



CATHOLIC CENTRAL STEM ADDITION JSP21-44

CATHOLIC CENTRAL STEM ADDITION JSP21-44

Public hearing at the request of Catholic Central High School for Planning Commission's approval of revised Special Land Use Permit, Preliminary Site Plan, Woodland Permit and Stormwater Management Plan. The subject property is zoned R-4 One Family Residential, R-1 One Family Residential, and I-1 Light Industrial and is located in Section 18, west of Wixom Road and south of Twelve Mile Road. The applicant is proposing to construct a 54,545 square foot addition to the main school building to house their Science Technology Engineering and Mathematics (STEM) classrooms and labs. Existing parking areas would be reconfigured.

Required Action

Approve/Deny the revised Special Land Use permit, Preliminary Site Plan, Woodland Permit and Stormwater Management Plan.

REVIEW	RESULT	DATE	COMMENTS
Planning	Approval recommended	12.2.2021	<ul style="list-style-type: none"> • Waiver of the requirement to provide a Noise Impact Statement • ZBA variance requested to allow building height to exceed 35 feet • Waiver to permit fewer bicycle parking spaces than required (<i>Supported as student population largely commutes from longer distances, and current bike racks are not utilized</i>) • Items to be addressed in Final Site Plan submittal
Engineering	Approval recommended	11.30.21	<ul style="list-style-type: none"> • Items to be addressed in the Final Site Plan submittal
Landscaping	Approval recommended	11.17.21	<ul style="list-style-type: none"> • Waiver for bays of more than 15 parking spaces (<i>Supported by staff as existing condition of the site</i>) • Waiver to allow the absence of a tree in one parking island (<i>Supported due to the presence of underground utilities</i>) • Waiver for the deficiency of 8 parking lot perimeter trees along the north and south side of the eastern lot (<i>Supported as there is not room to plant the trees</i>) • Waiver for deficiency in accessway perimeter trees (<i>Supported due to the presence of underground utilities</i>) • Items to be addressed in Final Site Plan
Wetland	Approval recommended	11.29.21	<ul style="list-style-type: none"> • Authorization to encroach into the Natural Features setback may be required • Items to be addressed in the electronic

			stamping submittal
Woodland	Approval recommended	11.30.21	<ul style="list-style-type: none"> • Woodland permit, conservation easement • Items to be addressed in Final Site Plan
Traffic	Approval recommended	12.1.21	<ul style="list-style-type: none"> • Items to be addressed in Final Site Plan
Façade	Approval recommended	11.30.21	<ul style="list-style-type: none"> • Full compliance with Ordinance
Fire	Conditional Approval recommended	11.12.21	<ul style="list-style-type: none"> • Items to be address in Final Site Plan

Motion sheet

Approval – Revised Special Land Use Permit

In the matter of Catholic Central STEM Addition JSP21-44, motion to **approve** the Revised Special Land Use permit based on the following findings:

- a. Relative to other feasible uses of the site:
 - i. 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, acceleration/deceleration lanes, off-street parking, off-street loading/unloading, travel times and thoroughfare level of service. *The applicant states student enrollment will not increase as a result of the new addition, and only 4-6 additional staff are expected, and therefore traffic will not increase in any significant way. No changes to exterior drives are proposed with this project.*
 - ii. 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 service existing and planned uses in the area.
 - iii. The proposed use is compatible with the natural features and characteristics of the land, including existing woodlands, wetlands, watercourses and wildlife habitats *because the addition will be built on an area previously used for parking lots. Woodland replacement trees previously planted near the school building will be removed and replaced elsewhere on site and be placed in conservation easements.*
 - iv. 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, *because the use of the property has been and will remain a school and the number of students is not increasing.*
 - v. The proposed use is consistent with the goals, objectives and recommendations of the City's Master Plan for Land Use, *because it complies with Future Land Use map designation of Educational Facility.*
 - vi. The proposed use will promote the use of land in a socially and economically desirable manner, *because the investment in school facilities creates jobs.*
 - vii. The proposed use was previously approved by the Planning Commission for Special Land Use permit at this location. The addition represents a physical expansion of the use, and therefore revision of the previous permit. A variance will be required for the height of the building at certain points, but otherwise the dimensional requirements of the ordinance are met.
- b. Waiver of the requirement for a Noise Impact Statement, *as there are no new outdoor uses proposed, and the rooftop HVAC units will be screened with a noise level below the 55 decibel threshold at the property line, which is hereby granted.*

c. *Additional comments here if any*

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

- AND -

Approval – Preliminary Site Plan

In the matter of Catholic Central STEM Addition JSP21-44, motion to **approve** the Preliminary Site Plan based on and subject to the following:

- a. This approval applies to STEM Addition only, future phases depicted on the Master Plan will require additional approvals.
- b. Landscaping waiver from Section 5.5.3.C. for absence of a tree in the northwest parking lot island, as *utility conflicts do not allow for a tree and shrubs are proposed instead*, which is hereby granted.
- c. Landscaping waiver from Section 5.5.3.C. for absence of accessway perimeter trees where *utility conflicts do not allow for trees*, which is hereby granted.
- d. Landscaping waiver from Section 5.5.3.C. for a deficiency of 8 parking lot perimeter trees in the east parking lot where *there is limited room due to the presence of existing trees*, which is hereby granted.
- e. Landscaping waiver from Section 5.5.3.C. for parking bays greater than 15 spaces without an island, as *the existing conditions are being improved*, which is hereby granted
- f. Traffic waiver from Section 5.16.1 for the deficiency in the number of bicycle parking spaces (4 new spaces proposed), as *the existing 8 spaces are not fully utilized and most of the student population commutes from longer distances*, which is hereby granted.
- g. A Zoning Board of Appeals variance to allow the 48.5 foot building height at the main entrance, and 38.5 foot building height at the robotics room.
- h. The findings of compliance with Ordinance standards in the staff and consultant review letters, and the conditions and items listed in those letters being addressed on the Final Site Plan; and
- i. *(additional conditions here if any)*.

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

-AND-

Approval – Woodland Permit

In the matter of Catholic Central STEM Addition JSP21-44, motion to **approve** the Woodland Permit based on and subject to the following:

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

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

- AND -

Approval – Stormwater Management Plan

In the matter of Catholic Central STEM Addition JSP21-44, motion to **approve** the Stormwater Management Plan, based on and subject to:

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

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

- OR -

Denial – Revised Special Land Use Permit

In the matter of Catholic Central STEM Addition JSP21-44, motion to **deny** the Revised Special Land Use permit as the project does not comply with the findings required for Special Land Use approval ... *(because the plan is not in compliance with Article 6 of the Zoning Ordinance and all other applicable provisions of the Ordinance.)*

Denial – Preliminary Site Plan

In the matter of Catholic Central STEM Addition JSP21-44, motion to **deny** the Preliminary Site Plan... *(because the plan is not in compliance with Article 3, Article 4 and Article 5 of the Zoning Ordinance and all other applicable provisions of the Ordinance.)*

-AND-

Denial– Woodland Permit

In the matter of Catholic Central STEM Addition JSP21-44, 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-

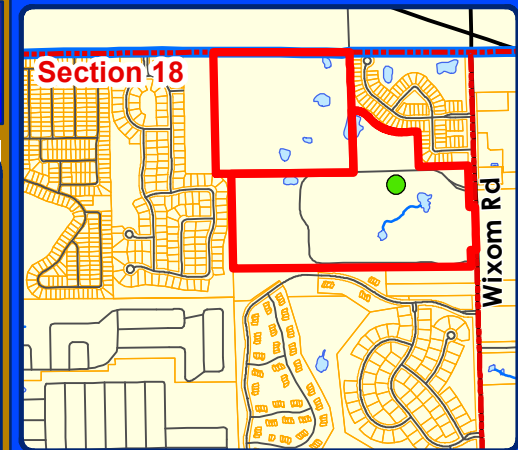
Denial – Stormwater Management Plan

In the matter of Catholic Central STEM Addition JSP21-44, motion to **deny** the Stormwater Management Plan... *(because the plan is not in compliance with Chapter 11 of the Code of Ordinances and all other applicable provisions of the Ordinance.)*


MAPS
Location
Zoning
Future Land Use
Natural Features

JSP 21-44 CATHOLIC CENTRAL STEM ADDITION

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: 1/6/22
Project: CATHOLIC CENTRAL STEM
Version #: 1



1 inch = 500 feet

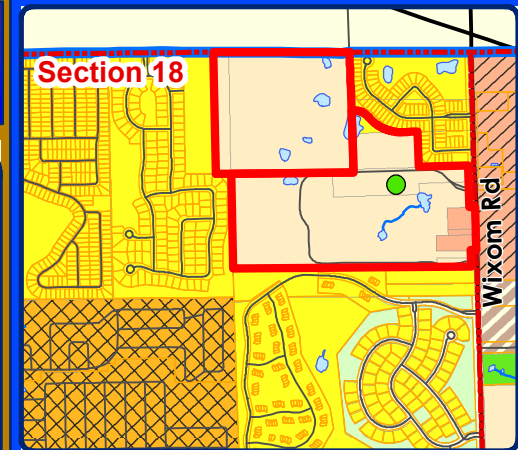
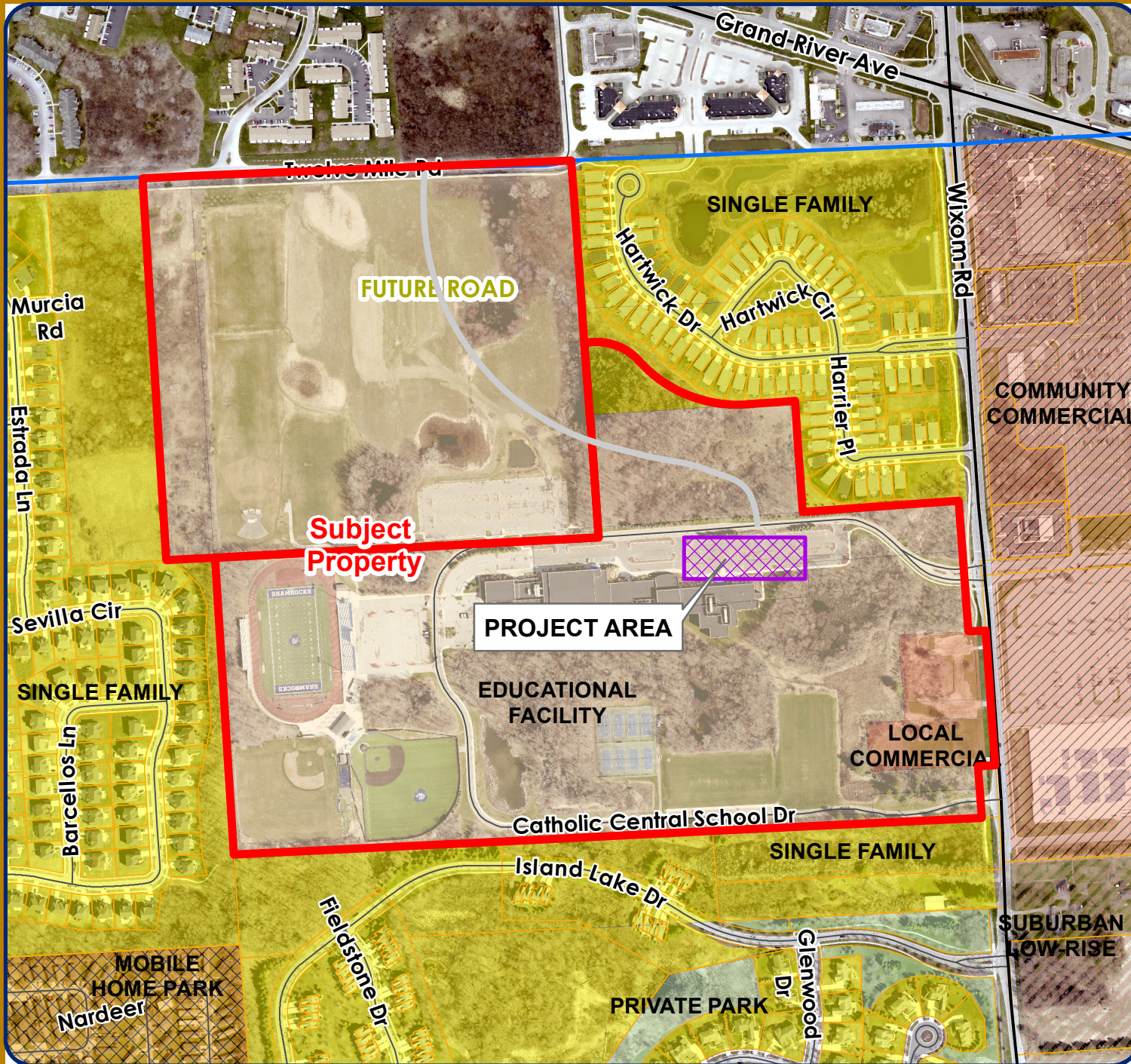


MAP INTERPRETATION NOTICE

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

JSP 21-44 CATHOLIC CENTRAL STEM ADDITION

FUTURE LAND USE



LEGEND

- Single Family
- Mobile Home Park
- Suburban Low-Rise
- Local Commercial
- Community Commercial
- Educational Facility
- Public Park
- Private Park
- Subject Property

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

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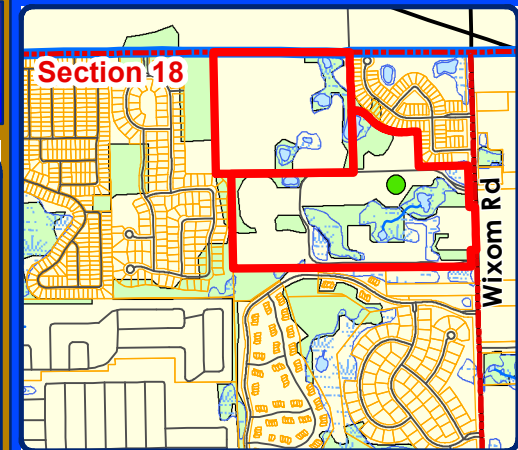
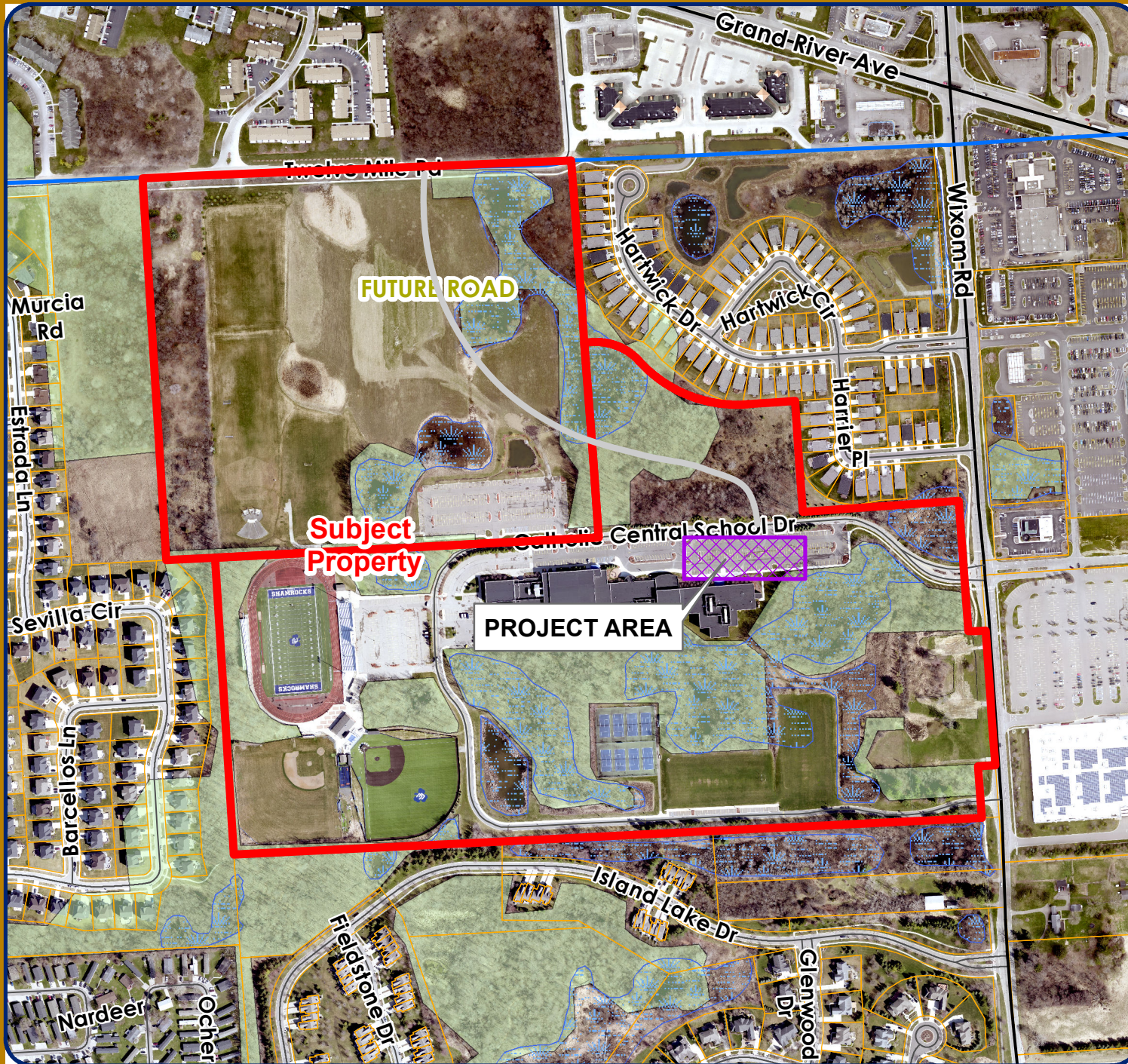
0 110 220 440 660 Feet
 1 inch = 500 feet

