



BLM GROUP BUILDING EXPANSION JSP23-24

JSP23-24 BLM GROUP BUILDING EXPANSION

Public Hearing at the request of Dembs Development for approval of the Special Land Use Permit, Preliminary Site Plan, Woodland Permit, and Stormwater Management Plan. The subject property is located in Section 4, on the north side of Cartier Drive in the I-1, Light Industrial District. The subject property is approximately 7.62 acres and the applicant is proposing an proposing a 63,608 square foot addition to an existing 75,162 square foot building in the Beck North Corporate Park.

Required Action

Approval/denial of the Special Land Use Permit, Preliminary Site Plan, Woodland Permit, and Stormwater Management Plan.

REVIEW	RESULT	DATE	COMMENTS
Planning	Conditional Approval recommended	9/11/23	<ul style="list-style-type: none"> • Noise Impact Statement to be provided prior to Planning Commission approval (<i>Applicant response indicates no excessive noise generating equipment, and no history of noise complaints in existing facility</i>) • Zoning Board of Appeals variance for building setback at eastern end (18 feet proposed, 40 feet required) • Zoning Board of Appeals variance for the building height as depicted (36 feet proposed, 25 feet maximum) • Items to address on the Final Site Plan submittal
Engineering	Approval recommended	9/7/23	<ul style="list-style-type: none"> • Stormwater to be collected and discharged to existing Beck North Corp Park stormwater system • Items to address on the Final Site Plan submittal
Landscaping	Approval recommended	8/29/23	<ul style="list-style-type: none"> • Waiver required for the berm in the locations of existing woodlands on the north side of the property • Waiver for lack of required greenbelt width at the southeast corner of addition • Items to address on the Final Site Plan submittal
Woodland	Approval recommended	9/6/23	<ul style="list-style-type: none"> • Woodland permit required for removal of 14 regulated trees; 31 replacement credits required • Items to address on the Final Site Plan submittal

Traffic	Approval recommended	9/8/23	Items to address on the Final Site Plan submittal
Façade	Approval recommended	9/5/23	<ul style="list-style-type: none">• Full compliance• Sample board must be submitted prior to the Planning Commission meeting
Fire	Conditional Approval recommended	8/28/23	Items to address on the Final Site Plan submittal

Motion Sheet

Approval – Special Land Use Permit

In the matter of BLM Group Expansion, JSP23-24, motion to **approve** the Special Land Use permit based on the following findings:

- a. Relative to other feasible uses of the site:
 - The proposed use will not cause any detrimental impact on existing thoroughfares *(as indicated in the traffic review letter)*;
 - Subject to satisfying the requirements in the Engineering and Fire Reviews the proposed use will not cause any detrimental impact on the capabilities of public services and facilities *(because the plan adequately addresses and provides for water and sanitary sewer service and management of stormwater volumes)*;
 - *Based on the number of trees being removed relative to the size of the building area, the proposed use is compatible with the natural features and characteristics of the land;*
 - The proposed use is compatible with adjacent uses of land *as it is an expansion of an existing business, which has not had a history of complaints and the residential buildings to the north are a significant distance away;*
 - The proposed use is consistent with the goals, objectives and recommendations of the City's Master Plan for Land Use;
 - The proposed use will promote the use of land in a socially and economically desirable manner *because it is in an existing corporate park;*
 - 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.
- b. *(additional comments here if any)*

(This motion is made because the plan is otherwise in compliance with Article 3, 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 BLM Group Expansion, JSP23-24, motion to **approve** the Preliminary Site Plan based on and subject to the following:

- a. The findings of compliance with Ordinance standards in the staff and consultant review letters and the conditions and the items listed in those letters being addressed on the Final Site Plan;
- b. The applicant has addressed the noise impact requirements;
- c. Planning Commission waiver of the required berms on the north side because it would result in additional woodland removals, and the residential buildings are buffered by existing woodlands, which is hereby granted;
- d. Planning Commission waiver for the deficiency in greenbelt width on the southeast side, which is hereby granted;
- e. Zoning Board of Appeals variance for the building setback at the southeast side of the addition due to the curve of the cul-de-sac;
- f. Zoning Board of Appeals variance for the building height as depicted which is supported by staff because the site is heavily buffered by existing regulated woodlands both on and off the site, it matches the height of the existing building, and because the closest residential building is located over 700 feet away.
- g. *(additional conditions here if any)*

(This motion is made because the plan is otherwise in compliance with Article 3, Article 4, Article 5, and Article 6 of the Zoning Ordinance and all other applicable provisions of the Ordinance.)

-AND-

Approval – Woodland Permit

In the matter of BLM Group Expansion, JSP23-24, 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 and in the Special land Use approval being addressed on the Final Site Plan;
- b. Full replacement of the trees being removed in accordance with the ordinance; provided, however, that the applicant shall be permitted to replace the trees on other properties within the Beck North Corporate Park development, or on other properties owned/developed by the applicant;
- c. *(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 BLM Group Expansion, JSP23-24, motion to **approve** the Stormwater Management Plan, subject to:

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

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

-OR-

Denial – Special Land Use Permit

In the matter of BLM Group Expansion, JSP23-24, motion to **deny** the Special Land Use Permit...*(because the plan is not in compliance with Article 3, Article 4, Article 5, and Article 6 of the Zoning Ordinance and all other applicable provisions of the Ordinance.)*

-AND-

Denial – Preliminary Site Plan

In the matter of BLM Group Expansion, JSP23-24, motion to **deny** the Preliminary Site Plan, *for the following reasons... (because the plan is not in compliance with Article 3, Article 4, Article 5, and Article 6 of the Zoning Ordinance and all other applicable provisions of the Ordinance.)*

-AND-

Denial- Woodland Permit

In the matter of BLM Group Expansion, JSP23-24, 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.)

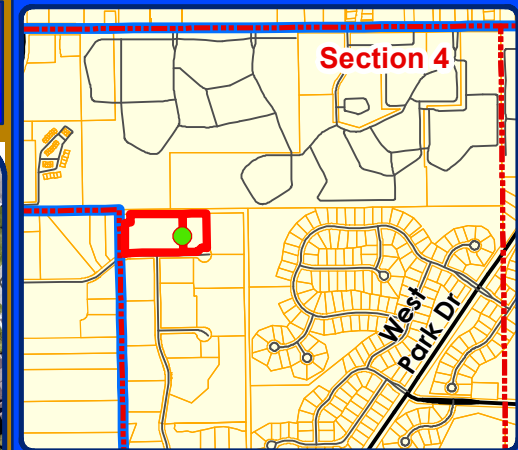
-AND-

Denial Stormwater Management Plan


In the matter of BLM Group Expansion, JSP23-24, motion to **deny** the Stormwater Management Plan, for the following reasons...(because the plan is not in compliance with Chapter 11 of the Ordinance.)

MAPS
Location
Zoning
Future Land Use
Natural Features

BLM GROUP BUILDING EXPANSION LOCATION



LEGEND

 Subject Property



City of Novi

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

Map Author: Lindsay Bell
Date: 10/2/23
Project: BLM GROUP EXPANSION
Version #: 1

0 70 140 280 420 Feet

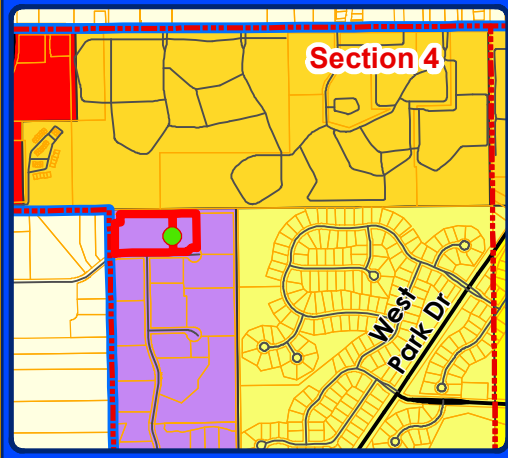
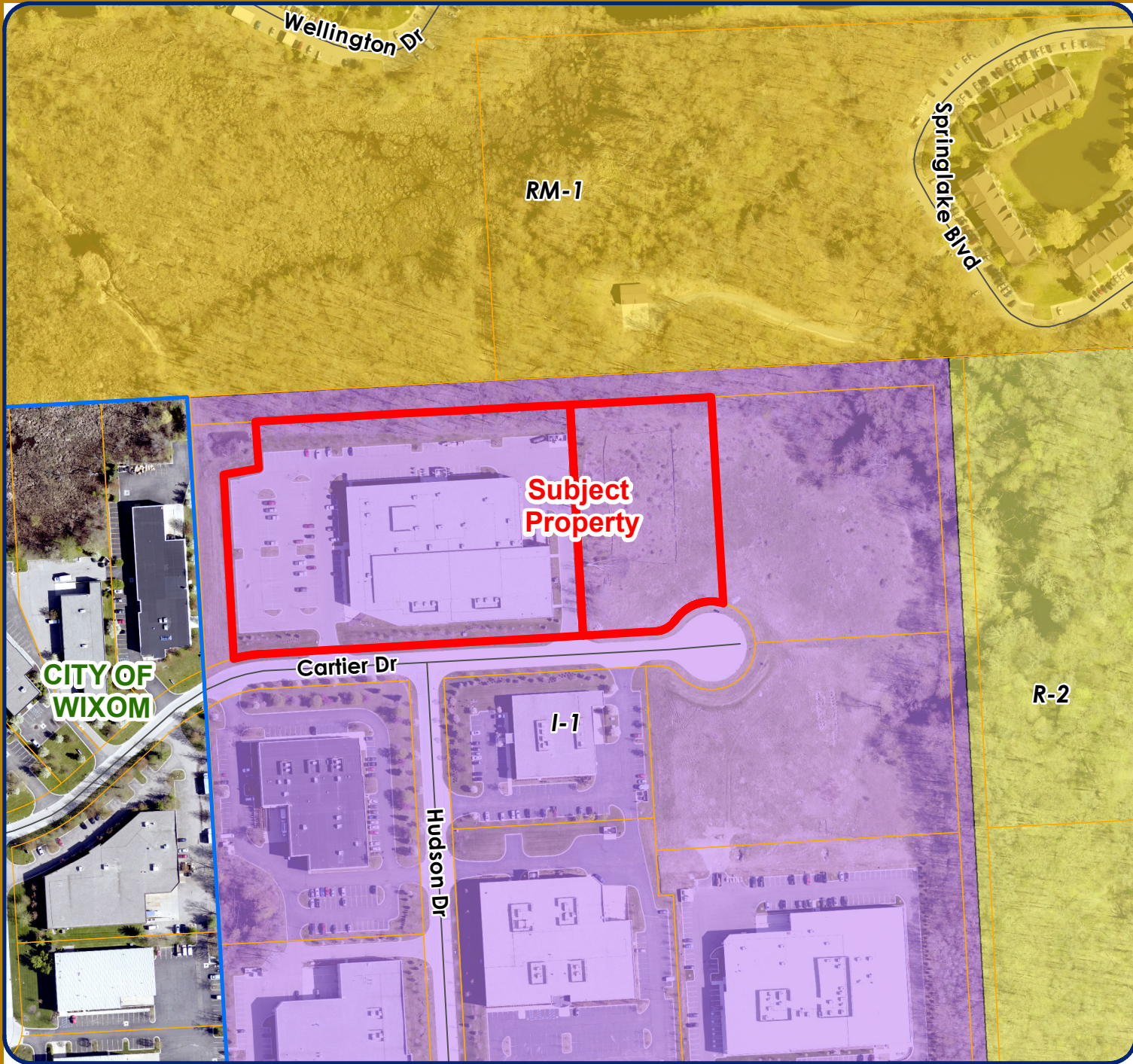
1 inch = 333 feet



MAP INTERPRETATION NOTICE

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

BLM GROUP BUILDING EXPANSION ZONING



LEGEND

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



City of Novi
 Dept. of Community Development
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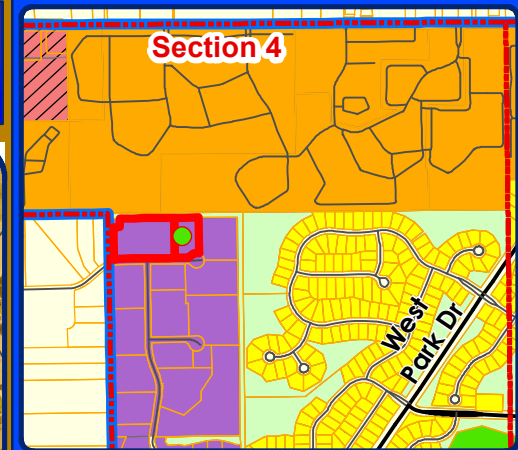
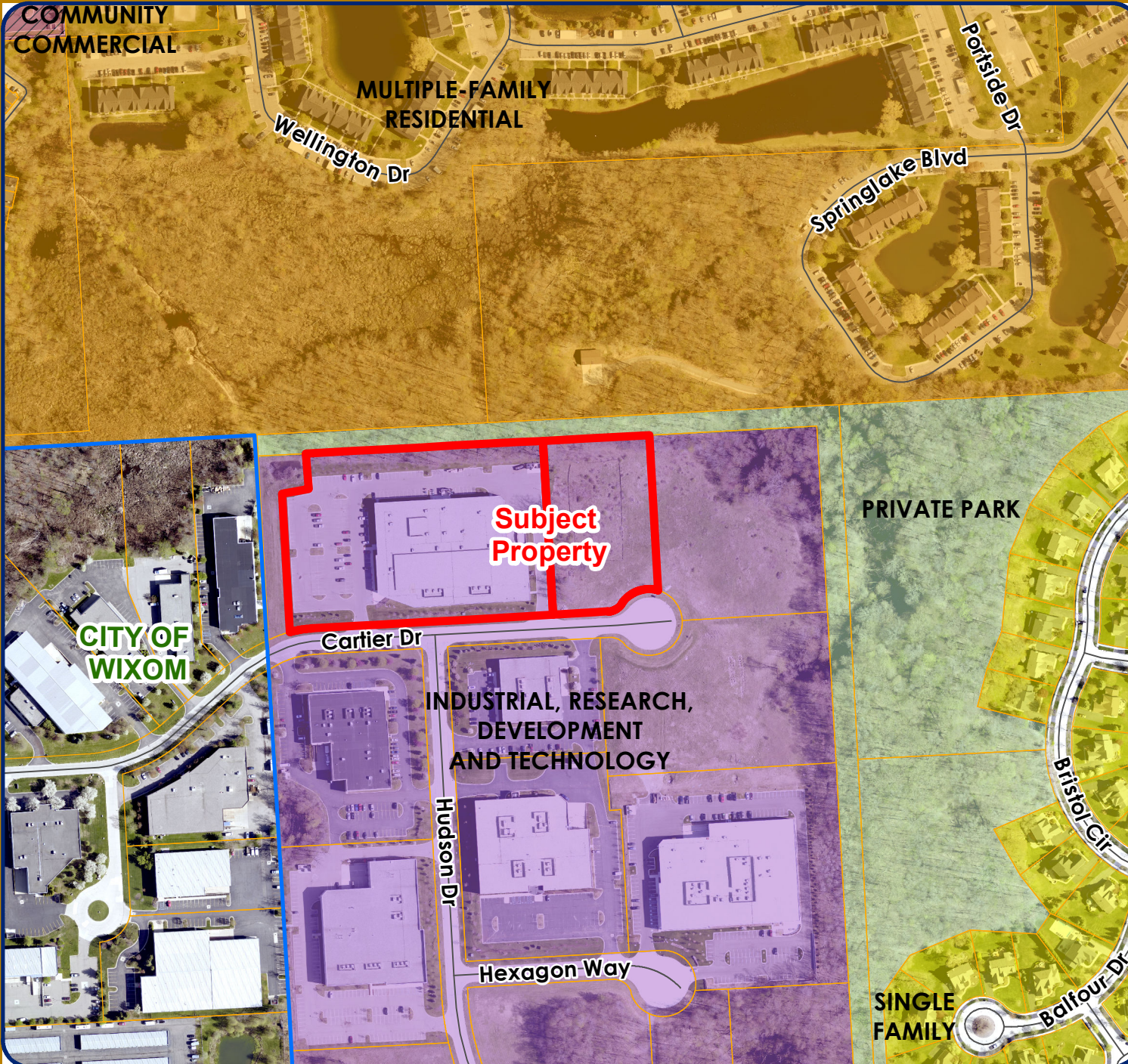
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BLM GROUP BUILDING EXPANSION

FUTURE LAND USE

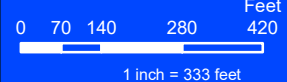


- LEGEND**
- Single Family
 - Multiple-Family Residential
 - Industrial, Research, Development and Technology
 - Community Commercial
 - Public Park
 - Private Park
 - Subject Property



City of Novi
Dept. of Community Development
City Hall / Civic Center
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Novi, MI 48375
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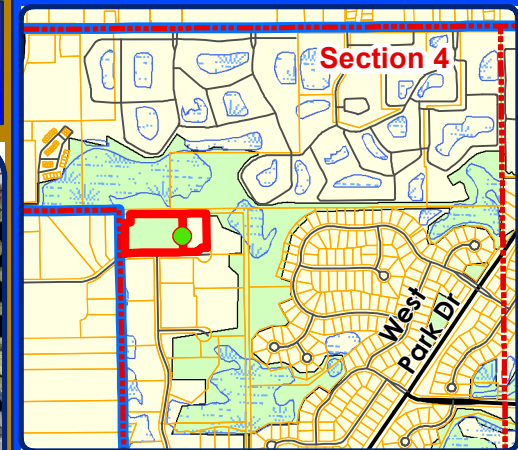
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BLM GROUP BUILDING EXPANSION

NATURAL FEATURES



- LEGEND**
-  WETLANDS
 -  WOODLANDS
 -  Subject Property



City of Novi
 Dept. of Community Development
 City Hall / Civic Center
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SITE PLAN

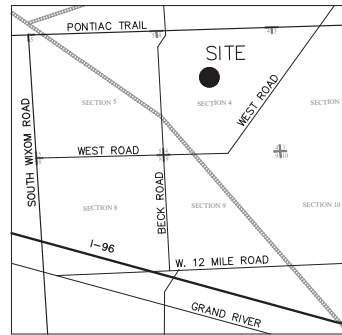
(Full plan set available for viewing at the Community Development Department)

BLM GROUP USA EXPANSION - BECK NORTH CORPORATE PARK

46850 CARTIER DRIVE (UNIT 55 & 56) PRELIMINARY SITE PLAN CITY OF NOVI, OAKLAND COUNTY



AERIAL MAP
SCALE: 1" = ±200 FEET



LOCATION MAP
SCALE: 1" = ±2,500 FEET

LEGEND	
---	EXISTING STORM
---	EXISTING WATER MAIN
---	EXISTING SANITARY
---	EXISTING GAS
---	EX. ELECTRIC CABLE
---	EX. COMMUNICATION
○	EX. CATCH BASIN
○	EX. MANHOLE
○	EX. END SECTION
○	EX. HYDRANT
○	EX. WATER SHUTOFF
○	EX. GATE VALVE
○	EX. SIGN
○	EX. PEDESTAL
○	EX. TRANSFORMER
○	EX. LIGHT POLE
○	EX. TREE TAG & NUMBER
→	FINISH FLOOR
→	PROP. DRAINAGE ARROW
---	PROP. TOP OF PAVEMENT ELEV.
---	PROP. TOP OF CURB ELEV.
---	PROP. GUTTER ELEV.
---	PROP. TOP OF WALK ELEV.
---	PROP. SPOT ELEV.
---	PROP. CONTOUR
---	PROP. CATCH BASIN
---	PROP. MANHOLE
---	PROP. END SECTION
---	PROP. CLEAN-OUT
---	PROP. STORM SEWER
---	PROP. SANITARY SEWER
---	PROP. WATER MAIN
---	PROP. GATE VALVE
---	PROP. CURB BOX
---	PROP. HYDRANT
---	PROP. SAN. STR. NUMBER
---	PROP. STM. STR. NUMBER
---	PROP. GATE VALVE NUMBER
---	PROP. HYDRANT NUMBER
---	PITCH IN CURB AND GUTTER
---	PITCH OUT CURB AND GUTTER
---	CROSS-ACCESS EASEMENT
---	PROP. ASPHALT
---	PROP. CONCRETE

ORIGINAL DESCRIPTION
PARCEL 22-04-151-035:

T1N, R8E, SEC 4 OAKLAND COUNTY CONDOMINIUM PLAN NO 1759 BECK NORTH CORPORATE PARK UNIT 55 L 47451 P 81

ORIGINAL DESCRIPTION
PARCEL 22-04-151-036:

T1N, R8E, SEC 4 OAKLAND COUNTY CONDOMINIUM PLAN NO 1759 BECK NORTH CORPORATE PARK UNIT 56 L 47451 P 81

RESULTANT DESCRIPTION:

T1N, R8E, SECTION 4, UNIT 55 AND UNIT 56 OF "BECK NORTH CORPORATE PARK", AS RECORDED IN LIBER 47451, PAGE 81 OF OAKLAND COUNTY RECORDS, OAKLAND COUNTY, MICHIGAN, AS AMENDED; THENCE 800°50'00" W 357.00 FEET; THENCE 84.77 FEET ALONG A 78.00 FOOT RADIUS CURVE TO THE LEFT, CHORD BEARING S73°25'00" W 85.75 FEET; THENCE 35.41 FEET ALONG A 42.00 FOOT RADIUS CURVE TO THE RIGHT, CHORD BEARING S63°55'00" W 37.08 FEET; THENCE N85°20'00" W 439.00 FEET; THENCE 53.06 FEET ALONG A 260.00 FOOT RADIUS CURVE TO THE LEFT, CHORD BEARING S84°44'00" W 50.91 FEET TO THE POINT OF BEGINNING, CONTAINING 7.82 ACRES OF LAND, MORE OR LESS, AND BEING SUBJECT TO EASEMENTS AND RESTRICTIONS OF RECORD.



APPLICANT/DEVELOPER:
DEMBS DEVELOPMENT, INC
27750 STANSBURY, SUITE 200
FARMINGTON HILLS, MI 48334
PHONE: (248) 390-7100
FAX: (248) 560-3030

ARCHITECT:
F.A. STUDIO
26261 EVERGREEN ROAD, SUITE 123
SOUTHFIELD, MI 48076
PHONE: (248) 619-2354

LANDSCAPE ARCHITECT:
ALLEN DESIGN
557 CARPENTER
NORTHVILLE, MI 48167
PHONE: (248) 467-4668

SHEET INDEX

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PE-2	PRELIMINARY FLOOR PLAN
1 OF 1	PRELIMINARY ELEVATIONS
1 OF 1	LIGHTING PLAN

RESIDENTIAL SURVEYING & ENGINEERING, INC.
SITE ENGINEERING
TOPOGRAHY
BOUNDARY SURVEYS
CONDOMINIUM
EASEMENT
EJECTA
PARCEL BOUNDS
CONSTRUCTION LAYOUT

ALPINE ENGINEERING, INC.
CIVIL ENGINEERS & LAND SURVEYORS

4892 WEST ROAD
SUITE 100
NOVI, MICHIGAN 48077
(248) 996-3700 (BUS)
(248) 996-3766 (FAX)
WWW.AEPINE-INC.NET

811
Know what's below
Call before you dig.

DEMBS DEVELOPMENT, INC.
COVER SHEET
BLM GROUP USA EXPANSION - BECK NORTH CORPORATE PARK
SECTION 4
CITY OF NOVI
OAKLAND COUNTY
MICHIGAN

REVISED
2023-08-18 PFP SUBMITTAL

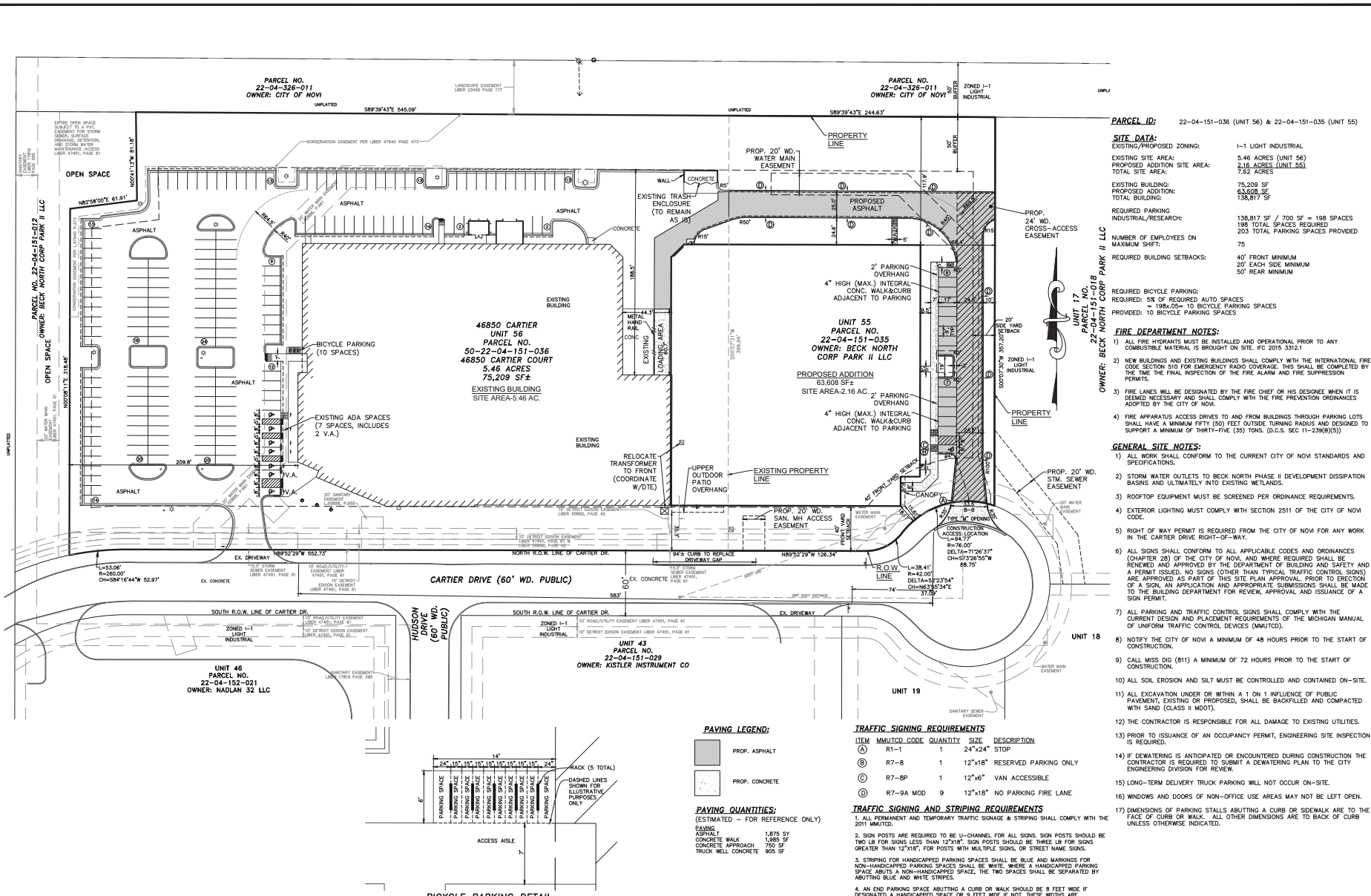
DATE: 2023-06-28
DRAWN BY: TAG
CHECKED BY: SD/TAG

SCALE: HOR 1" = 100' FT
VER 1" = 10' FT

13-332.2



Thomas A. Gion



PARCEL NO. 22-04-126-011
OWNER: CITY OF NOVI

PARCEL NO. 22-04-126-011
OWNER: CITY OF NOVI

PARCEL ID: 22-04-151-036 (UNIT 56) & 22-04-151-035 (UNIT 55)

SITE DATA:
EXISTING/PROPOSED ZONING: I-1 LIGHT INDUSTRIAL
EXISTING SITE AREA: 5.46 ACRES (UNIT 56)
PROPOSED ADDITION SITE AREA: 2.18 ACRES (UNIT 55)
TOTAL SITE AREA: 7.62 ACRES
EXISTING BUILDING: 75,209 SF
PROPOSED ADDITION: 63,608 SF
TOTAL BUILDING: 138,817 SF

REQUIRED PARKING:
INDUSTRIAL/RESEARCH: 138,817 SF / 700 SF = 198 SPACES
198 TOTAL SPACES REQUIRED
203 TOTAL PARKING SPACES PROVIDED
REQUIRED BUILDING SETBACKS:
40' FRONT MINIMUM
20' EACH SIDE MINIMUM
50' REAR MINIMUM

FIRE DEPARTMENT NOTES:
1) ALL FIRE HYDRANTS MUST BE INSTALLED AND OPERATIONAL PRIOR TO ANY CONSTRUCTIBLE MATERIAL OR START OF CONSTRUCTION.
2) NEW BUILDINGS AND EXISTING BUILDINGS SHALL COMPLY WITH THE INTERNATIONAL FIRE CODE SECTION 510 FOR EMERGENCY RADIO COVERAGE. THIS SHALL BE COMPLETED BY THE TIME THE FINAL INSPECTION OF THE FIRE ALARM AND FIRE SUPPRESSION PERMITS.
3) FIRE LANES WILL BE DESIGNATED BY THE FIRE CHIEF OR HIS DESIGNEE WHEN IT IS DETERMINED NECESSARY AND SHALL COMPLY WITH THE FIRE PREVENTION ORDINANCES ADOPTED BY THE CITY OF NOVI.
4) FIRE APPARATUS ACCESS DRIVES TO AND FROM BUILDINGS THROUGH PARKING LOTS SHALL HAVE A MINIMUM FIFTY (50) FEET OUTSIDE TURNING RADIUS AND BE DESIGNED TO SUPPORT A MINIMUM OF THIRTY-FIVE (35) TONS. (D.C.S. SEC 11-239(6)(5))

GENERAL SITE NOTES:
1) ALL WORK SHALL CONFORM TO THE CURRENT CITY OF NOVI STANDARDS AND SPECIFICATIONS.
2) STORM WATER OUTLETS TO BECK NORTH PHASE II DEVELOPMENT DISSIPATION BASINS AND ULTIMATELY INTO EXISTING WETLANDS.
3) ROOF TOP EQUIPMENT MUST BE SCREENED PER ORDINANCE REQUIREMENTS.
4) EXTERIOR LIGHTING MUST COMPLY WITH SECTION 2511 OF THE CITY OF NOVI CODE.
5) RIGHT OF WAY PERMIT IS REQUIRED FROM THE CITY OF NOVI FOR ANY WORK IN THE CARTIER DRIVE RIGHT-OF-WAY.
6) ALL SIGNS SHALL CONFORM TO ALL APPLICABLE CODES AND ORDINANCES (CHAPTER 28) OF THE CITY OF NOVI, AND WHERE REQUIRED SHALL BE RENEWED AND APPROVED BY THE DEPARTMENT OF BUILDING AND SAFETY AND A PERMIT ISSUED. NO SIGNS (OTHER THAN TYPICAL TRAFFIC CONTROL SIGNS) ARE APPROVED AS PART OF THIS SITE PLAN APPROVAL. PRIOR TO ERECTION OF A SIGN, AN APPLICATION AND APPROPRIATE SUBMISSIONS SHALL BE MADE TO THE BUILDING DEPARTMENT FOR REVIEW, APPROVAL AND ISSUANCE OF A SIGN PERMIT.
7) ALL PARKING AND TRAFFIC CONTROL SIGNS SHALL COMPLY WITH THE CURRENT DESIGN AND PLACEMENT REQUIREMENTS OF THE MICHIGAN MANUAL OF UNIFORM TRAFFIC CONTROL DEVICES (MMUTCD).
8) NOTIFY THE CITY OF NOVI A MINIMUM OF 48 HOURS PRIOR TO THE START OF CONSTRUCTION.
9) CALL MISS DIG (811) A MINIMUM OF 72 HOURS PRIOR TO THE START OF CONSTRUCTION.
10) ALL SOIL EROSION AND SILT MUST BE CONTROLLED AND CONTAINED ON-SITE.
11) ALL EXCAVATION UNDER OR WITHIN A 1' ON 1' INFLUENCE OF PUBLIC PAVEMENT, EXISTING OR PROPOSED, SHALL BE BACKFILLED AND COMPACTED WITH SAND (CLASS II MOTT).
12) THE CONTRACTOR IS RESPONSIBLE FOR ALL DAMAGE TO EXISTING UTILITIES.
13) PRIOR TO ISSUANCE OF AN OCCUPANCY PERMIT, ENGINEERING SITE INSPECTION IS REQUIRED.
14) IF DETERIORATION IS ANTICIPATED OR ENCOUNTERED DURING CONSTRUCTION THE CONTRACTOR IS REQUIRED TO SUBMIT A DETERIORATION PLAN TO THE CITY ENGINEERING DIVISION FOR REVIEW.
15) LONG-TERM DELIVERY TRUCK PARKING WILL NOT OCCUR ON-SITE.
16) WINDOWS AND DOORS OF NON-OFFICE USE AREAS MAY NOT BE LEFT OPEN.
17) DIMENSIONS OF PARKING STALLS ABUTTING A CURB OR SIDEWALK ARE TO THE FACE OF CURB OR WALK. ALL OTHER DIMENSIONS ARE TO BACK OF CURB UNLESS OTHERWISE INDICATED.

