees which will eventually will a spread of 25'. (Refer to Sheet L-1.0)

3) Response: The number of perimeter parking lot evergreen trees will be reduced to 17 out of a total 85 parking lot perimeter trees. $17/85 = 20\%$ (Refer to Sheets L-1.0 and L-1.1)

4) Response: After further evaluation, there are only 4 existing trees counting toward the perimeter requirement. These 4 trees will be labeled on the plans and their trunks are 15' or less from the back of curb. (Refer to Sheets L-1.0 and L-1.1)

7. Item: Walls greater than 3 ½ feet should be designed and sealed by an Engineer. Proposed: Standard wall detail provided on Sheet 7.1. Meets Code: TBD. *Grading plan indicates walls are about 3.5 feet tall.*

Response: The retaining wall will be signed and sealed by a registered engineer.

ROW Landscape Screening Requirements (Sec 5.5.3.B.ii)

8. Item: Canopy Deciduous or Large Evergreen Trees (Notes [1] [10]). Required Code: 1 tree per 60 LF; $(760 - 24 - 30) / 60 = 12$ trees. Proposed: None. Meets Code: No. 1) *No trees are proposed because there is significant vegetation between the road and the parking lots which is to remain. Additional replacement and parking lot spaces will increase this natural screening.* 2) *This waiver is supported by staff.*

1) Response: The waiver is supported by staff.

2) Response: The waiver is supported by staff.

9. Item: Sub-Canopy Deciduous Trees (Notes [2] [10]). Required Code: 1 tree per 40 LF; $(760 - 24 - 30) / 40 = 18$ trees. Proposed: None. Meets Code: No. *See above.*

Response: The waiver is supported by staff.

10. Item: Canopy Deciduous Trees in Area Between Sidewalk and Curb (Novi Street Tree List). Required Code: 1 tree per 45 LF; $(760 - 24 - 30) / 45 = 16$ trees. Proposed: None. Meets Code: No. 1) *These trees are not provided because there is insufficient room between the right-of-way/fence and the pavement.* 2) *The waiver request is supported by staff.*

Response: The waiver is supported by staff.

Non-Residential Zoning (Sec 5.5.3.E.iii & LDM 1.d (2))

11. Item: Transformers/Utility Boxes (LDM 1.e from 1 through 5). Required Code: A minimum of 2 feet separation between box and the plants; ground cover below 4" is allowed up to pad.; no plan materials within 8 feet from the doors. Proposed: No. Meets Code: Yes. 1) *No new transformers or utility boxes are proposed.* 2) *If any are added later, they need to be screened per the detail provided on Sheet L-1.2.*

Response: If any utility boxes or transformers are added later they will be screened per the detail provided on Sheet L-1.2. (Refer to Sheet L-1.2)

Building Foundation Landscape Requirements (Sec 5.5.3.D)

12. Item: Interior Site Landscaping SF. Required Code: Equals to entire perimeter of the building x 8 with a minimum width of 4 feet; Gun Range Addition: 260 LF x 8 ft = 2,080 SF; DPS Addition: 727 LF x 8 ft = 5,816 SF. Proposed: Gun Range – 2,942 SF; DPS Building – 6,911 SF. Meets Code: Yes. *Please label each area of foundation landscaping provided in SF.*

**Response: All foundation planting beds will be labeled in SF.
(Refer to Sheet L-1.2)**

Detention/Retention Basin Requirements (Sec 5.5.3.E.iv)

13. Item: Planting Requirements (Sec 5.5.3.E.iv). Required Code: Clusters shall cover 70 – 75% of the basin rim area; 10” to 14” tall grass along sides of basin; refer to wetland for basin mix. Proposed: Appropriate coverage is provided. Meets Code: Yes. 1) *Please show HWL on ponds and locate shrubs at or near the high-water level.* 2) *Please use Arctic Fire or another large form of Cornus sericea instead of using Kelseyi, which doesn't attain a large size.*

**1) Response: The HWL will be shown and labeled on all 3 detention ponds and the shrubs will be placed accordingly.
(Refer to Sheets L-1.0 and L-1.1)**

**2) Response: All Kelseyi dogwood shrubs will be replaced with Arctic Fire Dogwoods.
(Refer to Sheets L-1.0 and L-1.1)**