MAP INTERPRETATION NOTICE




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JSP 21-44 CATHOLIC CENTRAL STEM ADDITION

NATURAL FEATURES



LEGEND


-  WETLANDS
-  WOODLANDS
-  Subject Property



City of Novi
 Dept. of Community Development
 City Hall / Civic Center
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 Novi, MI 48375
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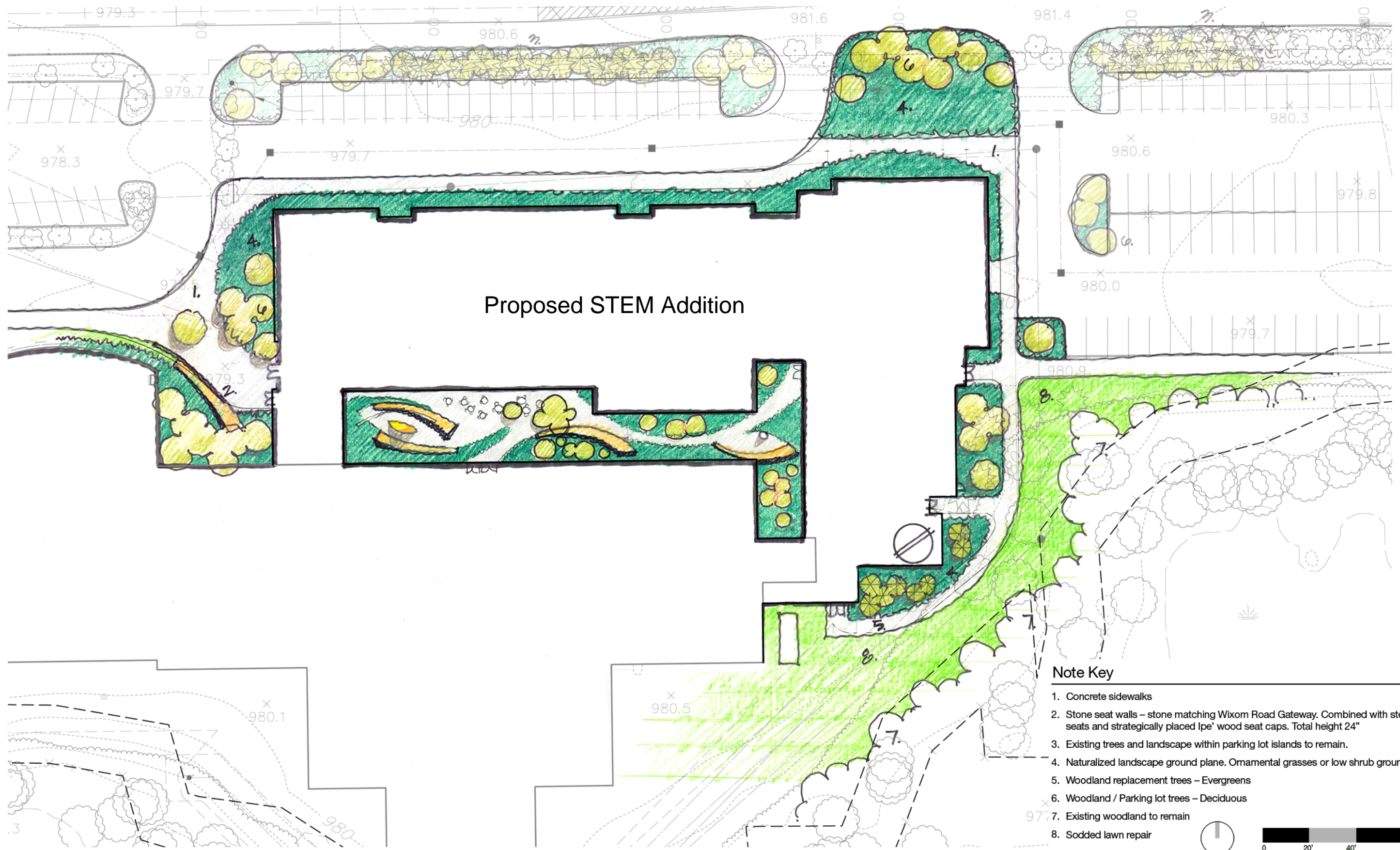


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SITE PLAN

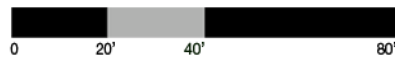
(Full plan set available for viewing at the Community Development Department.)



Proposed STEM Addition

Note Key

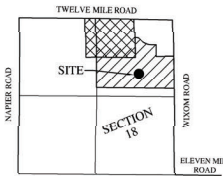
1. Concrete sidewalks
2. Stone seat walls – stone matching Wixom Road Gateway. Combined with steel I-beam seats and strategically placed Ipe' wood seat caps. Total height 24"
3. Existing trees and landscape within parking lot islands to remain.
4. Naturalized landscape ground plane. Ornamental grasses or low shrub groundcover.
5. Woodland replacement trees – Evergreens
6. Woodland / Parking lot trees – Deciduous
7. Existing woodland to remain
8. Sodded lawn repair





PRELIMINARY SITE PLAN AND STORMWATER MANGEMENT PLAN FOR STEM ADDITION CATHOLIC CENTRAL HIGH SCHOOL SECTION 18, CITY OF NOVI, MICHIGAN

TAX I.D. NUMBER: 22-18-200-027



LOCATION MAP
NOT TO SCALE

SHEET INDEX:

CIVIL DRAWINGS:

- CE-1 - COVER SHEET
- CE-2 - EXISTING CONDITIONS
- CE-3 - REMOVALS AND DEMOLITION CONCEPT PLAN
- CE-4 - PAVING CONCEPT PLAN
- CE-5 - GRADING CONCEPT PLAN
- CE-6 - UTILITY CONCEPT PLAN
- CE-7 - EROSION CONTROL CONCEPT PLAN
- CE-8 - DRAINAGE CONDITIONS PLAN

ARCHITECTURAL DRAWINGS:

- S.A.01 - COMPOSITE PLANS
- S.A.11 - RENDERINGS
- S.A.21 - FIRST FLOOR NEW WORK PLAN
- S.A.22 - SECOND FLOOR NEW WORK PLAN
- S.A.31 - EXTERIOR ELEVATIONS - OVERALL
- S.A.32 - EXTERIOR ELEVATIONS - NORTH
- S.A.33 - EXTERIOR ELEVATIONS - EAST & WEST
- S.A.34 - EXTERIOR ELEVATIONS - COURTYARD

LANDSCAPING DRAWINGS:

- L1.01 - TREE REMOVALS PLAN
- L1.02 - TREE REMOVALS PLAN
- L2.01 - LANDSCAPE PLAN
- L2.02 - LANDSCAPE PLAN - COURTYARD ENLARGEMENT
- L2.03 - LANDSCAPE PLAN - WOODLAND REPLACEMENTS
- L3.01 - LANDSCAPE DETAILS

ELECTRICAL DRAWINGS:

- SES.01 - COMPOSITE ELECTRICAL SITE PLAN
- SES.02 - ELECTRICAL DEMOLITION SITE PLAN
- SES.03 - ELECTRICAL SITE LIGHTING PLAN

PHOTOMETRICS DRAWINGS:

- 1 OF 2 - PRELIMINARY SITE LIGHTING CALCULATIONS
- 2 OF 2 - PRELIMINARY SITE LIGHTING CALCULATIONS

PARCEL 22-18-200-027 LEGAL DESCRIPTION:

PART OF THE NORTHEAST 1/4 OF SECTION 18, T. 1 N., R. 8 E., CITY OF NOVI, OAKLAND COUNTY, MICHIGAN DESCRIBED AS:

COMMENCING AT THE NORTH 1/4 CORNER OF SECTION 18 AND PROCEEDING ALONG THE NORTH AND SOUTH 1/4 LINE OF SAID SECTION 18, S. 00°15'00" E. 1200.00 FEET TO THE POINT OF BEGINNING; THENCE S. 89°31'51" E. 1327.47 FEET; THENCE N. 00°42'12" W. 876.15 FEET; THENCE S. 89°31'51" E. 29.82 FEET; THENCE 177.40 FEET ALONG THE ARC OF A CURVE TO THE RIGHT, RADIUS 200.00 FEET, CENTRAL ANGLE 50°41'00" AND A CHORD THAT BEARS S. 84°07'16" E. 171.64 FEET; THENCE 472.22 FEET ALONG THE ARC OF A CURVE TO THE LEFT, RADIUS 480.00 FEET, CENTRAL ANGLE 51°00'00" AND A CHORD THAT BEARS S. 84°41'00" E. 403.07 FEET; S. N. 89°19'00" E. 165.00 FEET; S. 00°41'00" E. 384.00 FEET AND 71 N. 89°19'00" E. 539.89 FEET TO A POINT ON THE 80 FOOT RIGHT OF WAY LINE OF WIXOM ROAD; THENCE ALONG SAID LINE S. 00°41'00" E. 108.12 FEET TO A POINT ON THE NORTH LINE OF ISLAND LAKE VINEYARDS; OHIO LAND COUNTY CONDOMINIUM PLAN NUMBER 1971; THENCE ALONG SAID LINE N. 89°23'00" W. 2585.76 FEET TO A POINT ON THE EAST LINE OF ANDELINA RIDGE, OAKLAND COUNTY CONDOMINIUM PLAN NUMBER 2085; THENCE ALONG SAID LINE N. 00°19'00" W. 1028.05 FEET TO SAID NORTH 1/4 CORNER OF SECTION 18 AND POINT OF BEGINNING CONTAINING 21.27 ACRES MORE OR LESS, BEING SUBJECT TO EASEMENTS AND RESTRICTIONS OF RECORD AND THE RIGHTS OF THE PUBLIC OR ANY GOVERNMENTAL AGENCY OVER WIXOM ROAD.

SITE DEVELOPMENT NOTES:

1. ALL WORK AND MATERIALS SHALL BE IN ACCORDANCE WITH THE CURRENT SPECIFICATIONS AND STANDARD DETAILS OF THE 2012 MICHIGAN STANDARD SPECIFICATIONS FOR HIGHWAYS AND BRIDGES.
2. CALL MISS DIG (1-800-647-7344 / 1-800-MISS DIG) A MINIMUM OF 72 HOURS PRIOR TO THE START OF CONSTRUCTION.
3. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ANY AND ALL DAMAGE TO EXISTING UNDERGROUND UTILITIES CAUSED BY HIS OPERATIONS.
4. TRENCHES UNDER OR WITHIN 3 FEET OF EXISTING OR PROPOSED PAVEMENTS, DRIVEWAYS, AND/OR SIDEWALKS SHALL BE BACKFILLED AND COMPACTED WITH MOIST CLAY SAND.
5. WHERE UTILITIES CROSS, PROVIDE FORDS BUILT UP IN 12" LAYERS TO THE UNDERSIDE OF THE HIGHER UTILITY. A 6" MIN. SAND CUSHION SHALL BE PROVIDED BETWEEN UTILITIES.
6. ALL SLOPE CONSTRUCTION SHALL HAVE MOIST CLAY SAND BUILT UP UNLESS OTHERWISE SPECIFIED ON THE PROFILES.
7. ALL ELEVATIONS SHOWN ARE BASED ON U.S.G.S. DATUM.
8. ALL DISTURBED AREAS BE PROMPTLY RESTORED BY THE CONTRACTOR.
9. SOIL EROSION AND SILT MUST BE CONTROLLED AND CONTAINED ON SITE.
10. THE CONTRACTOR SHALL AT ALL TIMES PROVIDE EMERGENCY ACCESS TO PROPERTY FOR THE POLICE, FIRE DEPARTMENT, AMBULANCES OR OTHER EMERGENCY VEHICLES TO PROTECT LIFE, HEALTH AND PROPERTY.
11. PAVED STREET AND DRIVEWAYS MUST BE MAINTAINED IN A REASONABLE STATE OF CLEANLINESS AND THE CONTRACTOR SHALL BE RESPONSIBLE FOR MAINTAINING PROPER DRAINAGE BY CONSTRUCTION OPERATIONS.
12. CONTRACTOR MUST PROVIDE ALL NECESSARY SHEETING, SHORING, Dewatering, BRACING, TRENCH BOXES, ETC. TO PERFORM WORK SAFELY AND PROTECT EXISTING UTILITIES AND PROPERMANS IN ACCORDANCE TO MICHIGAN OCCUPATIONAL SAFETY AND HEALTH ADMINISTRATION (MIOSHA).

OVERALL LEGAL DESCRIPTION:

PART OF THE NORTH 1/2 OF SECTION 18, T. 1 N., R. 8 E., CITY OF NOVI, OAKLAND COUNTY, MICHIGAN, BEING MORE PARTICULARLY DESCRIBED AS:

BEGINNING AT THE NORTH 1/4 CORNER OF SECTION 18 AND PROCEEDING ALONG THE NORTH LINE OF SAID SECTION 18, SAID LINE ALSO BEING THE CENTERLINE OF 12 MILE ROAD (3 FEET WIDE, 12 WIDTH) S. 89°55'17" E. 1316.05 FEET; THENCE THE FOLLOWING SEVEN (7) COURSES ALONG BERSHIRE POINT, OAKLAND COUNTY CONDOMINIUM PLAN NUMBER 2080, 1) S. 00°44'12" E. 630.03 FEET, 2) S. 89°31'51" E. 28.82 FEET, 3) 177.40 FEET ALONG THE ARC OF A CURVE TO THE RIGHT, RADIUS 200.00 FEET, CENTRAL ANGLE 50°41'00" AND A CHORD THAT BEARS S. 84°07'16" E. 171.64 FEET, 4) 472.22 FEET ALONG THE ARC OF A CURVE TO THE LEFT, RADIUS 480.00 FEET, CENTRAL ANGLE 51°00'00" AND A CHORD THAT BEARS S. 84°41'00" E. 403.07 FEET, 5) N. 89°19'00" E. 165.00 FEET, 6) S. 00°41'00" E. 384.00 FEET AND 7) N. 89°19'00" E. 539.89 FEET TO A POINT ON THE 80 FOOT RIGHT OF WAY LINE OF WIXOM ROAD; THENCE ALONG SAID LINE S. 00°41'00" E. 108.12 FEET TO A POINT ON THE NORTH LINE OF ISLAND LAKE VINEYARDS, OAKLAND COUNTY CONDOMINIUM PLAN NUMBER 1971; THENCE ALONG SAID LINE N. 89°23'00" W. 2585.76 FEET TO A POINT ON THE NORTH AND SOUTH 1/4 LINE OF SAID SECTION 18, ALSO BEING THE EAST LINE OF ANDELINA RIDGE, OAKLAND COUNTY CONDOMINIUM PLAN NUMBER 2085; THENCE ALONG SAID LINE N. 00°19'00" W. 1028.05 FEET; THENCE N. 89°23'00" W. 165.00 FEET; THENCE N. 00°19'00" W. 1320.00 FEET TO A POINT ON SAID NORTH LINE OF SECTION 18, ALSO BEING THE CENTERLINE OF 12 MILE ROAD; THENCE ALONG SAID LINE S. 89°31'51" E. 165.00 FEET TO SAID NORTH 1/4 CORNER OF SECTION 18 AND POINT OF BEGINNING CONTAINING 115.11 ACRES MORE OR LESS, BEING SUBJECT TO EASEMENTS AND RESTRICTIONS OF RECORD AND THE RIGHTS OF THE PUBLIC OR ANY GOVERNMENTAL AGENCY OVER WIXOM ROAD AND 12 MILE ROAD.

NOTE:

THESE PLANS ARE THE PROPERTY OF ZEIMET-WOZNAK & ASSOCIATES, INC. NO CONSTRUCTION STAKING OR CONSTRUCTION INSPECTION OR CONSTRUCTIVE USE OF THESE PLANS SHALL BE MADE BY ANYONE WITHOUT THE WRITTEN AUTHORIZATION BELOW.