PAVING LEGEND:

[Symbol]	PROP. ASPHALT
[Symbol]	PROP. CONCRETE

PAVING QUANTITIES:
(ESTIMATED - FOR REFERENCE ONLY)

PAVING ASPHALT	1,875 SF
CONCRETE WALK	1,995 SF
CONCRETE APPROACH	795 SF
TRUCK WELL CONCRETE	905 SF

TRAFFIC SIGNING REQUIREMENTS

ITEM	MUNICIPAL CODE	QUANTITY	SIZE	DESCRIPTION
(A)	R7-1	1	24"x24"	STOP
(B)	R7-8	1	12"x18"	RESERVED PARKING ONLY
(C)	R7-8P	1	12"x6"	VAN ACCESSIBLE
(D)	R7-9A MOD	9	12"x18"	NO PARKING FIRE LANE

TRAFFIC SIGNING AND STRIPING REQUIREMENTS

- ALL PERMANENT AND TEMPORARY TRAFFIC SIGNAGE & STRIPING SHALL COMPLY WITH THE 2011 MUTCD.
- SIGN POSTS ARE REQUIRED TO BE U-CANAL FOR ALL SIGNS. SIGN POSTS SHOULD BE TWO LB FOR SIGNS LESS THAN 12"x18". SIGN POSTS SHOULD BE THREE LB FOR SIGNS GREATER THAN 12"x18". FOR POSTS WITH MULTIPLE SIGNS, OR STREET NAME SIGNS.
- STRIPING FOR HANDICAPPED PARKING SPACES SHALL BE BLUE AND MARKINGS FOR NON-HANDICAPPED PARKING SPACES SHALL BE WHITE. WHERE A HANDICAPPED PARKING SPACE MEETS A NON-HANDICAPPED SPACE, THE TWO SPACES SHALL BE SEPARATED BY ABUTTING BLUE AND WHITE STRIPES.
- AN END PARKING SPACE ABUTTING A CURB OR WALK SHOULD BE 8 FEET WIDE IF DESIGNATED A HANDICAPPED SPACE OR 9 FEET WIDE IF NOT. THESE MEASURES ARE REFERENCED TO THE FACE OF CURB OR WALK.
- EACH INTERNATIONAL SYMBOL OF ACCESSIBILITY (WHEELCHAIR) TO BE PAINTED ON THE PAVEMENT SHALL BE WHITE.
- SEE SHEET 9 FOR BARRIER FREE PARKING DETAILS.
- ALL SIGNS ARE TO BE LOCATED AT LEAST 2 FEET FROM THE EDGE OF A CURB OR PEDESTRIAN TRAVEL WAY WITH SIGN BOTTOM HEIGHT 7 FEET FROM FINAL GRADE (EXCEPT AS NOTED).
- HIGH-INTENSITY PRISMATIC (HIP) SHEETING TO MEET FHWA RETRO-REFLECTIVITY.

NOTE:
CONSTRUCTION SITE SAFETY IS THE SOLE RESPONSIBILITY OF THE CONTRACTOR NEITHER THE OWNER NOR THE ENGINEER SHALL BE EXPECTED TO ASSUME ANY RESPONSIBILITY FOR SAFETY OF THE WORK OF PERSONS ENGAGED IN THE WORK, OF ANY NEARBY STRUCTURES, OR OF ANY OTHER PERSONS.

NOTE:
THE LOCATIONS OF EXISTING UNDERGROUND UTILITIES ARE SHOWN IN AN APPROXIMATE WAY ONLY AS DISCLOSED BY AVAILABLE UTILITY COMPANY RECORDS AND HAVE NOT BEEN INDEPENDENTLY VERIFIED BY THE COMPANY. NO GUARANTEE IS EITHER EXPRESSED OR IMPLIED AS TO THE COMPLETENESS OR ACCURACY THEREOF. THE CONTRACTOR SHALL DETERMINE THE EXACT LOCATION OF ALL EXISTING UTILITIES BEFORE COMMENCING WORK, AND ACCESS TO BE FULLY RESPONSIBLE FOR ANY AND ALL DAMAGES WHICH MIGHT BE OCCASIONED BY THE CONTRACTOR'S FAILURE TO EXACTLY LOCATE AND PRESERVE ANY AND ALL UNDERGROUND UTILITIES. THE CONTRACTOR SHALL NOTIFY THE DESIGN ENGINEER IMMEDIATELY IF A CONFLICT IS APPARENT.

NOTES:

- ALL BICYCLE PARKING SPACES SHALL BE PAVED AND ADJACENT TO A BICYCLE RACK OF THE INVERTED "U" DESIGN, THAT IS SOLID, CANNOT BE EASILY REMOVED WITH COMMON TOOLS, PROVIDES AT LEAST TWO (2) CONTACT POINTS FOR A BICYCLE, IS AT LEAST THREE (3) FEET IN HEIGHT, AND PERMITS THE LOCKING OF A BICYCLE THROUGH THE FRAME AND ONE (1) WHEEL WITH A STANDARD U-LOCK OR CABLE IN AN UPRIGHT POSITION. THE RACK SHALL BE SECURELY ANCHORED IN CONCRETE OR ASPHALT. ALTERNATIVE INSTALLATIONS AND DESIGNS MAY BE CONSIDERED IF THE PROPOSED RACK DESIGN FUNCTIONS SIMILAR TO THE INVERTED "U" DESIGN.
- ALL BICYCLE PARKING FACILITIES SHALL BE ACCESSIBLE FROM ADJACENT STREET(S) AND PATHWAY(S) VIA A PAVED ROUTE THAT HAS A MINIMUM WIDTH OF SIX (6) FEET.
- ALL BICYCLE PARKING FACILITIES SHALL BE SEPARATED FROM AUTOMOBILE PARKING SPACES AND ACCESS AISLES BY A RAISED CURB, LANDSCAPE AREA, SIDEWALK, OR OTHER METHOD THAT COMPLIES WITH ALL CITY ORDINANCES.

COMMERCIAL
SITE PLANNING
SURVEYING
INDUSTRIAL & MULTI-FAMILY
CONSTRUCTION LAYOUT

RESIDENTIAL
SUBDIVISIONS
MULTI-FAMILY
CONSTRUCTION LAYOUT

ALPINE
ENGINEERS & LAND SURVEYORS
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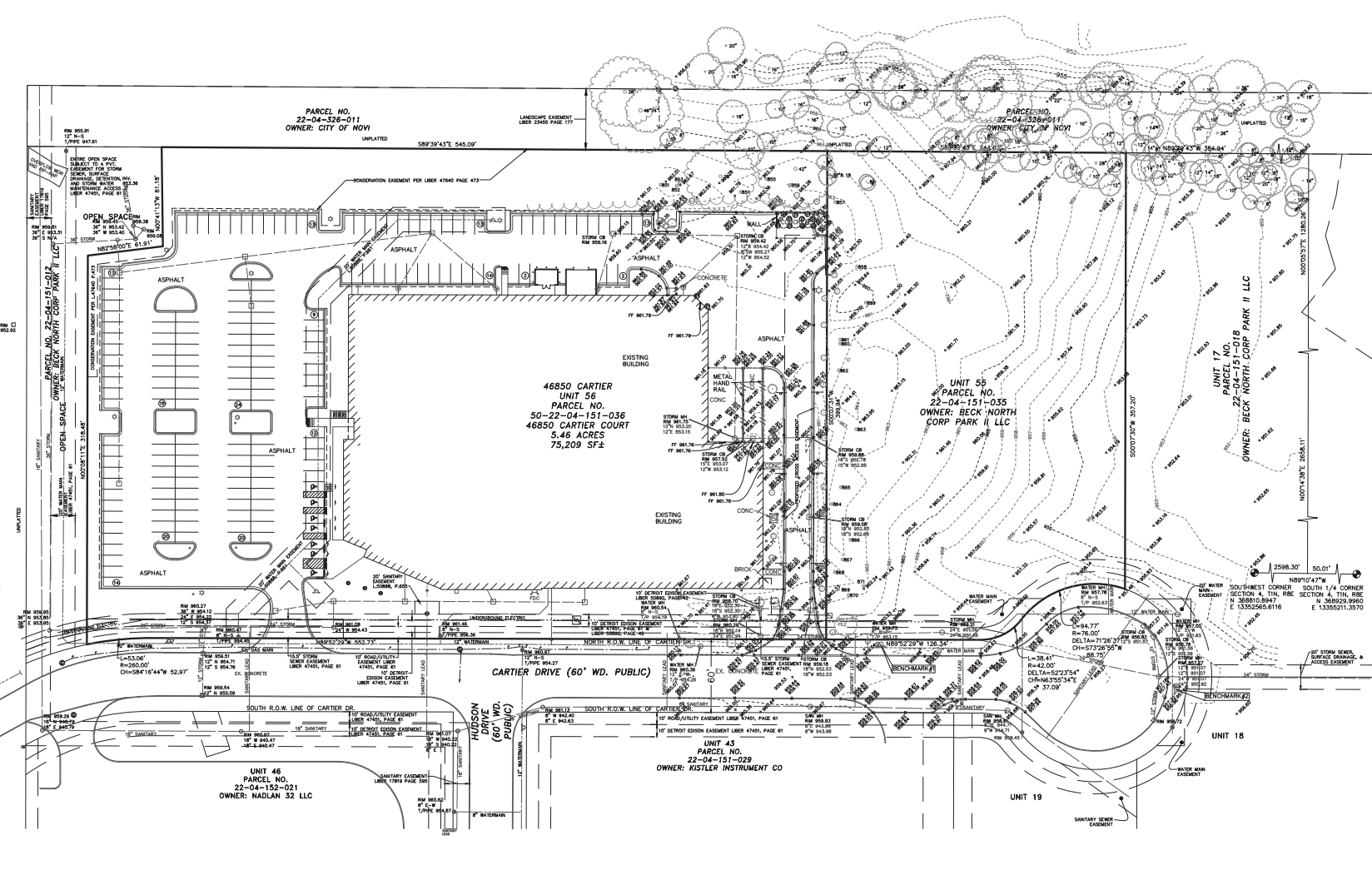
DEMERS DEVELOPMENT, INC.
PRELIMINARY SITE PLAN
BLM GROUP USA EXPANSION - BECK NORTH CORPORATE PARK
TOWNSHIP 1 N
RANGE 6 E
SECTION 4
CITY OF NOVI, MICHIGAN

CLIENT: _____
REVISED _____
2023-08-18 PSP SUBMITTAL

DATE: 2023-06-28
DRAWN BY: TAG
CHECKED BY: SD/TAG

SCALE: 1"=40 FT.
13-332.2

- LEGEND**
- EX. CATCH BASIN
 - EX. MANHOLE
 - ⊠ EX. END SECTION
 - ⊞ EX. OVERFLOW STRUCTURE
 - ⊞ EX. DOWNSPOUT/ROOF DRAIN
 - ⊞ EX. CLEANOUT
 - ⊞ EX. HYDRANT
 - ⊞ EX. WATER SHUTOFF
 - ⊞ EX. FIRE DEPT. CONNECTION
 - ⊞ EX. WATER WELL
 - ⊞ EX. LIGHTPOLE
 - ⊞ EX. UTILITY POLE
 - ⊞ EX. CURT ANCHOR
 - ⊞ EX. TRAFFIC SIGNAL
 - ⊞ EX. GAS SHUTOFF
 - ⊞ EX. GAS VENT
 - ⊞ EX. HANDLE
 - ⊞ EX. PEDESTAL
 - ⊞ EX. TRANSFORMER
 - ⊞ EX. GENERATOR
 - ⊞ EX. GAS METER
 - ⊞ EX. ELECTRIC METER
 - ⊞ EX. UTILITY MARKER
 - ⊞ EX. AIR CONDITIONER
 - ⊞ EX. RAILROAD SIGNAL
 - ⊞ EX. SIGN
 - ⊞ EX. POST/BOLLARD
 - ⊞ EX. FLAGPOLE
 - ⊞ EX. MAILBOX
 - ⊞ EX. PARKING METER
 - ⊞ EX. SATELLITE DISH
 - ⊞ EX. SOIL BORING
 - ⊞ EX. MONITOR WELL
 - ⊞ FOUND IRON
 - ⊞ SET IRON
 - ⊞ EX. BOLLARD
 - ⊞ EX. TREE STUMP
 - ⊞ EX. TREE
 - ⊞ EX. TREE TAG & NUMBER
 - EX. FENCE
 - EX. SANITARY SEWER
 - EX. STORM SEWER
 - EX. WATER MAIN
 - EX. ELECTRIC CABLE
 - EX. COMMUNICATION
 - EX. GAS LINE
 - EX. OVERHEAD LINE



BENCHMARKS:

BM1 - ARROW ON HYDRANT NEAR SOUTHWEST CORNER OF SUBJECT PARCEL ON NORTH SIDE OF CARTER DRIVE. ELEVATION - 962.12 NAVD88

BM2 - ARROW ON HYDRANT ON EAST SIDE OF COLLEGE AVE. OF CARTER DRIVE BETWEEN UNITS 17 AND 18. ELEVATION - 960.06 NAVD88

BM3 - CITY BENCHMARK MARK 17 ON NORTH NORTHEAST FLANGE BOLT OF IRON HYDRANT LOCATED 150 FEET NORTH OF DRIVE #28888, HUDSON DRIVE, 6 FEET EAST OF BACK OF CURB. NORTHING: 377265.1263 EASTING: 1332421.08 ELEVATION - 952.395 NAVD88

NOTE:
BEARINGS BASED ON MICHIGAN STATE PLANE COORDINATES, NAD83, MICHIGAN SOUTH ZONE.

ORIGINAL DESCRIPTION
PARCEL 22-04-151-035;
T1N, R8E, SEC 4 - OAKLAND COUNTY CONDOMINIUM PLAN NO 1728 BECK NORTH CORPORATE PARK UNIT 55 L 47451 P 61

ORIGINAL DESCRIPTION
PARCEL 22-04-151-036;
T1N, R8E, SEC 4 - OAKLAND COUNTY CONDOMINIUM PLAN NO 1728 BECK NORTH CORPORATE PARK UNIT 56 L 47451 P 61

RESULTANT DESCRIPTION:
T1N, R8E, SECTION 4, UNIT 55 AND UNIT 56 OF "BECK NORTH CORPORATE PARK", AS RECORDED IN LIBER 47451, PAGE 61 OF OAKLAND COUNTY RECORDS, OAKLAND COUNTY, MICHIGAN, AS AMENDED.

ALSO BEING DESCRIBED AS:
BEGINNING AT THE SOUTHWEST CORNER OF UNIT 56, "BECK NORTH CORPORATE PARK", AS RECORDED IN LIBER 47451, PAGE 61 OF OAKLAND COUNTY RECORDS, OAKLAND COUNTY, MICHIGAN, AS AMENDED; THENCE N00°08'11"E 318.48 FEET; THENCE N42°58'00"E 61.91 FEET; THENCE N00°41'17"W 81.18 FEET; THENCE S89°04'E 789.72 FEET; THENCE S00°07'30"W 357.20 FEET; THENCE S47°7' FEET ALONG A 76.00 FOOT RADIUS CURVE TO THE LEFT, CHORD BEARING 57°32'55"W 88.75 FEET; THENCE S8.41 FEET ALONG A 42.00 FOOT RADIUS CURVE TO THE RIGHT, CHORD BEARING 56°30'34"W 37.09 FEET; THENCE N82°29'W 679.07 FEET; THENCE S1.08 FEET ALONG A 260.00 FOOT RADIUS CURVE TO THE LEFT, CHORD BEARING S84°14'44"W 52.97 FEET TO THE POINT OF BEGINNING, CONTAINING 182 ACRES OF LAND, MORE OR LESS, AND BEING SUBJECT TO EASEMENTS AND RESTRICTIONS OF RECORD.

NOTE:
CONSTRUCTION SITE SAFETY IS THE SOLE RESPONSIBILITY OF THE CONTRACTOR. NEITHER THE OWNER NOR THE ENGINEER SHALL BE EXPECTED TO ASSUME ANY RESPONSIBILITY FOR SAFETY OF THE WORK, OF PERSONS ENGAGED IN THE WORK, OF ANY NEARBY STRUCTURES, OR OF ANY OTHER PERSONS.

NOTE:
THE LOCATIONS OF EXISTING UNDERGROUND UTILITIES ARE SHOWN IN AN APPROXIMATE WAY ONLY AS DISCLOSED BY AVAILABLE UTILITY COMPANY RECORDS AND HAVE NOT BEEN INDEPENDENTLY VERIFIED BY THE COMPANY. NO GUARANTEE IS EITHER EXPRESSED OR IMPLIED AS TO THE COMPLETENESS OR ACCURACY THEREOF. THE CONTRACTOR SHALL DETERMINE THE EXACT LOCATION OF ALL EXISTING UTILITIES BEFORE COMMENCING WORK, AND AGENCIES TO BE FULLY RESPONSIBLE FOR ANY AND ALL DAMAGES WHICH MIGHT BE OCCASIONED BY THE CONTRACTOR'S FAILURE TO EXACTLY LOCATE AND PRESERVE ANY AND ALL UNDERGROUND UTILITIES. THE CONTRACTOR SHALL NOTIFY THE DESIGN ENGINEER IMMEDIATELY IF A CONFLICT IS APPARENT.

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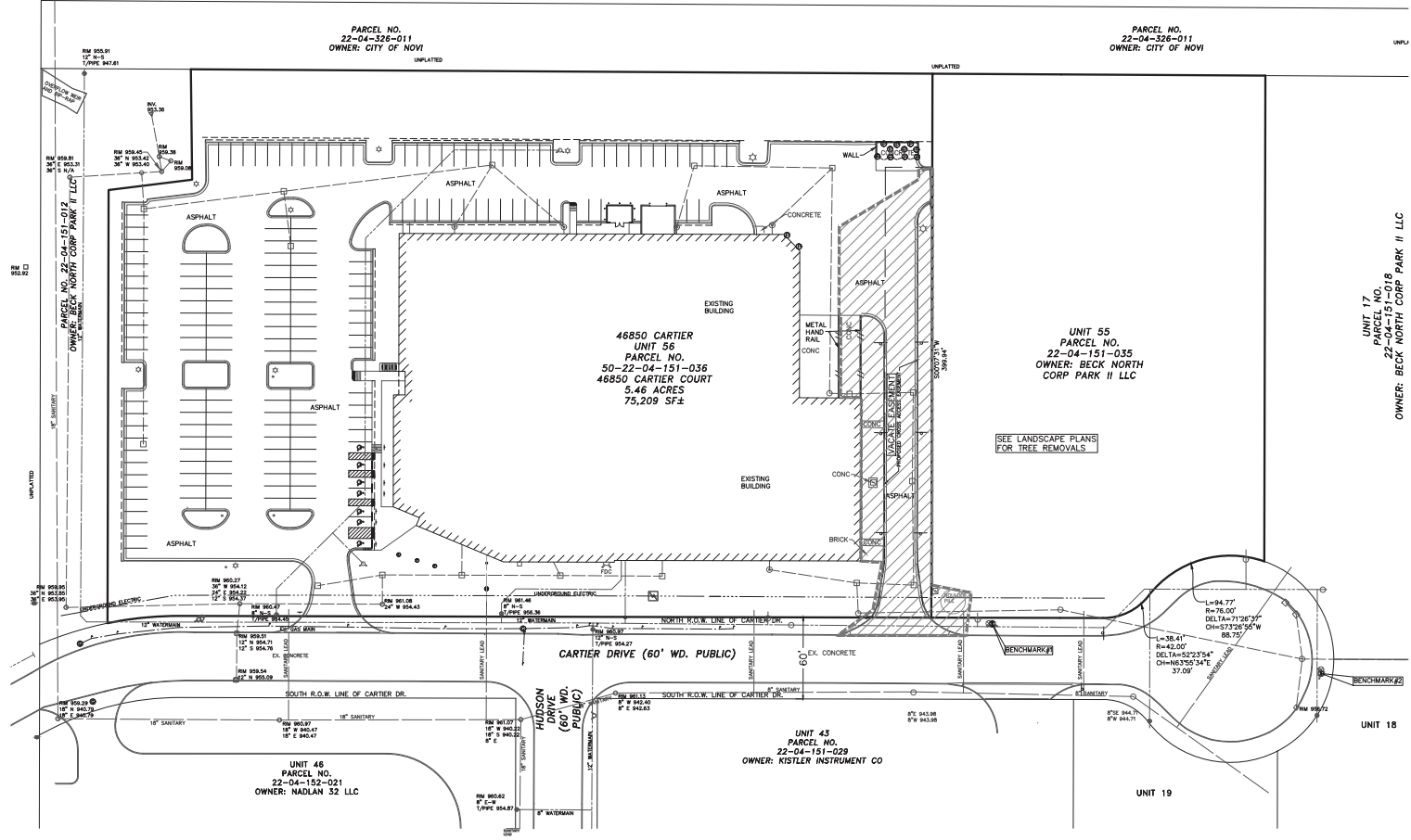
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BLM GROUP USA EXPANSION - BECK NORTH CORPORATE PARK
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MICHIGAN

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DATE: 2023-06-28
DRAWN BY: TP
CHECKED BY: TAG

SCALE: 1" = 40 FT.
1" = 100 FT.

3
13-332.2



PARCEL NO.
22-04-328-011
OWNER: CITY OF NOVI
UNPLATTED

PARCEL NO.
22-04-326-011
OWNER: CITY OF NOVI
UNPLATTED

48850 CARTIER
UNIT 55
PARCEL NO.
50-22-04-151-036
5.46 ACRES
75,209 SF±

UNIT 55
PARCEL NO.
22-04-151-035
OWNER: BECK NORTH
CORP PARK II LLC

UNIT 43
PARCEL NO.
22-04-151-029
OWNER: KISTLER INSTRUMENT CO

UNIT 48
PARCEL NO.
22-04-152-021
OWNER: NADLAN 32 LLC

UNIT 17
PARCEL NO.
22-04-151-018
OWNER: BECK NORTH CORP PARK II LLC

SEE LANDSCAPE PLANS
FOR TREE REMOVALS

LEGEND

- EX. CATCH BASIN
- EX. MANHOLE
- EX. END SECTION
- EX. OVERFLOW STRUCTURE
- EX. DOWNSPOUT/ROOF DRAIN
- EX. CLEANOUT
- EX. WATER WELL
- EX. HYDRANT
- EX. WATER SHUTOFF
- EX. FIRE SEPT. CONNECTION
- EX. IRRIGATION CONTROL VALVE
- EX. LIGHTPOLE
- EX. UTILITY POLE
- EX. GUY ANCHOR
- EX. TRAFFIC SIGNAL
- EX. GAS SHUTOFF
- EX. GAS VENT
- EX. HANDHOLE
- EX. PEDestal
- EX. TRANSFORMER
- EX. GENERATOR
- EX. GAS METER
- EX. ELECTRIC METER
- EX. ELECTRICAL OUTLET
- EX. UTILITY MARKER
- EX. HVAC
- EX. RAILROAD SIGNAL
- EX. SIGN
- EX. POST/BOLLARD
- EX. FLAGPOLE
- EX. MAILBOX
- EX. PARKING METER
- EX. SATELLITE DISH
- EX. SOIL BORING
- EX. MONITOR WELL
- FOUND IRON
- EX. BOULDER
- EX. TREE STUMP
- EX. TREE
- ⁹⁹⁹ EX. TREE TAG & NUMBER
- EX. SANITARY SEWER
- EX. STORM SEWER
- EX. WATER MAIN
- EX. ELECTRIC CABLE
- EX. COMMUNICATION
- EX. OVERHEAD LINE
- APPROXIMATE AREA OF DEMOLITION (CONTRACTOR TO COORDINATE WITH THE OWNER FOR EXACT LIMITS OF DEMOLITION WORK)

NOTES:

1. CONTRACTOR TO FIELD VERIFY LOCATION, DEPTH, AND SIZE OF ALL EXISTING UTILITIES PRIOR TO THE START OF CONSTRUCTION.
2. DEMOLITION PLAN IS FOR GENERAL INFORMATION PURPOSES ONLY. CONTRACTOR IS RESPONSIBLE FOR OBTAINING NECESSARY PERMITS AND COORDINATING WITH OWNER TO DETERMINE DETAILED DEMOLITION REQUIREMENTS.
3. CONTRACTOR TO COORDINATE WITH FRANCHISE UTILITY COMPANIES AND/OR VILLAGE AND COUNTY DEPARTMENTS FOR REMOVAL AND/OR RELOCATION OF METER BOXES, UTILITY POLES, UNDERGROUND LINES, ABOVE GROUND LINES, ETC., AS NECESSARY.
4. CONTRACTOR IS RESPONSIBLE FOR DOING AN EARTHWORK CALCULATION FOR CUT AND FILL REQUIREMENTS, AND IS RESPONSIBLE FOR INCLUDING IMPORT AND EXPORT OF MATERIALS IN THEIR BID. ALL EXCESS MATERIAL (INCLUDING TOPSOIL, CLEAN FILL, AND WASTE MATERIAL) SHALL BE REMOVED FROM THE SITE.
5. CONTRACTOR TO PROTECT EX. WALKS, MONITORING WELLS, POSTS, CONDUITS, PAVEMENT, CURBS, GUTTER, WALLS, BUILDINGS, FENCES, LANDSCAPING, TREES, ETC. TO REMAIN DURING CONSTRUCTION. CONTRACTOR TO COORDINATE REPLACEMENT OF LANDSCAPING, ETC. WITH THE OWNER.
6. PRIOR TO THE REMOVAL OR ABANDONMENT OF ANY EX. UNDERGROUND UTILITY OR BUILDING SERVICE LINES CALLED FOR ON THE PLANS OR DISCOVERED DURING EXCAVATION, THE CONTRACTOR MUST DETERMINE IF THE UTILITY LINE OR BUILDING SERVICE IS STILL IN USE. IF THE UTILITY LINE OR BUILDING SERVICE IS IN USE/ACTIVE THE CONTRACTOR MUST TAKE ALL THE NECESSARY STEPS TO GUARANTEE THAT THE UTILITY LINE OR BUILDING SERVICE IS RECONNECTED WITHOUT AN INTERRUPTION IN SERVICE. THE RECONNECTION OF THE UTILITY LINE OR BUILDING SERVICE MUST BE IN ACCORDANCE WITH THE STANDARDS AND THE REQUIREMENTS OF THE APPROPRIATE GOVERNMENTAL AGENCY OR PRIVATE UTILITY COMPANY.
7. CONTRACTOR TO FIELD VERIFY EXISTING IRRIGATION LOCATIONS AND REMOVE OR RELOCATE EXISTING IRRIGATION AS NECESSARY TO FACILITATE CONSTRUCTION.
8. REMOVE AND REPLACE ADDITIONAL PAVEMENT AS NECESSARY TO FACILITATE LIGHT POLE, SIGNAGE AND IRRIGATION CONSTRUCTION. COORDINATE REMOVALS WITH LIGHTING, SIGNAGE AND IRRIGATION PLANS.