LANDSCAPING NOTES, DETAILS AND GENERAL REQUIREMENTS

Landscape Notes – Utilize City of Novi Standard Notes

14. Item: Irrigation Plan (LDM 2.s). Required Code: A method for ensuring that plantings receive sufficient watering for establishment and long-term survival must be provided. Proposed: None. Meets Code: No. 1) *If an irrigation system is to be provided, the plan for that system should be provided with Final Site Plans.* 2) *If a system is not provided, notes regarding how plantings will receive sufficient water for establishment and survival must be part of the Final Site Plans.*

1) Response: Irrigation plans are under construction by consultant.

15. Item: Botanical and Common Names. Required Code: Refer to LDM suggested plant list. Proposed: Yes. Meets Code: Yes/No. *Please use at least 50% species native to Michigan in foundation and rain garden plantings.*

**Response: Plant selection will be revised to reflect that at a minimum, 50% or more, of the foundation and detention pond plantings are using species native to Michigan.
(Refer to Sheets L-1.0 and L-1.2)**

16. Item: Cost Estimate (LDM 2.t). Required Code: For all new plantings, mulch and sod as listed on the plan. Proposed: Yes. Meets Code: No. *Please use \$3.00/SY for all seed and \$35/CYD for mulch.*

**Response: The cost estimate will be revised to reflect the unit prices that the City of Novi has requested us to use.
(Refer to Sheet L-1.2)**

Planting Details/Info (LDM 2.i) – Utilize City of Novi Standard Details

17. Item: Canopy Deciduous Tree. Required Code: Refer to LDM for detail drawings. Proposed: Yes. Meets Code: Yes. 1) *Please add a callout stating that the root ball dirt should be removed to expose the root flare.* 2) *If desired, the mulch depth can be reduced to 3".*

**1) Response: A call out will be added to the deciduous tree planting detail that states the root ball dirt should be removed to expose the root flare.
(Refer to Sheet L-1.2)**

**2) Response: The mulch depth will be reduced to 3" on planting details.
(Refer to Sheet L-1.2)**

18. Item: Evergreen Tree. Required Code: See above. Proposed: Yes. Meets Code: Yes. *See above.*

**1) Response: A call out will be added to the evergreen tree planting detail that states the root ball dirt should be removed to expose the root flare.
(Refer to Sheet L-1.2)**

**2) Response: The mulch depth will be reduced to 3" on planting details.
(Refer to Sheet L-1.2)**

19. Item: Shrub. Required Code: See above. Proposed: Yes. Meets Code: Yes. *If desired, the mulch depth can be reduced to 2".*

Response: Noted.

Other Plant Material Requirements (LDM 3)

20. Item: Recommended Trees for Planting Under Overhead Utilities (LDM 3.e).
Required Code: Label distance from the overhead utilities. Proposed: No. Meets
Code: TBD. *Please clearly indicate any overhead lines on Landscape Plan.*

**Response: All overhead utility lines will be labeled on the Landscape Plan (along Lee Begole Drive). No proposed trees will be within 10' of the existing overhead lines.
(Refer to Sheets L-1.1 and L-1.2)**

WETLAND REVIEW OF THE PRELIMINARY & FINAL SITE PLAN (PSP17-0114)

Wetland Impact Review

1. The applicant shall show the following information on subsequent site plans:
 - a) The area of all existing on-site wetland/watercourse areas (square feet or acres)
 - b) The area of all existing 25-foot buffer areas (square feet or acres)
 - c) Area (square feet) and volume (cubic yards) of all wetland/watercourse impacts (both permanent and temporary)
 - d) Area (square feet) of all wetland buffer impacts (both permanent and temporary)
 - a) **Response: The areas of existing wetlands will be provided.
(Refer to Sheets L-1.0 and L-1.1)**
 - b) **Response: The areas of all existing 25' buffer areas will be provided.
(Refer to Sheets L-1.0 and L-1.1)**
 - c) **Response: The area and volume of all wetland / watercourse impacts will be provided on plans.
(Refer to Sheets L-1.0 and L-1.1)**
 - d) **Response: The area of all wetland buffer impacts will be provided on plans
(Refer to Sheets L-1.0 and L-1.1)**
2. It appears as though a City of Novi Minor Use Wetland Permit and Authorization to Encroach the 25-Foot Natural Features Setback would be required for the proposed impacts as the total wetland impacts appear to be less than 10,000 square feet (0.23-acre) and likely less than 30 cubic yards of impact (i.e., threshold for City of Novi Non-Residential Minor Wetland Permits).