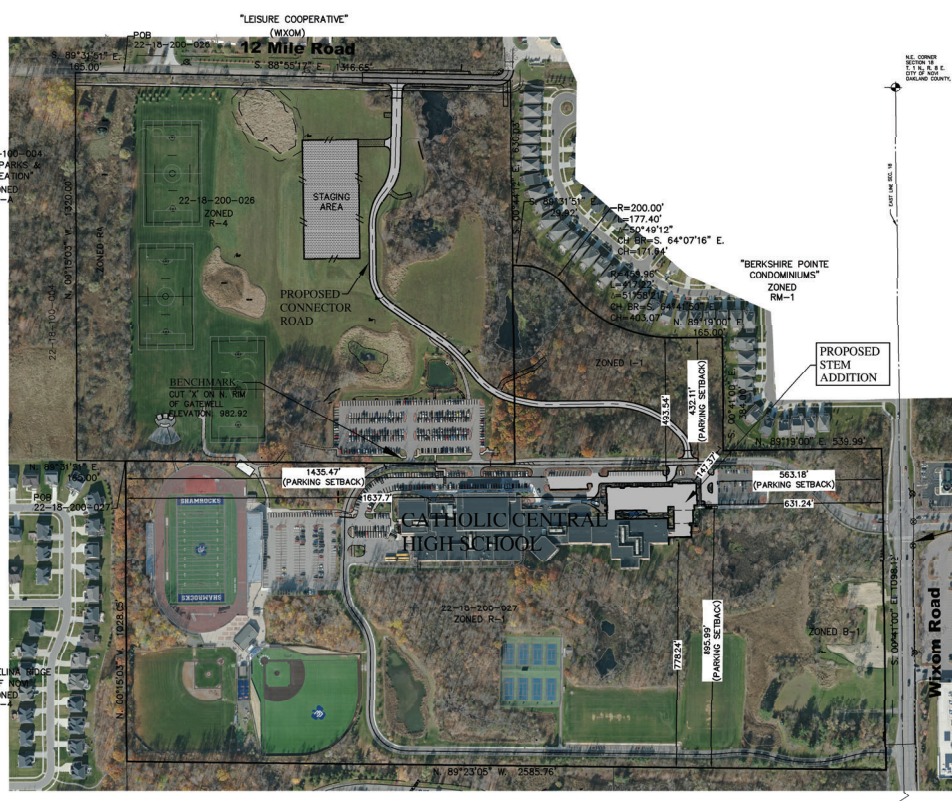
AUTHORIZATION BY:

ZEIMET-WOZNAK & ASSOCIATES, INC. SHALL NOT BE RESPONSIBLE FOR MEANS, METHODS, PROCEDURES, TECHNIQUES, OR SEQUENCES OF CONSTRUCTION, NOR FOR SAFETY ON THE JOB SITE. NOR SHALL ZEIMET-WOZNAK & ASSOCIATES, INC. BE RESPONSIBLE FOR THE CONTRACTOR'S FAILURE TO CARRY OUT THE WORK IN ACCORDANCE WITH THE CONTRACT DOCUMENTS.

THE CONTRACTOR SHALL INDEMNIFY AND SAVE HARMLESS THE OWNER AND ENGINEER FROM ALL LIABILITIES FOR INJURY TO PERSONS, OR DAMAGE TO OR LOSS OF PROPERTY, OR ANY OTHER LOSS, COST OR EXPENSE, AS A RESULT OF THE ACTIONS OF THE CONTRACTOR, HIS EMPLOYEES, AGENTS, OR SUBCONTRACTORS.

ALL CONTRACTORS SHALL NAME ZEIMET-WOZNAK & ASSOCIATES, INC. AS ADDITIONALLY INSURED ON ALL INSURANCE POLICIES.

THE LOCATION AND ELEVATION OF EXISTING UNDERGROUND UTILITIES AS SHOWN ON THESE DRAWINGS ARE ONLY APPROXIMATE, NO GUARANTEE IS OTHER EXPRESSED OR IMPLIED AS TO THE COMPLETENESS OR ACCURACY THEREOF. THE CONTRACTOR SHALL BE EXCLUSIVELY RESPONSIBLE FOR DETERMINING THE EXACT LOCATION AND ELEVATION OF EXISTING UTILITIES AND PROPOSED UTILITY CROSSINGS IN THE FIELD PRIOR TO CONSTRUCTION. THE CONTRACTOR SHALL NOTIFY THE ENGINEER IF ANY CONFLICTS ARE APPARENT OR IF THE LOCATION OR DEPTH DIFFERS SIGNIFICANTLY FROM THE PLANS.



SITE MAP

ISSUED FOR	DATE	ISSUED FOR	DATE	ISSUED FOR	DATE	ISSUED FOR	DATE	ISSUED FOR	DATE
S.D. REVIEW	9/17/21								
PRE-APP SUBMITTAL	10/8/21								
PSP SUBMITTAL	11/5/21								

ZEIMET WOZNAK
Civil Engineers & Land Surveyors
3500 GRANDVIEW BLVD., SUITE 300
NEW HUDSON, MICHIGAN 48165
P: (248) 437-5099 F: (248) 437-5222 www.zeimetwoznak.com

MISS DIG SYSTEM INC.
THREE FIELD WOODS DR. WIXOM MI 48196
CALL THE MISS DIG SYSTEM
1-800-682-7171

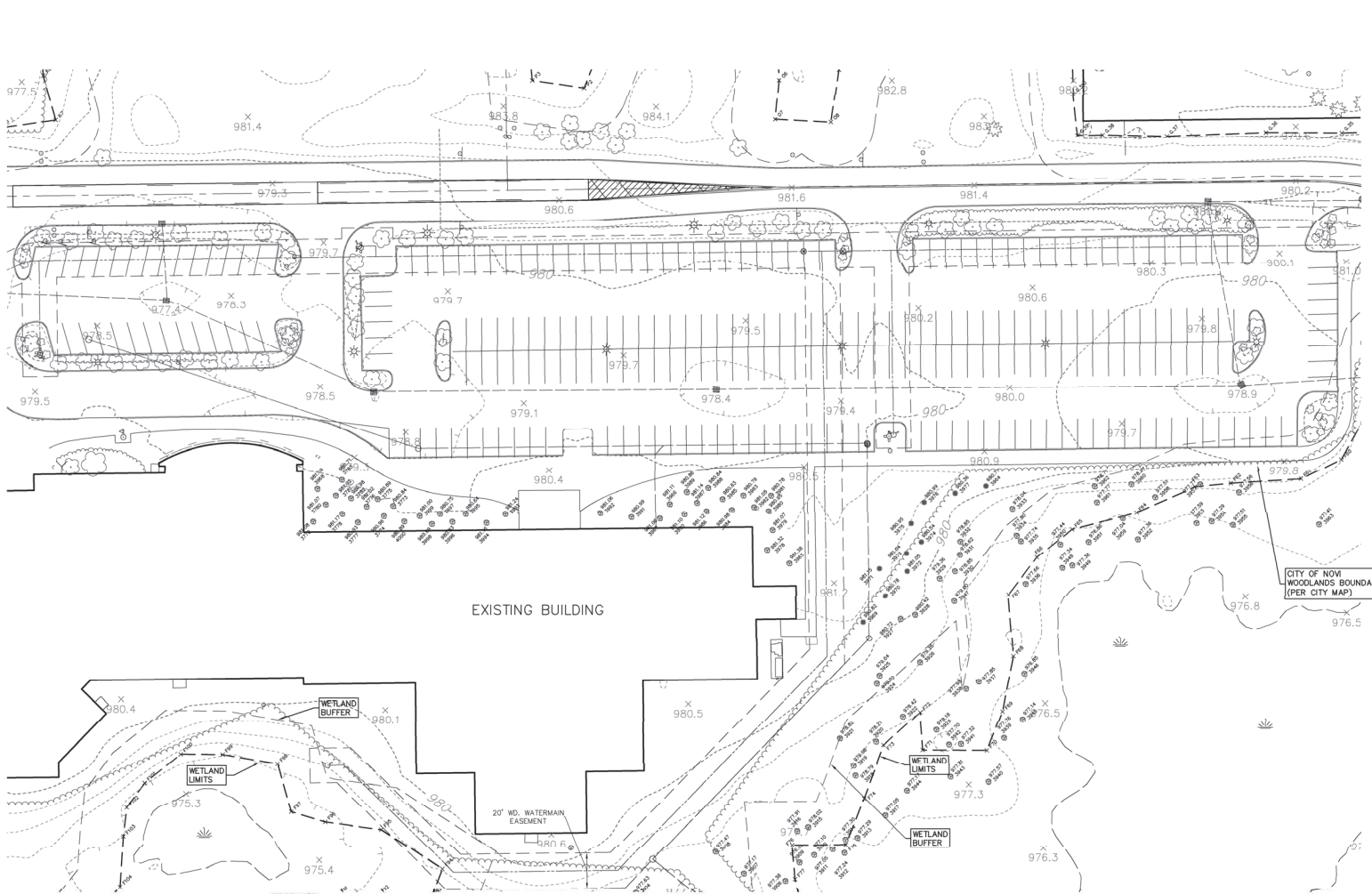
PROJECT SPONSOR:
CATHOLIC CENTRAL HIGH SCHOOL
27225 WIXOM ROAD
NOVI, MI 48374

COVER SHEET
STEM ADDITION
NOVI, MICHIGAN

NOT FOR CONSTRUCTION

DATE: 9/17/21 SCALE: 1" = 200'
DESIGNED BY: JWH JOB NO.: 19120.2
DRAWN BY: JWH SHEET: CE-1

Z:\Projects\1120_21\1120_21_027\22-18-200-027\COVER SHEET.dwg, CE - COVER SHEET, 11/23/21 10:41 AM dlm@zeim



- EXISTING LEGEND**
- MANHOLE
 - CATCH BASIN
 - INLET
 - CLEANOUT
 - END SECTION
 - ROOF DRAIN
 - GATE VALVE
 - HYDRANT
 - WATER SHUT-OFF
 - UTILITY POLE
 - GUY ANCHOR
 - LIGHT POLE
 - SIGN
 - TREE
 - TREE LINE
 - FENCE
 - SANITARY SEWER
 - STORM SEWER
 - WATER MAIN
 - GAS MAIN
 - ELECTRIC CABLE
 - CONTOUR MAJOR
 - CONTOUR MINOR
 - T/P TOP OF PAVEMENT
 - T/C TOP OF CURB
 - B/C BOTTOM OF CURB
 - +100.00 SPOT ELEVATION

NOTE:
EXISTING WETLAND AND TREES LOCATED BY BARR ENGINEERING, OCTOBER 2021.

GENERAL NOTE:
ALL WORK SHALL CONFORM TO THE CURRENT CITY OF NOM STANDARDS AND SPECIFICATIONS.

- NOTES:**
- 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 AGREES TO BE FULLY RESPONSIBLE FOR ANY AND ALL DAMAGES WHICH MIGHT BE OCCURRED 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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 - DESIGN PROFESSIONAL AND CLIENT WARRANT THAT IN TRANSMITTING INSTRUMENTS OF SERVICE, OR ANY OTHER INFORMATION, THE TRANSMITTING PARTY IS THE COPYRIGHT OWNER OF SUCH INFORMATION OR HAS PERMISSION FROM THE COPYRIGHT OWNER TO TRANSMIT SUCH INFORMATION FOR ITS USE OF THE PROJECT. IF THE CLIENT AND DESIGN PROFESSIONAL INTEND TO TRANSMIT INSTRUMENTS OF SERVICE OR ANY OTHER INFORMATION OR DOCUMENTATION IN DIGITAL FORM, THEY SHALL ENDEAVOR TO ESTABLISH NECESSARY PROTOCOLS GOVERNING SUCH TRANSMISSIONS.

TREE LIST

Tag No.	Species	Common Name	dbh 1	dbh 2	dbh 3	Condition
3773	Betula nigra	River Birch	5.3			Fair
3774	Betula nigra	River Birch	6.9			Fair
3775	Betula nigra	River Birch	4.0			Fair
3776	Betula nigra	River Birch	6.6			Fair
3777	Betula nigra	River Birch	4.5			Fair
3778	Betula nigra	River Birch	4.8			Fair
3779	Betula nigra	River Birch	7.9			Fair
3780	Betula nigra	River Birch	6.7			Fair
3781	Betula nigra	River Birch	3.6			Fair
3782	Betula nigra	River Birch	4.2			Fair
3783	Betula nigra	River Birch	7.9			Fair
3784	Betula nigra	River Birch	11.4			Fair
3785	Betula nigra	River Birch	4.2			Fair
3786	Betula nigra	River Birch	7.9			Fair
3787	Betula nigra	River Birch	11.4			Fair
3788	Betula nigra	River Birch	3.6			Fair
3789	Betula nigra	River Birch	4.2			Fair
3790	Betula nigra	River Birch	7.9			Fair
3791	Betula nigra	River Birch	11.4			Fair
3792	Betula nigra	River Birch	4.2			Fair
3793	Betula nigra	River Birch	7.9			Fair
3794	Betula nigra	River Birch	11.4			Fair
3795	Betula nigra	River Birch	4.2			Fair
3796	Betula nigra	River Birch	7.9			Fair
3797	Betula nigra	River Birch	11.4			Fair
3798	Betula nigra	River Birch	4.2			Fair
3799	Betula nigra	River Birch	7.9			Fair
3800	Betula nigra	River Birch	11.4			Fair

Tag No.	Species	Common Name	dbh 1	dbh 2	dbh 3	Condition
3801	Quercus macrocarpa	Bur Oak	30.4			Fair
3802	Quercus macrocarpa	Bur Oak	13.2			Fair
3803	Quercus macrocarpa	Bur Oak	28.0			Fair
3804	Quercus macrocarpa	Bur Oak	38.6			Fair
3805	Quercus macrocarpa	Bur Oak	30.2			Fair
3806	Quercus macrocarpa	Bur Oak	30.2			Fair
3807	Quercus macrocarpa	Bur Oak	30.2			Fair
3808	Quercus macrocarpa	Bur Oak	30.2			Fair
3809	Quercus macrocarpa	Bur Oak	30.2			Fair
3810	Quercus macrocarpa	Bur Oak	30.2			Fair
3811	Quercus macrocarpa	Bur Oak	30.2			Fair
3812	Quercus macrocarpa	Bur Oak	30.2			Fair
3813	Quercus macrocarpa	Bur Oak	30.2			Fair
3814	Quercus macrocarpa	Bur Oak	30.2			Fair
3815	Quercus macrocarpa	Bur Oak	30.2			Fair
3816	Quercus macrocarpa	Bur Oak	30.2			Fair
3817	Quercus macrocarpa	Bur Oak	30.2			Fair
3818	Quercus macrocarpa	Bur Oak	30.2			Fair
3819	Quercus macrocarpa	Bur Oak	30.2			Fair
3820	Quercus macrocarpa	Bur Oak	30.2			Fair

Tag No.	Species	Common Name	dbh 1	dbh 2	dbh 3	Condition
3821	Quercus macrocarpa	Bur Oak	30.4			Fair
3822	Quercus macrocarpa	Bur Oak	13.2			Fair
3823	Quercus macrocarpa	Bur Oak	28.0			Fair
3824	Quercus macrocarpa	Bur Oak	38.6			Fair
3825	Quercus macrocarpa	Bur Oak	30.2			Fair
3826	Quercus macrocarpa	Bur Oak	30.2			Fair
3827	Quercus macrocarpa	Bur Oak	30.2			Fair
3828	Quercus macrocarpa	Bur Oak	30.2			Fair
3829	Quercus macrocarpa	Bur Oak	30.2			Fair
3830	Quercus macrocarpa	Bur Oak	30.2			Fair
3831	Quercus macrocarpa	Bur Oak	30.2			Fair
3832	Quercus macrocarpa	Bur Oak	30.2			Fair
3833	Quercus macrocarpa	Bur Oak	30.2			Fair
3834	Quercus macrocarpa	Bur Oak	30.2			Fair
3835	Quercus macrocarpa	Bur Oak	30.2			Fair
3836	Quercus macrocarpa	Bur Oak	30.2			Fair
3837	Quercus macrocarpa	Bur Oak	30.2			Fair
3838	Quercus macrocarpa	Bur Oak	30.2			Fair
3839	Quercus macrocarpa	Bur Oak	30.2			Fair
3840	Quercus macrocarpa	Bur Oak	30.2			Fair