BENCHMARKS:

- BM1 - ARROW ON HYDRANT NEAR SOUTHWEST CORNER OF SUBJECT PARCEL ON NORTH SIDE OF CARTIER DRIVE. ELEVATION - 962.12 NAV088
- BM2 - ARROW ON HYDRANT ON EAST SIDE OF COL-SEE-SIAC OF CARTIER DRIVE BETWEEN UNITS 17 AND 18. ELEVATION - 960.06 NAV088
- BM3 - CITY BENCHMARK #434, "C" ON NORTH NORTHEAST FLANGE BOLT OF FIRE HYDRANT LOCATED 150 FEET NORTH OF DRIVE #28850 HUDSON DRIVE, 6 FEET EAST OF BACK OF CURB. NORTHING: 371265.783 EASTING: 1324213.108 ELEVATION - 952.395 NAV088

NOTICE:
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DEMOLITION PLAN
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TOWNSHIP 1 N
RANGE 8 E
SECTION 4
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MICHIGAN

CLIENT:

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DATE: 2023-06-28

DRAWN BY: TAG

CHECKED BY: SD/TAG

SCALE: 1"=40' ±

13-332.2

4

LEGEND

- EXISTING STORM
- EXISTING WATER MAIN
- EXISTING SANITARY
- EXISTING GAS
- EX. CATCH BASIN
- EX. MANHOLE
- EX. END SECTION
- EX. HYDRANT
- EX. WATER SHUTOFF
- EX. GATE VALVE
- EX. SIGN
- EX. PEDESTAL
- EX. TRANSFORMER
- EX. LIGHT POLE
- EX. TREE/TAG NO.
- EX. TREE
- EX. POWER POLE
- EX. GUY WIRE
- FINISH FLOOR
- PROP. DRAINAGE ARROW
- PROP. TOP OF PAVEMENT ELEV.
- PROP. TOP OF CURB ELEV.
- PROP. GUTTER ELEV.
- PROP. TOP OF WALK ELEV.
- PROP. SPOT ELEV.
- PROP. CONTOUR
- PROP. CATCH BASIN
- PROP. MANHOLE
- PROP. END SECTION
- PROP. STORM SEWER
- PROP. SANITARY SEWER
- PROP. WATER MAIN
- PROP. GATE VALVE
- PROP. HYDRANT
- PROP. SAN. STR. NUMBER
- PROP. STA. STR. NUMBER
- PROP. GATE VALVE NUMBER
- PROP. HYDRANT NUMBER
- SWITCH IN CURB AND GUTTER
- PITCH OUT CURB AND GUTTER
- PROP. UTILITY CROSSING
- PROP. ASPHALT
- PROP. CONCRETE



EXISTING SOILS

- (USDA WEB SOIL SURVEY)
- SOIL TYPE: 108 - MARLETTE SANDY LOAM
 - 118 - CARGO SANDY LOAM
 - 188 - FOX SANDY LOAM

BENCHMARKS:

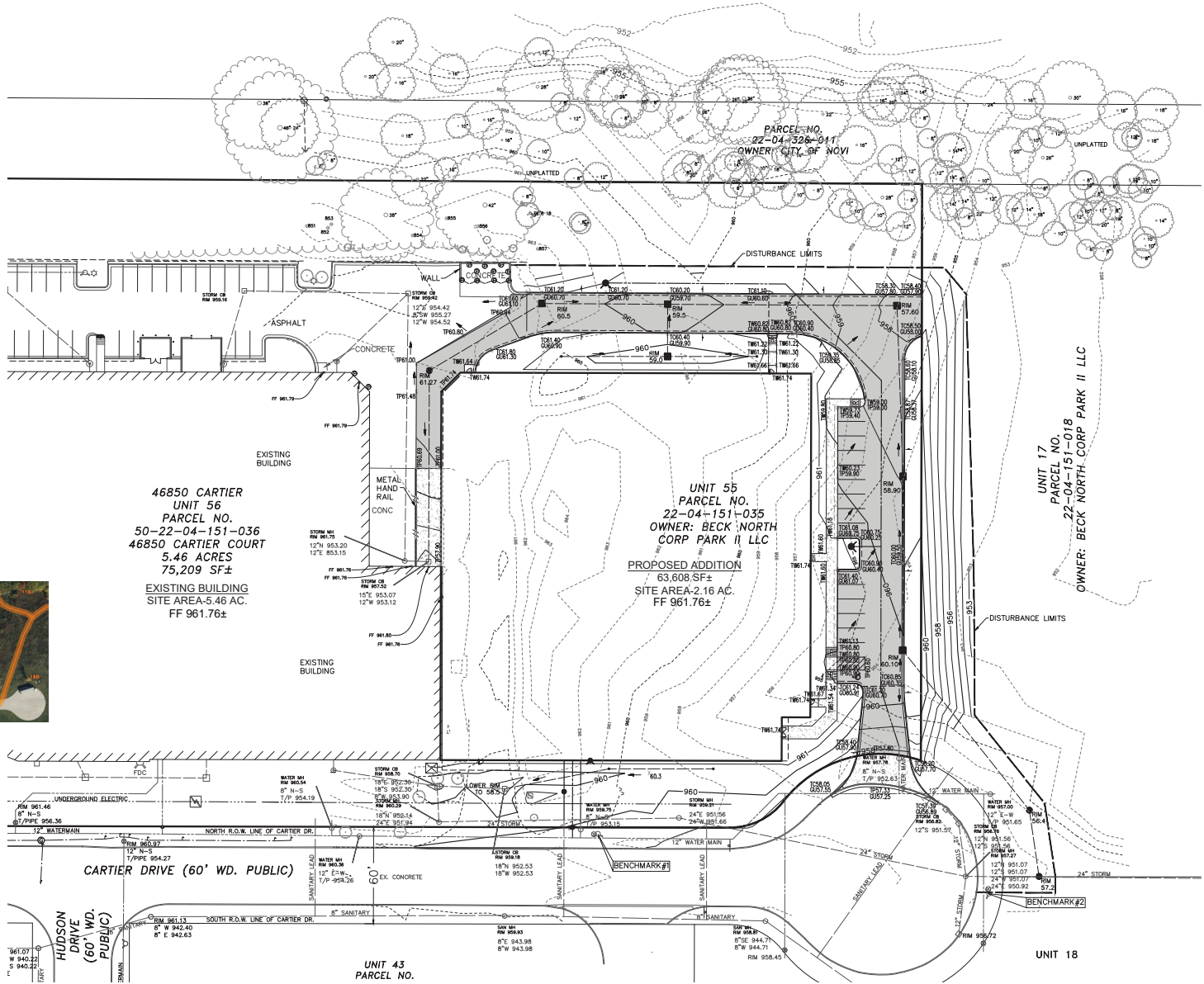
- BM#1 - ARROW ON HYDRANT NEAR SOUTHWEST CORNER OF SUBJECT PARCEL ON NORTH SIDE OF CARTIER DRIVE. ELEVATION = 962.12 NAVD88
- BM#2 - ARROW ON HYDRANT ON EAST SIDE OF CURB BETWEEN UNITS 17 AND 18. ELEVATION = 960.06 NAVD88
- BM#3 - CITY BENCHMARK #434, "X" ON NORTH NORTHEAST FRANGE BOLT OF FIRE HYDRANT LOCATED 150 FEET NORTH OF DRIVE BETWEEN HUDSON DRIVE, 6 FEET EAST OF BACK OF CURB. NORTHING: 371286.1263 EASTING: 1334013.3133 ELEVATION = 952.395 NAVD88

NOTE:

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46850 CARTIER
UNIT 56
PARCEL NO.
50-22-04-151-036
46850 CARTIER COURT
5.46 ACRES
75,209 SF±
EXISTING BUILDING
SITE AREA-5.46 AC.
FF 961.76±

UNIT 55
PARCEL NO.
22-04-151-035
OWNER: BECK NORTH
CORP PARK II LLC
PROPOSED ADDITION
63,608 SF±
SITE AREA-2.16 AC.
FF 961.76±

UNIT 17
PARCEL NO.
22-04-151-018
OWNER: BECK NORTH CORP PARK II LLC

COMMERCIAL
SITE PLANNING
INDUSTRIAL & MULTI-UNIT
CONSTRUCTION LAYOUT

SURVEYING
ALTA SURVEYS
TOPOGRAPHIC SURVEYS
PARCEL SPOTS

RESIDENTIAL
SUBDIVISIONS
MULTI-FAMILY
CONSTRUCTION LAYOUT

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PRELIMINARY GRADING PLAN

BLM GROUP USA EXPANSION - BECK NORTH CORPORATE PARK
TOWNSHIP: N
RANGE: E
SECTION: 4
MICHIGAN

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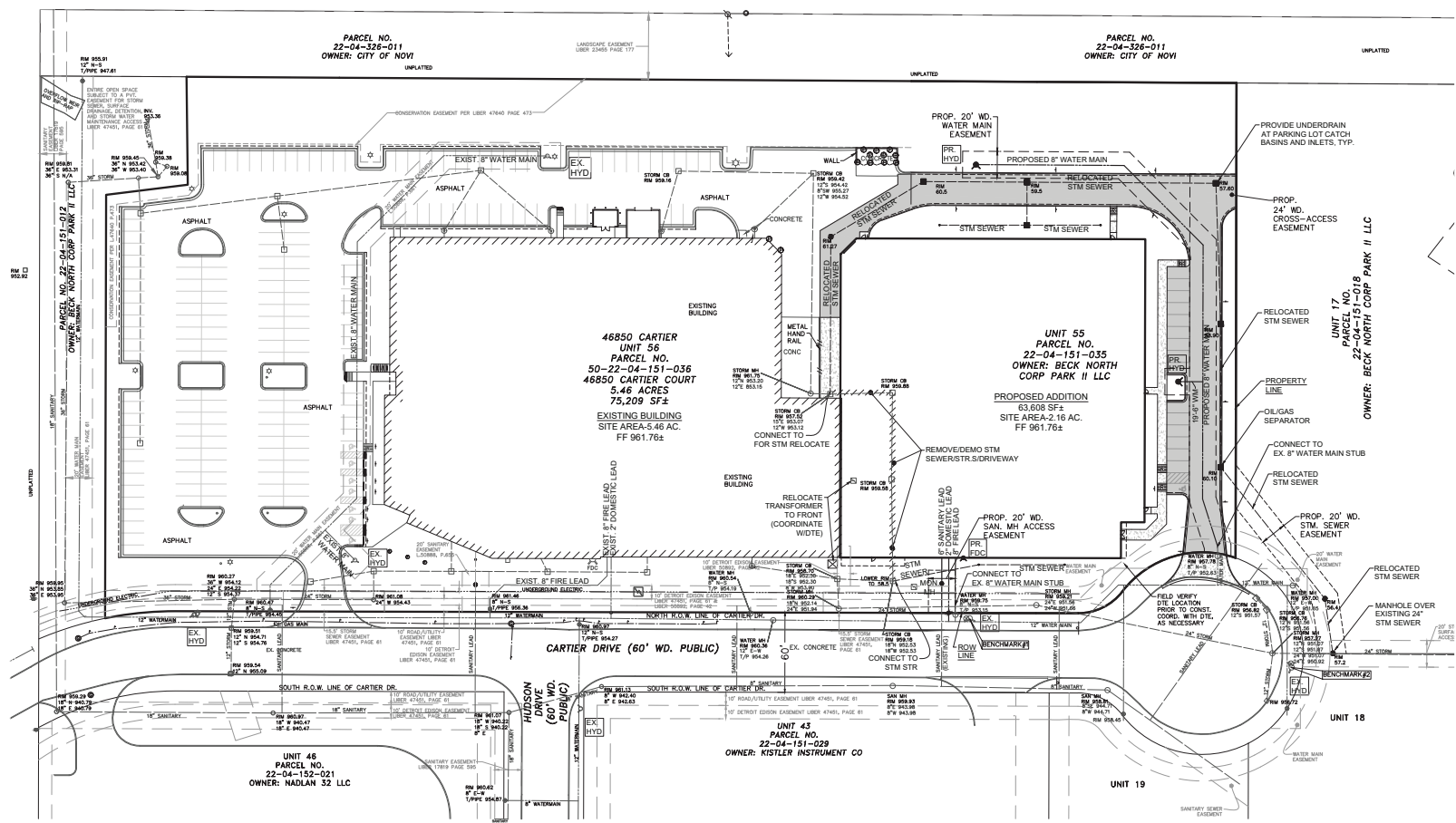
DRAWN BY: TAG

CHECKED BY: SD/TAG

SCALE: 1" = 30' FT.

5

13-332.2



PARCEL NO. 22-04-328-011
OWNER: CITY OF NOVI

PARCEL NO. 22-04-326-011
OWNER: CITY OF NOVI

48850 CARTIER
UNIT 55
PARCEL NO. 22-04-151-036
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UNIT 55
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UNIT 43
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OWNER: KISTLER INSTRUMENT CO

UNIT 48
PARCEL NO. 22-04-152-021
OWNER: NADLAN 32 LLC

UNIT 17
PARCEL NO. 22-04-151-018
OWNER: BECK NORTH CORP PARK II LLC

BENCHMARKS:
BM1 = ARROW ON HYDRANT NEAR SOUTHWEST CORNER OF SUBJECT PARCEL ON NORTH SIDE OF CARTIER DRIVE.
ELEVATION = 962.12 NAVD88
BM2 = ARROW ON HYDRANT ON EAST SIDE OF 60'-WD. PAV. OF CARTIER DRIVE BETWEEN UNITS 17 AND 18.
ELEVATION = 962.06 NAVD88
BM3 = CITY BENCHMARK #434, "C" ON NORTH NORTHEAST FLANGE BOLT OF THE HYDRANT LOCATED 150' FEET NORTH OF DRIVE #28895 REASON DRIVE, 6 FEET EAST OF BACK OF CURB.
NORTHING: 377265.9433
EASTING: 1354213.08
ELEVATION = 952.59 NAVD88

NOTICE:
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- UTILITY NOTES:**
- ALL WORK SHALL CONFORM TO THE CURRENT CITY OF NOVI STANDARDS AND SPECIFICATIONS.
 - PROPOSED WATER MAIN SHALL HAVE AT LEAST 6 FEET OF COVER PER CITY OF NOVI REQUIREMENTS.
 - COMPACTED SAND BACKFILL SHALL BE PROVIDED FOR ALL UTILITIES WITHIN THE INFLUENCE OF PAVED AREAS.
 - 18" MINIMUM VERTICAL CLEARANCE SHALL BE PROVIDED AT ALL UTILITY CROSSINGS. DIP WATER MAIN PER THE CITY OF NOVI STANDARDS AND SPECIFICATIONS, AS NECESSARY.
 - PROPOSED SANITARY LEAD SHALL BE BURIED WITH AT LEAST 5 FEET WHEN UNDER INFLUENCE OF PAVEMENT.
 - 6-INCH SANITARY LEADS SHALL BE A MINIMUM PVC SDR 25.5.
 - THE CONTRACTOR SHALL FIELD VERIFY ALL EXISTING UTILITY LOCATIONS, INVERTS AND GRADES PRIOR TO THE START OF ANY WORK.

LEGEND

---	EXISTING STORM	FF	FINISH FLOOR
---	EXISTING WATER MAIN	10' 40.0	PROP. DRAINAGE ARROW
---	EXISTING SANITARY	10' 40.0	PROP. TOP OF PAVEMENT ELEV.
---	EXISTING GAS	10' 40.0	PROP. TOP OF CURB ELEV.
□	EX. CATCH BASIN	0' 40.0	PROP. GUTTER ELEV.
○	EX. MANHOLE	10' 40.0	PROP. TOP OF WALK ELEV.
○	EX. END SECTION	40.0	PROP. SPOT ELEV.
○	EX. HYDRANT	940	PROP. CONTOUR
○	EX. WATER SHUTOFF		PROP. CATCH BASIN
○	EX. GATE VALVE		PROP. MANHOLE
○	EX. SIGN		PROP. END SECTION
○	EX. PEDESTAL		PROP. STORM SEWER
○	EX. TRANSFORMER		PROP. SANITARY SEWER
○	EX. LIGHT POLE		PROP. WATER MAIN
○	EX. POWER POLE		PROP. GATE VALVE
○	EX. GUY WIRE		PROP. HYDRANT
○			PROP. SAN. STR. NUMBER
○			PROP. STM. STR. NUMBER
○			PROP. GATE VALVE NUMBER
○			PROP. HYDRANT NUMBER
○			FITCH IN CURB AND GUTTER
○			FITCH OUT CURB AND GUTTER
○			PROP. UTILITY CROSSING

COMMERCIAL
SITE PLANNING
INDUSTRIAL & MULTI-UNIT
CONSTRUCTION LAYOUT

SURVEYING
ALTA SURVEYS
BOGUSLAWSKI SURVEYS
TOPOGRAPHIC SURVEYS
PARCEL SPOTS
CONSTRUCTION LAYOUT

RESIDENTIAL
SUBDIVISIONS
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CONSTRUCTION LAYOUT

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PRELIMINARY UTILITY PLAN
BLM GROUP USA EXPANSION - BECK NORTH CORPORATE PARK
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COUNTY: OAKLAND
MICHIGAN

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SCALE: 1" = 40' FT.
13-322.2

6

DOWN STREAM OFF-SITE TREATMENT STRUCTURE:

Aqua-Swirl™ Specifications

GENERAL

This specification shall govern the performance, materials and fabrication of the Stormwater Treatment System.

SCOPE OF WORK

The Aqua-Swirl™ Concentrator shall be provided by AquaShield™, Inc. 2723 Kanawha Drive, Chattanooga, TN (423-470-8888) and shall adhere to the following material and performance specifications at the specified design flows and storage capacities.

MATERIALS

A. Stormwater Treatment System shall be made from high-density polyethylene (HDPE) resins meeting the following requirements:

- 1) HDPE Material - The HDPE material supplied under this specification shall be high density, high molecular weight as supplied by manufacturer. The HDPE material shall conform to ASTM D3350-02 with minimum cell classification value of 3456k.
2) PHYSICAL PROPERTIES OF HDPE COMPOUND
a) Density - the density shall be no less than 0.95 g/cm³ as referenced in ASTM D 1505.

- b) Heat Index - the heat index shall be no greater than 0.15 g/100 minutes when tested in accordance with ASTM D 1228. Condition 1902.14.
c) Flex Modulus - flexural modulus shall be 110,000 to less than 160,000 psi as referenced in ASTM D 790.
d) Tensile Strength at Yield - tensile strength shall be 3,000 to less than 3,500 psi as referenced in ASTM D 638.
e) Slow Crack Growth Resistance shall be greater than 100 hours (PENT Test) as referenced in ASTM F 1473 or greater than 5000 hours (ESCR) as referenced in ASTM D 1693 (condition C).

- C. The inlets and outlets shall be extrusion welded on the inside and outside of the structure using accepted welding practice.
D. The arched baffle wall shall be constructed from HDPE and shall be extrusion welded to the interior of the treatment chamber using accepted welding methods with connections made at 180 degrees of each end.
E. HDPE lifting supports may be provided on the exterior of the Stormwater Treatment System in such a way as to allow the reversion of undue stress from the concrete pad and the Stormwater Treatment System during loading, off-loading and moving operations. The lifting supports shall be constructed as an integral part of the treatment chamber and extrusion welded using accepted welding practices.
F. Top of the treatment chamber shall be built to the requirements of the drawings. Deep burial applications shall require a reinforced HDPE top.

Reinforced concrete pads spanning the treatment chamber will be required with traffic rated frames and covers when the Stormwater Treatment System is used in traffic areas. A professional engineer shall approve the design of the concrete pad and the calculations must be included in the submittal.
The manufacturer upon request can supply anti-filtration/buoyancy calculations. In addition, typical drawings of the AquaShield Stormwater Treatment System with concrete anti-filtration structures can also be provided. Anti-filtration structure design and approval are ultimately the responsibility of the specifying engineer. The contractor shall provide the anti-filtration structures.

INSTALLATION

- A. Excavation and Bedding
The trench and trench bottom shall be constructed in accordance with ASTM D 2321, Section 6, Trench Excavation, and Section 7, Installation. The HDPE Stormwater Treatment System shall be installed on a stable base consisting of 12 inches of Class 1 stone materials (angular, crushed stone or rock, crushed gravel, large void content, containing little or no fines) as defined by ASTM D 2321, Section 5, Materials, and compacted to 90% proctor density.

SUBMITTALS

The Contractor shall be provided with dimensional drawings and, when specified, utilize these drawings as the basis for preparation of shop drawings showing details for construction and reinforcing. Shop drawings shall be annotated to include all materials to be used and all applicable standards for materials, required tests of materials and design assumptions for structural analysis. Shop drawings shall be prepared at a scale of not less than 1/4 inch per foot. Three (3) hard copies of said shop drawings shall be submitted to the Specifying Engineer for review and approval.

QUALITY CONTROL INSPECTION

- A. Materials
The quality of materials, the process of manufacture, and the finished sections shall be subject to inspection by the Specifying Engineer. Such inspection may be made at the place of manufacture, or on the work site after delivery, or at both places. The sections shall be subject to rejection at any time if material conditions fail to meet any of the specification requirements, even though sample sections may have been accepted as satisfactory at the place of manufacture. Sections rejected after delivery to the site shall be marked for identification and shall be removed from the site at once. All sections, which are damaged beyond repair after delivery will be rejected and, if finally installed, shall be repaired to the Specifying Engineer's acceptance level, if permitted, or removed and replaced, entirely at the Contractor's expense.

- B. Inspection
All sections shall be inspected for general appearance, dimensions, soundness, etc.
C. Defects
Structural defects may be repaired, subject to the acceptance of the Specifying Engineer, after demonstration by the manufacturer that strong and permanent repairs will be made. The Specifying Engineer before final acceptance of the components shall carefully inspect repairs.

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f) Hydraulic Design Basis shall be 1,500 gal at 23 degrees C when tested in accordance with ASTM D 2837.
g) Color - black with minimum 2% carbon black.

- B. REJECTION - The Stormwater Treatment System may be rejected for failure to meet any of the requirements of this specification.

PERFORMANCE

- A. The Stormwater Treatment System shall include a 4-inch inner diameter (ID) circular hydrodynamic flow-through treatment chamber to treat the incoming water. A tangential inlet shall be provided to induce a swirling flow pattern that will cause sedimentary solids to accumulate in the bottom center of the chamber in such a way as to prevent re-suspension of captured particles. An arched baffle wall shall be provided in such a way as to prevent floatable liquid oils and solids from exiting the treatment chamber while enhancing the swirling action of the stormwater.

- B. The Stormwater Treatment System shall have a sediment storage capacity of _____ cubic feet and be capable of capturing _____ gallons of petroleum hydrocarbons. The Stormwater Treatment System shall have a treatment capacity of _____ cubic feet per second (cfs). The Stormwater Treatment System shall be capable of removing floating trash and debris, floatable oils and 80% of total suspended solids from stormwater entering the treatment chamber.

- C. Service access to the Stormwater Treatment System shall be provided via 30-inch inner diameter (ID) access riser(s) over the treatment chamber such that no confined space entry is required to perform routine inspection and maintenance functions.

TREATMENT CHAMBER CONSTRUCTION

- A. The treatment chamber shall be constructed from solid wall high-density polyethylene (HDPE) Aqua-Swirl™ 714 cell class 3456k. For sizes above 63-inch OD, the treatment chamber shall be constructed from profile wall HDPE ASTM 894 R94 350 pipe or solid wall HDPE.
B. The bottom thickness of the treatment chamber will be determined in accordance with ASTM F 1759. Calculations must be provided to justify the thickness of the bottom.

- All required safety precautions for Stormwater Treatment System installation are the responsibility of the Contractor.
B. Backfill Requirements
Backfill materials shall be Class I or II stone materials (well graded gravel, sandy gravel, clean sand, or no fines) as defined by ASTM D 2321, Section 5, Materials and compacted to 90% proctor density. Class I materials are preferred. Backfill and bedding materials shall be free of debris. Backfilling shall conform to ASTM F 1759, Section 4.2, "Design Assumptions." Backfill shall extend at least 1.5 feet beyond the edge of the Inlet Concentrator for the full height to sub grade and extend laterally into undisturbed soils.
C. Pipe Couplings
Pipe couplings to and from the Stormwater Treatment System shall be Fernco®, Mission™ or equal type flexible joint with stainless steel tension bands. A metal shear guard shall be used to protect the flexible joint.

IVISION OF RESPONSIBILITY

- A. Stormwater Treatment System Manufacturer
The Manufacturer shall be responsible for delivering the Stormwater Treatment System to the site. The system includes the treatment chamber with debris baffle, inlet and outlet chambers, lifting supports, 30-inch ID service access riser(s) to grade with temporary cover, and manhole frame(s) and cover(s).
B. Contractor
The Contractor shall be responsible for preparing the site for the system installation including, but not limited to, temporary shoring, excavation, cutting and removing pipe, new pipe, bedding, and compaction. The Contractor shall be responsible for furnishing the means to lift the system components off the delivery truck. The Contractor shall be responsible for providing any concrete anti-filtration/anti-creep restraints, anchors, collars, etc. with any trough or connection devices required. The Contractor shall be responsible for field cutting, if necessary, HDPE service access risers to grade. The Contractor shall be responsible for sealing the pipe connections to the Stormwater Treatment System, backfilling and furnishing all labor, tools, and materials needed.

Aqua-Swirl™ Sizing Chart (English)

Table with columns for Aqua-Swirl Model, Inlet Chamber Diameter (in), Maximum Stub-Out Pipe Diameter (in), Water Quality Treatment Flow Rate (GPD), Oil/Dregs Storage Capacity (qt), and Sediment Storage Capacity (cu ft). Rows include models AS-2 through AS-12 and AS-XX Custom.

- 1) The Aqua-Swirl™ Conveyance Flow Division (CFD) provides full treatment of the 'best flow' while the peak design storm is directed and channeled through the main conveyance pipe. Please refer to your local representative for more information.
2) Many regulators agencies are establishing 'water quality treatment flow rates' for their areas based on the initial treatment of pollution into the storm drainage system. The treatment flow rate of the Aqua-Swirl™ system is engineered to meet or exceed the local water quality treatment criteria. The 'water quality treatment flow rate' typically represents approximately 80% of 50% of the total runoff volume.

The design and construction of the Aqua-Swirl™ generally entails some degree of customization. For assistance in design and specific pricing using historical rainfall data, please refer to an Aqua-Swirl™ representative or visit our website at www.AquaShieldInc.com. CAD details and specifications are available upon request.

NOTICE: CONSTRUCTION SITE SAFETY IS THE SOLE RESPONSIBILITY OF THE CONTRACTOR. NEITHER THE OWNER NOR THE ENGINEER SHALL BE EXPECTED TO ASSUME ANY RESPONSIBILITY FOR SAFETY OF THE WORK, OR PERSONS ENGAGED IN THE WORK, OF ANY NEARBY STRUCTURES, OR OF ANY OTHER PERSONS.

BASIN A RUNNING TOTAL RUNOFF COEFFICIENT CALCULATION

Table for Basin A runoff calculation showing Land Use (Pavement/Sidewalk/Building, Grass), Area (A) in square feet, and Runoff Coefficient (C). Total Area = 1.65, C = 0.82.

CALCULATE THE WEIGHTED RUNOFF COEFFICIENT: C = 0.82

BASIN C RUNNING TOTAL RUNOFF COEFFICIENT CALCULATION

Table for Basin C runoff calculation showing Land Use (Pavement/Sidewalk/Building, Grass), Area (A) in square feet, and Runoff Coefficient (C). Total Area = 9.96, C = 0.45.

CALCULATE THE WEIGHTED RUNOFF COEFFICIENT: C = 0.45

STORM WATER DRAINAGE NARRATIVE:

PROPOSED WESTERN ON-SITE STORM WATER WILL PASS THROUGH A PROPOSED ON-SITE OIL/GAS SEPARATOR PRIOR TO OULET INTO AN EXISTING 36" DIAMETER STORM SEWER. THE STORM WATER WILL THEN PASS THROUGH AN EXISTING SEDIMENTATION TREATMENT STRUCTURE AND THEN INTO AN EXISTING DISSIPATION BASIN. THE DISSIPATION BASIN OULETS INTO ADJACENT EXISTING WETLANDS. THE PROPOSED STORM WATER OULETS INTO AN APPROVED SYSTEM AS DESIGNED BY OTHERS.

PROPOSED EASTERN ON-SITE STORM WATER WILL PASS THROUGH A PROPOSED ON-SITE OIL/GAS SEPARATOR PRIOR TO OULET INTO AN EXISTING 24" DIAMETER STORM SEWER. THE STORM WATER WILL THEN TRAVEL THROUGH THE EXISTING BECK NORTH PH II STORM SEWER WHERE IT WILL PASS THROUGH AN EXISTING SEDIMENTATION TREATMENT STRUCTURE AND THEN INTO AN EXISTING DISSIPATION BASIN. THE DISSIPATION BASIN OULETS INTO ADJACENT EXISTING WETLANDS. THE PROPOSED STORM WATER OULETS INTO AN APPROVED SYSTEM AS DESIGNED BY OTHERS.

UNIT SIZE RUNOFF COEFFICIENT CALCULATION (GALANG COUNTY DESIGN METHOD). Shows calculations for contributing area, runoff coefficient, and storage volume.

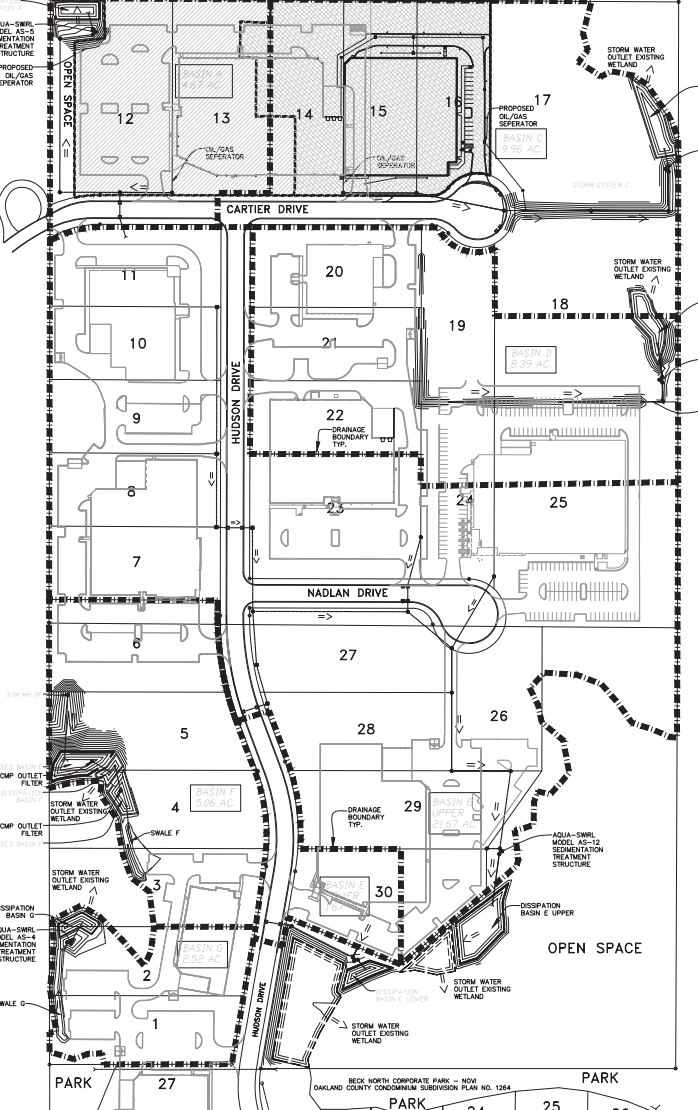
NOTE: SEE "BECK NORTH PHASE II" ENGINEERING PLANS BY R DECKER & ASSOCIATES FOR APPROVED OVERALL STORM WATER MANAGEMENT SYSTEM DESIGN.

DISSIPATION BASIN A CALCULATIONS (BY OTHERS):

Table showing Dissipation Basin A details: Site Area (847 sq ft), First Flush Volume (803 cu ft), Detention Pond Provided Volume (198 cu ft), and a table of pond volumes.

DISSIPATION BASIN C CALCULATIONS (BY OTHERS):

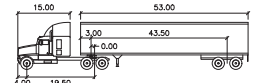
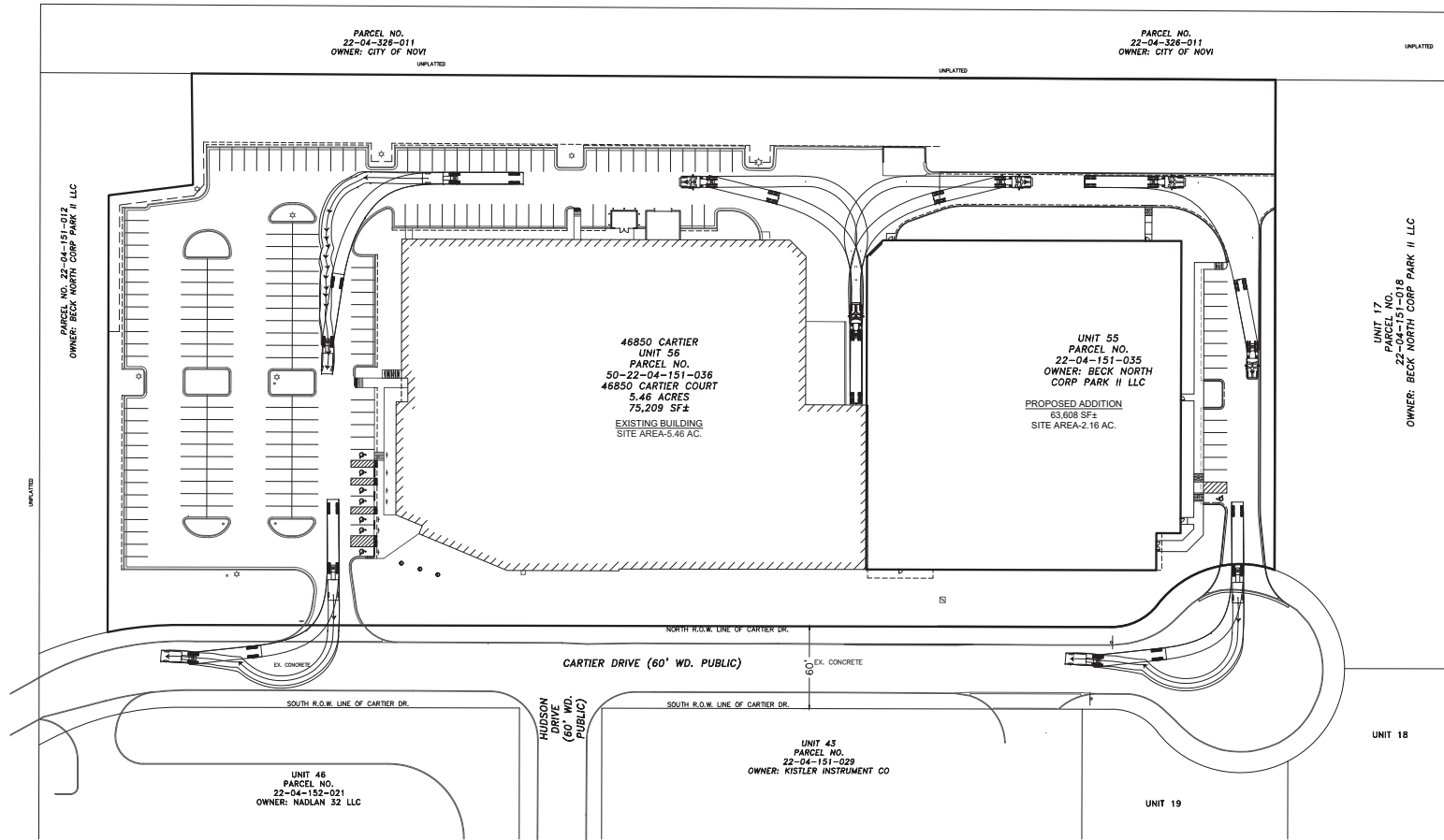
Table showing Dissipation Basin C details: Site Area (936 sq ft), First Flush Volume (1254 cu ft), Detention Pond Provided Volume (952 cu ft), and a table of pond volumes.