Response: Noted.

3. It is the applicant's responsibility to contact MDEQ in order to determine if the proposed development would require a wetland use permit from the MDEQ. The on-site wetlands could be regulated by the Michigan Department of Environmental Quality (MDEQ). MDEQ regulates wetlands that are located within 500-feet of a pond, stream, drain or lake or are greater than 5-acres in size. Final determination of regulatory status should be made by the MDEQ. A permit from this agency may be required for any direct impacts, or potentially for storm water discharge from any proposed detention basin to existing wetlands (if applicable). The wetland to be filled appears to be within 500-feet of a drainage course located south of the I-96 corridor.

Response: Noted. We will be in contact with the MDEQ and provide them with any required plans.

4. If applicable, the applicant shall provide wetland conservation easements as directed by the City of Novi Community Development Department for any areas of remaining wetlands as well as for any proposed wetland mitigation areas (if necessary). A Conservation Easement shall be executed covering all remaining wetland areas on site as shown on the approved plans. This language shall be submitted to the City Attorney for review. The executed easement must be returned to the City Attorney within 60 days of the issuance of the City of Novi Wetland and Watercourse permit.

Response: Noted. We will provide any required easements.

Permits and Regulatory Status

5. As proposed, the project shall require a City of Novi Wetland Minor Use Permit and an Authorization to Encroach the 25-Foot Nature Features Setback for impacts to the City-regulated 25-foot wetland setback.

Response: Noted. We will apply for a Wetland Minor Use permit and Authorization.

Wetland Comments

6. ECT recommends that the applicant address the items noted below prior to the approval of the Final Stamping Set plan for the project. The applicant shall show the following information on subsequent site plans:
- a) The area of all existing on-site wetland/watercourse areas (square feet or acres)
 - b) The area of all existing 25-foot buffer areas (square feet or acres)
 - c) Area (square feet) and volume (cubic yards) of all wetland/watercourse impacts (both permanent and temporary)
 - d) Area (square feet) of all wetland buffer impacts (both permanent and temporary)

- a) **Response: The areas of existing wetlands will be provided.
(Refer to Sheets L-1.0 and L-1.1)**
 - b) **Response: The areas of all existing 25' buffer areas will be provided.
(Refer to Sheets L-1.0 and L-1.1)**
 - c) **Response: The area and volume of all wetland / watercourse
impacts will be provided on plans.
(Refer to Sheets L-1.0 and L-1.1)**
 - d) **Response: The area of all wetland buffer impacts will be provided on
plans
(Refer to Sheets L-1.0 and L-1.1)**
- e) It is the applicant's responsibility to contact MDEQ in order to determine if the proposed development would require a wetland use permit from the MDEQ. The on-site wetlands could be regulated by the Michigan Department of Environmental Quality (MDEQ) as MDEQ regulates wetlands that are located within 500-feet of a pond, stream, drain or lake or are greater than 5-acres in size. Correspondence from the MDEQ should be provided as a City of Novi Wetland Permit cannot be issued prior to receiving this information.

Response: Noted. We will be in contact with the MDEQ and provide them with any required plans.

- f) The applicant shall provide wetland conservationists as directed by the City of Novi Community Development Department for any areas of remaining wetlands as well as for any proposed wetland mitigation areas (if applicable). A Conservation Easement shall be executed covering all remaining wetland areas on site as shown on the approved plans. This language shall be submitted to the City Attorney for review. The executed easement must be returned to the City Attorney within 60 days of the issuance of the City of Novi Wetland and Watercourse permit. All proposed preservation/conservation easements shall be indicated on the Final Stamping Set plan.

Response: Noted. We will provide any required easements.

Conclusion

- g) The plan proposes to fill a small area of City-regulated wetland. This impact will require a City of Novi Wetland Minor Use Permit. A City of Novi Authorization to Encroach the 25-Foot Natural Features Setback will be required for the proposed impacts of the 25-foot wetland setback.