Tag No.	Species	Common Name	dbh 1	dbh 2	dbh 3	Condition
3841	Quercus macrocarpa	Bur Oak	30.4			Fair
3842	Quercus macrocarpa	Bur Oak	13.2			Fair
3843	Quercus macrocarpa	Bur Oak	28.0			Fair
3844	Quercus macrocarpa	Bur Oak	38.6			Fair
3845	Quercus macrocarpa	Bur Oak	30.2			Fair
3846	Quercus macrocarpa	Bur Oak	30.2			Fair
3847	Quercus macrocarpa	Bur Oak	30.2			Fair
3848	Quercus macrocarpa	Bur Oak	30.2			Fair
3849	Quercus macrocarpa	Bur Oak	30.2			Fair
3850	Quercus macrocarpa	Bur Oak	30.2			Fair
3851	Quercus macrocarpa	Bur Oak	30.2			Fair
3852	Quercus macrocarpa	Bur Oak	30.2			Fair
3853	Quercus macrocarpa	Bur Oak	30.2			Fair
3854	Quercus macrocarpa	Bur Oak	30.2			Fair
3855	Quercus macrocarpa	Bur Oak	30.2			Fair
3856	Quercus macrocarpa	Bur Oak	30.2			Fair
3857	Quercus macrocarpa	Bur Oak	30.2			Fair
3858	Quercus macrocarpa	Bur Oak	30.2			Fair
3859	Quercus macrocarpa	Bur Oak	30.2			Fair
3860	Quercus macrocarpa	Bur Oak	30.2			Fair

Tag No.	Species	Common Name	dbh 1	dbh 2	dbh 3	Condition
3861	Quercus macrocarpa	Bur Oak	30.4			Fair
3862	Quercus macrocarpa	Bur Oak	13.2			Fair
3863	Quercus macrocarpa	Bur Oak	28.0			Fair
3864	Quercus macrocarpa	Bur Oak	38.6			Fair
3865	Quercus macrocarpa	Bur Oak	30.2			Fair
3866	Quercus macrocarpa	Bur Oak	30.2			Fair
3867	Quercus macrocarpa	Bur Oak	30.2			Fair
3868	Quercus macrocarpa	Bur Oak	30.2			Fair
3869	Quercus macrocarpa	Bur Oak	30.2			Fair
3870	Quercus macrocarpa	Bur Oak	30.2			Fair
3871	Quercus macrocarpa	Bur Oak	30.2			Fair
3872	Quercus macrocarpa	Bur Oak	30.2			Fair
3873	Quercus macrocarpa	Bur Oak	30.2			Fair
3874	Quercus macrocarpa	Bur Oak	30.2			Fair
3875	Quercus macrocarpa	Bur Oak	30.2			Fair
3876	Quercus macrocarpa	Bur Oak	30.2			Fair
3877	Quercus macrocarpa	Bur Oak	30.2			Fair
3878	Quercus macrocarpa	Bur Oak	30.2			Fair
3879	Quercus macrocarpa	Bur Oak	30.2			Fair
3880	Quercus macrocarpa	Bur Oak	30.2			Fair
3881	Quercus macrocarpa	Bur Oak	30.2			Fair
3882	Quercus macrocarpa	Bur Oak	30.2			Fair
3883	Quercus macrocarpa	Bur Oak	30.2			Fair
3884	Quercus macrocarpa	Bur Oak	30.2			Fair
3885	Quercus macrocarpa	Bur Oak	30.2			Fair
3886	Quercus macrocarpa	Bur Oak	30.2			Fair
3887	Quercus macrocarpa	Bur Oak	30.2			Fair
3888	Quercus macrocarpa	Bur Oak	30.2			Fair
3889	Quercus macrocarpa	Bur Oak	30.2			Fair
3890	Quercus macrocarpa	Bur Oak	30.2			Fair

DATE BY: REVISIONS

17/21/21 LAM SQ. REVIEW

17/21/21 LAM PFC-APP SUBMITTAL

17/21/21 LAM PFC-APP SUBMITTAL

17/21/21 LAM PFC-APP SUBMITTAL

PROJECT SPONSOR: ZENIET WAZNAK
CITY ENGINEER & PUBLIC WORKS
27225 WOOD ROAD
NOMI, MI 48174

EXISTING CONDITIONS

STEM ADDITION

NOV MICHIGAN

FIELD BOOK

DATE: 11/21/21

SCALE: 1" = 30'

SHEET NO. 19120.2

OF 2

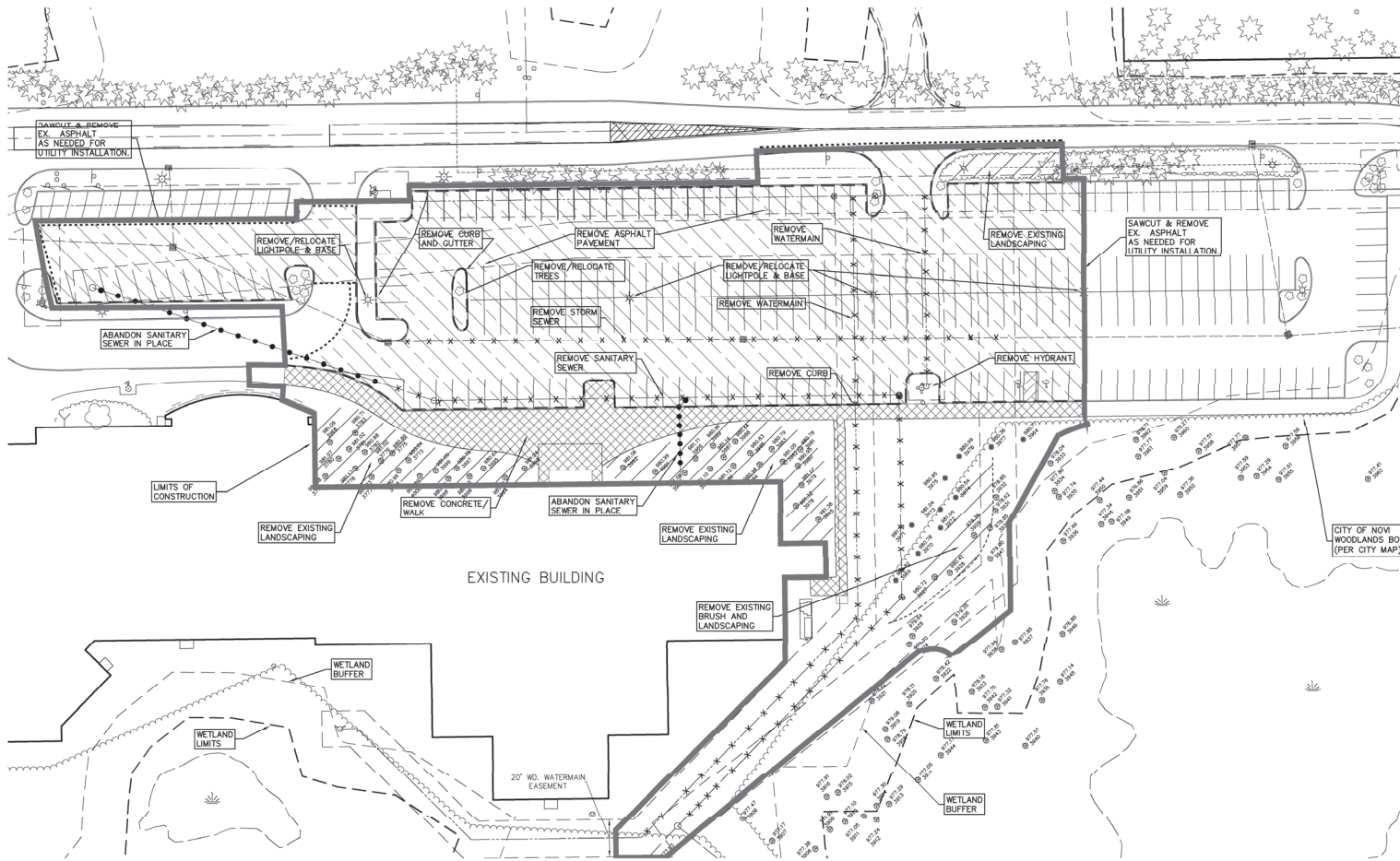
DATE: 11/21/21

SCALE: 1" = 30'

SHEET NO. CE-2

OF 2

NOT FOR CONSTRUCTION



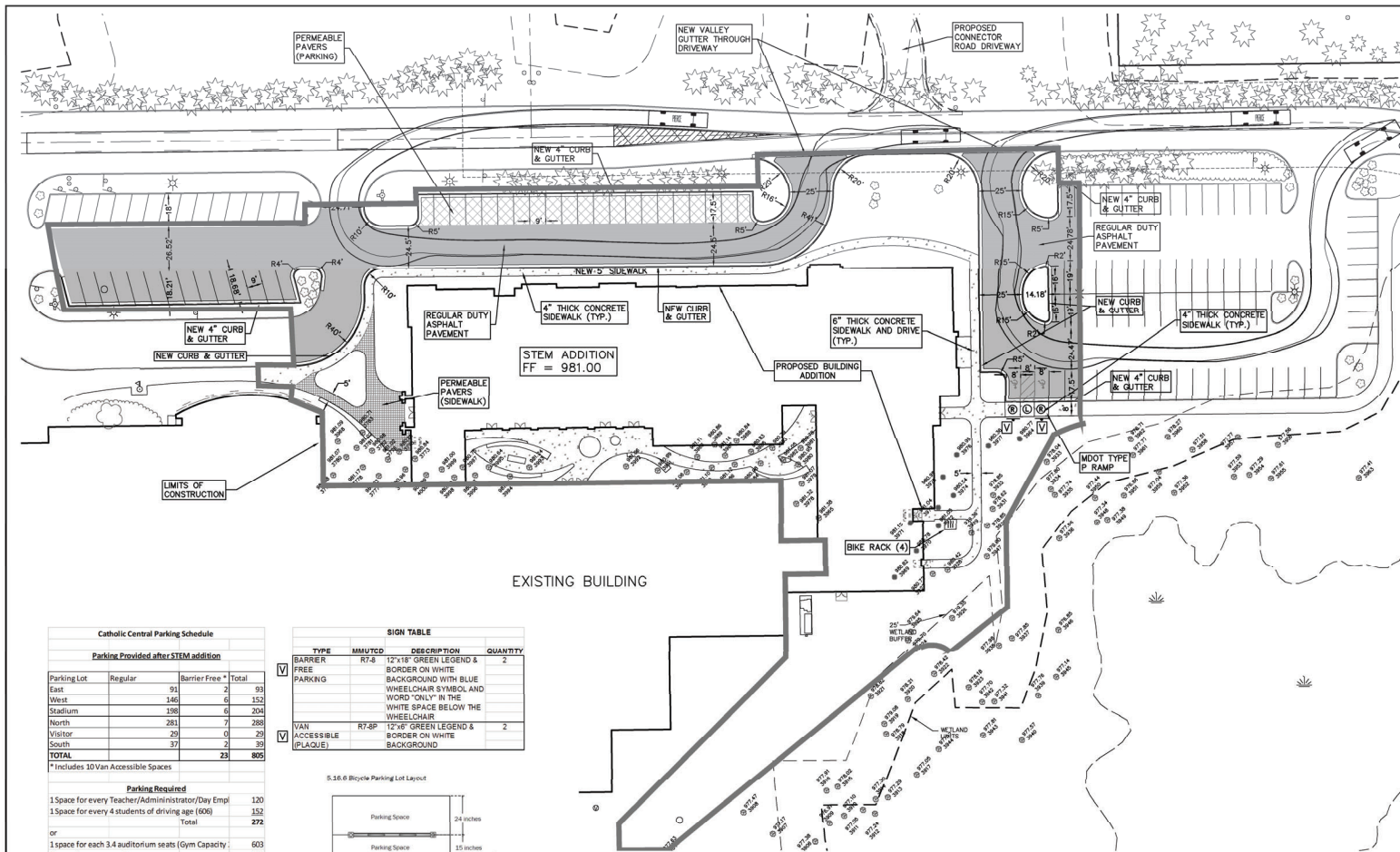
- EXISTING LEGEND**
- MANHOLE
 - CATION BASIN
 - INLET
 - CLEANOUT
 - END SECTION
 - ROOF DRAIN
 - GATE VALVE
 - HYDRANT
 - WATER SHUT-OFF
 - UTILITY POLE
 - GUY ANCHOR
 - LIGHT POLE
 - SIGN
 - TREE
 - TREE LINE
 - FENCE
 - SANITARY SEWER
 - STORM SEWER
 - WATER MAIN
 - GAS MAIN
 - ELECTRIC CABLE
 - CONTOUR MAJOR
 - CONTOUR MINOR
 - T/P TOP OF PAVEMENT
 - T/C TOP OF CURB
 - B/C BOTTOM OF CURB
 - SPOT ELEVATION
 - +100.00
 - ABANDON UTILITY
 - REMOVE UTILITY
 - SAWCUT
 - REMOVE ASPHALT
 - REMOVE CONCRETE
 - LIMITS OF CONSTRUCTION

GENERAL NOTE:
ALL WORK SHALL CONFORM TO THE CURRENT CITY OF NOWI STANDARDS AND SPECIFICATIONS.

	REVISIONS			
DATE BY	NO. DESCRIPTION	DATE BY	NO. DESCRIPTION	DATE BY
10/27/21	LMM	10/27/21	LMM	10/27/21
11/17/21	LMM	11/17/21	LMM	11/17/21
11/17/21	LMM	11/17/21	LMM	11/17/21
ZEMET WZNIAK Civil Engineers & Land Surveyors 27225 WOOD ROAD NOWI, MI 48374 P: (248) 427-7000 F: (248) 427-7001 WWW.ZEMETWZNIAK.COM				
PROJECT SPONSOR: CATHOLIC CENTRAL HIGH SCHOOL 27225 WOOD ROAD NOWI, MI 48374				
REMOVALS AND DEMOLITION CONCEPT PLAN STEM ADDITION NOWI, MICHIGAN				
DATE	SCALE	SHEET NO.	SHEET TOTAL	DRAWN BY
11/17/21	1" = 30'	19120.2	3	LMM

NOT FOR CONSTRUCTION

Z:\Projects\19120\19120.2\19120.2 - Stem Addition - CE - 19120.2\19120.2 - CONCEPT PLAN - 11/17/21 - 2:30:47 PM.dwg



NOTE:
 QUANTITIES SHOWN ON THIS PLAN ARE FOR PERMIT PURPOSES ONLY. THE CONTRACTOR IS SOLELY RESPONSIBLE FOR DETERMINING THE ACTUAL SCOPE OF WORK IN ACCORDANCE WITH THESE CONTRACT DOCUMENTS.

Catholic Central Parking Schedule

Parking Provided after STEM addition			
Parking Lot	Regular	Barrier Free *	Total
East	94	2	96
West	146	6	152
Stadium	198	6	204
North	281	7	288
Visitor	29	0	29
South	37	2	39
TOTAL	825	23	806

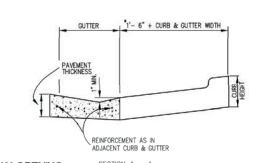
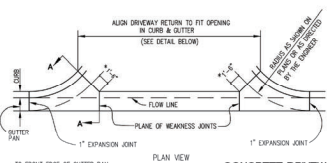
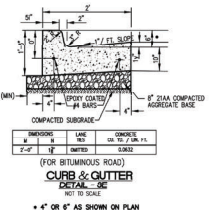
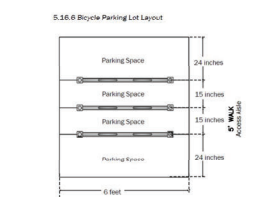
* Includes 10 Van Accessible Spaces

Parking Required

1 space for every Teacher/Administrator/Day Emp	120
1 space for every 4 students of driving age (606)	152
Total	272
or	
1 space for each 3.4 auditorium seats (Gym Capacity)	603
1 space for every employee	120
Total	723
Barrier Free Parking (2% of total)	15
Includes 3 Van Accessible Spaces	

SIGN TABLE

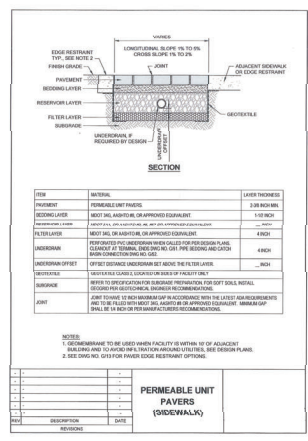
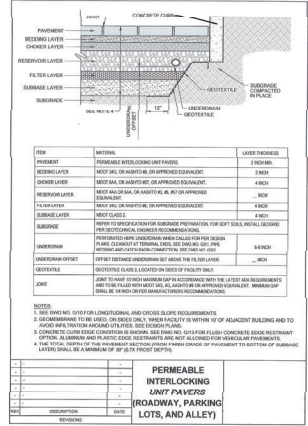
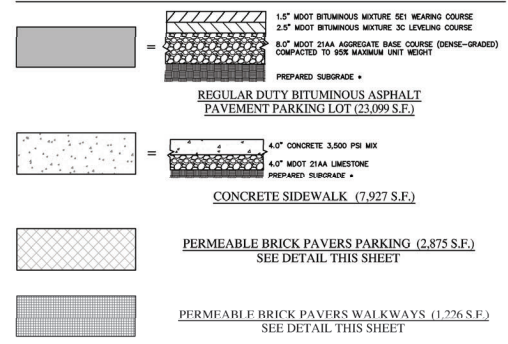
TYPE	MMUTCD	DESCRIPTION	QUANTITY
✓	R7-4	12" X 18" GREEN LEGEND & BORDER ON WHITE BACKGROUND WITH BLUE WHEELCHAIR SYMBOL AND WORD "ONLY" IN THE WHITE SPACE BELOW THE WHEELCHAIR	2
✓	R7-8P	12" X 6" GREEN LEGEND & BORDER ON WHITE BACKGROUND (PLAQUE)	2



NOTE:
 ALL DIMENSIONS ARE TO BACK OF CURB OR FACE OF WALK AS SHOWN.