Professional stamps and contact information for ALPINE ENGINEERING, INC. including Commercial, Residential, and Surveying divisions, license numbers, and address in Novi, Michigan.

Project title block: DEMES DEVELOPMENT, INC. PRELIMINARY STORM WATER MANAGEMENT PLAN. BLM GROUP USA EXPANSION - BECK NORTH CORPORATE PARK. Includes revision table with columns for REVISED, DATE, and DRAWN BY.

Final revision table and drawing information. Includes fields for DATE (2023-06-28), DRAWN BY (TAG), CHECKED BY (SD/TAG), and other drawing details.



WB-65		feet
Tractor Width	: 8.00	Lock to Lock Time : 6.00
Trailer Width	: 8.50	Steering Angle : 28.40
Tractor Track	: 8.00	Articulating Angle : 7.00
Trailer Track	: 8.50	

NOTE:
 1. VEHICLE ROUTES SHOWN ARE ILLUSTRATIVE ONLY AND DO NOT TAKE IN ACCOUNT ALL POSSIBLE VEHICLE MOVEMENTS.

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COMMERCIAL
 SITE PLANNING
 INDUSTRIAL & MULTI-UNIT
 CONSTRUCTION LAYOUT

SURVEYING
 ALTA SURVEYS
 BOUNDARY SURVEYS
 TOPOGRAPHIC SURVEYS
 PARCEL SPLITS

RESIDENTIAL
 SUBDIVISIONS
 MULTI-FAMILY
 CONSTRUCTION LAYOUT

ALPINE ENGINEERING, INC.
 CIVIL ENGINEERS & LAND SURVEYORS

4892 WEST ROAD
 NOVI, MICHIGAN 48377

(248) 906-3701 (BUS)
 (248) 906-3700 (CELL)
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PRELIMINARY TRUCK CIRCULATION PLAN

BLM GROUP USA EXPANSION - BECK NORTH CORPORATE PARK
 TOWNSHIP 1 N
 CITY OF NOVI
 SECTION 4
 RANGE 8 E
 MICHIGAN

REVISED
 2023-08-18 PSP SUBMITTAL

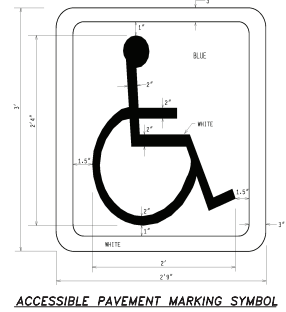
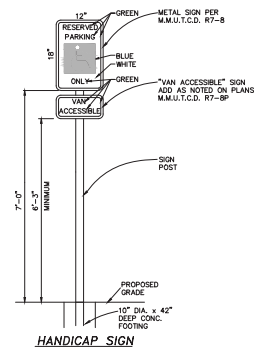
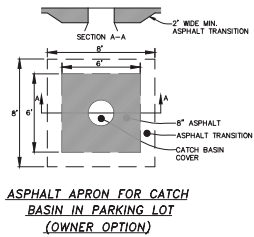
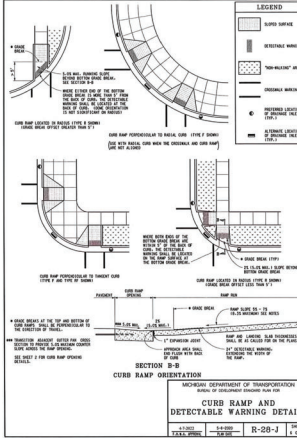
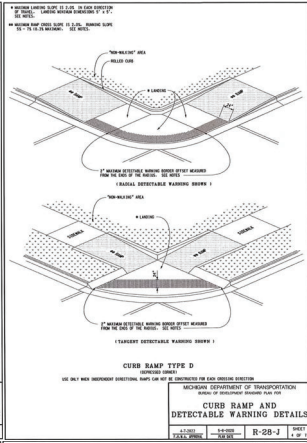
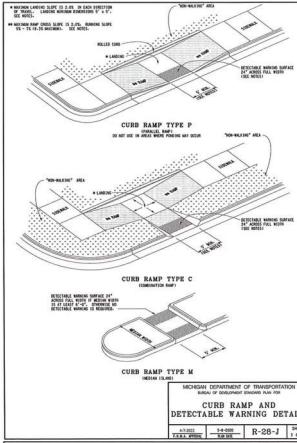
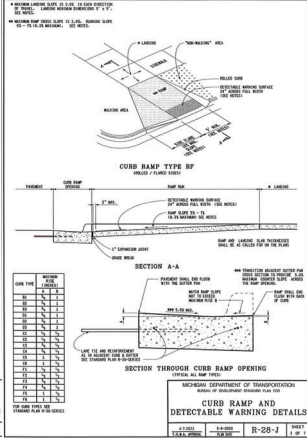
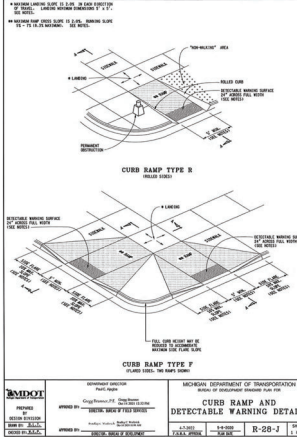
DATE: 2023-06-28

DRAWN BY: TAG

CHECKED BY: SD/TAG

SCALE: HOR 1"=40 FT.
 VER 1"=10 FT.

13-332.2



SEE CITY OF NOVI PAVING STANDARD
 DETAIL -7C FOR ON-SITE
 BITUMINOUS PAVEMENT SECTION

SEE CITY OF NOVI PAVING STANDARD
 DETAIL -9B FOR 8" CONCRETE DRIVEWAY
 APPROACH PAVEMENT SECTION (WITHIN R.O.W.)

SEE CITY OF NOVI PAVING STANDARD
 DETAIL -9A FOR CONCRETE DRIVEWAY OPENING
 M.D.O.T. DETAIL "M" (WITHIN R.O.W.)

SEE CITY OF NOVI PAVING STANDARD
 DETAIL -7B FOR ON-SITE INTEGRAL
 CONCRETE WALK AND CURB

SEE CITY OF NOVI PAVING STANDARD
 DETAIL -7D FOR ON-SITE 18" WIDE
 CONCRETE CURB & GUTTER

COMMERCIAL
 SITE PLANNING
 SURVEYING
 ALTA SURVEYS
 TOPOGRAPHIC SURVEYS
 INDUSTRIAL & MULTI-UNIT
 MULTI-FAMILY
 PARCEL SPLITS
 CONSTRUCTION LAYOUT

RESIDENTIAL
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 CONSTRUCTION LAYOUT

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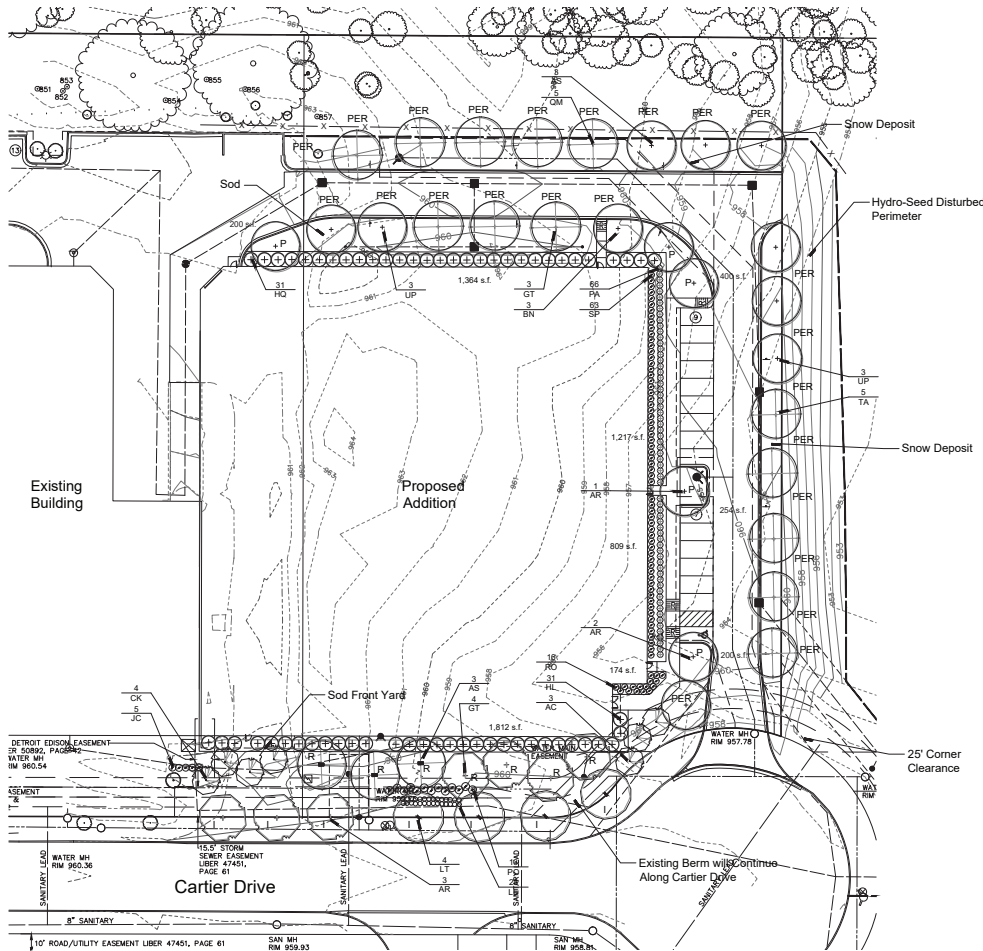
DETAIL SHEET

BLM GROUP USA EXPANSION - BECK NORTH CORPORATE PARK
 TOWNSHIP 1 N
 RANGE 8 E
 SECTION 4
 CITY OF NOVI
 OAKMONT
 MICHIGAN

REVISED
 2023-06-18 PSP SUBMITTAL

DATE: 2023-06-28
 DRAWN BY: TAG
 CHECKED BY: SD/TAG

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 13-332.2

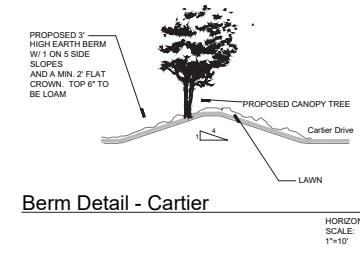
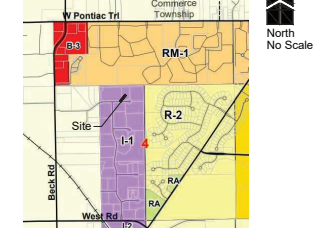


Landscape Summary

Existing Zoning	I-2
Parking Lot Landscaping	
Vehicular Use Area	16,864 s.f.
Landscape Area Required	1,012 s.f. (16,864 s.f. x 6%)
Landscape Area Provided	1,054 s.f.
Canopy Trees Required	5 Trees (1,012 / 200)
Canopy Trees Provided	5 Trees
Parking Lot Perimeter	
Perimeter	824 L.F.
Trees Required	23.5 Trees (824 L.F. / 35')
Trees Provided	24 Trees
Building Foundation Landscaping	
Perimeter of Building	651 L.F. (677 less 26' of Doors)
Landscape Area Required	5,208 s.f. (651 L.F. x 8')
Landscape Area Provided	5,376 s.f.
Interior Street Industrial Subdivision Landscaping	
Street Frontage	256 L.F. (311' - 55' Half of Clear Vision)
Trees Required	7.3 Trees (256 L.F. / 35')
Trees Provided	7 Trees
Sub-Canopy Trees Required	6.4 Trees (256 L.F. / 40')
Sub-Canopy Trees Provided	7 Trees
Shrubs Required	12.8 Shrubs (256 L.F. / 40') x 2
Shrubs Provided	13 Shrubs
Mass Plantings Required	26' of Plantings (256 L.F. x 10%)
Mass Plantings Provided	26' of Plantings
Woodland Replacement	
Required Replacement	31 Trees
Replacement Provided	7 Trees
Trees Paid into Tree Fund	24 Trees

- Notes:**
- No Overhead Lines Exist.
 - Trees Shall be Planted no Closer than 10' Utility Structure Including Hydrants.
 - Trees Shall not be Planted within 4' of Property Lines.
 - Utility Boxes Shall be Screen per Detail on Sheet L-2.
 - Soils Information is Found on the Preliminary Storm Water Management Plan.
 - No Phragmites or Japanese Knotweed Exist On-Site.

Location Map



Plant List

sym.	qty.	botanical name	common name	caliper	spacing	root	height	price	total	Species	Genus	Native	Total
AC	3	Amelanchier leneis	Shadblow	2.5"	as shown	B&B		\$ 250.00	\$ 750.00	15% max	25% max		1
AR	6	Acer rubrum 'Red Point'	October Glory Red Maple	3.0"	as shown	B&B		\$ 400.00	\$ 2,400.00	12%	24%		1
AS	6	Acer saccharum 'Green Mountain'	Green Mountain Sugar Maple	3.0"	as shown	B&B		\$ 400.00	\$ 2,400.00	12%	24%		1
SN	3	Smilax nigra	River Birch - Multi-Stem		as shown	B&B	15'	\$ 400.00	\$ 1,200.00	6%	6%		1
CK	4	Cornus kousa	Kousa Dogwood	2.5"	as shown	B&B		\$ 250.00	\$ 1,000.00	8%	8%		1
GT	7	Gleditsia triacanthos var. inermis	Honey Locust	3.0"	as shown	B&B		\$ 400.00	\$ 2,800.00	14%	14%		1
LT	4	Lindendron tulipifera	Tulip Tree	3.0"	as shown	B&B		\$ 400.00	\$ 1,600.00	8%	8%		1
QM	5	Quercus macrocarpa	Bur Oak	3.0"	as shown	B&B		\$ 400.00	\$ 2,000.00	10%	10%		1
TA	5	Tilia americana 'Redmond'	Redmond Linden	3.0"	as shown	B&B		\$ 400.00	\$ 2,000.00	10%	10%		1
UP	6	Ulmus 'Frontier'	Frontier Elm	3.0"	as shown	B&B		\$ 400.00	\$ 2,400.00	12%	12%		1
	49	Total Trees											1
HL		Hemerocallis 'Little Grapette'	Little Grapette Daylily	18" o.c.	#2			\$ 15.00	\$ -				1
HP	31	Hydrangea paniculata 'Limelight'	Limelight Hydrangea	as shown	B&B	36"		\$ 50.00	\$ 1,550.00				1
H2	31	Hydrangea quercifolia	Oakleaf Hydrangea	as shown	B&B	36"		\$ 50.00	\$ 1,550.00				1
JC	5	Juniperus ch. keteleeri	Keteleeri Juniper	as shown	B&B	5'		\$ 50.00	\$ 250.00				1
LE	28	Leucanthemum 'Snowcap'	Snowcap Shasta Daisy	as shown	cont.	#2		\$ 15.00	\$ 420.00				1
PA	66	Pennisetum s. 'Hawaii'	Hawaiian Fountain Grass	as shown	cont.	#2		\$ 15.00	\$ 990.00				1
PO	13	Physocarpus opulifolius 'Coppertina'	Coppertina Ninebark	as shown	cont.	36"		\$ 50.00	\$ 650.00				1
RO	16	Rosa 'Drift'	Drift Roses	as shown	cont.	#2		\$ 15.00	\$ 240.00				1
SP	63	Spiraea 'Little Princess'	Little Princess Spiraea	as shown	cont.	#3		\$ 50.00	\$ 3,150.00				1
	63	4" Deep Shredded Hardwood Bark Mulch						\$30/s.y.	\$ 2,205.00			% Native	53%
	922	Sod						\$6/s.y.	\$ 5,532.00				
	1,770	Seed						\$3/s.y.	\$ 5,310.00				
		Irrigation							\$ 17,000.00				
		Total							\$ 66,447.00				

Seal:



Title:
Landscape Plan

Project:

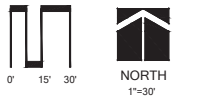
BLM Group Addition
 Novi, Michigan
 46850 Cartier Drive

Prepared for:
 Alpine Engineering, Inc.
 46892 West Road, Suite 109
 Novi, Michigan 48377

Revision: Issued:
 Review August 18, 2023

Job Number:
 23-048

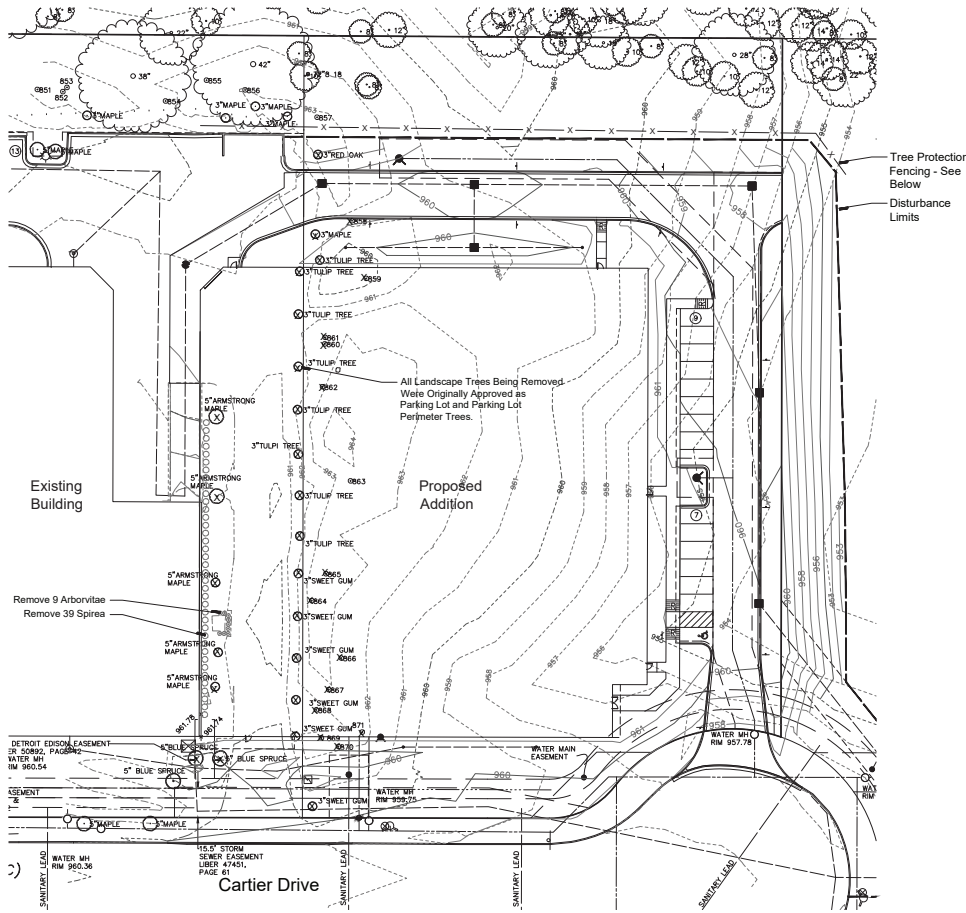
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JSP 23-24



L-1



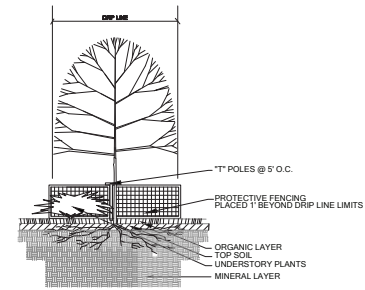
Woodland Summary

Total Trees	16 Trees
Less Non-Regulated Trees:	1 Tree
Non-Regulated Trees	15 Regulated Trees
Net Regulated Trees	14 Trees
Regulated Trees Removed	14 Trees
Replacement Required	31 Trees
Trees 5' - 11"	8 Trees
Trees 11' - 20"	2 trees x 1= 4 Trees
Trees 20' - 30"	0 trees x 3= 0 Trees
Trees 30' +	0 trees x 4= 0 Trees
Multi-Stemmed Trees (5 Trees)	13 Trees
Replacement Required	31 Trees

X Denotes Tree to be Removed

Tree List

TAG NO.	DIAMETER	COMMON NAME	BOTANICAL NAME	CONDITION	STATUS	REPLACEMENTS
857	26	Red Oak	Quercus rubra	Poor	Save	
858	8	Eastern Cottonwood	Populus deltoides	Good	Remove	1
859	8	Eastern Cottonwood	Populus deltoides	Good	Remove	1
860	8,10	Shagbark Hickory	Carya ovata	Good	Remove	3
861	9	Shagbark Hickory	Carya ovata	Good	Remove	1
862	21,26,27	Red Oak	Quercus rubra	Good	Remove	10
863	8	Black Cherry	Prunus serotina	Good	Remove	1
864	9	American Elm	Ulmus americana	Good	Remove	1
865		Dead			Remove	
866	10,13	Basswood	Tilia americana	Good	Remove	3
867	8	Pignut Hickory	Carya glabra	Good	Remove	1
867	18	Red Oak	Quercus rubra	Good	Remove	2
868	10,10	Pignut Hickory	Carya glabra	Good	Remove	3
869	16	White Oak	Quercus alba	Good	Remove	2
870	10	Shagbark Hickory	Carya ovata	Good	Remove	1
871	8	Black Locust	Robinia pseudacacia	Good	Remove	1
				Required Replacements		31



1. Either Plastic or Wood Chip Stone Fencing Shall be Installed at or Beyond the Drip Line, Unless More Substantial Fencing is Required.
2. Gates Shall be Area of Entry, Spaced no Further than 5' on Center.
3. Fencing Shall be Area of Entry, Spaced no Further than 5' on Center.
4. Fencing Construction Shall be Reviewed by the City.
5. Fencing Shall be Erected Prior to Construction. The City Shall be Notified Once the Fencing is Installed for Inspection.
6. No Repair Shall Continue any Activity Within Areas Reserved for Trees. This Shall Include, but not be Limited to:
 - a. No Excavation or Change in Water Protected Areas.
 - b. No Grading or Change in Grading Protected Areas.
 - c. No Drilling or Installation of Foundations or Retained Areas.
 - d. No Drilling or Installation of Foundations or Retained Areas.
 - e. No Removal of Vegetation from the General Lot Without Permission from the Project Reviewing Authority, including any Root Pruning.
 - f. No Grade Changes, Including Fill, Within Protected Areas.
 - g. No Removal of Vegetation from the General Lot Without Permission from the Project Reviewing Authority, including any Root Pruning.
7. Any Proposed Stake Marks to be Erected Around the Protected Areas. Stakepins Where Spacing are Approved Through a Protected Area, the Spacing Must be 16' ON-CENTER.
8. D.U.C. Methods of Any Kind is Prohibited.
9. Required Stakepins or Equipment Tags Related to the Property are Also Required.
10. See Protected Whether or Not they are Shown on the Plan.

TREE PROTECTION DETAIL

NO SCALE

Seal:



Title:

Woodland Plan

Project:

BLM Group Addition
 Novi, Michigan
 46850 Cartier Drive

Prepared for:

Alpine Engineering, Inc.
 46892 West Road, Suite 109
 Novi, Michigan 48377

Revision: Issued:

Review August 18, 2023

Job Number:

23-048

Drawn By: Checked By:

jca jca



JSP 23-24



Sheet No.

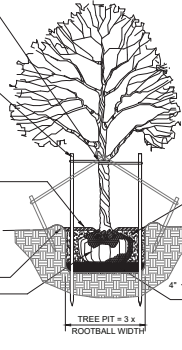
L-2

NOTE:
GLY DECIDUOUS TREES ABOVE 3" CAL. STAKE DECIDUOUS TREES BELOW 3" CAL.

STAKE TREES AT FIRST BRANCH USING 2"-3" WIDE BELT-LIKE NYLON OR PLASTIC STRAPS. ALLOW FOR SOME MINIMAL FLEXING OF THE TREE. REMOVE AFTER ONE YEAR.

2" X 2" HARDWOOD STAKES, MIN. 36" ABOVE GROUND FOR UPRIGHT, 18" IF ANGLED. DRIVE STAKES A MIN. 18" INTO UNDISTURBED GROUND OUTSIDE ROOTBALL. REMOVE AFTER ONE YEAR.

MULCH 4" DEPTH WITH SHREDDED HARDWOOD BARK, NATURAL IN COLOR. LEAVE 3" CIRCLE OF BARE SOIL AT BASE OF TREE TRUNK. PULL ANY ROOT BALL DIRT EXTENDING ABOVE THE ROOT FLARE AWAY FROM THE TRUNK SO THE ROOT FLARE IS EXPOSED TO AIR. MOUND EARTH TO FORM SAUCER. REMOVE ALL NON-BIODEGRADABLE MATERIALS COMPLETELY FROM THE ROOTBALL. CUT DOWN WIRE BASKET AND FOLD DOWN BURLAP FROM TOP 1/2 OF THE ROOTBALL.



NOTE:
TREE SHALL BEAR SAME RELATION TO FINISH GRADE AS IT BORE ORIGINALLY OR SLIGHTLY HIGHER THAN FINISH GRADE UP TO 6" ABOVE GRADE, IF DIRECTED BY LANDSCAPE ARCHITECT FOR HEAVY CLAY SOIL AREAS.

DO NOT PRUNE TERMINAL LEADER. PRUNE ONLY DEAD OR BROKEN BRANCHES.

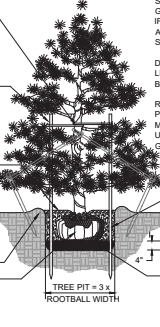
REMOVE ALL TAGS, STRING, PLASTICS AND OTHER MATERIALS THAT ARE UNSIGHTLY OR COULD CAUSE GIRDLING.

NOTE:
GLY EVERGREEN TREES ABOVE 12" HEIGHT. STAKE EVERGREEN TREE BELOW 12" HEIGHT.

STAKE TREES AT FIRST BRANCH USING 2"-3" WIDE BELT-LIKE NYLON OR PLASTIC STRAPS. ALLOW FOR SOME MINIMAL FLEXING OF THE TREE. REMOVE AFTER ONE YEAR.

2" X 2" HARDWOOD STAKES, MIN. 36" ABOVE GROUND FOR UPRIGHT, 18" IF ANGLED. DRIVE STAKES A MIN. 18" INTO UNDISTURBED GROUND OUTSIDE ROOTBALL. REMOVE AFTER ONE YEAR.

MULCH 4" DEPTH WITH SHREDDED HARDWOOD BARK, NATURAL IN COLOR. LEAVE 3" CIRCLE OF BARE SOIL AT BASE OF TREE TRUNK. PULL ANY ROOT BALL DIRT EXTENDING ABOVE THE ROOT FLARE AWAY FROM THE TRUNK SO THE ROOT FLARE IS EXPOSED TO AIR. MOUND EARTH TO FORM SAUCER. REMOVE ALL NON-BIODEGRADABLE MATERIALS COMPLETELY FROM THE ROOTBALL. CUT DOWN WIRE BASKET AND FOLD DOWN BURLAP FROM TOP 1/2 OF THE ROOTBALL.



NOTE:
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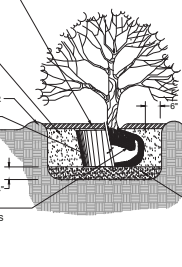
REMOVE ALL TAGS, STRING, PLASTICS AND OTHER MATERIALS THAT ARE UNSIGHTLY OR COULD CAUSE GIRDLING.

MULCH 4" DEPTH WITH SHREDDED HARDWOOD BARK, NATURAL IN COLOR. LEAVE 3" CIRCLE OF BARE SOIL AT BASE OF TREE TRUNK. PULL ANY ROOT BALL DIRT EXTENDING ABOVE THE ROOT FLARE AWAY FROM THE TRUNK SO THE ROOT FLARE IS EXPOSED TO AIR. MOUND EARTH TO FORM SAUCER. REMOVE ALL NON-BIODEGRADABLE MATERIALS COMPLETELY FROM THE ROOTBALL. CUT DOWN WIRE BASKET AND FOLD DOWN BURLAP FROM TOP 1/2 OF THE ROOTBALL.

MULCH 3" DEPTH WITH SHREDDED HARDWOOD BARK, NATURAL IN COLOR. PULL BACK 3" FROM TRUNK.

PLANTING MIXTURE: AMEND SOILS PER SITE CONDITIONS AND REQUIREMENTS OF THE PLANT MATERIAL. MOUND EARTH TO FORM SAUCER. REMOVE COLLAR OF ALL FIBER POTS. POTS SHALL BE CUT TO PROVIDE FOR ROOT GROWTH. REMOVE ALL NONORGANIC CONTAINERS COMPLETELY.

REMOVE ALL NON-BIODEGRADABLE MATERIALS COMPLETELY FROM THE ROOTBALL. FOLD DOWN BURLAP FROM TOP 1/2 OF THE ROOTBALL.



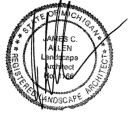
NOTE:
TREE SHALL BEAR SAME RELATION TO FINISH GRADE AS IT BORE ORIGINALLY OR SLIGHTLY HIGHER THAN FINISH GRADE UP TO 4" ABOVE GRADE, IF DIRECTED BY LANDSCAPE ARCHITECT FOR HEAVY CLAY SOIL AREAS.

PRUNE ONLY DEAD OR BROKEN BRANCHES.

REMOVE ALL TAGS, STRING, PLASTICS AND OTHER MATERIALS THAT ARE UNSIGHTLY OR COULD CAUSE GIRDLING.

SCARIFY SUBGRADE AND PLANTING PIT SIDES. RECOMPACT BASE OF TO 4" DEPTH.

Seal: _____



Title:
Landscape Details

Project:
**BLM Group Addition
Novi, Michigan
46850 Cartier Drive**

Prepared for:
**Alpine Engineering, Inc.
46892 West Road, Suite 109
Novi, Michigan 48377**

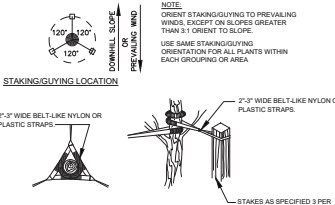
Revision: _____ Issued: _____
Review August 18, 2023

Job Number:
23-048

Drawn By: _____ Checked By: _____
jca jca

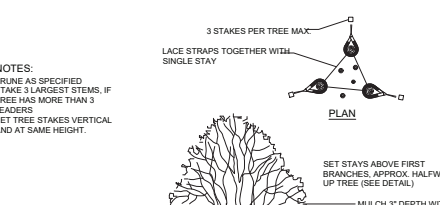
Sheet No.