Response: Noted. We will provide any required setbacks.

Recommendation

- h) ECT recommends approval of the Preliminary & Final Site Plan for Wetlands; however, the applicant should address the items noted in the Wetland Comments Section of this letter prior to receiving approval of the Final Stamping Set Plans.

Response: Noted. Comments will be addressed.

WOODLAND REVIEW OF THE PRELIMINARY & FINAL SITE PLAN (PSP17-0114)

On-Site Woodland Evaluation

1. Several large white oak trees are located in the area of the proposed storm water bio-detention area to be located east of the existing Field Services Building. This includes Tree No. 3042 (49-inch DBH), that is proposed for removal. ECT recommends that the applicant minimize impacts to existing woodlands to the greatest extent possible, including to this and other healthy, large diameter trees in the area of the proposed bio-detention area.

Response: Noted.

2. There are a number of trees to be removed for the proposed development. While some of the trees indicated for removal fall outside of the City of Novi's mapped Woodland Boundaries, the City's Woodland Ordinance contains the following:

Where uncertainty exists with respect to the boundaries of designated woodland areas shown on the regulated woodland map, the following rules shall apply:

- *Distances not specifically indicated on the map shall be determined by the scale on the map;*
- *Where physical or natural features existing on the ground are at variance with those shown on the regulated woodland map, or in other circumstances where uncertainty exists, the community development director or his or her designee shall interpret the woodland area boundaries;*
- *On any parcel containing any degree of regulated woodland, the applicant shall provide site plan documentation showing the locations, species, size and condition of all trees of eight-inch caliper or larger. Existing site understory trees, shrubs and ground cover conditions must be documented on the site plan or woodland use permit application plan in the form of a brief narrative. The woodland conditions narrative should include information regarding plant species, general quantities and condition of the woodland vegetation.*

It is ECT's opinion that the areas containing surveyed trees on the Plan, including within the project's proposed limits of disturbance, should be considered as Regulated Woodland areas.

Response: All surveyed trees will now be considered woodland trees.

3. Please review and revise the Plan as necessary as some of the trees that are less than 8-inches in diameter appear to include the 'EX-1' indication, when these should be 'EX-2'.

Response: There are multiple cases where there is a tree that is both less than 8 inches and also in poor health, in either case both are exempt from replacement.

4. The applicant should review and revise the Existing Tree List to include replacement of the following trees

Trees Requiring Replacement				
Number	Tag #	Diameter (DBH)	Species	Replacement Credit Required
6	2789	10	Silver Maple	1
7	2839	9	Silver Maple	1
8	2843	10	Silver Maple	1
9	2850	20	Silver Maple	2
10	2853	8	Silver Maple	1
11	2857	10	White Oak	1
12	2970	9	Sugar Maple	1
13	3014	9	Butternut Hickory	1
14	3015	8	Butternut Hickory	1
15	3049	13	Black Cherry	2
TOTAL	-	-	-	12

**Response: The additional trees listed above will now be replaced.
(Refer to Sheets T-1.2 and T-1.3)**

City of Novi Woodland Review Standards & Woodland Permit Requirements

5. The current Landscape Plan (Sheet L-1.0) states that the 120 required Woodland Replacement Trees will be provided on-site for the regulated trees to be removed. It appears as if some of the symbols used on the landscape plans as Woodland Replacement Trees may not be correct. A review of the Woodland Replacement Tree symbols indicated on Sheets L-1.0 and L-1.1 appear to show a total of seventy (70) deciduous replacement trees (totaling 70 Woodland Replacement Credits, i.e., 1-to-1 Replacement Credit). These plans also appear to indicate a total of fifty-six (56) coniferous replacement trees (totaling 37.3 Woodland Replacement Credits, i.e., 1.5-to-1 Replacement Credit). The Woodland Replacement Credit provided appears to total 107.3, as opposed to the 120 required. The applicant shall review and revise the Landscape Plan as necessary.