NOTE:
 CURBS AT END OF 17' STALLS SHALL BE REDUCED TO 4" HIGH.

PAVEMENT LEGEND:



GENERAL NOTE:
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NOT FOR CONSTRUCTION

REVISIONS

DATE	BY	REVISIONS
11/27/21	LM	REVISE
11/27/21	LM	REVISE
11/27/21	LM	REVISE
11/27/21	LM	REVISE
11/27/21	LM	REVISE
11/27/21	LM	REVISE

PROJECT SPONSOR:
 CATHOLIC CENTRAL HIGH SCHOOL
 2725 WOOD ROAD
 NOV, MI 48374

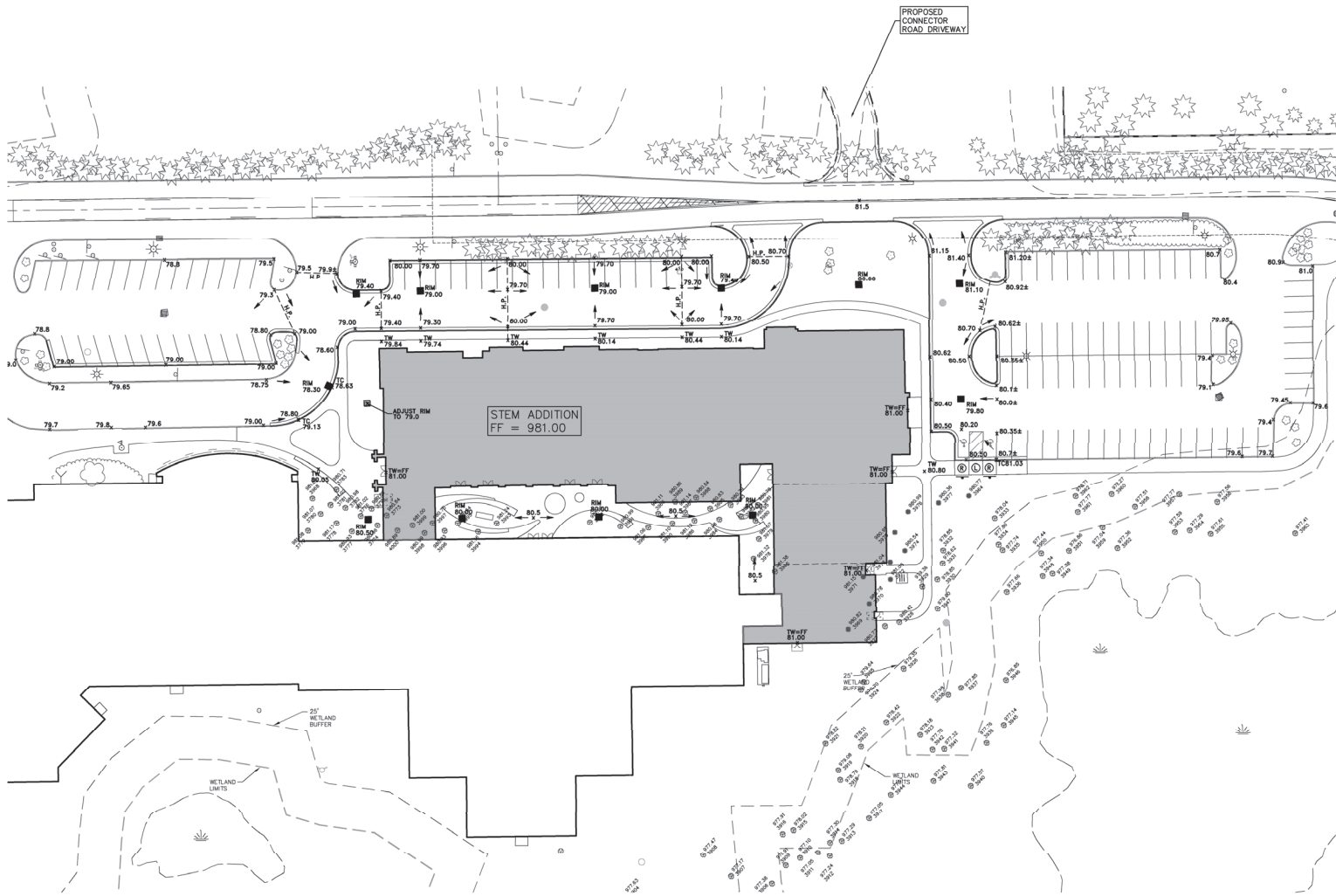
DESIGNER:
 ZIMMET WAZNIAK
 CIVIL ENGINEER & LAND SURVEYOR
 1800 EAST 13TH AVENUE, SUITE 200
 ANN ARBOR, MI 48106
 P: 734.769.2222 FAX: 734.769.2223
 WWW.ZIMMETWAZNIAK.COM

FIELD BOOK

DATE	NO.	SCALE	BY	CHKD BY
11/27/21	1	1\"/>		
11/27/21	2	1\"/>		
11/27/21	3	1\"/>		
11/27/21	4	1\"/>		

PAVING CONCEPT PLAN
STEM ADDITION
 NOV MICHIGAN

SHEET NO. CE-4



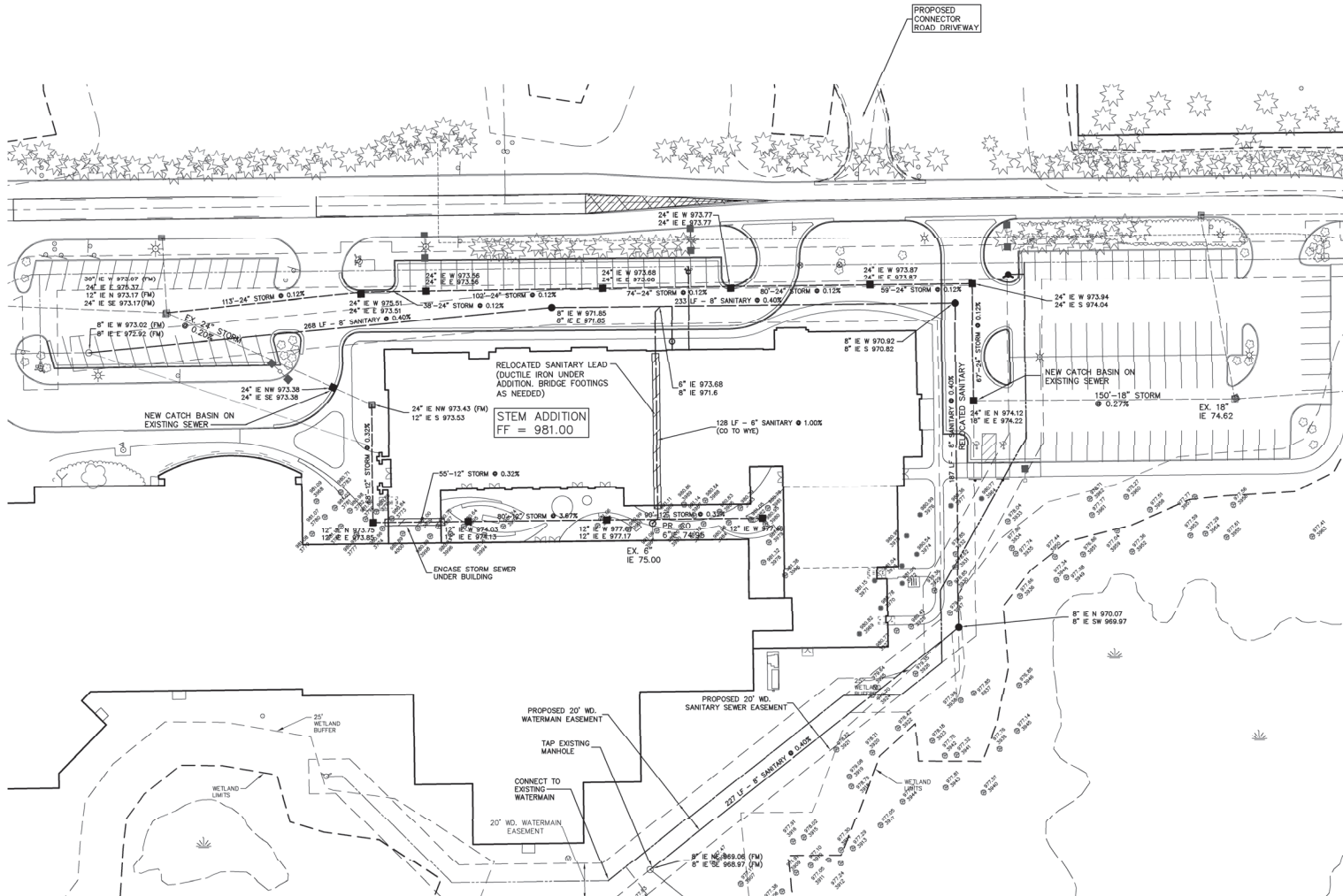
- LEGEND**
- EXISTING**
- MANHOLE
 - CATCH BASIN
 - ⊙ INLET
 - ⊙ CLEANOUT
 - ⊙ END SECTION
 - ⊙ ROOF DRAIN
 - ⊙ GATE VALVE
 - ⊙ HYDRANT
 - ⊙ WATER SHUT-OFF
 - ⊙ UTILITY POLE
 - ⊙ GUY ANCHOR
 - ⊙ LIGHT POLE
 - ⊙ SIGN
 - ⊙ TREE
 - TREE LINE
 - SANITARY SEWER
 - STORM SEWER
 - WATER MAIN
 - GAS MAIN
 - ELECTRIC CABLE
 - CONTOUR MAJOR
 - CONTOUR MINOR
 - SPOT ELEVATION
- PROPOSED**
- MANHOLE
 - CATCH BASIN
 - ⊙ INLET
 - ⊙ CLEANOUT
 - ⊙ END SECTION
 - ⊙ ROOF DRAIN
 - ⊙ GATE VALVE
 - ⊙ HYDRANT
 - ⊙ WATER SHUT-OFF
 - ⊙ TREE REMOVAL
 - SANITARY SEWER
 - STORM SEWER
 - WATER MAIN
 - ⊙ E 67074
 - CONTOUR MAJOR
 - CONTOUR MINOR
 - PROPOSED GRADE
 - 99.0
 - T/C = TOP OF CURB
 - T/W = TOP OF WALK
 - T/P = TOP OF PAVEMENT
 - T/B = TOP OF BANK
 - = GROUND
 - = DITCH
 - = GUTTER
 - = FINISH GRADE
 - = FINISH FLOOR

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DATE BY	REVISIONS
11/21/21 LAM	NO. REVIEW
11/22/21 LAM	NO. PRE-APP SUBMITTAL
11/22/21 LAM	NO. APP SUBMITTAL
11/22/21 LAM	NO. PERMITS
 Zejmet Wozniak Civil Engineers & Land Surveyors 27225 WOOD ROAD NOVATO, MI 48374 P: (248) 437-2222 F: (248) 437-2223 WWW.ZEJMETWOZNAK.COM	
PROJECT SPONSOR: CANADIAN CENTRAL HIGH SCHOOL 27225 WOOD ROAD NOVATO, MI 48374	
GRADING CONCEPT PLAN STEM ADDITION NOVATO, MICHIGAN	
FIELD BOOK	
NO. 19120.2	NO. 19120.2
DATE 11/21/21	DATE 11/21/21
SCALE 1" = 30'	SCALE 1" = 30'
SHEET NO. CE-5	SHEET NO. CE-5

NOT FOR CONSTRUCTION



UTILITY LEGEND

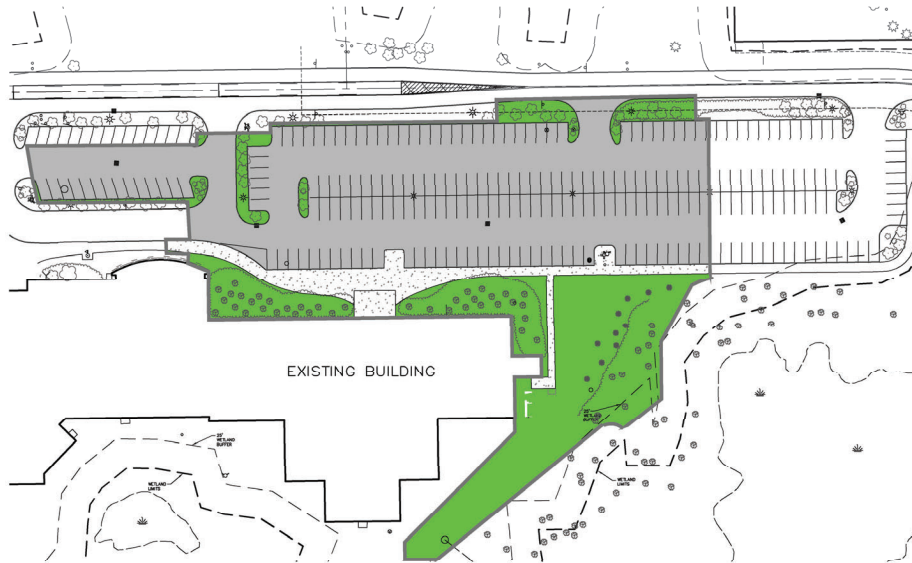
- EXISTING**
- MANHOLE
 - CATCH BASIN
 - INLET
 - CLEANOUT
 - END SECTION
 - ROOF DRAIN
 - GATE VALVE
 - HYDRANT
 - WATER SHUT-OFF
 - UTILITY POLE
 - GUY ANCHOR
 - LIGHT POLE
 - SIGN
 - TREE
 - TREE LINE
 - SANITARY SEWER
 - STORM SEWER
 - WATER MAIN
 - GAS MAIN
 - ELECTRIC CABLE
- PROPOSED**
- MANHOLE
 - CATCH BASIN
 - INLET
 - CLEANOUT
 - END SECTION
 - ROOF DRAIN
 - GATE VALVE
 - HYDRANT
 - WATER SHUT-OFF
 - TREE REMOVAL
 - LIGHT POLE
 - SANITARY SEWER
 - STORM SEWER
 - WATER MAIN
 - DITCH

GENERAL NOTE:
ALL WORK SHALL CONFORM TO THE CURRENT CITY OF NOVI STANDARDS AND SPECIFICATIONS.