DECIDUOUS TREE PLANTING DETAIL



TREE STAKING DETAIL
Not to scale

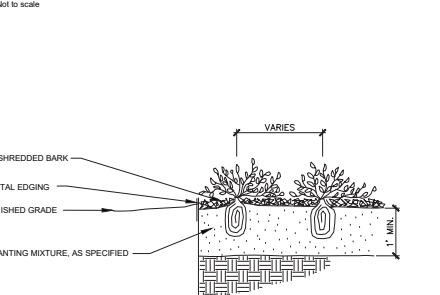
EVERGREEN TREE PLANTING DETAIL



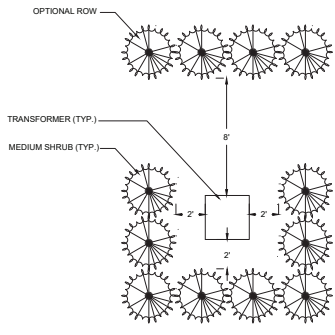
LANDSCAPE NOTES

- All plants shall be north Midwest American region grown, No. 1 grade plant materials, and shall be true to name, free from physical damage and wind burn.
- Plants shall be full, well-branched, and in healthy vigorous growing condition.
- Plants shall be watered before and after planting to complete.
- All trees must be staked, fertilized and mulched and shall be guaranteed to exhibit a normal growth cycle for at least two (2) full years following City approval.
- All material shall conform to the guidelines established in the most recent edition of the American Standard for Nursery Stock.
- Provide clean backfill soil, using material stockpiled on site. Soil shall be screened and free of any debris, foreign material, and stone.
- "AgriTone" tabs or similar slow-release fertilizer shall be applied to the planting pits before being backfilled.
- Amended planting mix shall consist of 1/3 screened topsoil, 1/3 sand and 1/3 commercial mixed soil and spread to the depth as indicated in planting details.
- All plantings shall be mulched per planting details located on this sheet.
- The Landscape Contractor shall be responsible for all work shown on the landscape drawings and specifications.
- No substitutions or changes of location, or plant types shall be made without the approval of the Landscape Architect.
- The City of Novi's Landscape Architect shall be notified in writing of any discrepancies between the plans and field conditions prior to installation.
- The Landscape Contractor shall be responsible for maintaining all plant material in a vertical condition throughout the guaranteed period.
- The Landscape Architect shall have the right, at any stage of the installation, to reject any work or material that does not meet the requirements of the plans and specifications, if requested by owner.
- Contractor shall be responsible for checking plant quantities to ensure quantities on drawings and plant list are the same. In the event of a discrepancy, the quantities on the plans shall prevail.
- The Landscape Contractor shall seed and mulch or sod (as indicated on plans) all areas disturbed during construction, throughout the contract limits.
- A pre-emergent weed control agent, "Proven" or equal, shall be applied uniformly on top of all mulching in all planting beds.
- Sod shall be two year old "Baron/Cheridaleph" Kentucky Blue Grass grown in a sod nursery on loam soil.

MULTI-CUTEM TREE PLANTING DETAIL



PERENNIAL PLANTING DETAIL

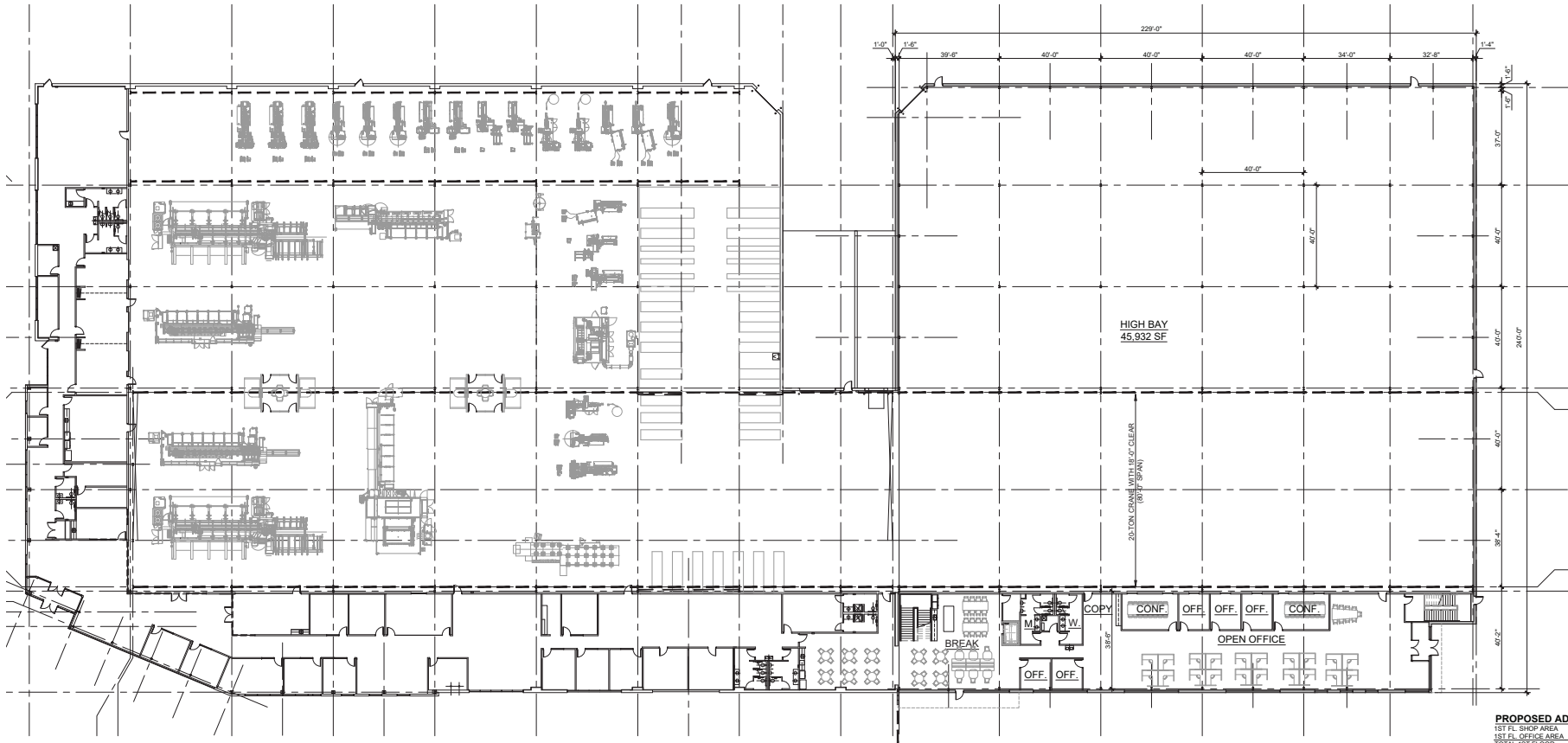


TRANSFORMER SCREENING DETAIL



JSP 23-24





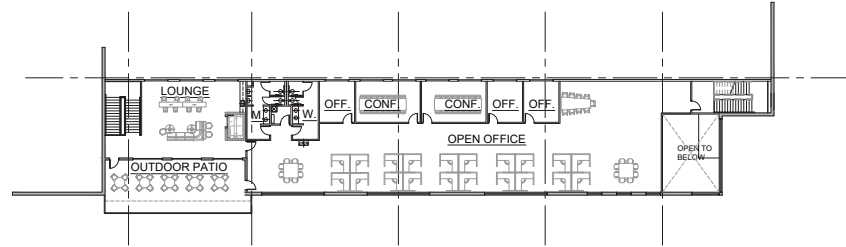
PROPOSED ADDITION

1ST FL. SHOP AREA	45,932 SF
1ST FL. OFFICE AREA	8,838 SF
TOTAL 1ST FLOOR	54,770 SF
TOTAL 2ND FLOOR	8,838 SF
TOTAL	63,608 SF

EXISTING PROPOSED ADDITION

PRELIMINARY FLOOR PLAN
SCALE: 1/20

NORTH **2**

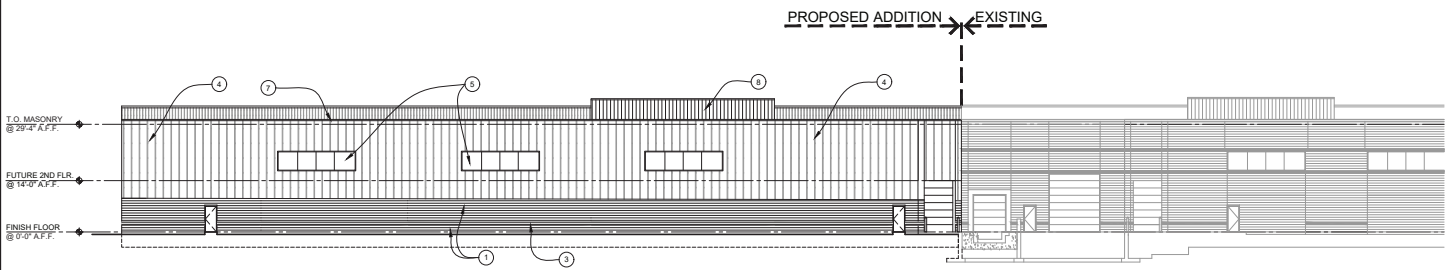


PRELIMINARY SECOND FLOOR PLAN
SCALE: 1/20

NORTH **1**



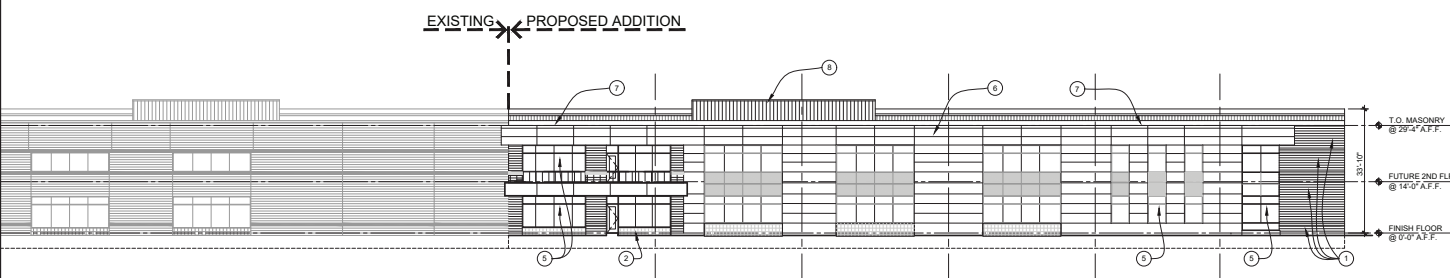
EXTERIOR MATERIAL SCHEDULE	
1	SPLITFACE CMU STAINED FINISH
2	BURNISHED CMU STACK BOND ACCENT
3	STRIATED SINGLE SCORE CMU STAINED FINISH
4	PREFINISHED INSULATED METAL PANEL
5	1" BLUE TINTED LOW 'E' INSUL. GLAZING IN CLEAR ANOD. ALUM. THERMAL BREAK FRAMES.
6	ALUMINUM COMPOSITE METAL PANEL SYSTEM (ACM)
7	PREFINISHED METAL COPING
8	PREFINISHED METAL PANEL R.T.U. SCREEN
9	CONC. TRENCH FOOTING BELOW
10	3'x7' H.M. DOOR AND FRAME
11	8'x18' SECTIONAL INSULATED OVERHEAD TRUCK DOCK DOOR (MANUAL CHAIN OPERATED) w/ DOCK LEVELER & SHELTER/SEAL
12	14'x18' SECTIONAL INSULATED OVERHEAD GRADE DOOR w/ MOTOR OPERATED OPENER
13	FLUSH VERTICAL METAL PANEL SIDING



NORTH ELEVATION
SCALE: 1/16" = 1'-0"
3

NORTH ADDITION FACADE MATERIAL BREAKDOWN	
TOTAL MATERIAL SQUARE FOOTAGE:	7270 S.F.
(EXCLUDES VISION GLASS & OPENINGS)	
SPLIT-FACE BLOCK:	1,807 S.F. = 24.9%
STRIATED SINGLE SCORE BLOCK:	142 S.F. = 2.0%
BURNISH-BLOCK:	0 S.F. = 0.0%
METAL PANELS/FLUSH METAL:	5,321 S.F. = 73.1%
ACM:	0 S.F. = 0.0%
SPANDREL:	0 S.F. = 0.0%

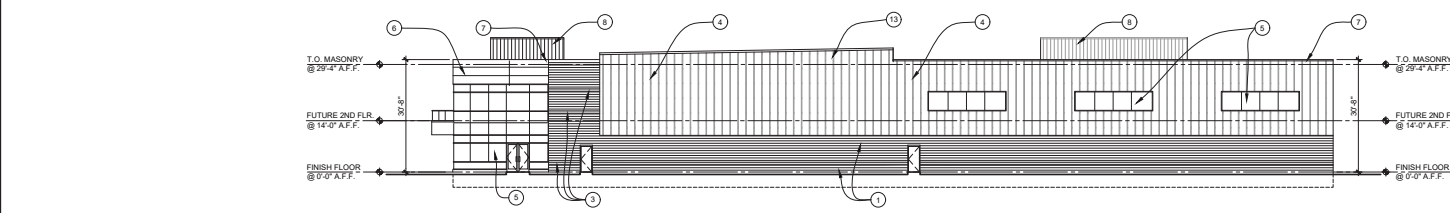
NORTH ADDITION FACADE MATERIAL BREAKDOWN	
TOTAL ADDITION SQUARE FOOTAGE:	7,789 S.F.
GLASS/DOOR AREA:	469 S.F.
GLASS/DOOR:	6.4%



SOUTH ELEVATION
SCALE: 1/16" = 1'-0"
2

SOUTH ADDITION FACADE MATERIAL BREAKDOWN	
TOTAL MATERIAL SQUARE FOOTAGE:	5,628 S.F.
(EXCLUDES VISION GLASS & OPENINGS)	
SPLIT-FACE BLOCK:	709 S.F. = 12.6%
STRIATED SINGLE SCORE BLOCK:	0 S.F. = 0.0%
BURNISH-BLOCK:	296 S.F. = 5.3%
METAL PANELS/FLUSH METAL:	808 S.F. = 14.4%
ACM:	3,341 S.F. = 59.3%
SPANDREL:	474 S.F. = 8.4%

SOUTH ADDITION FACADE MATERIAL BREAKDOWN	
TOTAL ADDITION SQUARE FOOTAGE:	2,109 S.F.
GLASS/DOOR AREA:	219 S.F.
GLASS/DOOR:	27.3%



EAST ELEVATION
SCALE: 1/16" = 1'-0"
1

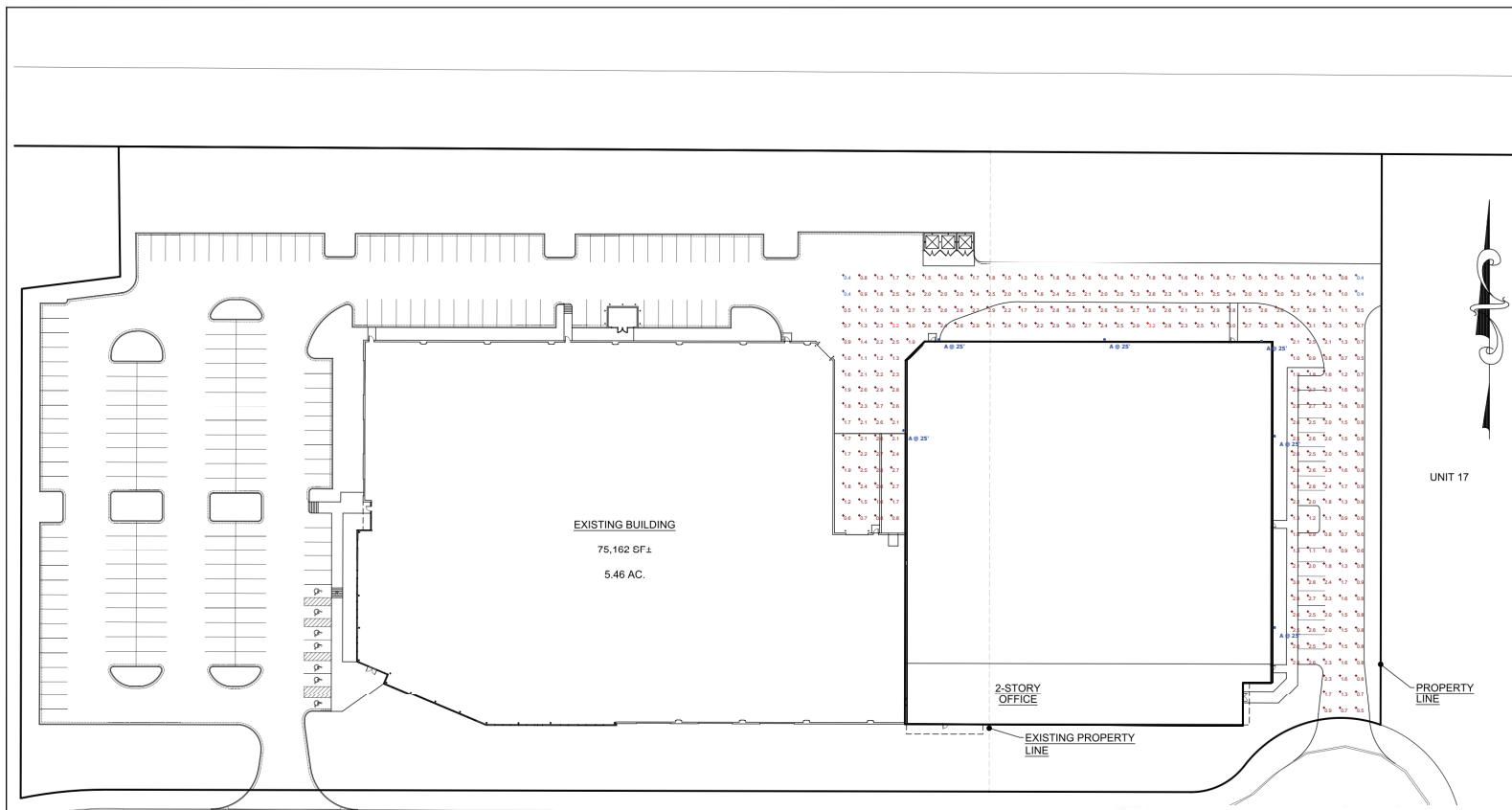
EAST ADDITION FACADE MATERIAL BREAKDOWN	
TOTAL MATERIAL SQUARE FOOTAGE:	6,824 S.F.
(EXCLUDES VISION GLASS & OPENINGS)	
SPLIT-FACE BLOCK:	2,218 S.F. = 32.5%
STRIATED SINGLE SCORE BLOCK:	157 S.F. = 2.3%
BURNISH-BLOCK:	0 S.F. = 0.0%
METAL PANELS/FLUSH METAL:	4,241 S.F. = 62.2%
ACM:	208 S.F. = 3.0%
SPANDREL:	0 S.F. = 0.0%

EAST ADDITION FACADE MATERIAL BREAKDOWN	
TOTAL ADDITION SQUARE FOOTAGE:	7,738 S.F.
GLASS/DOOR AREA:	912 S.F.
GLASS/DOOR:	11.8%

PROJECT NAME:
BLM GROUP USA EXPANSION
48850 CARTIER DRIVE,
NOVI, MI. 48377

DATE:	8-18-23
DRAWING DATE:	8-18-23
PROJECT NUMBER:	22013
SHEET NUMBER:	PE-2





EXISTING BUILDING
75,162 SF±
5.46 AC.

2-STORY OFFICE

UNIT 17

PROPERTY LINE

CARTIER DRIVE (60' WD. PUBLIC)

HOURS OF OPERATION
BUILDING HOURS OF OPERATION
MONDAY - FRIDAY
7:00AM - 7:00PM
SITE LIGHTING HOURS OF OPERATION
MONDAY - FRIDAY
6:00AM DAWN & DUSK 8:00PM
SITE LIGHTING IS TURNED OFF OTHER TIMES

TARGET VALUES	
AVERAGE TO MINIMUM	4:1 MAX
PARKING AREA:	0.2FC MIN
LOADING / UNLOADING:	0.4FC MIN
WALKWAYS:	0.2FC MIN
BUILDING ENTRANCES (FREQUENT USE):	1.0FC MIN
BUILDING ENTRANCES (INFREQUENT USE):	0.2FC MIN
PROPERTY LINE:	0.5FC MAX



FEATURES

- Low profile LED wall luminaire with a variety of ES distributors for lighting applications such as retail, commercial and residential building reuse
- Featuring Micro Scribe Optics which maximizes target zone illumination with minimal losses at the house-edges, reducing light trespass issues
- Visual comfort standard
- Control options including photo control, occupancy sensing, NPL Distributed Intelligence, Wireless and I-Net with networked controls
- Battery Back-up options available for emergency code compliance
- Quick-mount adapter allows easy installation/maintenance
- 35W and 480V versions for industrial applications and Canada

DATE: 08/23 LOCATION: New MI
TYPE: PROJECT: BLM Bldg Addition
CATALOG #: RWA2-360L-015-4K7-48-UNV000-277V



Plan View
Scale: 1" = 35'

Luminaire Locations											
No.	Label	X	Y	Z	MH	Orientation	Tilt	X	Y	Z	Alt
4	A	328.32	429.04	25.00	25.00	0.00	0.00	328.32	429.04	0.00	
5	A	325.04	429.04	25.00	25.00	0.00	0.00	325.04	429.04	0.00	
6	A	327.25	429.05	25.00	25.00	0.00	0.00	327.25	429.05	0.00	
7	A	368.67	368.67	25.00	25.00	90.00	0.00	368.67	368.67	0.00	
8	A	318.79	249.18	25.00	25.00	90.00	0.00	318.79	249.18	0.00	
3	A	350.47	372.20	25.00	25.00	270.00	0.00	350.47	372.20	0.00	

Schedule											
Symbol	Label	QTY	Manufacturer	Catalog	Number	Lamp	Output	LLF	Input	Power	
	A	6	END	RWA2-160L-115-4K7-4-	1	14963	0.95	109.8			

Statistics											
Designation	Symbol	Avg	Max	Min	Max/Min	Avg/Min					
Calc Zone #1	+	1.9 E	3.2 E	0.4 E	8.0:1	4.8:1					

Designer
Brian Mendez
Date
08/11/2023
Scale
Not to Scale
Drawing No.
Summary

BLM GROUP USA EXPANSION - BECK NORTH CORPORATE PARK



ALPINE
ENGINEERING, INC.
CIVIL ENGINEERS & LAND SURVEYORS

RESIDENTIAL
SUBDIVISIONS
SITE CONDOMINIUM
MULTI-FAMILY
PLOT PLANS
CONSTRUCTION LAYOUT

SURVEYING
ALTA SURVEYS
BOUNDARY SURVEYS
TOPOGRAPHIC SURVEYS
PARCEL SPLITS

COMMERCIAL
SITE PLANNING
SITE ENGINEERING
INDUSTRIAL & MULTI-UNIT
LAND SURVEYING
CONSTRUCTION LAYOUT

46892 WEST ROAD
SUITE 109
NOVI, MICHIGAN 48377

(248) 926-3701 (BUS)
(248) 926-3765 (FAX)
WWW.ALPINE-INC.NET



CLIENT: DEMBS DEVELOPMENT, INC.

SITE PLAN RENDERING

BLM GROUP USA EXPANSION - BECK NORTH CORPORATE PARK
SECTION: 4
TOWNSHIP: 1 N
CITY OF NOVI
OAKLAND COUNTY
MICHIGAN

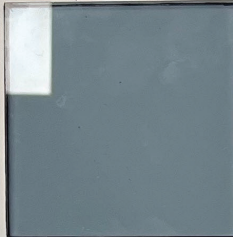
RANGE: 8 E

DATE:	2023-10-02
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FBK:	
CHF:	
SCALE:	HOR 1" = FT. VER 1" = FT.
	1
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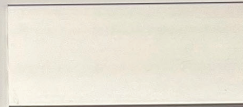
P:\13-332\mxd\13-332_2_AerialPlanRendering.rvt 8/16/2023 8:16 AM Admin - Rendering.rvt



Aluminum Composite Material (ACM)



Low "E" Tinted Glazing



Clear Anodized Aluminum Curtain Wall System



Split-Face CMU Block - Stained



Insulated Metal Panels



Proposed Exterior Materials For:



F.A.studio
design to inspire



Proposed Building Expansion Renderings for:





Proposed Building Expansion Renderings for:



F.A.studio
design to inspire

PLANNING REVIEW



PLAN REVIEW CENTER REPORT

September 11, 2023

Planning Review

BLM Group Addition

JSP 23-24

PETITIONER

Dembs Development, Inc.

REVIEW TYPE

Preliminary Site Plan

PROPERTY CHARACTERISTICS

Section	4	
Site Location	North of Cartier Drive, East of Beck Road; 22-04-151-036	
Site School District	Walled Lake Consolidated School District	
Site Zoning	I-1: Light Industrial District	
Adjoining Zoning	North	RM-1: Low Density Multiple Family
	East	I-1: Light Industrial District
	West	City of Wixom (M-1: Light Industrial District)
	South	I-1: Light Industrial District
Current Site Use	Light Industrial	
Adjoining Uses	North	Low Density Multiple Family
	East	Vacant
	West	Light Industrial
	South	Light Industrial
Site Size	7.62 acres	
Plan Date	August 18, 2023	

PROJECT SUMMARY

The applicant is proposing a 63,608 square foot addition to an existing 75,162 square foot building. The parcel is located east of Beck Road and north of Cartier Drive. The site is zoned for Light Industrial use (I-1), and the future land use map indicates Industrial Research Development Technology.

RECOMMENDATION

Planning recommends conditional approval of the Preliminary Site Plan, if the required Noise Impact Statement is provided prior to the Planning Commission public hearing. The plan mostly conforms to the requirements of the Zoning Ordinance, with deviations identified below. Planning Commission approval of the Special Land Use permit, Preliminary Site Plan, Woodland Permit and Stormwater Management Plan is required.

PRIOR PLANNING COMMISSION & ZBA MOTIONS

The Zoning Board of Appeals approved all of the requested variances on June 20, 2014 with the following motion:

"In Case No. PZ14-0008 Motion to approve the case as requested. The request is based upon circumstances or features that are exceptional and unique to the property and do not result from conditions that exist generally in the City and is not self-created. This is a large facility with multiple sources of revenue and even though this is not a separate business entity it effectively

acts like one. The failure to grant relief will unreasonably prevent or limit the use of the property and will substantially inconvenience this applicant to attain a higher economic or financial return. The grant of relief will not result in a use of structure that is incompatible with or unreasonably interferes with adjacent or surrounding properties."

The Planning Commission approved the Special Land Use, Preliminary Site Plan, Woodland Permit and Stormwater Management Plan on April 9, 2014 with the following motions:

"In the matter of Beck North Lot 56, JSP14-07, motion to approve the Special Land Use permit based on the following findings:

- a. Relative to other feasible uses of the site:*
 - The proposed use will not cause any detrimental impact on existing thoroughfares as indicated in the traffic review letters;*
 - Subject to satisfying the requirements in the Engineering Review the proposed use will not cause any detrimental impact on the capabilities of public service and facilities because the plan adequately addresses and provides for water and sanitary sewer service and management of stormwater volumes;*
 - Based on the number of trees being removed relative to the size of the building area, and because this is the location of a significant portion of the trees within Phase II of the Beck North Corporate Park, the Planning Commission finds that in order for the proposed use to be compatible with the natural features and characteristics of the land, the development of this parcel must be in full compliance with the Woodlands Ordinance in terms of tree replacements, in a manner that is acceptable to the City, which may include replacement of trees either on properties within the Beck North Corporate Park or on other properties owned/developed by the applicant;*
 - The proposed use is compatible with adjacent uses of land as indicated in the staff and consultant review letters;*
 - The proposed use is consistent with the goals, objectives and recommendations of the City's Master Plan for Land Use;*
 - The proposed use will promote the use of land in a socially and economically desirable manner;*
 - The proposed use is listed among the provision of uses requiring special land use review as set forth in the various zoning districts of this ordinance and is in harmony with the purposes and conforms to the applicable site design regulations of the zoning district in which it is located.*

This motion is made because the plan is otherwise in compliance with Article 19, Article 24 and Article 25 of the Zoning Ordinance and all other applicable provisions of the Ordinance.

"In the matter of Beck North Lot 56, JSP14-07, motion to approve the Preliminary Site Plan based on and subject to the following:

- a. The findings of compliance with Ordinance standards in the staff and consultant review letters and the conditions and items listed in those letters being addressed on the Final Site Plan;*
- b. The applicant will address the noise impact requirements prior to approval of the building permits;*
- c. Planning Commission waiver of the required berms in the locations of existing woodlands with the condition that a conservation easement is provided is hereby granted;*
- d. Planning Commission Section 9 façade waiver for the overage of CMU on the east and north facades is hereby granted as:*
 - The proposed facades will be significantly screen by both on and off-site natural vegetation, and*
 - The request is generally in keeping with the intent and purpose of Section 2520.*
- e. Zoning Board of Appeals variance for the location of the loading dock as depicted which is supported by staff because the site is heavily buffered by existing regulated woodlands*

and wetlands both on and off the site, the closest residential building is located over 700 feet away, and the loading zone is recessed from the northernmost wall.

f. Zoning Board of Appeals variance for the building height as depicted which is supported by staff because the site is heavily buffered by existing regulated woodlands and wetlands both on and of the site, and because the closest residential building is located over 700 feet away.

This motion is made because the plan is otherwise in compliance with Article 19, Article 24 and Article 25 of Zoning Ordinance and all other applicable provisions of the Ordinance."

SPECIAL LAND USE CONSIDERATIONS

In the I-1 District, Manufacturing and Warehouse use requires Special Land Use approval (Section 6.2.C) when adjacent to residential zoning districts. Other properties within the Beck North Corporate Park have been determined to be considered adjacent to residential even when separated from such districts by the 50-foot wide City-owned property zoned I-1. Section 6.2.C of the Zoning Ordinance outlines specific factors the Planning Commission shall consider in the review of a Special Land Use Permit request:

1. 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, accel/decel lanes off-street parking, off-street loading/unloading, travel times and thoroughfare level of service.
2. 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 serve existing and planned uses in the area.
3. 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.
4. 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.
5. 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.
6. 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.
7. 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.

The applicant should address the above considerations in their response letter.

ORDINANCE REQUIREMENTS

This project was reviewed for conformance with the Zoning Ordinance with respect to Article 3 (Zoning Districts), Article 4 (Use Standards), Article 5 (Site Standards), and any other applicable provisions of the Zoning Ordinance. Please address the items in **bold** below for the next submittal.

1. Noise Impact Statement (Sec. 5.14.10.B): **A Noise Impact Statement is required for those uses requiring Special Lands Use approval when adjacent to residential uses in the I-1 District. The noise impact statement shall demonstrate that the completed structure and all activities associated with the structure and land use will comply with the standards in Table 5.14.10.A.ii at all times. Please see Section 5.14.10.B for a full description of the standards and requirements. This statement is required to be provided prior to the Planning Commission public hearing.**

2. Building Height (Sec. 3.14.5.C): When adjacent to residential districts, building height is limited to 25-feet. **The height of the building to the top of the RTU screening appears to be 36 feet in height. This appears to match the height of the rooftop screening units on the existing building. The Zoning Board of Appeals would need to approve the height variance for the addition.**
3. Building Setback (3.1.18.D): The minimum front yard building setback in the I-1 District is 40 feet. The plan shows the setback is approximately 18 feet at the eastern end of the site where the cul-de-sac curves. **The Zoning Board of Appeals would need to approve the building setback variance for the addition.**
4. Woodland Permit: As noted in the Woodland review letter, the applicant proposes to remove 14 regulated trees, requiring 31 replacement credits. Only 7 replacements are indicated to be planted on-site, with the remaining to be paid into the Tree Fund. **The applicant is encouraged to plant additional credits on-site to the extent possible. All on-site replacements will be required to be placed in a Conservation Easement to protect them permanently.**
5. Façade: The materials indicated are in full compliance with the façade ordinance. **Please indicate if the proposed façade materials for the addition will match the existing façade of the building and provide a note in the site plan.**
6. Bike Parking (Sec. 5.16): The site plan shows there are 10 existing bike parking spaces on the west side of the building. The Ordinance states that when 4 or more spaces are required, they should be placed to serve multiple entrances. **The applicant should provide at least one bike rack (2 spaces) on the west side of the building to serve that entrance.**
7. Planning Chart: Please refer to the attached Planning Chart for additional comments to address in the next submittal.