Response: The landscape plans will be revised to reflect the proper amount of woodland replacement trees. More deciduous replacement

**trees will be proposed instead of coniferous in order to meet the 120 required.
(Refer to Sheet L-1.0 and L-1.1)**

6. The applicant shall review and revise the Landscape Plan and the associated Plant Schedule to list the quantities and species of Woodland Replacement Trees in table-form (i.e., indicate which trees are being proposed as Woodland Replacement trees in the Tree Plant List). The Plan needs to clearly indicate the locations and species of all Woodland Replacement Trees being provided on-site. In addition, the total number of Woodland Replacement Credits required needs to be reviewed and revised based on the changes to the number of trees that qualify for exemption, as discussed above.

**Response: The landscape plans will be revised to show plant lists which indicate quantity and species of woodland replacement trees in a table.
(Refer to Sheet L-1.0 and L-1.1)**

Woodland Review Comments

ECT recommends that the applicant address the items noted below in subsequent site plan submittals.

1. The current Plan indicates that fifteen (15) of the trees proposed for removal are listed as 'Exempt (EX-1)' from replacement. The Plan notes that EX-1 is a tree that is less than 50% in health prior to ISA rating (poor, very poor, or dead, and recommended for exemption from replacement). ECT does not agree with the assessment that 15 trees should be Exempt from Replacement. It is ECT's assessment that five (5) existing trees to be removed are less than 50% health and can be exempt from replacement. It is ECT's assessment that the remaining ten (10) trees listed on the current Plan as "Exempt" are not less than 50% in health per ISA rating, and therefore require replacement. These trees require a total of twelve (12) Woodland Replacement trees. The applicant should review and revise the Existing Tree List to include replacement of the trees listed in the previous table, above. The total number of Woodland Replacement Credits required indicated on the Plan needs to be reviewed and revised.

**Response: Only 5 of the originally listed 15 trees will be listed as exempt due to condition. 12 Woodland replacement trees will be provided.
(Refer to Sheets L-1.0 and L-1.1)**

2. Please add a column to the Existing Tree Lists (Sheets T-1.2, T-1.3, and T-1.4) that indicates how many Woodland Replacement Credits are required for each tree to be removed.

**Response: A column will be added to all existing tree list that indicates how many woodland replacement credits are required for each tree to be removed.
(Refer to Sheets T-1.2-T-1.4)**

3. Please review and revise the Existing Tree List sheets as necessary as some of the trees that are less than 8-inches in diameter appear to include the 'EX-1' indication, when these should be 'EX-2' (i.e., a tree that has a DBH less than 8-inches and is therefore exempt from replacement).

Response: There are multiple cases where there is a tree that is both less than 8 inches and also in poor health, in either case both are exempt from replacement.

4. The current Landscape Plan (Sheet L-1.0) states that the 120 required Woodland Replacement Trees will be provided on-site for the regulated trees to be removed. It appears as if some of the symbols used on the landscape plans as Woodland Replacement Trees may not be correct. A review of the Woodland Replacement Tree symbols indicated on Sheets L-1.0 and L-1.1 appear to indicate a total of seventy (70) deciduous replacement trees (totaling 70 Woodland Replacement Credits, i.e., 1-to-1 Replacement Credit). These plans also appear to indicate a total of fifty-six (56) coniferous replacement trees (totaling 37.3 Woodland Replacement Credits, i.e., 1.5-to-1 Replacement Credit). The Woodland Replacement Credits provided appear to total 107.3, as opposed to the 120 required. Please review and revise the Plan as necessary keeping in mind the Woodland Replacement Credits required shall change.

Response: Landscape plans will be updated. (Refer to Sheets L-1.0 and L-1.1)

5. The applicant shall review and revise the Landscape Plan and the associated Plant Schedule to list the quantities and species of Woodland Replacement Trees in table-form (i.e., indicate which trees are being proposed as Woodland Replacement trees in the Tree Plant List). The Plan needs to clearly indicate the locations and species of all Woodland Replacement Trees being provided on-site. In addition, the total number of Woodland Replacement Credits required needs to be reviewed and revised based on the changes to the number of trees that qualify for exemption, as discussed above.

Response: Landscape plans will be updated. (Refer to Sheets L-1.0 and L-1.1)

6. ECT recommends that the applicant minimize impacts to existing woodlands to the greatest extent possible, including to Tree No. 3042 (49-inch DBH), that is proposed for removal. This and other healthy, large diameter trees are located in the area of the proposed bio-detention area east of the existing Field Service Complex building.