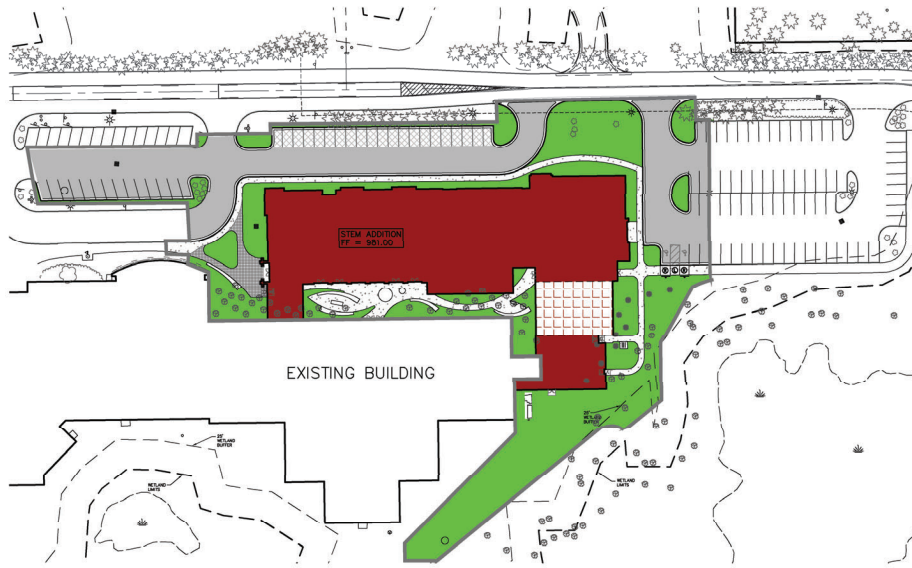
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<p>DATE BY</p> <p>07/21/21 LAM SQ. REVIEW</p> <p>10/27/21 LAM PFC-APP SUBMITTAL</p> <p>11/22/21 LAM PFC-APP SUBMITTAL</p>	<p>REVISIONS</p> <p>NOVEMBER 2021</p> <p>NOVEMBER 2021</p> <p>NOVEMBER 2021</p>	<p>PROJECT SPONSOR:</p> <p>CATHOLIC CENTRAL HIGH SCHOOL</p> <p>27225 WOOD ROAD</p> <p>NOVI, MI 48274</p>	<p>PROJECT NO.:</p> <p>19120.2</p> <p>SHEET NO.:</p> <p>CE-6</p>	<p>FIELD BOOK</p> <p>NOV 21 9/17/21</p> <p>SCALE: VERT. 1" = 8' H/A</p> <p>SCALE: HORIZ. 1" = 30'</p> <p>DATE: 11/22/21</p> <p>BY: LAM</p> <p>CHECKED BY: PFC</p>
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NOT FOR CONSTRUCTION



PRE-CONSTRUCTION DRAINAGE CONDITIONS:
SCALE: 1"=50'



POST-CONSTRUCTION DRAINAGE CONDITIONS:
SCALE: 1"=50'

PRE-CONSTRUCTION CONDITIONS LEGEND:

- ASPHALT/PAVEMENT
- LAWN
- WALKWAYS



PRE-CONSTRUCTION CONDITION

LAND COVER	AREA (AC)	C	CA
PAVEMENT	1.25	0.95	1.19
LAWN	0.78	0.25	0.20
WALKWAYS	0.12	0.95	0.12
TOTAL	2.26		1.61

$C_{net} = 1.61 / 2.26 = 0.71$

POST-CONSTRUCTION CONDITION

LAND COVER	AREA (AC)	C	CA
PAVEMENT	0.92	0.95	0.88
PBP PAVEMENT	0.07	0.80	0.06
LAWN	0.71	0.25	0.18
WALKWAYS	0.18	0.95	0.17
PBP WALKWAYS	0.03	0.80	0.02
ROOF	0.06	0.95	0.06
GREEN ROOF	0.02	0.55	0.02
TOTAL	2.26		1.61

$C_{net} = 1.61 / 2.26 = 0.71$

THERE IS NO INCREASE IN NET IMPERVIOUSNESS.

GENERAL NOTE:
ALL WORK SHALL CONFORM TO THE CURRENT CITY OF NOVI STANDARDS AND SPECIFICATIONS.

POST-CONSTRUCTION CONDITIONS LEGEND:

- PAVEMENT
- PERMEABLE BRICK PAVERS PARKING
- LAWN
- WALKWAYS
- PERMEABLE BRICK PAVERS WALKWAYS
- ROOF
- GREEN ROOF

DATE BY REVISIONS
11/21/21 JVA/LMT PJP SUBMITTAL

PROJECT SPONSOR:
CATHOLIC CENTRAL HIGH SCHOOL
27225 WOOD ROAD
NOVI, MI 48274

PROJECT NO. 19120.2
SHEET NO. CE-8

DATE: 11/21/21
SCALE: 1" = 50'
JOB NO. 19120.2
SHEET NO. CE-8

PREPARED BY:
ZEMET WAZNIAK
Civil Engineers & Surveyors
18000 WOODLAND AVENUE
NOVI, MI 48240
P: (248) 487-2222
F: (248) 487-2223
WWW.ZEMETWAZNIAK.COM

NOT FOR CONSTRUCTION

Z:\Projects\19120.2\Drawings\19120.2-CE-DRAINAGE CONDITIONS PLAN.dwg, 11/22/21 1:36:17 PM, dbray/pj



STEM ADDITION NORTH EAST RENDERING - NTS



STEM ADDITION NORTH RENDERING - NTS



STEM ADDITION NORTH WEST RENDERING - NTS



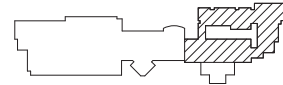
STEM ADDITION BIRD'S EYE RENDERING - NTS



Project Title
**Detroit Catholic Central
 STEM Building Addition**

27225 Wilcox Rd.
 Novi, MI 48374

Key Plan



Project Administrator
 S. Moschelli
 Project Designer
 A. Lutoma N. Kofhan
 Project Architect / Engineer
 M. Brown
 Drawn By
 L. Kulawczyk-Pringle
 CIVIL Engineer
 N. LaForest

Approved
 B. Sundberg
 Drawing Scale
 As Noted

Issued for	Issue Date
Pre-App Submittal	10/08/2021
PSP Submittal	11/05/2021

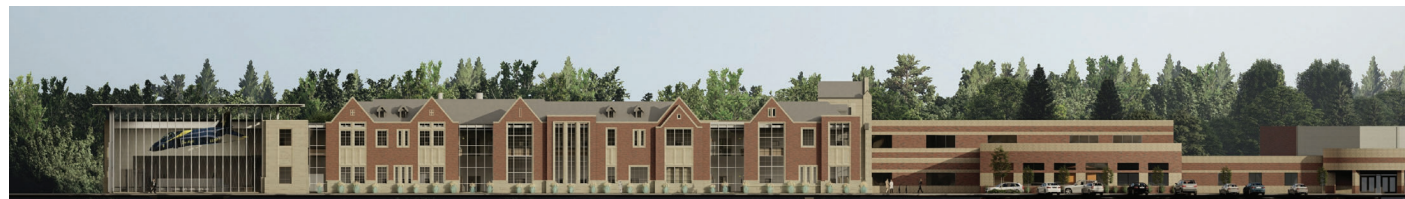
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 IDS Drawing Title

Renderings

IDS Project Number Drawing Number

19200-3000

S.A1.1



NORTH ELEVATION RENDERING - NTS



Project Title
Detroit Catholic Central
STEM Building Addition

27225 Wixom Rd.
Novi, MI 48374

Key Plan



2 NORTH ELEVATION - OVERALL SCHOOL
S.A.D.1 1" = 42'-0"



1 NORTH ELEVATION - STEM ADDITION
S.A.D.1 1/16" = 1'-0"

Project Administrator

S. Moschelli

Project Designer

A. Laloma N. Kofhan

Project Architect/Engineer

M. Brown

Drawn By

L. Kulawczyk-Pringle

C.H. Bennett

N. LaForest

Approved

B. Sundberg

Drawing Scale

As Noted

Issued for Issue Date

Pre-App Submittal 10/08/2021

PSP Submittal 11/05/2021

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IDS Drawing Title

Exterior Elevations - Overall

19 Project Number

Drawing Number

19200-3000

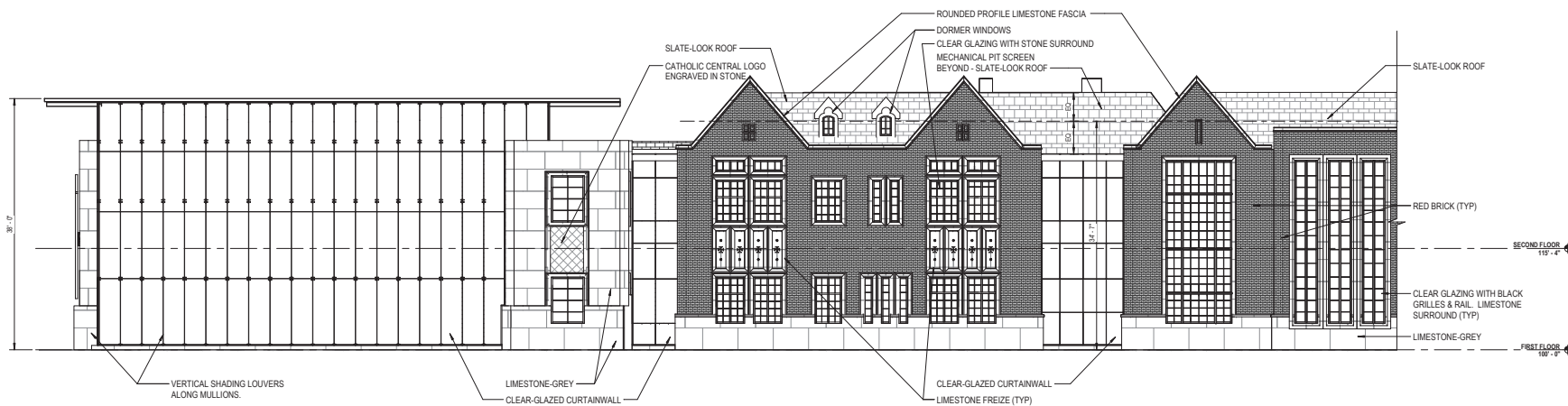
S.A.3.1



Project Title
**Detroit Catholic Central
STEM Building Addition**

27225 Wixom Rd.
Novi, MI 48374

Key Plan



2 PARTIAL NORTH ELEVATION - EAST

1/8" = 1'-0"



1 PARTIAL NORTH ELEVATION - WEST

1/8" = 1'-0"

Project Administrator	S. Moschelli
Project Designer	A. Laloma N. Kofhan
Project Architect/Engineer	M. Brown
Drawn By	L. Kulawczyk-Pringle
CAD Operator	N. LaForest
Approved	B. Sundberg
Drawing Scale	As Noted
Issued for	Issue Date
Pre-App Submittal	10/08/2021
PSP Submittal	11/05/2021



Project Title
**Detroit Catholic Central
STEM Building Addition**

27225 Wixom Rd.
Novi, MI 48374

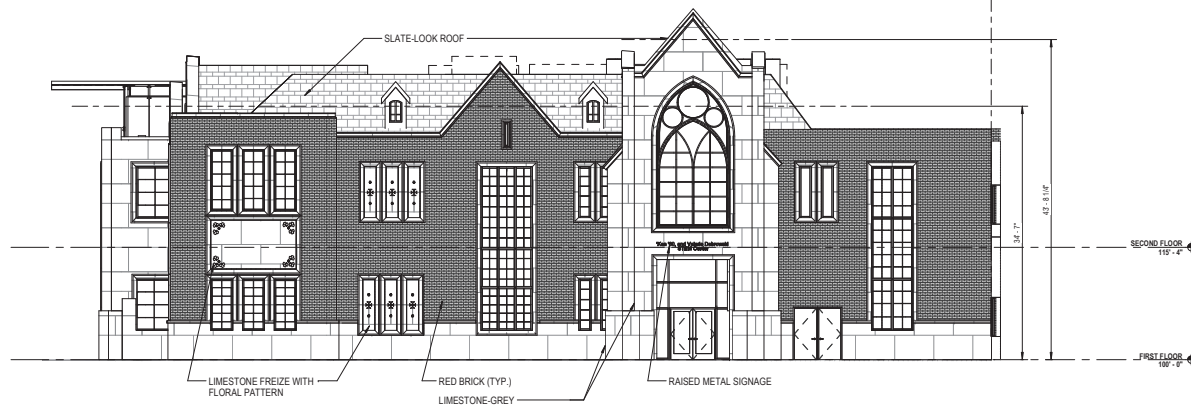
Key Plan

EXISTING SCHOOL | STEM ADDITION



2 EAST ELEVATION
S.A.0.1 1/8" = 1'-0"

STEM ADDITION | EXISTING SCHOOL



1 WEST ELEVATION
S.A.0.1 1/8" = 1'-0"

Project Administrator	S. Moschelli
Project Designer	A. Laloma N. Kofhan
Project Architect / Engineer	M. Brown
Drawn By	L. Kulawczyk-Pringle
Checked By	G.M. Switzer
Approved	N. LaForest
Approved	B. Sundberg
Drawing Scale	As Noted
Issued for	Issue Date
Pre-App Submittal	10/08/2021
PSP Submittal	11/05/2021

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IDS Drawing Title

Exterior Elevations - East & West

1/3 Project Number Drawing Number

19200-3000

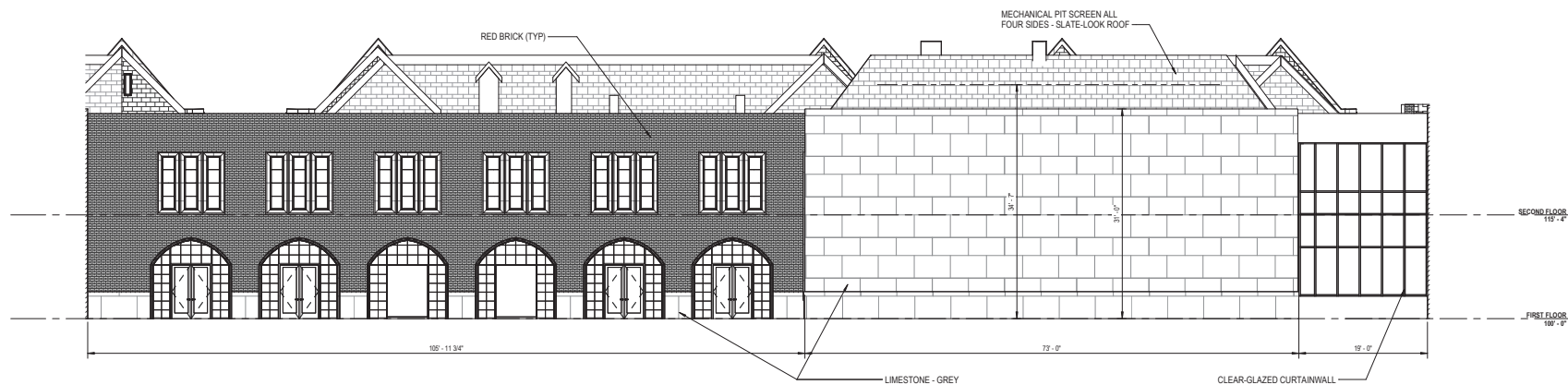
S.A.3.3



Detroit Catholic Central
STEM Building Addition

27225 Wixom Rd.
Novi, MI 48374

Key Plan



Project Administrator	S. Moschelli
Project Designer	A. Laloma N. Kofhan
Project Architect / Engineer	M. Brown
Drawn By	L. Kulawczyk-Pringle
C.H. Reviewer	N. LaForest
Approved	B. Sundberg
Drawing Scale	As Noted
Issued for	Issue Date
Pre-App Submittal	10/08/2021
PSP Submittal	11/05/2021

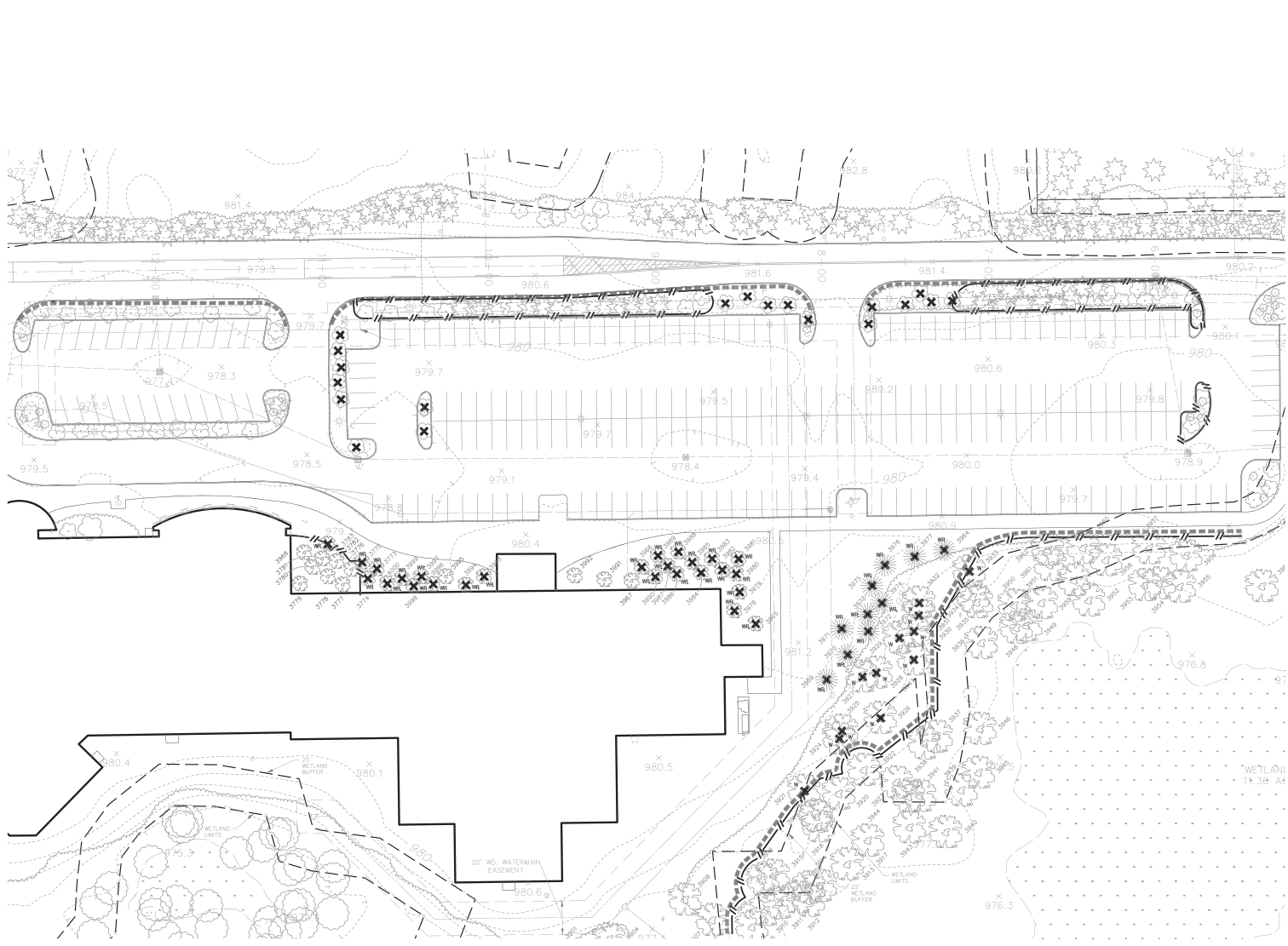
2 SOUTH ELEVATION - COURTYARD
S.A.0.1
1/8" = 1'-0"

Exterior Elevations - Courtyard

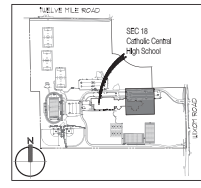
103 Project Number Drawing Number

19200-3000

S.A.3.4



- Legend:**
- EXISTING TREE TO REMAIN
 - EXISTING WOODLAND OR WOODLAND REPLACEMENT TREE TO BE REMOVED - REFER TO SCHEDULE WITH L&S GRAD ELEVATIONS TO FIN. 0' BELOW FINISH GRADE OR REMOVE IN TOTALITY WHERE IN CONFLICT WITH PROPOSED FOUNDATIONS, REMOVE GREENING REFER TO LANDSCAPE PLANS FOR WOODLAND REPLACEMENTS.
 - EXISTING NON-WOODLAND TREE TO BE REMOVED - GRAD ELEVATIONS TO FIN. 0' BELOW FINISH GRADE OR REMOVE IN TOTALITY WHERE IN CONFLICT WITH PROPOSED FOUNDATIONS, REMOVE GREENING.
 - SILT FENCE - REFER TO CIVIL PLANS
 - WOODLAND BUFFER PROTECTION FENCING WITH SILT FENCE - REFER TO CIVIL PLANS
- NOTE:**
NO PARASITIC OR KNOWN/ISSUE HAS BEEN FOUND WITHIN THE PROJECT AREA.