OTHER REVIEWS

- a. Engineering Review: Engineering recommends **approval** of the Preliminary Site Plan. Additional comments to be addressed in the Final Site Plan submittal.
- b. Landscape Review: Landscape recommends **approval** of the Preliminary Site Plan, with two waivers required. Additional comments to be addressed in the Final Site Plan submittal.
- c. Woodland Review: Woodland review recommends **approval**. Woodland permit is required for the removal of regulated trees.
- d. Traffic Review: Traffic recommends **approval** of the Preliminary Site Plan. Additional comments to be addressed in the Final Site Plan submittal.
- e. Façade Review: Façade recommends **approval** of the Preliminary Site Plan. A Façade Inspection will be required prior to full approval of the project.
- f. Fire Review: Fire recommends **conditional approval** of the Preliminary Site Plan. Additional comments to be addressed in the Final Site Plan submittal.

NEXT STEP: PLANNING COMMISSION MEETING

This Site Plan will be scheduled for consideration before the Planning Commission **on October 11, 2023**, for review of the Special Land Use, Preliminary Site Plan, and Stormwater Management Plan. Please provide the following via email by **noon on October 2nd**:

1. Site Plan submittal in PDF format (maximum of 10MB). **This has been received.**
2. A response letter addressing ALL the comments from ALL the review letters and a request for waivers/variances as you see fit, including justification for such waivers.
3. A color rendering of the Site Plan. (Optional for presentation purposed)
4. A Façade Material sample board.
5. Noise Impact Statement

ZONING BOARD OF APPEALS

After receiving Planning Commission's approval of the Preliminary Site Plan and Special Land Use Permit, any variances shall be requested from the Zoning Board of Appeals prior to the submittal of the Final Site Plan. Please submit this [application](#) to Community Development Account Clerks to go before the Zoning Board of Appeals. The deadline for Zoning Board of Appeals applications is typically the first of the month for the following month's meeting.

FINAL SITE PLAN SUBMITTAL

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

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

ELECTRONIC STAMPING SET SUBMITTAL AND RESPONSE LETTER

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

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

STAMPING SET APPROVAL

Stamping sets are 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 **9 size 24" x 36" copies with original signature and original seals on the cover sheet (subsequent pages may use electronic seal with signature)**, to the Community Development Department for final Stamping Set approval.

PRE-CONSTRUCTION MEETING

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

CHAPTER 26.5

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

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



Lindsay Bell, AICP – Senior Planner



PLANNING REVIEW CHART: I-1 Light Industrial

Review Date: September 8, 2023
Review Type: Preliminary Site Plan
Project Name: JSP23-24 BLM Group Building Expansion
Location: Beck North Corp Park, N of Cartier Drive
Plan Date: August 18, 2023
Prepared by: Lindsay Bell, Senior Planner
E-mail: lbell@cityofnovi.org; **Phone:** (248) 347-0484

Items in **Bold** need to be addressed by the applicant with next submittal.
 Items **Underlined Bold** require waivers or variances.
Italicized items should be noted.

Item	Required Code	Proposed	Meets Code	Comments
Zoning and Use Requirements				
Master Plan <i>(adopted July 26, 2017)</i>	Industrial Research Development and Technology	No Change	Yes	
Area Study	The site does not fall under any special category		N/A	
Zoning <i>(Effective Jan. 8, 2015)</i>	I-1: Light Industrial District	No Change	Yes	
Uses Permitted <i>(Sec 3.1.18.B & C)</i>	Sec 3.1.18.B Principal Uses Permitted. Sec 3.1.18.C Special Land Uses	63,608 sq. ft. research and manufacturing building addition to existing 75,162 sq. ft. building	Yes	The building addition will require 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	Frontage on Cartier Drive	Yes	
Minimum Zoning Lot Size for each Unit in Acres <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		Yes	
Minimum Zoning Lot Size for each Unit: Width in Feet			Yes	

Item	Required Code	Proposed	Meets Code	Comments
Maximum % of Lot Area Covered (By All Buildings)	(Sec 3.6.2.D)	Approx. 42%	Yes	
Building Height (Sec. 3.1.18.D)	25 ft. maximum height Sec. 3.14.5.C: The maximum heights of any building [in the I-1 District] constructed on a lot or site adjacent to a residential district shall be twenty-five (25) feet	36 ft @ tallest point?	No	Verify the tallest point of the building, including RTUs. <u>ZBA Variance will be required.</u>
Building Setbacks (Sec 3.1.18.D)				
Front (south)	40 ft.	18.22 ft.	No	<u>A ZBA variance will be required for front setback.</u>
Rear (north)	100 ft. (Sec 3.6.2.H)	approx. 120 ft.	Yes	
Side (east)	20 ft.	approx. 70 ft.	Yes	
Side (west)	20 ft.	Complies	Yes	
Parking Setback (Sec 3.1.18.D) & Refer to applicable notes in Sec 3.6.2				
Front (south)	40 ft. (Sec. 3.6.2.E)	No new parking proposed in this yard	Yes	
Rear (north)	100 ft. (Sec 3.6.2.F)	No parking new proposed in this yard	Yes	
Side (east)	10 ft.	approx. 35 ft.	Yes	
Side (west)	10 ft.	No new parking proposed in this yard	Yes	
Note To District Standards (Sec 3.6.2)				
Exterior Side Yard Abutting a Street (Sec 3.6.2.C)	All exterior side yards abutting a street shall be provided with a setback equal to front yard.	No side yard abutting street	N/A	

Item	Required Code	Proposed	Meets Code	Comments
Off-Street Parking in Front Yard <i>(Sec 3.6.2.E)</i>	Off-street parking is allowed in front yard if <ul style="list-style-type: none"> - the site is min. 2 acres - does not extend into the minimum required front yard setback of the district, - cannot occupy more than 50% of the area between min. front yard setback & bldg. setback, - must be screened by brick wall or landscaped berm - lighting compatible with surrounding neighborhood 	Parking is not proposed in the front yard	N/A	
Off-Street Parking in Side and Rear Yards <i>(Sec 3.6.2.F)</i>	For sites abutting a residential zoning district, off-street parking shall not occupy more than fifty (50) percent of the area of the side or rear yard abutting a residential district	Parking in rear yard adjacent to residential is existing	Yes	
	Off-street parking shall be setback no less than one hundred (100) feet from the residential district. Exterior side yards shall be subject to the front yard setback requirements of the district, and all regulations applicable to a front yard shall apply.	Complies	Yes	
Setback from Residential District <i>(Sec 3.6.2.H)</i>	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	Complies	Yes	

Item	Required Code	Proposed	Meets Code	Comments
	of the setback requirement).			
Wetland/Watercourse Setback (Sec 3.6.2.M)	A setback of 25ft from wetlands and from high watermark course shall be maintained	No wetlands exist on the site	N/A	
Additional Height (Sec 3.6.2.O)	Additional heights for selected building is allowed based on conditions listed in Sec 3.6.2.O		N/A	
Parking setback screening (Sec 3.6.2.P)	Required parking setback area shall be landscaped per sec 5.5.3.	Deficiency in greenbelt at the SE corner of the site	No	Please see the Landscape review letter for further details.
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	Parking setbacks comply with minimum standards	N/A	
Parking, Loading and Dumpster Requirements				
Number of Parking Spaces: Industrial or research establishments and related accessory offices (Sec. 5.2.12.E)	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. Space on site shall also be provided for all construction workers during periods of plant construction 138,770 SF / 700 SF = 198 required spaces	203 spaces (16 new spaces)	Yes	

Item	Required Code	Proposed	Meets Code	Comments
Parking Space Dimensions and Maneuvering Lanes <i>(Sec. 5.3.2)</i>	<ul style="list-style-type: none"> - 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 	9 ft. x 17 ft. long spaces 24.5 ft. and 25 ft. drives	Yes	
Parking stall located adjacent to a parking lot entrance: public or private <i>(Sec. 5.3.13)</i>	Shall not be located closer than twenty-five (25) feet from the street right-of-way (ROW) line, street easement or sidewalk, whichever is closer	40+ feet	Yes	
End Islands <i>(Sec. 5.3.12)</i>	<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 	End islands are in conformance	Yes	

Item	Required Code	Proposed	Meets Code	Comments
Barrier Free Spaces <i>Barrier Free Code</i>	7 barrier free parking spaces for sites containing 201-300 spaces, 2 of which must be van barrier free parking spaces	7 existing, 1 proposed	Yes	
Barrier Free Space Dimensions <i>Barrier Free Code</i>	- 8' wide with an 8' wide access aisle for van accessible spaces - 8' wide with a 5' wide access aisle for regular accessible spaces	ADA parking spaces and access aisles appear to comply, but they are not dimensioned	Yes	
Barrier Free Signs <i>Barrier Free Code</i>	One sign for each accessible parking space.	Shown	Yes	
Minimum number of Bicycle Parking <i>(Sec. 5.16.1)</i>	Five (5) percent of required automobile spaces, minimum two (2) spaces 10 bicycle parking spaces are required for 198 required automobile parking spaces	10 spaces existing shown	Yes	
Bicycle Parking General requirements <i>(Sec. 5.16)</i>	- 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	Existing shown	TBD	Place at least 1 rack near the new entrance to serve multiple entrances
Bicycle Parking Lot layout <i>(Sec 5.16.6)</i>	Parking space width: 6 ft. One tier width: 10 ft. Two tier width: 16 ft. Maneuvering lane width: 4 ft. Parking space depth: 2 ft. single, 2 ½ ft. double	Existing complies	TBD	See previous comment

Item	Required Code	Proposed	Meets Code	Comments
Loading Spaces <i>(Sec. 5.4. & Sec. 3.14.5)</i>	Loading area in the rear yard Loading area in interior side yard if it is adjacent to I, EXPO or EXO district	Existing loading area to remain with additional overhead door is proposed	No	ZBA variance granted for loading dock location on 6/20/2014
Accessory Structures				
Dumpster <i>(Sec 4.19.2.F)</i>	<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 dumpster locations shown on the plan	NA	
Dumpster Enclosure <i>(Sec. 21-145. (c))</i>	<ul style="list-style-type: none"> - Screened from public view - A wall or fence 1 ft. higher than height of refuse bin - And no less than 5 ft. on three sides - Posts or bumpers to protect the screening - Hard surface pad. - Screening Materials: Masonry, wood or evergreen shrubbery 	Existing dumpster	NA	
Roof top equipment and wall mounted utility equipment <i>(Sec. 4.19.2.E.ii)</i>	All roof top equipment must be screened, and all wall mounted utility equipment must be enclosed and integrated into the design and color of the building	Roof top equipment proposed with adequate screening	Yes	

Item	Required Code	Proposed	Meets Code	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.	Roof top equipment proposed with adequate screening	Yes	
I-1 District Required Conditions (Sec 3.14)				
Outdoor Storage of Above Ground Storage Tanks (Sec. 3.14.1.B.ii)	Outdoor placement of above-ground storage tanks of not more than 600 capacity per tank and accessory to an otherwise permitted use. Additional conditions apply	Not Proposed	N/A	
Outdoor Storage of recreational equipment (Sec. 3.14.1.B.iii)	See Sec. 3.14.1.B.iii.a – f	Not Proposed	N/A	
Other (Sec 3.14.2)	Unless otherwise provided, dealing directly with consumer at retail, is prohibited.	Retail sales do not occur at this site	Yes	
Adjacent to Freeway ROW (Sec 3.14.4)	Where a permitted use abuts a freeway right-of way, special conditions listed in section 3.14.4 apply	Not adjacent to Freeway ROW	N/A	
Planning Commission Findings for Permitted Uses (Sec 3.14.3)				

Item	Required Code	Proposed	Meets Code	Comments
Adjacent Residential Uses (Sec 3.14.3.A)	Protecting current and future residential uses from development impact	Partially proposed	TBD	See the Considerations for I-1 Permitted Uses Adjacent a Residential District section of this chart
Long term truck parking Sec 3.14.3.B	Long-term delivery truck parking is not permitted	Note 15, Sheet 2	Yes	
Performance standards Sec 3.14.3.C	The lighting, noise, vibration, odor and other possible impacts are in compliance with standards and intent of the article and performance standards of Section 5.14			<u>Noise Impact Statement is required for Special Land Use consideration – See Sec 3.14.10.B</u>
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.			
Hazardous material checklist Sec 3.14.3.E	Compliance of City's hazardous materials checklist	Checklist provided	Yes	
Considerations for I-1 Permitted Uses Adjacent a Residential District (Sec. 3.14.5)				
Loading Area (Sec. 3.14.5.A)	No truck well, loading dock or door, shall be permitted on or in the wall of the building which faces the abutting residential district and only pedestrian exits or emergency doors shall be allowed on such wall.	Existing loading area to remain, but an additional overhead door is proposed. The loading area is screened/recessed from the building, located 290 feet from the residential district	Yes	<i>ZBA variance granted for the loading zone in 2014</i>

Item	Required Code	Proposed	Meets Code	Comments
Outdoor Storage and Parking Screening <i>(Sec. 3.14.5.B)</i>	No outside storage of any materials, equipment, trash or waste shall be permitted, except that dumpsters may be permitted outdoors where properly screened pursuant to the requirements of this Ordinance	Outdoor storage does not appear to be proposed.	Yes	
	All off-street parking and areas used for vehicular repair, delivery, loading/unloading and transport shall not be closer than one-hundred (100) feet from the boundary of a residential district and effectively screened from view from said residential district by landscaping, walls or berms pursuant to the requirements of Section 3.14.5.E.	The existing loading area is approx. 235 feet from the property line, and 290 feet from the residential district to the north		
Building Height <i>(Sec. 3.14.5.C)</i>	The maximum heights of any building constructed on a lot or site adjacent to a residential district shall be twenty-five (25) feet, except where there is a street, road, highway or freeway between said lot or site & the abutting residential district.	37 ft. @ tallest point (RTUs)	No	<u>A height variance will be required from the ZBA</u>

Item	Required Code	Proposed	Meets Code	Comments
<p>Exterior Lighting <i>(Sec. 3.14.5.D)</i></p>	<p>A photometric plan is required at the Preliminary Site Plan stage when the site abuts residential.</p> <p>Exterior site lighting is required as regulated by Section 5.7. In addition, where a building wall faces an abutting residential district there shall be no floodlighting of such facade. This shall not preclude the lighting of doorways on such facades.</p>	<p>Provided</p>		<p>Sheet 2 – General Notes, update note 4 to reference Section 5.7 of the City Code.</p>
<p>Windows and Doors <i>(Sec. 3.14.5.F)</i></p>	<p>Windows and doors of non-office use areas of structures in an I-1 district may not be left open.</p>	<p>Sheet 2, note 16</p>	<p>Yes</p>	
<p>Special Land Use Considerations for I-1 Sites Adjacent to Residential Districts <i>(Sec. 6.1.2.C)</i></p>				
<p>Traffic Circulation and Safety <i>(Sec. 6.1.2.C.i)</i></p>	<p>The proposed use will not 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, accel/decel lanes off-street parking, off-street loading & unloading, travel times and thoroughfare level of service.</p>	<p>Provided</p>	<p>Yes</p>	<p>See the Traffic review letter for further details.</p>

Item	Required Code	Proposed	Meets Code	Comments
<p>Public Services & Utilities <i>(Sec. 6.1.2.C.ii)</i></p>	<p>The proposed use will not 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 serve existing and planned uses in the area.</p>		<p>Yes</p>	<p>See Engineering review letter for further details.</p>
<p>Natural Features <i>(Sec. 6.1.2.C.iii)</i></p>	<p>The proposed use is compatible with the natural features and characteristics of the land, including existing woodlands, wetlands, watercourses and wildlife habitats.</p>	<p>Woodland tree removals will require permit</p>	<p>Yes</p>	
<p>Impact on Surrounding Neighborhoods <i>(Sec. 6.1.2.C.iv)</i></p>	<p>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.</p>	<p>Expansion of existing use, closest residential use is some distance, and buffered by woodlands</p>	<p>Yes</p>	
<p>Master Plan for Land Use <i>(Sec. 6.1.2.C.v)</i></p>	<p>The proposed use is consistent with the goals, objectives and recommendations of the City's Master Plan for Land Use.</p>	<p>Complies</p>	<p>Yes</p>	
<p>Social & Economic Impact <i>(Sec. 6.1.2.C.vi)</i></p>	<p>The proposed use will promote the use of land in a socially and economically desirable manner.</p>	<p>Information provided: ~ 100 short term jobs +25-30 permanent jobs ~\$9M project cost</p>		

Item	Required Code	Proposed	Meets Code	Comments
Zoning Ordinance & Land Use <i>(Sec. 6.1.2.C.vii)</i>	The proposed use is listed among the provision of uses requiring special land use review as set forth in the various zoning districts of this Ordinance and is in harmony with the purposes and conforms to the applicable site design regulations of the zoning district in which it is located.	Complies	Yes	
Other Requirements				
Exterior lighting <i>(Sec. 5.7)</i>	A photometric plan is required at the Preliminary Site Plan stage when the site abuts residential.	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).	Not provided	No	Please include this information on the cover sheet of the next submittal.
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	See comments in this and other review letters for items to be included in future submittals
Development and Street Names	Development and street names must be approved by the Street Naming Committee before Preliminary Site Plan approval	Not applicable	N/A	

Item	Required Code	Proposed	Meets Code	Comments
Development/ Business Sign	Signage, if proposed, requires a permit.	None shown	TBD	<u>For sign permit information contact Ordinance Enforcement at 248-735-5678.</u>
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 for new section of pavement only	Yes	
Lighting Plan (Sec. 5.7.A.i)	Site plan showing location of all existing & proposed buildings, landscaping, streets, drives, parking areas & exterior lighting fixtures	Provided	Yes	Unclear if any pole fixtures are proposed? Photometric shows higher levels at NE corner with no apparent source
Building Lighting (Sec. 5.7.2.A.iii)	Relevant building elevation drawings showing all fixtures, the portions of the walls to be illuminated, illuminance levels of walls and the aiming points of any remote fixtures.	Not provided	No	
Lighting Plan (Sec.5.7.A.2.ii)	Specifications for all proposed & existing lighting fixtures	Wall-mounted fixture provided	Yes	Please provide lighting hours of operation.
	Photometric data	Provided	Yes	
	Fixture height	25 ft?	Yes	
	Mounting & design	Provided	Yes	
	Glare control devices (Also see Sec. 5.7.3.D)	Provided	Yes	
	Type & color rendition of lamps	Provided	Yes	
	Hours of operation	Provided	Yes	
Maximum Height (Sec. 5.7.3.A)	Height not to exceed maximum height of zoning district (or 25 ft. where adjacent to residential districts or uses	25 ft shown	Yes	
Standard Notes (Sec. 5.7.3.B)	- Electrical service to light fixtures shall be placed underground - Flashing light shall not be permitted			Provide these standard notes on the plan

Item	Required Code	Proposed	Meets Code	Comments
	- Only necessary lighting for security purposes & limited operations shall be permitted after a site's hours of operation			
Security Lighting (Sec. 5.7.3.H)	- 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 - Lighting for security purposes shall be directed only onto the area to be secured.	Provided	Yes	
Average Light Level (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	4.8:1 shown	No	Please adjust to meet max ratio of 4:1
True Color Lighting (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	1.0 fc	Yes	Show photometrics at entrances
	Loading & unloading areas: 0.4 min	0.6 fc	Yes	
	Walkways: 0.2 min	1.0 fc	Yes	
	Building entrances, frequent use: 1.0 min	Not shown		
	Building entrances, infrequent use: 0.2 min	--	NA	
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	Not provided	No	Show the illumination at the property lines
Cut off Angles (Sec. 5.7.3.L)	When adjacent to residential districts: - All cut off angles of fixtures must be 90° - maximum illumination at the property line shall not exceed 0.5 foot candle	Complies	Yes	

Item	Required Code	Proposed	Meets Code	Comments
	- No direct light source shall be visible at the property line (adjacent to residential) at ground level			

NOTES:

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

ENGINEERING REVIEW



PLAN REVIEW CENTER REPORT

9/7/2023

Engineering Review

BLM Group Building Expansion
JSP23-0024

APPLICANT

Dembs Development, Inc.

REVIEW TYPE

Preliminary Site Plans

PROPERTY CHARACTERISTICS

- Site Location: Located North of Carter Drive East of Hudson Drive, parcel numbers 50-22-04-151-035 and 50-22-04-151-036
- Site Size: +/- 7.60 acres
- Plan Date: 8/18/2023
- Design Engineer: Alpine Engineering, Inc.

PROJECT SUMMARY

- Addition of 63,6087 sq. ft. building to existing building.
- Water service would be provided by an extension from the existing 8-inch water main along the north side of Cartier Drive. A domestic lead and fire lead would be provided to serve the building, along with 2 additional hydrants.
- Sanitary sewer service would be provided by extension from existing sanitary sewer on the south side of Cartier Drive.
- Storm water would be collected and discharged to the existing Beck North Corporate Park stormwater system.

RECOMMENDATION

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

Comments:

The Preliminary Site Plan meets the general requirements of the design and construction standards as set forth in [Chapter 11 of the City of Novi Code of Ordinances](#), the Storm Water Management Ordinance and the [Engineering Design Manual](#) with the following items to be addressed at the time of Final Site Plan submittal (further engineering detail will be required at the time of the final site plan submittal):

General

1. Provide a minimum of two ties to established section or quarter section corners.
2. **Only at the time of the printed Stamping Set submittal**, provide the City's standard detail sheets for water main (5 sheets), sanitary sewer (3 sheets), storm sewer (2 sheets), paving (2 sheets) and Boardwalks/Pathways (1 sheet). The most updated details can be found on the City's website under [Engineering Standards and Construction Details](#).
3. Provide a 10-foot separation between the 2-inch lead and the sanitary sewer monitoring manhole. It appears that the 2-inch domestic lead is proposed within the easement of the monitoring manhole.
4. Provide a construction materials table on the utility plan listing the quantity and material type for each utility (water, sanitary and storm) being proposed.
5. 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.
6. Where the minimum 18-inch clearance at utility crossings cannot be achieved, provide a prominent note stating the substandard clearance and that proper bedding/encasement will be determined by the inspecting engineer.
7. Provide a note stating if dewatering is anticipated or encountered during construction, then a dewatering plan must be submitted to the Engineering Division for review.
8. Generally, all proposed trees shall remain outside utility easements. Where proposed trees are required within a utility easement, the trees shall maintain a minimum 5-foot horizontal separation distance from any existing or proposed utility. All utilities shall be shown on the landscape plan, or other appropriate sheet, to confirm the separation distance.
9. Show the locations of all light poles on the utility plan and indicate the typical foundation depth for the pole to verify that no conflicts with utilities will occur. Light poles in a utility easement will require a License Agreement.
10. The grading and SESC sheets shall show the tree fence at least as far from the trunk as the critical root zone, defined as a circular area around a tree with a radius measured to the tree's longest dripline radius plus one (1) foot. No grading shall occur within the dripline. If the critical root zone is not fully protected, then replacements for that tree may be required.

Water Main

11. Per current EGLE requirement, provide a profile for all proposed water main 8-inch and larger.
12. In the general notes and on the profile, add the following note: "Per the Ten States Standards Article 8.8.3, one full 20-foot pipe length of water main shall be used whenever storm sewer or sanitary sewer is crossed, and the pipe shall be centered on the crossing, in order to ensure 10-foot separation between water main and sewers." Additionally, show the 20-foot pipe lengths on the profile.
13. A sealed set of utility plans along with the [Michigan Department of Environment, Great Lakes & Energy \(EGLE\) permit application](#) for water main construction, the Streamlined Water Main Permit Checklist, and electronic utility plan should be submitted to the Engineering Division for review, assuming no further design changes are anticipated. Utility plan sets shall include only the cover sheet, any applicable utility sheets, and the standard detail sheets.

Irrigation Comments

14. indicate if irrigation is proposed, if so, provide a sheet specifically for irrigation system and include containment notes on irrigation sheets as well.
15. For common area irrigation systems connected to public water supplies: Install a backflow prevention Reduced Pressure Zone Assembly (RPZ) with an ASSE 1013 listing approval at each tap to the public water supply. A minimum clearance of 12-inches measured from the bottom of pressure relief valve to the finished landscaped grade shall be required. Provide a detail showing the RPZ installation setup and height above grade. If backflow preventer is to be enclosed, provide a detail of the enclosure with required drainage outlets. Show all locations on a site plan. A plumbing permit is required for the installation of the backflow preventer. Installation of the backflow preventer shall be in such a manner as to not require blowing out the system through the backflow preventer. Drain ports and blow out ports shall be included. Any deviations from these requirements must be approved through the Novi Water & Sewer Division Cross Connection Control Specialist (248-735-5661).

Sanitary Sewer

16. Provide a sanitary sewer basis of design for the development on the utility plan sheet. (Calculations should use peaking factor of 4.0 and 3.2 People/REU).
17. Note on the construction materials table that 6-inch sanitary leads shall be a minimum SDR 23.5, and mains shall be SDR 26.

Storm Sewer

18. A minimum cover depth of 3 feet shall be maintained over all proposed storm sewer. 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.

19. Provide a 0.1-foot drop in the downstream invert of all storm structures where a change in direction of 30 degrees or greater occurs.
20. Storm manholes with differences in invert elevations exceeding two feet shall contain a 2-foot-deep plunge pool.
21. The minimum pipe size for storm sewers receiving surface runoff shall be 12-inch diameter. Provide profiles for all storm sewer 12-inch and larger.
22. Label all inlet storm structures on the profiles. Inlets are only permitted in paved areas and when followed by a catch basin within 50-feet.
23. 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.
24. Illustrate all pipes intersecting storm structures on the storm profiles.
25. Provide a schedule listing the casting type, rim elevation, diameter, and invert sizes/elevations for each proposed, adjusted, or modified storm structure on the utility plan. Round castings shall be provided on all catch basins except curb inlet structures.
26. Show and label all roof conductors and show where they tie into the storm sewer.

Storm Water Management Plan

27. The Storm Water Management Plan (SWMP) for this development shall be designed in accordance with the Storm Water Ordinance and Chapter 5 of the [Engineering Design Manual](#).
28. Provide supporting calculations for the runoff coefficient determination.
29. The existing Aqua-Swirl pre-treatment unit serving this site shall be inspected, and shall be cleaned if necessary. Any maintenance records shall be provided to the City.

Paving & Grading

30. Verify the slopes along the ingress/egress routing to the building from the barrier-free stalls. All barrier-free stalls shall comply with Michigan Barrier-Free regulations.
31. Show proposed grades for all adjusted sanitary, water, and storm structures.
32. The grade of the drive approach shall not exceed 2-percent within the first 25 feet of the intersection. Provide spot grades as necessary to establish this grade.
33. Per MDOT Special Provision for Crushed Concrete; the use of crushed concrete is prohibited on the project within 100 feet of any water course (stream, river, county drain, etc.) and lake, regardless of the application of location of the water course or lake relative to the project limits. Add note to use 21AA crushed limestone base for any pavement within 100 feet of a water course.
34. Provide the standard MDOT detail 'M' approach at the driveway/intersection.

35. A permit for all proposed work activities within the road right-of-way must be obtained from the City of Novi. This application is available from the City Engineering Division or on the city website ([Right-of-Way Permit Application](#)) and can be filed once the Final Site Plan has been submitted. Please contact the Engineering Division at 248-347-0454 for further information. Please submit the cover sheet, standard details, and plan sheets applicable to the permit only.

Soil Erosion and Sediment Control

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

Off-Site Easements

37. An off-site temporary construction easement is needed for the relocated storm sewer off-site.
38. Off-site easements will not be needed if property to the east is owned by the same LLC, in that case a Declaration of Covenants will be needed.
39. Any off-site utility easements anticipated must be executed prior to final approval of the plans.

The following must be submitted with the Final Site Plan:

40. 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.**
41. 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, should include number do detectable warning plates), right-of-way paving (including proposed right-of-way), grading, and the storm water basin (basin construction, control structure, pre-treatment structure and restoration).

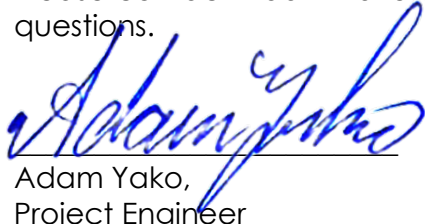
The following must be submitted with the Stamping Set:

(Please note that all documents must be submitted together as a package with the Stamping Set submittal with a [legal review transmittal form](#). Partial submittals will not be accepted. Links to the PDF copy of the easements are below, word document versions of each legal document can be found on the City's Website under [Forms and Permits](#))

42. A draft copy of the [Storm Drainage Facility Maintenance Easement Agreement \(SDFMEA\)](#), as outlined in the Storm Water Management Ordinance, must be submitted to the Community Development Department. Once the agreement is approved by the City's Legal Counsel, this agreement will then be sent to City Council for approval/acceptance. The SDFMEA will then be recorded at the office of the Oakland County Register of Deeds. This document is available on our website.
43. A draft copy of the 20-foot-wide [Watermain System Easement](#) onsite must be submitted to the Community Development Department.
44. A draft copy of the 20-foot-wide [Sanitary Sewer Monitoring Manhole Access Easement](#) onsite must be submitted to the Community Development Department.

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 Adam Yako at (248)735-5695 or email at ayako@cityofnovi.org with any questions.



Adam Yako,
Project Engineer

cc: Lindsay Bell Community, Development
Humna Anjum, Engineering
Ben Croy, City Engineer

TRAFFIC REVIEW



AECOM
 39575 Lewis Dr, Ste. 400
 Novi
 MI, 48377
 USA
 aecom.com

Project name:
 JSP23-24 – BLM Group Building Expansion
 Preliminary Traffic Review

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

From:
 AECOM

Date:
 September 8, 2023

CC:
 Lindsay Bell, Humna Anjum, Diana Shanahan,
 James Hill, Ian Hogg, Heather Zeigler, Adam Yako

Memo

Subject: JSP23-24 – BLM Group Building Expansion Preliminary Traffic Review

The preliminary site plan was reviewed to the level of detail provided and AECOM recommends **approval** as long as the comments provided below are adequately addressed to the satisfaction of the City.

GENERAL COMMENTS

1. The applicant, Dembs Development, is proposing a 63,608 SF addition to the existing 75,209 SF building.
2. The development is located on the north side of Cartier Road, east of Beck Road. Cartier Road is under the jurisdiction of the City of Novi.
3. The site is zoned I-1 (Light Industrial).
4. There are no traffic related deviations required at this time.