Response: Landscape plans will be updated. (Refer to Sheets L-1.0 and L-1.1)

7. A Woodland Replacement financial guarantee for the planting of replacement trees will be required. This financial guarantee will be based on the number of

on-site woodland replacement trees (credits) being provided at a per tree value of \$400.

Response: Noted.

8. Based on a successful inspection of the installed on-site Woodland Replacement trees, the Woodland Replacement financial guarantee will be returned to the applicant. A woodland Maintenance financial guarantee in the amount of twenty-five percent (25%) of the original Woodland Replacement financial guarantee shall then be provided by the applicant. This Woodland Maintenance financial guarantee will be kept for a period of 2-years after the successful inspection of the on-site woodland replacement tree installation.

Response: Noted.

9. The applicant shall provide preservation/conservation easements as directed by the City of Novi Community Development Department for any areas of remaining woodland and woodland replacement trees. The applicant shall demonstrate that the proposed replacement trees and existing regulated woodland trees to remain will be guaranteed to be preserved as planted with a conservation easement or landscape easement to be granted by the city. This language shall be submitted to the City Attorney for review. The executed easement must be returned to the City Attorney within 60 days of the issuance of the City of Novi Woodland permit.

Response: Landscape plans will be updated. (Refer to Sheets L-1.0 and L-1.1)

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

Response: Noted.

FAÇADE REVIEW (for PSP and FSP)

DPS Addition

1. The façade Ordinance requires that rooftop equipment be screened from view from all vantage points both on and off site using approved materials. The equipment that is currently visible on the exiting roof should be screened as part of this project.

Response: We will provide additional rooftop screening. (Refer to Sheet A-501).

2. Façade Ordinance requires inspection(s) for all projects. Materials displayed on the approved sample board will compare to materials delivered to the site. It is the applicant's responsibility to request the inspection of each façade material at the appropriate time. Inspections may be requested using the Novi Building Department's Online Inspection Portal with the following link. Please click on "Click here to Request and Inspection" under "Contractors", then click "Façade" – <http://www.cityofnovi.org/Services/CommDev/OnlineInspectionPortal.asp>.

Response: The selected Contractor will request a façade inspection at the appropriate time.

JSP17-0042 PRELIMINARY/FINAL TRAFFIC REVIEW

External Site Access and Operations

1. The proposed driveway to the gun range facility is 25' wide. While this is within the acceptable range for the driveway, the applicant should consider increasing the width to the City's standard value of 30' (Figure IX.1) or provide information to support the reduced width and seek an administrative variance.

Response: we will revise the entry to show a 30 foot wide entrance tapering down to 25 foot inside the site. (Refer to Sheet C-3.1)

Internal Site Operations – General Traffic Flow

1. The applicant should increase the radii of the access to the northern parking lot to a minimum of 15 feet to ensure adequate truck/emergency vehicle access.

Response: Radii will be revised to 15 feet. (Refer to Sheet C-3.1 and C-3.2).

2. The applicant should provide radii of at least 15 feet throughout the site. The proposed 10 foot radii providing access to the maintenance vehicle parking is not adequate.

Response: Radii will be revised to 15 feet. (Refer to Sheet C-3.1 and C-3.2).

3. Near the southwest corner of the proposed detention basin on sheet 3.2, the inside and outside radii are 10' and 30', respectively, and should be updated to 30' minimum inside and 50' minimum outside to accommodate a firetruck.

Response: Response: Radii will be revised. (Refer to Sheet C-3.1 and C-3.2).

4. The following comments pertain to the proposed travel way on the north side of the proposed DPS garage.
 - a) The proposed travel way is designed at 25' with approximately 3.75' and 4.2' buffers on either side. While this is within the range of Figure IX.1 of the City Ordinance for driveway width, the applicant should consider increasing the travel way to a minimum of 28' in width if two-way operation is desired due to the size of the vehicles that are expected to traverse the site.
 - b) Similarly, if this travel way were to be considered a "marginal access street," the two-way operation width requirement is 28' per Table VIII-A of the Ordinance.
 - c) If one-way operation is desired, the applicant may maintain 25' width, but should also include applicable signing and striping throughout the site.
 - d) The same criteria (min 28' width) should be considered for the travel way along the south side of the property connecting the parking areas. This travel way is not currently dimensioned.