Richard Hodder



Detroit Catholic Central High School

**GRISSIM
METZ
ANDRIESE**
ASSOCIATES

Landscape Architecture
311 East Cady Street
Northville, MI 48167
Ph: 248-347-7010

Project: Catholic Central High School
STEM Addition
New, Michigan, Section 1B

Sheet: **Tree Removals Plan**

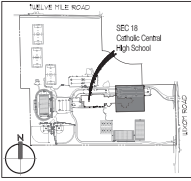
Job Number: C22-201
Drawn: BBB / SAE
Checked: RGH
Scale:

Date: Issued For:
10.08.2021: PRELIMINARY
11.05.2021: SET PLAN (EMITTED)



Sheet Number:
© Grissim-Metz-Andriese Associates, 2021

L101



Key Map
Scale: N=10:1



Peter Houder



Detroit
Catholic Central
High School

**GRISSIM
METZ
ANDRIESE**

Landscape Architecture
311 East Cady Street
Northville, MI 48167
Ph: 248-347-7010

Project: Catholic Central High School STEM Addition
 Name: Nov, Michigan, Section 18
 Date: _____
 Tree Removals Plan
 Job Number: CZ2-201
 Drawn: BBB / SAE
 Checked: RBH
 Scale: _____

Date: _____
 10.08.2021: PROJAPP 10/8/2021
 11.05.2021: REV PLAN 10/21/2021

Woodland / Woodland Replacement Tree Removals List:

Detroit Catholic Central Tree Survey

Tag No.	Species	Common Name	dbh 1	dbh 2	dbh 3	Condition	CREDITS
-3773	Betula nigra	River Birch	5.3			Fair	1
-3774	Betula nigra	River Birch	6.9			Fair	1
-4474	Betula nigra	River Birch	4.4			Fair	1
3776	Betula nigra	River Birch	6.6			Fair	1
3777	Betula nigra	River Birch	4.5			Fair	1
3778	Betula nigra	River Birch	4.8			Fair	1
3779	Betula nigra	River Birch	7.9			Fair	1
3780	Betula nigra	River Birch	4.7			Fair	1
3781	Betula nigra	River Birch	3.6			Fair	1
3782	Betula nigra	River Birch	4.2			Fair	1
-3783	Betula nigra	River Birch	7.9			Fair	1
3941	Tilia americana	Basswood	12.4			Fair	1
3902	Acer saccharinum	Silver Maple	11.8			Fair	1
3901	Quercus macrocarpa	Bur Oak	9.6			Fair	1
3904	Acer saccharinum	Silver Maple	10.3			Fair	1
3905	Quercus macrocarpa	Bur Oak	15.9			Fair	1
3906	Quercus macrocarpa	Bur Oak	18.3			Fair	1
3907	Acer saccharinum	Silver Maple	8.5			Fair	1
3908	Acer saccharinum	Silver Maple	9.0			Fair	1
3909	Quercus macrocarpa	Bur Oak	10.2			Fair	1
3910	Quercus macrocarpa	Bur Oak	22.4			Fair	1
3911	Quercus macrocarpa	Bur Oak	13.5			Fair	1
3912	Quercus macrocarpa	Bur Oak	17.0			Fair	1
3913	Quercus macrocarpa	Bur Oak	15.3			Fair	1
3914	Tilia americana	Basswood	13.2			Fair	1
3915	Ostrya virginiana	Hop-hornbeam	10.4			Fair	1
3916	Acer rubrum	Red Maple	18.5			Fair	1
3917	Quercus macrocarpa	Bur Oak	13.2			Fair	1
3918	Quercus macrocarpa	Bur Oak	28.0			Fair	1
3919	Quercus macrocarpa	Bur Oak	18.6			Fair	1
3920	Carya ovata	Shagbark Hickory	10.1			Fair	1
-3921	Ostrya virginiana	Hop-hornbeam	9.6			Fair	1
3922	Acer rubrum	Red Maple	9.8			Fair	1
3923	Quercus rubra	Red Oak	17.9			Fair	1
-3924	Fagus grandifolia	Beech	10.1			Fair	1
-3925	Quercus macrocarpa	Bur Oak	10.2			Fair	1
-3926	Quercus macrocarpa	Bur Oak	9.7			Fair	1
-3927	Carya ovata	Shagbark Hickory	9.4			Fair	1
-3928	Carya ovata	Shagbark Hickory	14.6			Fair	2
-3929	Quercus macrocarpa	Bur Oak	11.2			Fair	2
-3930	Quercus macrocarpa	Bur Oak	16.6			Fair	2
-3931	Acer rubrum	Red Maple	8.6			Fair	1
-3932	Prunus serotina	Black Cherry	10.1			Fair	1
-3933	Acer saccharinum	Silver Maple	13.3			Fair	2
3934	Acer saccharinum	Silver Maple	18.0			Fair	1

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Detroit Catholic Central Tree Survey

Tag No.	Species	Common Name	dbh 1	dbh 2	dbh 3	Condition	CREDITS
3935	Fagus grandifolia	Beech	8.2			Fair	1
3936	Quercus bicolor	Swamp White Oak	27.3			Fair	1
3937	Acer saccharinum	Silver Maple	10.4			Fair	1
3938	Acer saccharinum	Silver Maple	9.1			Fair	1
3939	Quercus bicolor	Swamp White Oak	15.6			Fair	1
3940	Quercus bicolor	Swamp White Oak	15.4			Fair	1
3941	Acer saccharinum	Silver Maple	8.9			Fair	1
3942	Acer saccharinum	Silver Maple	9.3			Fair	1
3943	Quercus macrocarpa	Bur Oak	11.4			Fair	1
3944	Acer saccharinum	Silver Maple	8.5			Fair	1
3945	Quercus bicolor	Swamp White Oak	11.5			Fair	1
3946	Quercus bicolor	Swamp White Oak	12.2			Fair	1
-3947	Quercus macrocarpa	Bur Oak	11.4			Fair	2
3948	Acer saccharinum	Silver Maple	9.3			Fair	1
3949	Acer saccharinum	Silver Maple	8.7			Fair	1
3950	Quercus macrocarpa	Bur Oak	9.7			Fair	1
3951	Quercus macrocarpa	Bur Oak	14.0			Fair	1
3952	Acer saccharinum	Silver Maple	19.9			Fair	1
3953	Quercus bicolor	Swamp White Oak	16.3			Fair	1
3954	Ulmus americana	American Elm	11.6			Fair	1
3955	Quercus bicolor	Swamp White Oak	14.9			Fair	1
3956	Tilia americana	Basswood	11.3			Fair	1
3957	Tilia americana	Basswood	14.4			Fair	1
3958	Acer saccharinum	Silver Maple	9.9			Fair	1
3959	Acer saccharinum	Silver Maple	8.7			Fair	1
3960	Acer saccharinum	Silver Maple	8.1			Fair	1
3961	Acer saccharinum	Silver Maple	11.9			Fair	1
3962	Acer saccharinum	Silver Maple	10.5			Fair	1
3963	Coryna ovata	Shagbark Hickory	9.3			Fair	1
-3964	Abies concolor	White fir	8.5			Fair	1
-3965	Betula nigra	River Birch	8.4			Fair	1
-3966	Betula nigra	River Birch	8.2			Fair	1
3967	Betula nigra	River Birch	9.1			Fair	1
3968	Betula nigra	River Birch	8.4			Fair	1
-3969	Abies concolor	White fir	4.3			Fair	1
-3970	Abies concolor	White fir	7.9			Fair	1
-3971	Abies concolor	White fir	7.9			Fair	1
-3972	Abies concolor	White fir	6.2			Fair	1
-3973	Abies concolor	White fir	7.6			Fair	1
-3974	Abies concolor	White fir	6.7			Fair	1
-3975	Abies concolor	White fir	6.3			Fair	1
-3976	Abies concolor	White fir	4.8			Fair	1
-3977	Abies concolor	White fir	7.1			Fair	1
-3978	Betula nigra	River Birch	7.6			Fair	1
-3979	Betula nigra	River Birch	6.6			Fair	1
-3980	Betula nigra	River Birch	5.1			Fair	1
-3981	Betula nigra	River Birch	7.7			Fair	1

Barr Engineering / 22631044

Detroit Catholic Central Tree Survey

Tag No.	Species	Common Name	dbh 1	dbh 2	dbh 3	Condition	CREDITS
-3982	Betula nigra	River Birch	7.8			Fair	1
-3983	Betula nigra	River Birch	7.2			Fair	1
-3984	Betula nigra	River Birch	7.5			Fair	1
-3985	Betula nigra	River Birch	6.4			Fair	1
-3986	Betula nigra	River Birch	7.6			Fair	1
-3987	Betula nigra	River Birch	6.4			Fair	1
-3988	Betula nigra	River Birch	6.6			Fair	1
-3989	Betula nigra	River Birch	7.7			Fair	1
-3990	Betula nigra	River Birch	6.7			Fair	1
3991	Betula nigra	River Birch	8.0			Fair	1
3995	Betula nigra	River Birch	6.4			Fair	1
-3992	Betula nigra	River Birch	6.1			Fair	1
-3993	Betula nigra	River Birch	4.8			Fair	1
3995	Betula nigra	River Birch	5.3			Fair	1
-3994	Betula nigra	River Birch	5.9			Fair	1
-3995	Betula nigra	River Birch	6.4			Fair	1
-3996	Betula nigra	River Birch	3.9			Fair	1
-3997	Betula nigra	River Birch	5.5			Fair	1
-4000	Betula nigra	River Birch	5.3			Fair	1

TOTAL CREDITS = 16
 TOTAL CREDITS REQUIRED = 30

Barr Engineering / 22631044

Ordinance Considerations:

- Woodland Tree Replacements**
- REQUIREMENTS
- Replace impacted trees with a City of Novi registered arborist by planting one 2" caliper sized deciduous tree at a 1:1 ratio, one 4" caliper tree at a 1:1 ratio, one 6" caliper tree at a 1:1 ratio, one 8" caliper tree at a 1:1 ratio, one 10" caliper tree at a 1:1 ratio, one 12" caliper tree at a 1:1 ratio, one 14" caliper tree at a 1:1 ratio, one 16" caliper tree at a 1:1 ratio, one 18" caliper tree at a 1:1 ratio, one 20" caliper tree at a 1:1 ratio, one 22" caliper tree at a 1:1 ratio, one 24" caliper tree at a 1:1 ratio, one 26" caliper tree at a 1:1 ratio, one 28" caliper tree at a 1:1 ratio, one 30" caliper tree at a 1:1 ratio, one 32" caliper tree at a 1:1 ratio, one 34" caliper tree at a 1:1 ratio, one 36" caliper tree at a 1:1 ratio, one 38" caliper tree at a 1:1 ratio, one 40" caliper tree at a 1:1 ratio, one 42" caliper tree at a 1:1 ratio, one 44" caliper tree at a 1:1 ratio, one 46" caliper tree at a 1:1 ratio, one 48" caliper tree at a 1:1 ratio, one 50" caliper tree at a 1:1 ratio, one 52" caliper tree at a 1:1 ratio, one 54" caliper tree at a 1:1 ratio, one 56" caliper tree at a 1:1 ratio, one 58" caliper tree at a 1:1 ratio, one 60" caliper tree at a 1:1 ratio, one 62" caliper tree at a 1:1 ratio, one 64" caliper tree at a 1:1 ratio, one 66" caliper tree at a 1:1 ratio, one 68" caliper tree at a 1:1 ratio, one 70" caliper tree at a 1:1 ratio, one 72" caliper tree at a 1:1 ratio, one 74" caliper tree at a 1:1 ratio, one 76" caliper tree at a 1:1 ratio, one 78" caliper tree at a 1:1 ratio, one 80" caliper tree at a 1:1 ratio, one 82" caliper tree at a 1:1 ratio, one 84" caliper tree at a 1:1 ratio, one 86" caliper tree at a 1:1 ratio, one 88" caliper tree at a 1:1 ratio, one 90" caliper tree at a 1:1 ratio, one 92" caliper tree at a 1:1 ratio, one 94" caliper tree at a 1:1 ratio, one 96" caliper tree at a 1:1 ratio, one 98" caliper tree at a 1:1 ratio, one 100" caliper tree at a 1:1 ratio, one 102" caliper tree at a 1:1 ratio, one 104" caliper tree 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210" caliper tree at a 1:1 ratio, one 212" caliper tree at a 1:1 ratio, one 214" caliper tree at a 1:1 ratio, one 216" caliper tree at a 1:1 ratio, one 218" caliper tree at a 1:1 ratio, one 220" caliper tree at a 1:1 ratio, one 222" caliper tree at a 1:1 ratio, one 224" caliper tree at a 1:1 ratio, one 226" caliper tree at a 1:1 ratio, one 228" caliper tree at a 1:1 ratio, one 230" caliper tree at a 1:1 ratio, one 232" caliper tree at a 1:1 ratio, one 234" caliper tree at a 1:1 ratio, one 236" caliper tree at a 1:1 ratio, one 238" caliper tree at a 1:1 ratio, one 240" caliper tree at a 1:1 ratio, one 242" caliper tree at a 1:1 ratio, one 244" caliper tree at a 1:1 ratio, one 246" caliper tree at a 1:1 ratio, one 248" caliper tree at a 1:1 ratio, one 250" caliper tree at a 1:1 ratio, one 252" caliper tree at a 1:1 ratio, one 254" caliper tree at a 1:1 ratio, one 256" caliper tree at a 1:1 ratio, one 258" caliper tree at a 1:1 ratio, one 260" caliper tree at a 1:1 ratio, one 262" caliper 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Ordinance Considerations:

Landscape Requirements

REQUIREMENTS

- LANDSCAPE SQUARE FOOTAGE MUST EQUAL PROPOSED BUILDING PERIMETER (NOT INCLUDING ENTRYPATHS OR DRIVEWAYS) X 8. PROPOSED BUILDING PERIMETER - 854K SF X 8 = 6,832 80 SF LANDSCAPE REQUIRED PERIMETER LANDSCAPE PROVIDED - 8641 50 SF
- LANDSCAPE PLANTING BEDS MUST COVER 10% OF BUILDING FACADE (NOT INCLUDING LAWN AREAS) AND MUST HAVE A MINIMUM WIDTH OF 4'. PROPOSED BUILDING FACADE - 114L PROPOSED LANDSCAPE COVERAGE - 888L PERCENTAGE OF PROPOSED BUILDING FACADE COVERED - 856% MINIMUM PROPOSED BED WIDTH - 4'
- FOUNDATION PLANTING BEDS (TYPE, QUANTITY, AND SOFT COVER) INCLUDED WITH SITE PLAN AND DESIGN SET - REFER TO SHEETS L20-1/2/3/4/5
- LANDSCAPE PLANTING BEDS MUST COVER 40% OF BUILDING PERIMETER WHEN VIEWED FROM A PUBLIC STREET (NOT INCLUDING LAWN AREAS) BUILDING IS NOT VISIBLE FROM A PUBLIC STREET