TRAFFIC IMPACTS

1. AECOM performed an initial trip generation based on the ITE Trip Generation Manual, 11th Edition, as follows.

ITE Code: 110 – General Light Industrial
 Development-specific Quantity: 63,608 SF GFA
 Zoning Change: None

Trip Generation Summary	Estimated Trips	Estimated Peak-Direction Trips	City of Novi Threshold	Above Threshold?
AM Peak-Hour Trips	47	41	100	No
PM Peak-Hour Trips	41	35	100	No
Daily (One-Directional) Trips	310	N/A	750	No

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

Trip Impact Study Recommendation	
Type of Study:	Justification
-	None

TRAFFIC REVIEW

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

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

EXTERNAL SITE ACCESS AND OPERATIONS				
No.	Item	Proposed	Compliance	Remarks
1	Driveway Radii O Figure IX.3	35'	Met	
2	Driveway Width O Figure IX.3	32.4'	Met	Within range, standard is 36'.
3	Driveway Taper O Figure IX.11	-	N/A	
3a	Taper length			
3b	Tangent			
4	Emergency Access O 11-194.a.19	Provided	Met	
5	Driveway sight distance O Figure VIII-E	Not indicated	N/A	For major through roads.
6	Driveway spacing			
6a	Same-side O 11.216.d.1.d	583'	Met	
6b	Opposite side O 11.216.d.1.e	74'	Met	Appears to meet standard if measured near approach curb to near approach curb. Shifting existing driveway east.
7	External coordination (Road agency)	-	N/A	
8	External Sidewalk Master Plan & EDM	Not required	N/A	
9	Sidewalk Ramps EDM 7.4 & R-28-J	-	N/A	
10	Any Other Comments:			

INTERNAL SITE OPERATIONS				
No.	Item	Proposed	Compliance	Remarks
11	Loading zone ZO 5.4	None proposed, loading zone at existing building	N/A	
12	Trash receptacle ZO 5.4.4	None proposed, existing located in rear yard	N/A	

INTERNAL SITE OPERATIONS				
No.	Item	Proposed	Compliance	Remarks
13	Emergency Vehicle Access	Indicated	Met	
14	Maneuvering Lane ZO 5.3.2	24.5' and 25'	Met	Standard is 24'.
15	End islands ZO 5.3.12			
15a	Adjacent to a travel way	None proposed	N/A	
15b	Internal to parking bays	Dimensioned, 3' shorter than adjacent space	Met	
16	Parking spaces ZO 5.2.12	16 provided		See Planning Review letter
17	Adjacent parking spaces ZO 5.5.3.C.ii.i	<15 spaces in all parking bays	Met	
18	Parking space length ZO 5.3.2	17'	Met	
19	Parking space Width ZO 5.3.2	9'	Met	
20	Parking space front curb height ZO 5.3.2	4" integral sidewalk and curb	Met	
21	Accessible parking – number ADA	1	Met	
22	Accessible parking – size ADA	17' x 8'	Met	
23	Number of Van-accessible space ADA	1	Met	
24	Bicycle parking			
24a	Requirement ZO 5.16.1	10 proposed at existing building	Met	
24b	Location ZO 5.16.1	Indicated	Met	
24c	Clear path from Street ZO 5.16.1	7'	Met	
24d	Height of rack ZO 5.16.5.B	3'	Met	
24e	Other (Covered / Layout) ZO 5.16.1	Indicated	Met	
25	Sidewalk – min 5' wide Master Plan	7' (5' with 2' overhang in front of 17' parking space)	Met	
26	Sidewalk ramps EDM 7.4 & R-28-J	Indicated	Met	
27	Sidewalk – distance back of curb EDM 7.4	-	N/A	
28	Cul-De-Sac O Figure VIII-F	-	N/A	
29	EyeBrow O Figure VIII-G	-	N/A	
30	Turnaround ZO 5.10	Provided	Partially Met	15' radius should be increased to 20' to meet standard.
31	Any Other Comments:			

SIGNING AND STRIPING				
No.	Item	Proposed	Compliance	Remarks
32	Signing: Sizes MMUTCD	Indicated	Partially Met	Increase size of R1-1 stop sign to 30" minimum.

SIGNING AND STRIPING				
No.	Item	Proposed	Compliance	Remarks
33	Signing table: quantities and sizes	Indicated	Met	
34	Signs 12" x 18" or smaller in size shall be mounted on a galvanized 2 lb. U-channel post MMUTCD	Indicated	Met	
35	Signs greater than 12" x 18" shall be mounted on a galvanized 3 lb. or greater U-channel post MMUTCD	Indicated	Met	
36	Sign bottom height of 7' from final grade MMUTCD	Indicated	Met	
37	Signing shall be placed 2' from the face of the curb or edge of the nearest sidewalk to the near edge of the sign MMUTCD	Indicated	Met	
38	FHWA Standard Alphabet series used for all sign language MMUTCD	Indicated	Met	
39	High-Intensity Prismatic (HIP) sheeting to meet FHWA retro-reflectivity MMUTCD	Indicated	Met	
40	Parking space striping notes	Indicated	Met	
41	The international symbol for accessibility pavement markings ADA	Indicated	Met	
42	Crosswalk pavement marking detail	-	N/A	
43	Any Other Comments:			

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

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

Sincerely,

AECOM



Paula K. Johnson, PE
Senior Transportation Engineer



Saumil Shah, PMP
Project Manager

LANDSCAPE REVIEW



PLAN REVIEW CENTER REPORT

August 29, 2023

BLM Group Building Addition **Preliminary Site Plan - Landscaping**

Review Type

Preliminary Site Plan Landscape Review

Job #

JSP23-0024

Property Characteristics

- Site Location: 46850 Cartier
- Site Acreage: 7.62 ac.
- Site Zoning: I-1
- Adjacent Zoning: East, South: I-1; North: RM-1; West: Wixom Industrial
- Plan Date: 8/18/2023

Ordinance Considerations

This project was reviewed for conformance with Chapter 37: Woodland Protection, Zoning Article 5.5 Landscape Standards, the Landscape Design Manual and any other applicable provisions of the Zoning Ordinance. Items in **bold** below must be addressed and incorporated as part of the revised Final 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** for Preliminary Site Plan. The items noted below can be addressed on Final Site Plans.

LANDSCAPE WAIVERS REQUIRED BY PLAN:

- Lack of required screening berm between the site and the residential property to the north – *supported by staff.*
- Lack of required greenbelt width at the southeast corner of the proposed addition.

Please add the City Project Number, JSP23-0024, to the bottom right corner of the Cover Sheet.

Ordinance Considerations

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

1. **Tree survey is provided.**
2. Please use oaks instead of honeylocust as one of the replacement species.
3. The replacement trees should be located inside of a conservation easement.

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

1. The project is adjacent to residentially-zoned property on the north so the industrial property should have a 10-15 foot tall landscaped berm with 80-90% opacity.
2. The industrial park created a 50 foot wide conservation easement north of the property with mature woods, instead of building the required berm. *As this buffer will remain, and there is approximately 600lf of mature woods between the buffer and the multifamily residential buildings north of it, the waiver is supported by staff.*

Interior Street to Industrial subdivision (Zoning Sec 5.5.3.F.6)

1. The required greenbelt width (equal to the required building setback) is provided for most of the frontage, but not at the southeast corner of the building.
2. **A landscape waiver is required for this deficiency.**
3. If the Planning Commission is in favor of this setback deficiency, then the waiver is supported by staff as all of the required plantings except for the parking lot screening hedge is provided.
4. The required greenbelt trees and shrubs are provided.
5. The screening hedge for the parking lot east of the building is not provided. **Please add that hedge, or a wall to screen the parking lot from the cul-de-sac.**

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

All required parking lot interior space and trees, and perimeter trees, are provided.

Building foundation Landscaping (Zoning Sec 5.5.3.D)

1. All of the required foundation landscape area is provided.
2. Additional and/or larger plantings should be added to the landscape area along the south side of the building as the plants specified for that area are not large enough to provide the robust landscaping picture. **Please either use much larger specie(s) or install three rows of perennials in that area to fill up the required landscape area.**

Plant List (LDM 4, 10)

1. 8 of 19 species (42%) used on the plan are native to Michigan. **Please increase the number of native species used to at least 50%, preferably more.**
2. The tree diversity is satisfactory.

Planting Notations and Details (LDM 10)

Provided

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

No detention basin landscaping is required for this project as the storm water will be treated by a regional basin.

Irrigation (LDM 10)

1. Please propose a means of providing sufficient water for establishment and long-term survival of the new plants on the Final Site Plans.
2. If an existing irrigation system will be extended, please add a note to that effect.

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



Rick Meader – Landscape Architect

LANDSCAPE REVIEW SUMMARY CHART – PRELIMINARY SITE PLAN

Review Date: August 29, 2023
Project Name: JSP23-0024: BLM Group Expansion
Plan Date: August 18, 2023
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.

LANDSCAPE WAIVERS REQUIRED BY PLAN:

- Lack of required screening berm between the site and the residential property to the north – *supported by staff*
- Lack of required greenbelt width at the southeast corner of the proposed addition.

Item	Required	Proposed	Meets Code	Comments
Landscape Plan Requirements (LDM (2))				
Landscape Plan <i>(Zoning Sec 5.5.2, LDM 2.e.)</i>	<ul style="list-style-type: none"> • New commercial or residential developments • Addition to existing building greater than 25% increase in overall footage or 400 SF whichever is less. • 1"=20' minimum with proper North. Variations from this scale can be approved by LA • Consistent with plans throughout set 	Site Plan: 1"=30'	Yes	
Project Information <i>(LDM 2.d.)</i>	Name and Address	<ul style="list-style-type: none"> • Business name and address are on the title block • Location map on L-1 	Yes	
Owner/Developer Contact Information <i>(LDM 2.a.)</i>	Name, address and telephone number of the owner and developer or association	Business name and address are on the title block	Yes	Please add phone or email contact information for business on the plans' title block.
Landscape Architect contact information <i>(LDM 2.b.)</i>	Name, Address and telephone number of RLA/PLA/LLA who created the plan	Allen Design	Yes	
Sealed by LA. <i>(LDM 2.g.)</i>	Requires original signature	Copy of seal and signature	Yes	<u>Signature required on final stamping sets</u>
Miss Dig Note <i>(800) 482-7171 (LDM.3.a.(8))</i>	Show on all plan sheets	On title block	Yes	

Item	Required	Proposed	Meets Code	Comments
Zoning (LDM 2.f.)	Include all adjacent zoning	Site: I-1 East, South: I-1 North:, RM-1 West: Wixom Ind. Shown on Location map	Yes	
Survey information (LDM 2.c.)	<ul style="list-style-type: none"> • Legal description or boundary line survey • Existing topography 	Topographic survey and description on Sheet 3	Yes	
Existing plant material Existing woodlands or wetlands (LDM 2.e.(2))	<ul style="list-style-type: none"> • Show location type and size. Label to be saved or removed. • Plan shall state if none exists. 	<ul style="list-style-type: none"> • Tree survey and removals shown on Sheet L-2 • Replacement calculations shown on Sheet L-2 	Yes	See Mannik & Smith and DRG group letters for complete woodland and wetland reviews.
Soil types (LDM.2.r.)	<ul style="list-style-type: none"> ▪ As determined by Soils survey of Oakland county ▪ Show types, boundaries 	No	No	<ol style="list-style-type: none"> 1. Soil information needs to be in set, not necessarily on Landscape Plan. 2. It is not on the Storm Water Management Plan
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))	<ul style="list-style-type: none"> • Overhead and underground utilities, including hydrants • Proposed light posts 	<ul style="list-style-type: none"> • All existing and proposed utilities are shown. • No overhead utilities exist • All proposed lighting fixtures are wall-mounted 	Yes	Please add this to Note 2: "Trees should also be at least 5 feet from underground lines."
Proposed grading. 2' contour minimum (LDM 2.e.(1))	Provide proposed contours at 2' interval	Sheet 5	Yes	
Snow deposit (LDM.2.q.)	Show snow deposit areas on plan	Yes	Yes	

LANDSCAPING REQUIREMENTS
Berms, Walls and ROW Planting Requirements
Berms
<ul style="list-style-type: none"> • All berms shall have a maximum slope of 33%. Gradual slopes are encouraged. Show 1ft. contours • Berm should be located on lot line except in conflict with utilities. • Berms should be constructed of loam with 6" top layer of topsoil.
Residential Adjacent to Non-residential (Sec 5.5.3.A) & (LDM 1.a)

Item	Required	Proposed	Meets Code	Comments
Berm requirements (Zoning Sec 5.5.A)	The site is adjacent to residential property on the north.	<ul style="list-style-type: none"> No berm is proposed. A 50 foot wooded buffer strip is provided as a part of the overall industrial park Undeveloped forest is on the parcel north of the site beyond the buffer strip 	TBD	<ol style="list-style-type: none"> A landscape waiver is required. As the industrial park buffer exists with mature trees, and the residential property north of the site is almost 600 feet of mature woods, the waiver is supported by staff.
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	No new walls are proposed.		
Walls greater than 3 ½ ft. should be designed and sealed by an Engineer		None		
ROW Landscape Screening Requirements (Sec 5.5.3.B. ii) and (LDM 1.b)				
Greenbelt width (2)(3) (5)	Equal to zoning front setback (40 feet)	<ul style="list-style-type: none"> Forty feet along most of the frontage 18' at southeast corner of the building 	<ul style="list-style-type: none"> Yes No 	<ol style="list-style-type: none"> A landscape waiver is required for areas with less than required greenbelt width. As all of the required greenbelt landscaping is provided, the waiver would be supported by staff if the Planning staff and Planning Commission support the deviation from the requirement.
Berm requirements (Zoning Sec 5.5.3.A.(5))				
Min. berm crest width	No berm is required along Cartier Drive	No berm is proposed	Yes	
Minimum berm height (9)	No berm is required along Cartier Drive	No berm is proposed	Yes	
3' wall	(4)(7)	None		
Canopy deciduous or large evergreen trees Notes (1) (10)	See Industrial Subdivision requirements below			
Sub-canopy deciduous trees	See Industrial Subdivision requirements below			

Item	Required	Proposed	Meets Code	Comments
Notes (2)(10)				
Canopy deciduous trees in area between sidewalk and curb (Novi Street Tree List)	See Industrial Subdivision requirements below			
Non-Residential Projects (Zoning Sec 5.5.3.F.6)				
Interior Street to Industrial subdivision (Zoning Sec 5.5.3.F.6)	<ul style="list-style-type: none"> • 1 canopy deciduous or 1 large evergreen per 35 l.f. along ROW (of those 1 canopy tree per 50 feet must be located along street as street trees) • (311-56)/35 = 7 trees • (311-56)/50 = 5 trees • 1 sub canopy tree per 40 l.f. frontage • (311-56)/40 = 6 trees • 1 shrub per 20 lf frontage • (311-56)/20 = 13 shrubs • Plant massing for 10% of ROW • (311-56)*10% = 26lf • Screening hedge or berm for parking lot 	<ul style="list-style-type: none"> • 7 greenbelt trees • 7 street trees • 7 subcanopy trees • 13 shrubs • 45 lf massing • No screening hedge for parking lot 	<ul style="list-style-type: none"> • Yes • Yes • Yes • Yes • Yes • No 	Please provide the screening hedge for the parking lot frontage.
Screening of outdoor storage, loading/unloading (Zoning Sec. 3.14, 3.15, 4.55, 4.56, 5.5)		Loading zone will be between the original building and the addition – not visible from the road	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 	<ul style="list-style-type: none"> • No berms are proposed • Cross section detail is provided 	Yes	The cross-section detail can be removed if desired.
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	No overhead lines exist on the site		
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 	No blockage is proposed in the parking lot	Yes	
Name, type and number of ground	As proposed on planting islands	Sod is proposed in the islands and	Yes	

Item	Required	Proposed	Meets Code	Comments
cover (LDM 1.c.(5))		around the building.		
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 Minimum 200 SF per tree planted in island 6" curbs Islands minimum width 10' BOC to BOC 	Islands are sufficiently sized.	Yes	
Curbs and Parking stall reduction (c)	Parking stall can be reduced to 17' and the curb to 4" adjacent to a sidewalk of minimum 7 ft.	Spaces are 1y feet long	Yes	
Contiguous space limit (i)	<ul style="list-style-type: none"> Maximum of 15 contiguous spaced All endcap islands should also be at least 200sf with 1 tree planted in it. 	Maximum bay length for addition is 9 spaces	Yes	
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 of utility structures (manholes, catch basins). Trees also need to have at least 5 feet between the trunk and underground utility lines. 	<ul style="list-style-type: none"> A new hydrant and the FDC are on Sheet L-1 Sufficient spacing is provided 	Yes	Please show the tree in the island with the hydrant at least 3 feet from the sidewalk.
Landscaped area (g)	Areas not dedicated to parking use or driveways exceeding 100 sq. ft. shall be landscaped	<ul style="list-style-type: none"> Sod is proposed around the building Seed is proposed for disturbed area east of the site. 	Yes	
Clear Zones (LDM 2.3.(5))		The city clear vision zone is provided on the cul-de-sac	Yes	
Category 1: For OS-1, OS-2, OSC, OST, B-1, B-2, B-3, C, 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 vehicular use area up to 50,000 sf x 7.5%	$A = x \text{ SF} \times 7.5\% = A \text{ sf}$	NA		
B = Total square footage of additional paved vehicular use	$B = x \text{ SF} \times 1\% = B \text{ sf}$	NA		

Item	Required	Proposed	Meets Code	Comments
areas over 50,000 SF) x 1 %				
Category 2: For: I-1 and I-2 (Zoning Sec 5.5.3.C.iii)				
A = Total square footage of vehicular use area up to 50,000 sf x 5%	<ul style="list-style-type: none"> A = x SF x 6% = A sf A = 16,864sf * 6% = 1012 sf 			
B = Total square footage of additional paved vehicular use areas over 50,000 SF x 0.5 %	$B = (x \text{ SF} - 50000) \times 0.5\%$	NA		
All Categories				
C = A+B Total square footage of landscaped islands required	<ul style="list-style-type: none"> C = A + B C = 1012 + 0 = 1012 	1054 sf	Yes	
D = D/200 Number of canopy trees required	<ul style="list-style-type: none"> D=C/200 = xx Trees D = 1012/200 = 5 trees 	5 trees	Yes	
Parking Lot Perimeter Trees (Sec 5.5.3.C.iv)	1 Canopy tree per 35 lf $824/35 = 24$ trees	1 existing tree 23 new trees	Yes	
Parking land banked	NA	None		
Other Landscaping				
Other Screening				
Transformers/Utility boxes (LDM 1.e from 1 through 5)	<ul style="list-style-type: none"> A minimum of 2ft. separation between box and the plants Ground cover below 4" is allowed up to pad. No plant materials within 8 ft. from the doors 	A utility box is shown in front of the building with screening south of the box.	No	Please add screening on the west side of the utility box.
Building Foundation Landscape Requirements (Sec 5.5.3.D)				
Interior site landscaping SF	<ul style="list-style-type: none"> Equal to entire perimeter of the building (less paved access areas) x 8 with a minimum width of 4 ft. A minimum of 75% of the building should have foundation landscaping. xx lf x 8ft = xx SF 	The perimeter along the loading zone was not included in the calculation.	Yes	<ol style="list-style-type: none"> Since over 75% of the building perimeter is landscaped, not including the west wall is accepted. A single row of daylilies will not be large enough to fill the 8 foot landscape bed along the front (south) side of the building. Either use a larger plant there, or

Item	Required	Proposed	Meets Code	Comments
				add 2 more rows of perennials to fill the bed.
<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	97% of the building front is landscaped.	Yes	
Detention/Retention Basin Requirements (Sec. 5.5.3.E.iv)				
Planting requirements <i>(Sec. 5.5.3.E.iv)</i>	<ul style="list-style-type: none"> Clusters of large native shrubs shall cover 70-75% of the basin rim area located at 10 feet above the permanent water level or pond bottom if it's a dry pond. Canopy trees at 1/35lf of the east, south and west sides of the pond, located at about 10 feet away from the permanent water level 10" to 14" tall grass along sides of basin Refer to wetland for basin mix 	None proposed as the stormwater is treated by a regional basin.	Yes	If any changes to the regional basin are required for this project, the area of it that must be landscaped per the requirements stated here
Phragmites Control <i>(Sec 5.5.6.C)</i>	<ul style="list-style-type: none"> Any and all populations of Phragmites australis and/or Japanese knotweed on the site shall be included on tree survey. Treat populations per MDEQ guidelines and requirements to eradicate the weed from the site. 	A note indicates that neither plant was found on the site.	Yes	
LANDSCAPING NOTES, DETAILS AND GENERAL REQUIREMENTS				
Landscape Notes – Utilize City of Novi Standard Notes				
Installation date <i>(LDM 2.i. & Zoning Sec 5.5.5.B)</i>	<ul style="list-style-type: none"> Provide intended dates Should be between March 15 and November 15. 	Note provided	Yes	
Maintenance & Statement of intent <i>(LDM 2.m & Zoning Sec 5.5.6)</i>	<ul style="list-style-type: none"> Include statement of intent to install and guarantee all materials for 2 years. Include a minimum 	Notes provided	Yes	

Item	Required	Proposed	Meets Code	Comments
	one cultivation in June, July and August for the 2-year warranty period.			
Plant source (LDM 2.n & LDM 3.a.(2))	Shall be northern nursery grown, No.1 grade.	Note provided	Yes	
Irrigation plan (LDM 2.s.)	A method for providing the water required for plant establishment and long-term survival must be provided.	No		<ol style="list-style-type: none"> 1. <u>Need for final site plan</u> 2. <u>Please provide either an irrigation system plan or information regarding the alternative method that will be used to water the plants</u> 3. <u>If an irrigation system will be used, it should meet the requirements listed at the end of the chart.</u> 4. <u>If an existing irrigation system will be extended to cover the new plantings, please add a note to that effect to the plans.</u>
Other information (LDM 2.u)	Required by Planning Commission	NA		
Establishment period (Zoning Sec 5.5.6.B)	2 yr. Guarantee	Notes provided	Yes	
Approval of substitutions. (Zoning Sec 5.5.5.E)	City must approve any substitutions <u>in writing</u> prior to installation.	Notes provided	Yes	
Plant List (LDM 4, 11) – Include all cost estimates				
Quantities and sizes	<ul style="list-style-type: none"> • A minimum of 50% of species used on the site, not including any woodland replacements, must be native to Michigan. • The Tree Diversity standards of the Landscape Design Manual Section 4 must be met for all non-woodland replacement trees used. • No Prohibited Species 	Yes	Yes	
Root type		Yes	Yes	
Botanical and common names		<ul style="list-style-type: none"> • 8 of 19 species used (42%) are native to Michigan • Tree diversity meets the requirements of LDM 4 	<ul style="list-style-type: none"> • No • Yes 	<ol style="list-style-type: none"> 1. <u>Please use more native species. <i>Betula nigra</i> and <i>Cornus kousa</i> are not native to Michigan.</u> 2. <u>Please use white or bur oaks instead of honeylocust for the woodland replacement trees as they are more beneficial to wildlife.</u>

Item	Required	Proposed	Meets Code	Comments
Type and amount of lawn	listed on Table 11.b.(2)b may be used.	Seed and sod are indicated on the plan	Yes	
Cost estimate (LDM 2.t)	For all new plantings, mulch and sod as listed on the plan	Yes	Yes	<u>Please use \$375.00 as the unit cost for</u>
Planting Details/Info (LDM 2.i) – Utilize City of Novi Standard Details				
Canopy Deciduous Tree	Refer to LDM for detail drawings	Yes	Yes	
Evergreen Tree		Yes	Yes	
Multi-stem Tree		Yes	Yes	
Shrub		Yes	Yes	
Perennial/ Ground Cover		Yes	Yes	
Tree stakes and guys. (Wood stakes, fabric guys)		Yes	Yes	
Tree protection fencing	Located at Critical Root Zone (1' outside of dripline)	Yes	Yes	<u>Please copy the tree protection fence line on L-2 to the Demolition Plan and Grading Plan.</u>
Other Plant Material Requirements (LDM 3)				
General Conditions (LDM 3.a)	Plant materials shall not be planted within 4 ft. of property line	The plantings are not near the property lines		
Plant Materials & Existing Plant Material (LDM 3.b)	Clearly show trees to be removed and trees to be saved.	Yes – on L-3	Yes	
Landscape tree credit (LDM3.b.(d))	<ul style="list-style-type: none"> Substitutions to landscape standards for preserved canopy trees outside woodlands/ wetlands should be approved by LA. Refer to Landscape tree Credit Chart in LDM 	None indicated		
Plant Sizes for ROW, Woodland replacement and others (LDM 3.c)	Refer to Landscape Design Manual for requirements	Included on plant list	Yes	
Plant size credit (LDM3.c.(2))	NA	No		
Prohibited Plants (LDM 3.d)	No plants on City Invasive Species List	No prohibited plants are proposed	Yes	
Recommended trees for planting under overhead utilities	Label the distance from the overhead utilities	There are no overhead utility lines on the site.		

Item	Required	Proposed	Meets Code	Comments
(LDM 3.e)				
Collected or Transplanted trees (LDM 3.f)		None		
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. 	Included on planting details	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.				

Irrigation System Requirements

- Any booster pump installed to connect the project’s irrigation system to an existing irrigation system must be downstream of the RPZ.
- The RPZ must be installed in accordance with the 2015 Michigan Plumbing Code.
- The RPZ must be installed in accordance with the manufacture installation instructions for winterization that includes drain ports and blowout ports.
- The RPZ must be installed a minimum of 12-inches above FINISHED grade.
- Attached is a handout that addresses winterization installation requirements to assist with this.
- A plumbing permit is required.
- The assembly must be tested after installation with results recorded on the City of Novi test report form.

WOODLAND REVIEW



Corporate Headquarters
295 South Water Street, Suite 300
Kent, OH 44240
800-828-8312

Local Office
2301 Catherine Industrial Drive Ste 124
Novi, MI 48375

To: Lindsay Bell, City of Novi Senior Planner
Community Development Department, City of Novi

From: Kerry Gray, Principal Consultant
Davey Resource Group

CC: Barbara McBeth, City Planner
Rick Meader, City of Novi Landscape Architect
Ian Hogg, City of Novi Planner
Heather Zeigler, City of Novi Planner
James Hill, City of Novi Planner
Douglas Repen, Mannik and Smith Group

Date: September 6, 2023

RE: BLM Group Building Expansion
Woodland Review #1 –JSP23-24

Davey Resource Group, Inc. (DRG) has performed a review of the preliminary site plan for the BLM Group Building Expansion prepared by Alpine Engineering, Inc. (dated: 08/18/2023). The Plan proposes an addition to BLM Group’s existing building onto the adjacent parcel to the east (parcel #: 50-22-04-151-036 and 50-22-04-151-035). The plan set was reviewed for conformance with the City of Novi’s Woodland Protection Ordinance, Chapter 37. The proposed development site contains City-regulated woodlands and trees.

Recommendation: DRG **recommends approval** of the BLM Group Building Expansion Preliminary Site Plan – see Woodland Review Comments for required financial guarantees.

The following Woodland Regulations apply to this site:

Woodland Regulation	Required
Woodland Permit (Chapter 37, Section 37-26)	YES
Tree Replacement (Chapter 37, Section 37-8)	YES
Tree Protection (Fence) (Chapter 37, Section 37-9)	YES
Woodland Conservation Easement (Chapter 37-30 (e))	YES

Woodland Impacts

The BLM Group Building Expansion proposes the disturbance and removal of trees in City of Novi Regulated Woodlands. Trees regulated by Chapter 37 of Novi City Code include those that are 8-inches or greater DBH (diameter at breast height, 4.5-feet above existing grade) located within a regulated woodland and any tree 36-inches or greater DBH, irrespective of whether it is located in a regulated woodland.

DRG conducted a site visit on September 3, 2023 (see Figure 2 site photos). There is a remaining strip of regulated woodlands between the parcel where the exiting BLM building is located and the adjacent parcel where the proposed addition will be constructed. There are also regulated woodlands along the northern property line and on the adjacent property to the north owned by the City of Novi.

The impacted regulated woodland, located between the two parcels, is a mix of species including oak, hickory, and cottonwood. The trees on the site range in size from young tree saplings to 25"+ diameter oaks. The woodland is densely populated with understory trees and shrubs.

The plan proposes the removal of 14 regulated woodland trees and the preservation of one tree, tree #857, 26" diameter red oak (*Quercus rubra*).

The following woodland tree replacements are required:

Tree Size (DBH)	Number of Trees	Ratio Replacement/ Removed Tree	Total Replacements Required
8-11"	8	1	8
12-20"	2	2	4
21-29"	0	3	0
30+"	0	4	0
Multi-Stem	5	Add Stems/8	19
Total			31
Credits for Preserved Non-Regulated Trees Outside of Regulated Woodland			0
Total Replacements (Required Replacements less Credits)			31 trees

The applicant proposes to plant 7 woodland replacements on site (3 sugar maple (*Acer saccharum* 'Green Mountain') and 4 honeylocust (*Gleditsia triacanthos* var. *inermis*) and payment into the City of Novi Tree Fund for the remaining 24 woodland replacement credits required.

Woodland Review Comments

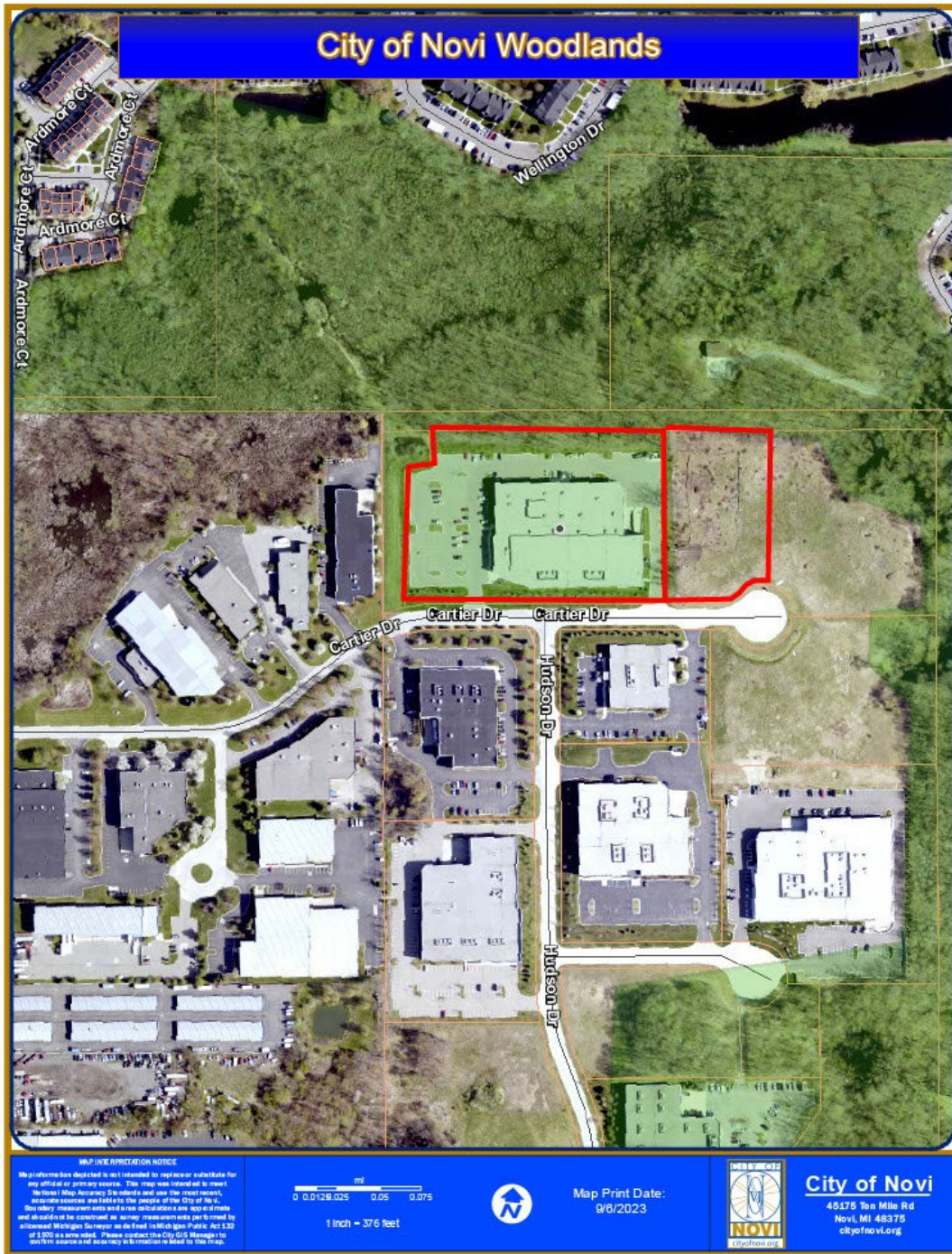
1. A **Woodland Use Permit is required** to perform construction on any site containing regulated woodlands. The permit for this site requires Planning Commission approval because there are more than 3 trees proposed to be removed.
2. **Financial Guarantees.** The following Financial Guarantees and/or City of Novi Tree Fund payments are required prior to issuance of the City of Novi Woodland Use Permit:

- a) A **woodland fence guarantee of \$6,000** (\$5,000 x 120%) is required per Chapter 26.5-37. The financial guarantee shall be paid prior to issuance of the City of Novi Woodland Use Permit.
1. To calculate the woodland fence inspection fees – **provide on Sheet L-2 the cost to stake, install and remove the tree protection fencing.**

- b) A **Woodland Replacement Financial Guarantee of \$2,800.00** (\$400 per woodland replacement x 7 woodland replacements) is required as part of the Woodland Use Permit fees to ensure planting of on-site Woodland Replacement tree credits.