Response: we will revise the travel way to 30 feet. (Refer to Sheet C-3.1).

5. The applicant should provide sidewalk dimensions and radii dimensions for the proposed/modified landscape areas near the existing Field Services Complex.

Response: Additional dimensions will be added to the plans. (Refer to Sheet C-3.2)

6. The applicant should identify any existing trash collection areas and loading zones throughout the site.

Response: trash collecting areas and loading zoned will be labeled on the plans. (Refer to Sheet C-3.1 and C-3.2)

Parking Facilities

1. A total of 80 parking spaces are required and 104 total parking spaces will be proposed. In addition, a total of 66 maintenance vehicle parking spaces will be proposed.

Response: the Site Data Table will be revised. (Refer to Sheet C-3.0)

2. The applicant has proposed 17' long parking spaces throughout the development. All proposed 17' long parking spaces are abutting a six (6) inch curb. In order to comply with City standards, the applicant is required to use a four (4) inch curb when providing a 17' long parking space. Please see Section 5.3 of the City's Zoning Ordinance for more information.

Response: All parking adjacent to sidewalks/curbing shall be 4 inches high. (Refer to Sheet C-3.1 and C-3.2).

3. The applicant has proposed parking spaces throughout the development that utilize bumper blocks. The bumper blocks effectively shorten the 19' long parking space to 17' while providing two (2) feet of vehicle overhang for the 17' long space. However the proposed bumper blocks are six (6) inches in height and should be reduced to four (4) inches in height to comply with Section 5.3 of the City's Zoning Ordinance.

Response: All parking adjacent to parking bumpers shall be 4 inches high. (Refer to Sheet C-7.0).

4. The applicant should consider the use of bumper blocks in the gun range parking lot in areas where pedestrian walk is flush with the pavement.

Response: Noted.

5. The applicant should dimension the locations of the proposed bumper blocks to verify that two (2) feet of overhang is provided in front of the pedestrian walk, and provide on bumper block per space.

Response: Dimensions will be added to the plans. (Refer to Sheet C-3.2).

6. The applicant has indicated that they will proposed bicycle parking. However, the applicant should also indicate on the plans:
- The number of bicycle spaces required vs. bicycle spaces provided.
 - The bicycle parking details should be revised to show compliance with Figure 5.16.6 in the City's Zoning Ordinance.

a) Response: Bicycle space requirements will be added to the plans. (Refer to Sheet C-3.0)

b) Response: Bike support details will be added to the set. (Refer to Sheet C-7.0)

7. All on-site signing and pavement markings shall be in compliance with the Michigan Manual on Uniform Traffic Control Devices.
- The applicant should revise the accessible parking signing to include one R7-8 per each accessible parking space and one R7-8 sign with an additional R7-8p plaque per each van accessible parking space.
 - The applicant should increase the size of proposed stop signs to 30" x 30".
 - The applicant has indicated two "crosswalk" signs; however, only one "crosswalk" sign is indicated in the plans.
 - The applicant should revise the proposed sign posts to be U-channel in shape and indicate the size of the sign post, which is required to be 3#.
 - It appears there are two (2) sets of crosswalk markings between two (2) parking spaces in the southern parking lot. These should be angels, hatched pavement marking and a detail included in the plans

a) Response: ADA signage will be revised. (Refer to Sheet C-3.1 and C-3.2).

- b) **Response: Signage will be revised. (Refer to Sheet C-3.1, C-3.2 & C-7.0).**
- c) **Response: Cross walk signage will be added to the plans. (Refer to Sheet C-3.2).**
- d) **Response: we will use a "U" shape 3# post as described. (Refer to Sheet C-7.0)**
- e) **Response: the two western walkway marking will be revised. (Refer to Sheet C-3.2 and C-7.0).**

FIRE MARSHAL

1. Bench Mark for hydrants not the same throughout plans.
Response: Bench marks will be shown on the plans. (Refer to Sheets C-1.1, C-1.2, C-4.1 and C-4.2)
2. Bench Mark for hydrants doesn't show new location with water mains. (BM300, BM 301, BM302, BM304, BM305 and BM306.)
Response: Bench Marks 304 and 305 will be removed during demolition. The other are to remain. No new Bench marks are shown on the plans. (Refer to Sheets C-1.1, C-1.2, C-4.1 and C-4.2)
3. Existing water mains need to be added to plans with hydrants.
Response: This is shown on the topographic survey. (Refer to Sheets C-1.1 and C-1.2)
4. Please submit detailed plans for Fire Alarm and Fire Suppression System to the Fire Marshal's office.
Response: A conceptual Fire Suppression Plan will be submitted on Sheet FP-101 for permit review to show design intent. A complete fire suppression and Fire Alarm plan will be provided by the fire suppression and Alarm contractor and issued for Fire Marshal review and comment as a deferred submittal after the construction contract has been awarded.

Prepared by:
NSA Architects, Engineers, Planners

Blair P. Reese, CSI, CDT, LEED AP
Senior Associate
Senior Project Manager

COMMUNITY IMPACT STATEMENT



City of Novi
DPS/Gun Range Additions

September 6, 2017

Attention: Ms. Sri Komaragiri, Planner

Reference: **Novi Department of Public Services Facility Expansion**
NSA Project No.: 216405.00
Plan Review Center Project: JSP 17-42

Dear Ms. Sri Komaragiri,

In response to the Plan Review Center Report dated August 24, 2017; we have included the following Community Impact Statement:

Community Impact

Summary

The impact of this proposed project on the neighboring areas will be minimal as the use of the facilities will not change. The site houses the Novi Department of Public Services and a Gun Range. The DPS employs both full and seasonal employees. The primary addition to the existing DPS building will serve as a storage garage for light and heavy-duty trucks and other equipment. These are existing vehicles that are currently stored on site and exposed to the elements. The renovation portion will provide updated office facilities for the City's Engineers.

The Gun Range addition will consist of a new simulation classroom with associated restroom, kitchenette, and parking facilities.

Fiscal Impact

Police: No change in the number of expected police responses is anticipated.

Fire: No change in the number of expected fire dept. responses is anticipated.

Employment: No change in the number of employees is anticipated.
The DPS project is expected to generate (70) construction jobs.
The Gun Range is expected to generate an additional (5) construction jobs.

City Performance: The proposed DPS and Gun Range shall comply with existing Novi Performance standards.

Sewer/Water Taps: No additional water or sewer taps will be required.

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Founded 1960

Surrounding areas: The proposed addition and renovation will not negatively impact neighboring areas. The proposed paving will reduce dust generated by the facility. The proposed garage will reduce noise generated by the facility. The Gun Range addition will not generate any additional noise or pollution.

Environmental Impact: The proposed parking required by the facilities will reduce the amount of vegetation on site. The proposed site will follow all applicable landscape ordinances regarding the replacement of site trees and vegetation.

Hazardous Materials: No additional hazardous materials will be stored or used on site. Existing hazardous material, primarily fuel, is stored per all applicable regulations.

Underground Storage: The proposed Addition and Renovation will not affect the existing underground fuel tank. This fueling area serves the City of Novi's public fleet and downtime will be minimized.

Contamination: There is no known site contamination history.

Wildlife: Some woodland vegetation and a 1,370 sq. ft. emergent wetland will be removed. This will be offset by the creation of a bio-retention basin and the expansion of an existing detention basin that will improve wildlife habitat. The applicant has worked with the City to conform to all applicable codes regarding these areas.

Social impact

Existing Occupants: No existing occupants may be temporarily displaced during construction. Improved facilities are expected to increase employee morale and productivity. Employee turnover is expected to decline.

Traffic Impact: No impact to existing traffic is anticipated.

Site Amenities: Proposed site improvements will create a cleaner and safer environment for pedestrians and DPS employees as private vehicle parking will be concentrated in a single area and not distributed throughout the site. Bicycle parking, per Novi Ordinance, will be provided for both facilities.

City Population: No impact on the City's population is anticipated.

City of Novi
Attn: Ms. Sri Komaragiri
NSA Project No. 217405.00
September 6, 2017
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Prepared by:
NSA Architects, Engineers, Planners

Michael Shuell,
Project Architect

Cc: ; File

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