Based on inspection of the installed on-site Woodland Replacement trees, the Woodland Replacement Financial Guarantee shall be returned to the Applicant. The Applicant is responsible for requesting this inspection. Following acceptance of the planted woodland replacement trees, a 2-year performance bond must be paid to ensure the continued health and survival of the replacement trees.

- c) The applicant will be required to pay into the **City of Novi Tree Fund \$9,600.00** for the 24 woodland replacement credits that are not planted on site (\$400/woodland replacement credit x 24 woodland replacements). This payment is non-refundable.
- d) **The applicant shall guarantee trees for two (2) growing seasons after installation and the City's acceptance**, per The City's Performance Guarantees Ordinance. **A two-year maintenance bond in the amount \$1,0000** (twenty-five (25) percent of the value of the trees, but in no case less than one thousand dollars (\$1,000.00)), shall be required to ensure the continued health of the trees following acceptance (Chapter 26.5, Section 26.5-37). Based on a successful inspection two (2) years after installation of the on-site Woodland Replacement trees, the Woodland Replacement Performance Guarantee shall be returned to the Applicant. The Applicant is responsible for requesting this inspection.



**Figure 1. BLM Group – existing building and location of proposed addition to the east
City of Novi Regulated Woodland Map**
*Bold red line = property boundary;
Green areas = City-regulated woodlands*

Figure 2. Site Photos



*Regulated Woodland between parcels
(looking west)*



*Regulated Woodland between parcels
(looking northwest)*



*Regulated Woodland along northern
property line
(looking northwest)*



*Regulated Woodland along northern
property line
(looking north)*

FAÇADE REVIEW



September 5, 2023

Façade Review Status Summary:
Approved, Full Compliance

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

Re: **FACADE ORDINANCE - Facade Review**
BLM Group Building Expansion JSP23-24
 Façade Region: 3, Zoning District: I-1

Dear Ms. McBeth;

The following Façade Review for Preliminary Site Plan Approval is based on the drawings prepared by F.A. Studio Architects, dated 8/18/23. 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) are shown in the right-hand column. Materials in non-compliance with the Façade Chart, if any, are highlighted in bold.

Façade Region 3	South (Front)	West	North	East	Ordinance Maximum
Split Faced CMU	13%	N.A.	25%	32%	75%
Striated Single Score CMU	0%	N.A.	2%	2%	25%
Burnished CMU	5%	N.A.	0%	0%	25%
All Types of CMU, Combined	18%	N.A.	27%	34%	75%
Flat Metal Panels (Insulated & ACM)	74%	N.A.	73%	69%	75%
Flat Metal Panels (ACM)	59%	N.A.	0%	3%	75%
Spandrel Glass	8%	N.A.	0%	0%	50%

As shown above, the percentage of all façade materials are in full compliance with the Façade Ordinance. This application consists of a 63,608 S.F addition to an existing 75,209 S.F. building. The addition consists primarily of a continuation of existing materials. Although no renderings or material samples were provided, it is expected that all colors will substantially match the existing; the applicant should clarify that this is the case.

Notes to the Applicant:

1. Inspections – The 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>.
2. RTU Screening - It should be noted that all roof top units must be screened from view from all vantage points both on-site and off-site using materials in compliance with the Façade Ordinance.

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

Sincerely,
DRN & Associates, Architects PC



Douglas R. Necci, AIA

FIRE REVIEW



August 28, 2023

TO: Barbara McBeth - City Planner
Lindsay Bell - Plan Review Center
Ian Hogg – Plan Review Center
James Hill – Plan Review Center
Heather Zeigler – Plan Review Center
Diana Shanahan – Planning Assistant

CITY COUNCIL

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Scott R. Baetens

Assistant Fire Chief

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

cityofnovi.org

RE: BLM Group Building Expansion

Pre-App #23-0012

Project Description:

Adding 63,608 Sq. Ft. addition to an existing structure.

Comments:

- **All fire hydrants MUST be installed and operational prior to any combustible material is brought on site. IFC 2015 3312.1**
- For new buildings and existing buildings, you **MUST** comply with the International Fire Code Section 510 for Emergency Radio Coverage. This shall be completed by the time the final inspection of the fire alarm and fire suppression permits.
- Fire lanes will be designated by the Fire Chief or his designee when it is deemed necessary and shall comply with the Fire Prevention Ordinances adopted by the City of Novi. The location of all “fire lane – no parking” signs are to be shown on the site plans. **(Fire Prevention Ord.)**
- **Corrected 8/28/23 KSP**-Fire apparatus access drives to and from buildings through parking lots shall have a minimum fifty (50) feet outside turning radius and designed to support a minimum of thirty-five (35) tons. **(D.C.S. Sec 11-239(b)(5))**
- **Corrected 8/28/23 KSP**-The distribution system in all developments requiring more than eight hundred (800) feet of water main shall have a minimum of two (2) connections to a source of supply and shall be a looped system. **(D.C.S. Sec. 11-68(a))**
- The ability to serve at least two thousand (2,000) gallons per minute in single-family detached residential; three thousand (3,000) gallons per school areas; and at least four thousand (4,000) gallons per minute in office, industrial and shopping centers is essential. **(D.C.S. Sec.11-68(a))**
Corrected 8/28/23 KSP-Water mains greater than 25', shall be at least 8" in diameter. Shall be put on plans for review. **(D.S.C. Sec.11-68(C)(1)(c))**
- Fire hydrant spacing shall be measured as “hose laying distance” from fire apparatus. Hose laying distance is the distance the fire apparatus travels along improved access routes between hydrants or from a hydrant to a structure.

- **Corrected 8/28/23 KSP**-Hydrants shall be spaced approximately three hundred (300) feet apart online in commercial, industrial, and multiple-residential areas. In cases where the buildings within developments are fully fire suppressed, hydrants shall be no more than five hundred (500) feet apart. The spacing of hydrants around commercial and/or industrial developments shall be considered as individual cases where special circumstances exist upon consultation with the fire chief. **(D.C.S. Sec. 11-68 (f)(1)c)**
- **Corrected 8/28/23 KSP**-Proximity to hydrant: In any building or structure required to be equipped with a fire department connection, the connection shall be located within one hundred (100) feet of a fire hydrant. **(Fire Prevention Ord. Sec. 15-17 912.2.3)**
- **Corrected 8/28/23 KSP**-A hazardous chemical survey is required to be submitted to the Planning & Community Development Department for distribution to the Fire Department at the time any Preliminary Site Plan is submitted for review and approval. Definitions of chemical types can be obtained from the Fire Department at (248) 735-5674.
- **Corrected 8/28/23 KSP**-Watermain sizes shall be put on the plans for review.
- The floor plan and the utility plan do not matchup. The utility plan has an FDC, and the floor plan shows offices where the FDC is located. This is one structure with the addition, you will need to tie into the existing fire suppression system and fire alarm system.

Recommendation:

Approved with Conditions

Sincerely,



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

cc: file

APPLICANT RESPONSE LETTER



46892 West Road, Suite 109
Novi, Michigan 48377
Phone: (248) 926-3701
Fax: (248) 926-3765
Web: www.alpine-inc.net

September 28, 2023

Lindsay Bell
City of Novi Community Development Department
45175 Ten Mile Road
Novi, Michigan 48375

Re: **BLM Group USA Expansion - Beck North Corporate Park**
46850 Cartier Drive
Response to Preliminary Site Plan Comments
City of Novi Review# JSP23-24

Dear Lindsay:

We offer the below comments, on behalf of our client, to the Novi review package received on September 12, 2023. Additional plan revisions will be made to satisfy City Departments during the Final Site Plan process as indicated in the review package.

Planning Review

Special Land Use Considerations

1. 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, accel/decel lanes off-street parking, off-street loading/unloading, travel times and thoroughfare level of service.

Response: It is not anticipated that the proposed use will cause detrimental impact on existing thoroughfares as indicated in the traffic review letters.

2. 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 serve existing and planned uses in the area.

Response: Subject to satisfying the requirements in the Engineering and Fire Department Reviews the proposed use will not cause any detrimental impact on the capabilities of public service and facilities because the plan adequately addresses and provides for water and sanitary sewer service and management of stormwater volumes.

3. 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.

Response: The proposed use is compatible with existing natural features and characteristics of the land as indicated in the staff and consultant review letters.

4. 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.

Response: The proposed use is compatible with adjacent uses of land as indicated in the staff and consultant review letters.

5. 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.

Response: The proposed use is consistent with the goals, objectives, and recommendations of the City's Master Plan for Land Use.

6. 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.

Response: The proposed use will promote the use of land in a socially and economically desirable manner.

7. 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.

Response: The proposed use is listed among the provision of uses requiring special land use review as set forth in the various zoning districts of this ordinance and 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

Comment: Noise Impact Statement (Sec. 5.14.10.B): A Noise Impact Statement is required for those uses requiring Special Lands Use approval when adjacent to residential uses in the I-1 District. The noise impact statement shall demonstrate that the completed structure and all activities associated with the structure and land use will comply with the standards in Table 5.14.10.A.ii at all times. Please see Section 5.14.10.B for a full description of the standards and requirements. This statement is required to be provided prior to the Planning Commission public hearing.

Response: Noise impact statement is enclosed.

Comment: Building Height (Sec. 3.14.5.C): When adjacent to residential districts, building height is limited to 25-feet. The height of the building to the top of the RTU screening appears to be 36 feet in height. This appears to match the height of the rooftop screening units on the existing building. The Zoning Board of Appeals would need to approve the height variance for the addition.

Response: ZBA was required for construction of existing building in 2015 which was approved. Proposed new addition will match existing building in height to allow for interior crane to transverse between the old and new work area.

Comment: Building Setback (3.1.18.D): The minimum front yard building setback in the I-1 District is 40 feet. The plan shows the setback is approximately 18 feet at the eastern end of the site where the cul-de-sac curves. The Zoning Board of Appeals would need to approve the building setback variance for the addition.

Response: Building setback variance is proposed to allow for interior high bay crane operations. It is not anticipated that the proposed building location will cause detrimental impact on public safety and welfare as indicated in the staff and consultant review letters.

Comment: Woodland Permit: As noted in the Woodland review letter, the applicant proposes to remove 14 regulated trees, requiring 31 replacement credits. Only 7 replacements are indicated to be planted on-site, with the remaining to be paid into the Tree Fund. The applicant is encouraged to plant additional credits on-site to the extent possible. All on-site replacements will be required to be placed in a Conservation Easement to protect them permanently.

Response: Additional woodland replacements will be provided to the greatest extent possible and will be placed in a Conservation Easement.

Comment: Façade: The materials indicated are in full compliance with the façade ordinance. Please indicate if the proposed façade materials for the addition will match the existing façade of the building and provide a note in the site plan.

Response: The proposed addition to match existing building materials. Please refer to rendering and provided material board.

Comment: Bike Parking (Sec. 5.16): The site plan shows there are 10 existing bike parking spaces on the west side of the building. The Ordinance states that when 4 or more spaces are required, they should be placed to serve multiple entrances. The applicant should provide at least one bike rack (2 spaces) on the west side of the building to serve that entrance.

Response: Additional bike rack will be provided.

Comment: The building addition will require Special Land Use approval from the Planning Commission.

Response: Comment noted.

Comment: Deficiency in greenbelt at the SE corner of the site. Please see the Landscape review letter for further details.

Response: Additional landscaping will be provided.

Comment: Existing loading area to remain with additional overhead door is proposed. ZBA variance granted for loading dock location on 6/20/2014.

Response: Additional overhead door for building addition is proposed to allow for operational ingress/egress to the addition. The site is heavily buffered by existing regulated woodlands and wetlands both on and off the site, the closest residential building is located over 800 feet away from the overhead door, and the loading zone is recessed from the northernmost wall.

Comment: Sheet 2 – General Notes, update note 4 to reference Section 5.7 of the City Code.

Response: Note will be updated to reference Section 5.7 of the City Code.

Comment: Please include this information on the cover sheet of the next submittal: Land description, Sidwell number (metes and bounds for acreage parcel, lot number(s), Liber, and page for subdivisions).

Response: Legal description and sidwell numbers are provided on the cover sheet.

Comment: Please provide lighting hours of operation.

Response: Lighting hours of operation will be provided on the lighting plan.

Comment: Provide these standard notes on the plan: Electrical service to light fixtures shall be placed underground. Flashing light shall not be permitted.

Response: Standard lighting notes will be provided on the lighting plan.

Comment: Average light level of the surface being lit to the lowest light of the surface being lit shall not exceed 4:1. Please adjust to meet max ratio of 4:1.

Response: Average light levels will be adjusted on the lighting plan to meet max ratio of 4:1.

Comment: Show photometrics at entrances.

Response: Photometrics at entrances will be provided.

Comment: Show the illumination at the property lines.

Response: Illumination at property lines will be provided.

Engineering Review

General

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

Response: Two ties to section and 1/4 section corners are provided on sheet 3, Topographic Survey.

Comment 2. Only at the time of the printed Stamping Set submittal, provide the City's standard detail sheets for water main (5 sheets), sanitary sewer (3 sheets), storm sewer (2 sheets), paving (2 sheets) and Boardwalks/Pathways (1 sheet). The most updated details can be found on the City's website under Engineering Standards and Construction Details.

Response: Comment noted.

Comment 3. Provide a 10-foot separation between the 2-inch lead and the sanitary sewer monitoring manhole. It appears that the 2-inch domestic lead is proposed within the easement of the monitoring manhole.

Response: 10-foot separation will be provided.

Comment 4. Provide a construction materials table on the utility plan listing the quantity and material type for each utility (water, sanitary and storm) being proposed.

Response: Construction materials table will be provided.

Comment 5. 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: Utility crossing table will be provided.

Comment 6. Where the minimum 18-inch clearance at utility crossings cannot be achieved, provide a prominent note stating the substandard clearance and that proper bedding/encasement will be determined by the inspecting engineer.

Response: Note will be provided, as necessary.

Comment 7. Provide a note stating if dewatering is anticipated or encountered during construction, then a dewatering plan must be submitted to the Engineering Division for review.

Response: Note is provided on sheet 2, preliminary site plan, under general site notes (#14).

Comment 8. Generally, all proposed trees shall remain outside utility easements. Where proposed trees are required within a utility easement, the trees shall maintain a minimum 5-foot horizontal separation distance from any existing or proposed utility. All utilities shall be shown on the landscape plan, or other appropriate sheet, to confirm the separation distance.

Response: Minimum 5-foot horizontal separation between trees and utilities shall be provided. Utilities will be shown on the landscape plan.

Comment 9. Show the locations of all light poles on the utility plan and indicate the typical foundation depth for the pole to verify that no conflicts with utilities will occur. Light poles in a utility easement will require a License Agreement.

Response: Proposed light pole locations and typical foundation depths will be provided on the utility plan, as necessary.

Comment 10. The grading and SESC sheets shall show the tree fence at least as far from the trunk as the critical root zone, defined as a circular area around a tree with a radius measured to the tree's longest dripline

radius plus one (1) foot. No grading shall occur within the dripline. If the critical root zone is not fully protected, then replacements for that tree may be required.

Response: Comment noted.

Water Main

Comment 11. Per current EGLE requirement, provide a profile for all proposed water main 8-inch and larger.

Response: Comment noted.

Comment 12. In the general notes and on the profile, add the following note: "Per the Ten States Standards Article 8.8.3, one full 20-foot pipe length of water main shall be used whenever storm sewer or sanitary sewer is crossed, and the pipe shall be centered on the crossing, in order to ensure 10-foot separation between water main and sewers." Additionally, show the 20-foot pipe lengths on the profile.

Response: Required notes and details for the water main profile will be provided.

Comment 13. A sealed set of utility plans along with the Michigan Department of Environment, Great Lakes & Energy (EGLE) permit application for water main construction, the Streamlined Water Main Permit Checklist, and electronic utility plan should be submitted to the Engineering Division for review, assuming no further design changes are anticipated. Utility plan sets shall include only the cover sheet, any applicable utility sheets, and the standard detail sheets.

Response: Permit application, checklist, and appropriate plan sheets will be provided.

Irrigation Comments

Comment 14. indicate if irrigation is proposed, if so, provide a sheet specifically for irrigation system and include containment notes on irrigation sheets as well.

Response: Irrigation plan will be provided.

Comment 15. For common area irrigation systems connected to public water supplies: Install a backflow prevention Reduced Pressure Zone Assembly (RPZ) with an ASSE 1013 listing approval at each tap to the public water supply. A minimum clearance of 12-inches measured from the bottom of pressure relief valve to the finished landscaped grade shall be required. Provide a detail showing the RPZ installation setup and height above grade. If backflow preventer is to be enclosed, provide a detail of the enclosure with required drainage outlets. Show all locations on a site plan. A plumbing permit is required for the installation of the backflow preventer. Installation of the backflow preventer shall be in such a manner as to not require blowing out the system through the backflow preventer. Drain ports and blow out ports shall be included. Any deviations from these requirements must be approved through the Novi Water & Sewer Division Cross Connection Control Specialist (248-735-5661).

Response: RPZ details and notes will be provided on the irrigation plan.

Sanitary Sewer

Comment 16. Provide a sanitary sewer basis of design for the development on the utility plan sheet. (Calculations should use peaking factor of 4.0 and 3.2 People/REU).

Response: Sanitary sewer basis of design will be provided.

Comment 17. Note on the construction materials table that 6-inch sanitary leads shall be a minimum SDR 23.5, and mains shall be SDR 26.

Response: Sanitary sewer material will be noted.

Storm Sewer

Comment 18. A minimum cover depth of 3 feet shall be maintained over all proposed storm sewer. 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: Comment noted.

Comment 19. Provide a 0.1-foot drop in the downstream invert of all storm structures where a change in direction of 30 degrees or greater occurs.

Response: Comment noted.

Comment 20. Storm manholes with differences in invert elevations exceeding two feet shall contain a 2-foot-deep plunge pool.

Response: Comment noted.

Comment 21. The minimum pipe size for storm sewers receiving surface runoff shall be 12-inch diameter. Provide profiles for all storm sewer 12-inch and larger.

Response: Comment noted.

Comment 22. Label all inlet storm structures on the profiles. Inlets are only permitted in paved areas and when followed by a catch basin within 50-feet.

Response: Comment noted.

Comment 23. 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.

Response: Comment noted.

Comment 24. Illustrate all pipes intersecting storm structures on the storm profiles.

Response: Comment noted.

Comment 25. Provide a schedule listing the casting type, rim elevation, diameter, and invert sizes/elevations for each proposed, adjusted, or modified storm structure on the utility plan. Round castings shall be provided on all catch basins except curb inlet structures.

Response: Comment noted.

Comment 26. Show and label all roof conductors and show where they tie into the storm sewer.

Response: Roof conductor lead details will be provided.

Storm Water Management Plan

Comment 27. The Storm Water Management Plan (SWMP) for this development shall be designed in accordance with the Storm Water Ordinance and Chapter 5 of the Engineering Design Manual.

Response: Comment noted.

Comment 28. Provide supporting calculations for the runoff coefficient determination.

Response: Supporting calculations will be provided.

Comment 29. The existing Aqua-Swirl pre-treatment unit serving this site shall be inspected, and shall be cleaned if necessary. Any maintenance records shall be provided to the City.

Response: Comment noted.

Paving & Grading

Comment 30. Verify the slopes along the ingress/egress routing to the building from the barrier-free stalls. All barrier-free stalls shall comply with Michigan Barrier-Free regulations.

Response: Comment noted. Slopes will be verified.

Comment 31. Show proposed grades for all adjusted sanitary, water, and storm structures.

Response: Proposed structure grade adjustments will be provided.

Comment 32. The grade of the drive approach shall not exceed 2-percent within the first 25 feet of the intersection. Provide spot grades as necessary to establish this grade.

Response: Spot grades will be provided.

Comment 33. Per MDOT Special Provision for Crushed Concrete; the use of crushed concrete is prohibited on the project within 100 feet of any water course (stream, river, county drain, etc.) and lake, regardless of the application of location of the water course or lake relative to the project limits. Add note to use 21AA crushed limestone base for any pavement within 100 feet of a water course.

Response: Note will be added.

Comment 34. Provide the standard MDOT detail 'M' approach at the driveway/intersection.

Response: MDOT detail 'M' approach will be provided.

Comment 35. A permit for all proposed work activities within the road right-of-way must be obtained from the City of Novi. This application is available from the City Engineering Division or on the city website (Right-of-Way Permit Application) and can be filed once the Final Site Plan has been submitted. Please contact the Engineering Division at 248-347-0454 for further information. Please submit the cover sheet, standard details, and plan sheets applicable to the permit only.

Response: Comment noted.

Soil Erosion and Sediment Control

Comment 36. A SESC permit is required. A full review has not been completed at this time. The review checklist detailing all SESC requirements is attached to this letter. Please address the comments below and submit a SESC permit application under separate cover. The application can be found on the City's website at <http://cityofnovi.org/Reference/Forms-and-Permits.aspx>.

Response: SESC permit will be obtained.

Off-Site Easements

Comment 37. An off-site temporary construction easement is needed for the relocated storm sewer off-site.

Response: Off-site easements will be provided, as necessary.

Comment 38. Off-site easements will not be needed if property to the east is owned by the same LLC, in that case a Declaration of Covenants will be needed.

Response: Declaration of Covenants will be provided, as necessary.

Comment 39. Any off-site utility easements anticipated must be executed prior to final approval of the plans.

Response: Off-site easements will be provided, as necessary.

The following must be submitted with the Final Site Plan:

Comment 40. 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.

Response: Letter will be provided.

Comment 41. 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, should include number do detectable warning plates), right-of-way paving (including proposed right-of-way), grading, and the storm water basin (basin construction, control structure, pre-treatment structure and restoration).

Response: Cost estimate will be provided.

The following must be submitted with the Stamping Set:

Comment 42. A draft copy of the Storm Drainage Facility Maintenance Easement Agreement (SDFMEA), as outlined in the Storm Water Management Ordinance, must be submitted to the Community Development Department. Once the agreement is approved by the City's Legal Counsel, this agreement will then be sent to City Council for approval/acceptance. The SDFMEA will then be recorded at the office of the Oakland County Register of Deeds. This document is available on our website.

Response: Draft easement agreement will be provided.

Comment 43. A draft copy of the 20-foot-wide Watermain System Easement onsite must be submitted to the Community Development Department.

Response: Draft easement will be provided.

Comment 44. A draft copy of the 20-foot-wide Sanitary Sewer Monitoring Manhole Access Easement onsite must be submitted to the Community Development Department.

Response: Draft easement will be provided.

Landscape and Woodland Review

See Response letter by Allen Design

Traffic Review

Comment 30: 15' radius should be increased to 20' to meet standard.

Response: Radius will be increased.

Comment 32: Increase size of R1-1 stop sign to 30" minimum.

Response: Stop sign size will be increased.

Facade Review

Recommends approval.

Fire Department Review

Comment: All fire hydrants MUST be installed and operational prior to any combustible material is brought on site. IFC 2015 3312.1

Response: Comment noted. Refer to Fire Department notes on sheet 2, preliminary site plan.

Comment: For new buildings and existing buildings, you MUST comply with the International Fire Code Section 510 for Emergency Radio Coverage. This shall be completed by the time the final inspection of the fire alarm and fire suppression permits.

Response: Comment noted. Refer to Fire Department notes on sheet 2, preliminary site plan.

Comment: Fire lanes will be designated by the Fire Chief or his designee when it is deemed necessary and shall comply with the Fire Prevention Ordinances adopted by the City of Novi. The location of all "fire lane – no parking" signs are to be shown on the site plans. (*Fire Prevention Ord.*)

Response: Provided on sheet 2, preliminary site plan.

Comment: The ability to serve at least two thousand (2,000) gallons per minute in single-family detached residential; three thousand (3,000) gallons per school areas; and at least four thousand (4,000) gallons per minute in office, industrial and shopping centers is essential. (*D.C.S. Sec. 11-68(a)*)

Response: Comment noted.

Comment: The floor plan and the utility plan do not matchup. The utility plan has an FDC, and the floor plan shows offices where the FDC is located. This is one structure with the addition, you will need to tie into the existing fire suppression system and fire alarm system.

Response: An area for the riser room will be provided on the floor plan. The proprietor has noted that tying into the existing fire suppression system is not feasible due to existing fire suppression system sizes and configurations. The engineering department noted no issues with adding an additional fire lead and FDC at the pre-application meeting. The FDC for the building addition will be on the same plane as the existing FDC and will have its own notification system to ensure proper location for connection.

Regards,
Alpine Engineering Inc.



Thomas Gizoni, PE

Enclosures

cc: Dembs Development, Inc.

September 25, 2023

Mr. Rick Meader, Landscape Architect
City of Novi Community Development
45175 West 10 Mile
Novi, MI 48375

RE: BLM Group Building Addition

Dear Mr. Meader:

Below are our responses to your review dated August 29, 2023.

Landscape Comments:

- A hedge will be added to screen the parking lot from the cul-de-sac.
- Additional native species will be added.
- The business contact information will be added to the title block.
- Existing soils information will be provided.
- A tree setback from utilities note will be added to the plans.
- The tree on the east side of the building with the hydrant will be relocated to be greater than 3' from the walk.
- Screening will be provided on the west side of the proposed transformer.
- Screening on the south side of the building will be revised.

If you have any questions or comments regarding this response, please contact me at your convenience.

Sincerely,



James C. Allen
Allen Design L.L.C.

September 28, 2023

Ms. Lindsay Bell
Senior Planner
City of Novi Planning Department
45175 W. Ten Mile Road
Novi, Michigan 48375

RE: BLM Group Building Addition / JSP23-24
Noise Impact Statement Letter
46850 Cartier Drive
Novi, Michigan 48377

Dear Ms. Bell:

The purpose for this letter is to address the requirement of providing a **Noise Impact Statement** as required per the September 11, 2023, City of Novi Planning Review letter.

1. Noise Impact Statement (Sec. 5.14.10.B): A Noise Impact Statement is required for those uses requiring Special Lands Use approval when adjacent to residential uses in the I-1 District. The noise impact statement shall demonstrate that the completed structure and all activities associated with the structure and land use will comply with the standards in Table 5.14.10.A.ii at all times. Please see Section 5.14.10.B for a full description of the standards and requirements. This statement is required to be provided prior to the Planning Commission public hearing.

Per Table 5.14.10 A ii Weighted Sound Levels Limits Decibels

- **I-1 use Light Industrial**
 - **Daytime Allowable Levels** **75 dB (decibels)**
 - **Nighttime Allowable Levels** **70 dB (decibels)**

The proposed BLM building addition that is to be constructed at 46850 Cartier Drive will not house any excessive noise generating equipment. This addition is an extension of the current building use which was constructed in 2015 and has not been issued with any notification for noise ordinance infractions. This facility is a Technical / Research operation which works to support repair and training for the Laser machinery. The hours of operation will remain the same and will be 7:00 am to 6:00 pm M-F. The proposed new construction will be fully temperature control so no overhead doors or other openings will be left open during operation hours.

The only exterior equipment will be roof mounted mechanical units which will be enclosed per the City's required screening. Please see attached equipment ratings as well as the attached letter from BLM Group USA confirming these statements.

F.A.studio

design to inspire

We hope this response will satisfy your concerns. Please feel free to contact me if you have any additional questions.

Sincerely,



FA studio LLC.
David Brinkmeier, A.I.A.
Principal



Attachments: Letter from BLM Group USA
Cut sheets for decibel readings of roof top equipment.



BLM GROUP

USA

**BLM GROUP
USA Corporation**

tube & wire bending
endforming
lasertube
flat sheet
press brake
sawing

September 29, 2023

Ms. Lindsay Bell
Senior Planner
City of Novi Planning Dept.
45175 W. Ten Mile Road
Novi, MI 48375 -3024

RE: BLM Group Bldg. Addition/ JSP23-24
Owner Affidavit for Nosie Impact
46850 Cartier Dr. Novi, Michigan 48377

Dear Lindsay:

The purpose of this letter is to serve as an Owner Affidavit indicating the BLM Group Building Addition facility proposed to be constructed at 46850 Cartier Dr. in Novi has no excessive noise generating equipment.

At any given time, the laser machinery that we do have operating within the facility produces well below the City of Novi allowable sound levels for our Zoning District of 70 dB (decibels).

Please feel free to contact this office if you have any questions.

Sincerely,
BLM GROUP USA Corporation



Jamj Stisliski
Chief Financial Officer



Capacity ratings (cont)

SOUND RATINGS TABLE

582/559K UNIT	COOLING STAGES	OUTDOOR SOUND (dB) at 60 Hz								
		A-WEIGHTED	63	125	250	500	1000	2000	4000	8000
08	2	79	85.6	84.7	80.5	76.0	72.4	68.0	62.8	59.3
09	2	79	85.6	84.7	80.5	76.0	72.4	68.0	62.8	59.3
12	2	79	85.6	84.7	80.5	76.0	72.4	68.0	62.8	59.3
14	2	79	85.6	84.7	80.5	76.0	72.4	68.0	62.8	59.3
16	2	87	87.0	85.2	84.6	84.9	82.8	78.4	75.3	72.9

LEGEND

dB — Decibel

NOTES:

1. Outdoor sound data is measured in accordance with AHRI.
2. Measurements are expressed in terms of sound power. Do not compare these values to sound pressure values because sound pressure depends on specific environmental factors which normally do not match individual applications. Sound power values are independent of the environment and therefore more accurate.
3. A-weighted sound ratings filter out very high and very low frequencies, to better approximate the response of "average" human ear. A-weighted measurements for Bryant units are taken in accordance with AHRI.

MINIMUM — MAXIMUM AIRFLOW RATINGS (CFM) — NATURAL GAS AND PROPANE

UNIT	HEAT LEVEL	COOLING			HEATING ^a	
		MINIMUM 2-SPEED AIRFLOW (LOW SPEED)	MINIMUM 2-SPEED AIRFLOW (HIGH SPEED)	MAXIMUM AIRFLOW CFM	MINIMUM AIRFLOW CFM	MAXIMUM AIRFLOW CFM
582K*08	LOW	1350	2250	3750	1730	3800
	MED				2100	3900
	HIGH				2240	4200
582K*09	LOW	1275	2550	4250	1730	4750
	MED				2100	4580
	HIGH				2240	4800
582K*12	LOW	1800	3000	5000	2100	5470
	MED				2580	5600
	HIGH				2710	5420
582K*14	LOW	2250	3750	6250	2100	6830
	MED				2580	6720
	HIGH				2710	6330
582K*16	LOW	2970	4500	7500	2450	9000
	MED				3000	9000
	HIGH				4040	7500

NOTE(S):

- a. Heating rating values are identical for aluminum heat exchangers and stainless steel heat exchangers.

MINIMUM — MAXIMUM AIRFLOW RATINGS (CFM) — COOLING UNITS AND ACCESSORY ELECTRIC HEAT

UNIT	COOLING			ELECTRIC HEAT ^a	
	MINIMUM 2-SPEED AIRFLOW (LOW SPEED)	MINIMUM 2-SPEED AIRFLOW (HIGH SPEED)	MAXIMUM AIRFLOW CFM	MINIMUM AIRFLOW CFM	MAXIMUM AIRFLOW CFM
559K*08	1350	2250	3750	2250	3750
559K*09	1275	2550	4250	2550	4250
559K*12	1800	3000	5000	3000	5000
559K*14	2250	3750	6250	3750	6250
559K*16	2970	4500	7500	4500	7500

NOTE(S):

- a. Electric heat modules and single point kits are available as field-installed accessories for 559K units.