Landscape Legend:

- EXISTING TREES TO REMAIN - PROTECT THROUGHOUT CONSTRUCTION
- EXISTING WETLAND
- EXISTING EDGE OF VEGETATION - PROTECT THROUGHOUT CONSTRUCTION
- SALT FENCE - REFER TO CIVIL PLANS
- TREE PROTECTION FENCE - REFER TO CIVIL PLANS
- DECIDUOUS TREE PLANTING
- EVERGREEN TREE PLANTING
- LAWN RESTORATION - 4" TOPSOIL AND SOO
- FOUNDATION PLANTING
- PARKING LOT ISLAND / PRIVACY PLANTING
- PLANT CODE
CALLER SIZE, IF APPLICABLE
ORDINANCE REQUIREMENT CODE (SEE BELOW)
QUANTITY
- (NC) WOODLAND CANOPY REPLACEMENT TREES - REFER TO SHEET L203
- (NRC) WOODLAND REPLACEMENT CANOPY TREES - REFER TO SHEET L203
- (NRE) WOODLAND REPLACEMENT EVERGREEN TREES - REFER TO SHEET L203
- (NVA) VEGETABLE USE AREA TREES
- (DA) DRIVE ACCESS TREES
- (PL) PARKING LOT PERIMETER TREES
- (PIL) PARKING LOT ISLAND TREES
- (BP) BUILDING PERIMETER LANDSCAPE
- (NT) NON-REQUIRED TREES
- (NS) NON-REQUIRED SHRUBS
- (NNGC) NON-REQUIRED GROUND COVERS

Note Key:

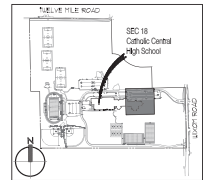
- ① RECONFIGURED PARKING LOT - REFER TO CIVIL PLANS
- ② CONCRETE SIDEWALKS - REFER TO CIVIL PLANS
- ③ RELOCATED ELECTRICAL TRANFORMER - REFER TO ELECTRICAL PLANS
- ④ RELOCATED UTILITIES - REFER TO CIVIL PLANS
- ⑤ NEW / MODIFIED ADDITION - REFER TO ARCHITECTURAL DRAWINGS
- ⑥ PROPOSED STONE SEATWALL WITH 1-BEACHY WOOD SEAT SLATS
- ⑦ EXISTING LANDSCAPE AREAS TO REMAIN UNDISTURBED AND PROTECTED THROUGHOUT CONSTRUCTION

General Notes:

- ALL TREES ARE TO BE PLANTED AT LEAST 60" FROM HYDRANTS AND / OR UTILITY STRUCTURES
- ALL LANDSCAPE BEDS / ISLANDS TO BE IRRIGATED WITH ADOPTING IRRIGATION SYSTEM
- THERE ARE NO OVERHEAD UTILITY LINES IN PROXIMITY OF NEW LANDSCAPE PLANTING

Applicant / Owner Contact:

CATHOLIC CENTRAL HIGH SCHOOL
 2505 SOUTH ROAD
 NOV MI 48374
 (248)888-3888
 CONTACT - MICHAEL WILSON



Key Map
 Scale: 1/8"=30'



Peter Houder



Detroit
 Catholic Central
 High School

**GRISSIM
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 Landscape Architecture

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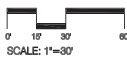
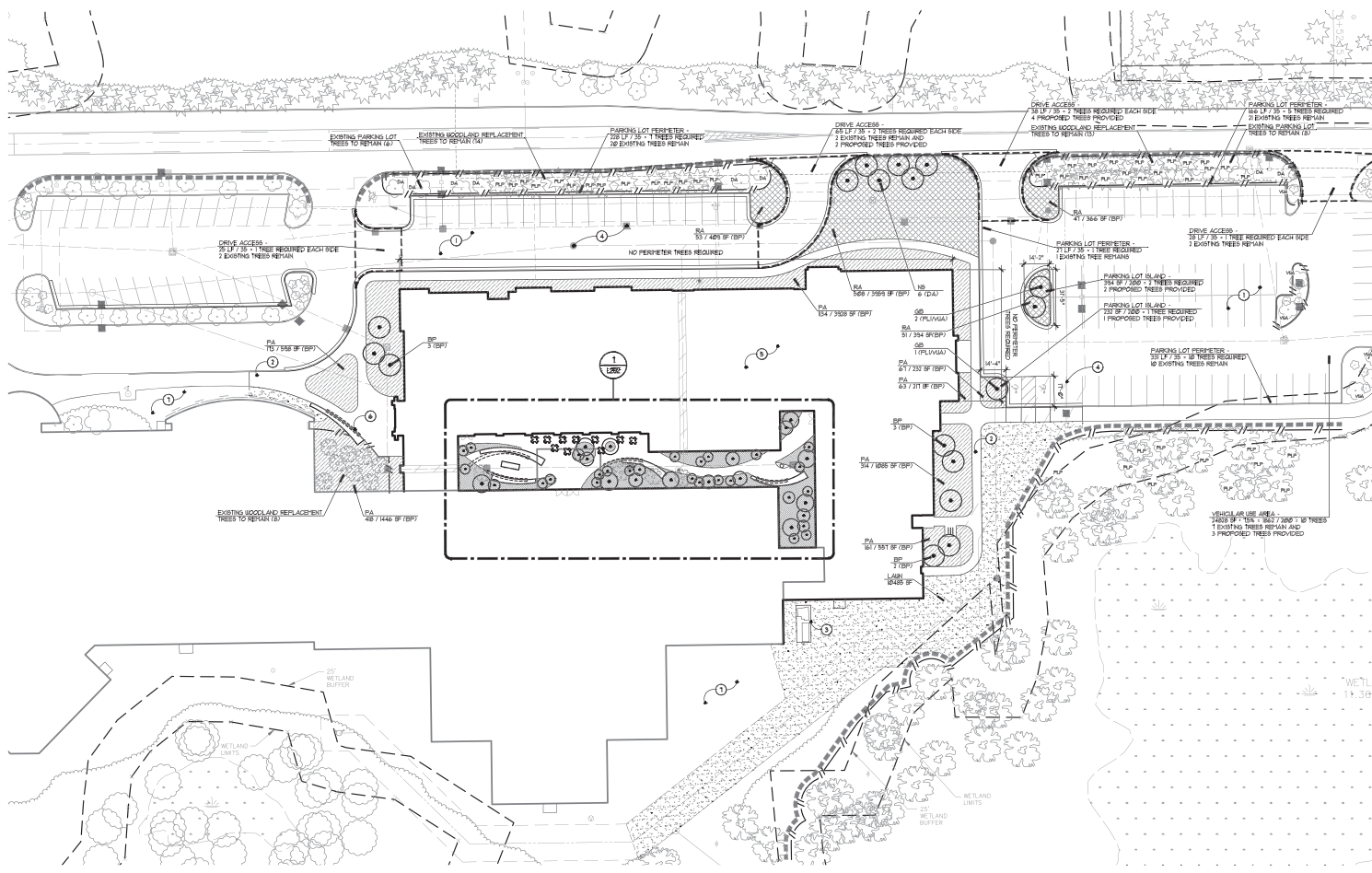
Project:
 Catholic Central High School
 STEM Addition
 Nov, Michigan, Section 18

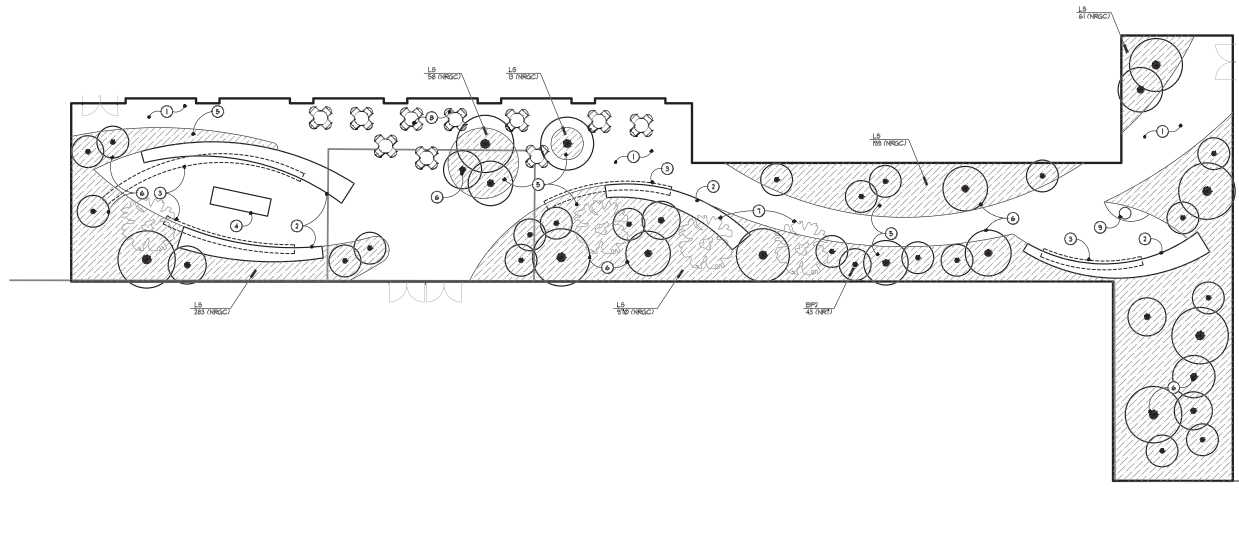
Sheet
Landscape Plan

Job Number:	C22-201
Drawn:	BBB / SAE
Checked:	RGB
Scale:	

Date: Issued for:
 10.08.2021: PRELIMINARY
 11.05.2021: SET PLAN (L201)

Sheet Number: **L201**
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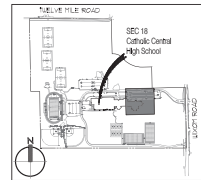


Landscape Legend:

- EXISTING TREES TO REMAIN - PROTECT THROUGHOUT CONSTRUCTION
- EXISTING METLAND
- EXISTING EDGE OF VEGETATION - PROTECT THROUGHOUT CONSTRUCTION
- BILT FENCE - REFER TO CIVIL PLANS
- TREE PROTECTION FENCE - REFER TO CIVIL PLANS
- DECIDUOUS TREE PLANTING
- EVERGREEN TREE PLANTING
- LAWN RESTORATION - 4" TOPSOIL AND SOD
- FOUNDATION PLANTINGS
- PARKING LOT ISLAND / DRIVEWAY PLANTINGS
- PLANT CODE
- CALIPER SIZE IF APPLICABLE
- ORNAMENT CODE REQUIREMENT CODE (SEE BELOW QUANTITY)
- (WC) WOODLAND CANOPY REPLACEMENT TREES - REFER TO SHEET L201
- (WRC) WOODLAND REPLACEMENT CANOPY TREES - REFER TO SHEET L201
- (WPE) WOODLAND REPLACEMENT EVERGREEN TREES - REFER TO SHEET L201
- (VUA) VEHICULAR USE AREA TREES
- (DA) DRIVE ACCESS TREES
- (PLP) PARKING LOT PERIMETER TREES
- (BPP) BUILDING PERIMETER LANDSCAPE
- (NRT) NON-REQUIRED TREES
- (NRB) NON-REQUIRED SHRUBS
- (NRGC) NON-REQUIRED GROUND COVERS

Note Key:

- ① EXPOSED AGGREGATE CONCRETE
- ② STONE SEAT WALLS TO MATCH STONE WALLS ALONG WOOD RD.
- ③ ROLLED AND PAINTED STEEL I-BEAM FLANGE BEAMS WITH IPE WOOD SEAT CARDS
- ④ GAS FIREPLACE WITH STONE BASE AND CHIMNEY TO MATCH SEAT WALLS
- ⑤ ORNAMENTAL GRASSES
- ⑥ SINGLE THINK SHATE BIRCH TREES IN NATURAL CLUSTERS
- ⑦ EXISTING RIVER BIRCH TREES TO BE PRESERVED
- ⑧ HIGH AND LOW TOP MOVABLE TABLES AND CHAIRS BY OTHERS
- ⑨ STATUE BY OTHERS



Key Map
Scale: N/A to Site



Peter Houder



Detroit Catholic Central High School

GRISSIM METZ ASSOCIATES ANDRIESE

Landscape Architecture
311 East Cady Street
Northville, MI 48167
Ph: 248-347-7010

Project: Catholic Central High School
STEM Addition
Nov, Michigan, Section 18

Sheet: Landscape Plan - Courtyard Enlargement

Job Number: C22-201
Drawn: BBB / SAE
Checked: RGH
Scale:

Date: Issued For:
10.08.2021: PRELIMINARY
11.05.2021: SET PLAN (COMPLETE)



Ordinance Requirements:

- WOODLAND TREE REPLACEMENTS:**
 APPLICABLE TO PROPOSING TO REMOVE 48 TREES WHICH ARE EITHER WOODLAND REPLACEMENT TREES OR ARE ONE OF 20% AND LOCATED WITHIN A CITY-REGULATED WOODLAND AS PART OF THE CONSTRUCTION FOR THE CATHOLIC Central STEM PROJECT.
- Total replacement trees required = 45 canopy trees, 10 evergreen trees. Refer to landscape plans for proposed woodland replacement tree locations.
 - Apply as proposing to provide woodland replacement trees. See schedule below.

Code	Subcategory	Ordinance Requirement	Required	Provided
WA	Wooded Slope Area	(48) 2" / 2 1/2" / 24"	10	10
DA	Drive Access	(1) 2 1/2" / 1 1/4" / 2 (both sides)	12	12
FP	Parking Lot Pavement	(1) 2 1/2" / 2 1/2"	33	33
PI	Paving Lot/Driveway	(1) 200' / 100' / 11"	3	3
WC	Wooded Canopy Tree	10-11 1" canopy / replacement 20-22 1" canopy / replacement	17	17
WE	Wooded Evergreen Canopy Tree	1" canopy / replacement	26	26
WE	Wooded Evergreen Canopy Tree	1" canopy / replacement	10	10

Plant List - Woodland Replacement Trees

CODE	QTY.	DESCRIPTION	SIZE	COMMENTS
AR	13 (WRIC)	Aster rubrum Red Maple	2.5" cal. B&B	
AS	13 (WRIC)	Aster spicatum Green Mountain Sugar Maple	2.5" cal. B&B	
PG	5 (WRE)	Pinus glauca White Spruce	6" cal. B&B	
PS	5 (WRE)	Pinus strobus White Pine	6" cal. B&B	
QR	8 (WIC)	Quercus laevis Common White Oak	2.5" cal. B&B	
QR	9 (WIC)	Quercus rubra Red Oak	2.5" cal. B&B	

53 Total Woodland Replacement Trees Provided

NOTE: WOODLAND REPLACEMENT TREES ARE TO BE INTERMIXED AND PLANTED IN NATURAL CLUSTERS.

Plant List - Trees (Non-Woodland Replacement)

CODE	QTY.	DESCRIPTION	SIZE	COMMENTS
BP	8 (BP)	Betula papyrifera White Birch	2 1/2" cal. B&B	single stem
BP2	43 (DRT)	Betula papyrifera White Birch	W10-4" cal. B&B	single stem
GB	3 (PLPVAJ)	Ginkgo biloba Pristonberry Ginkgo	2.5" cal. B&B	
NS	6 (DA)	Nyssa sylvatica Blackgum	2 1/4" cal. B&B	

Plant List - Ground Covers

CODE	QTY.	DESCRIPTION	SIZE	COMMENTS
LS	1564 (WRSC)	Lycopodium Creeping Linseed	1 gal. B&B	space 18" O.C.
PA	2330 (BP)	Pennisetum alopecuroides Hammitt Fourteen Grass	2 gal. B&B	space 24" O.C.
RA	659 (BP)	Rhus aromatica Glow-Low Glow Burnac	24" spread B&B	space 36" O.C.

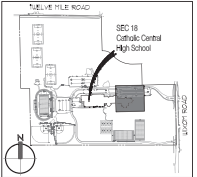


Landscape Legend:

- EXISTING TREES TO REMAIN - PROTECT THROUGHOUT CONSTRUCTION
- EXISTING WETLAND
- EXISTING EDGE OF VEGETATION - PROTECT THROUGHOUT CONSTRUCTION
- UTL FENCE - REFER TO CIVIL PLANS
- TREE PROTECTION FENCE - REFER TO CIVIL PLANS
- WETLAND BANK RESTORATION (AS NECESSARY) - 4" TOPSOIL AND SEED
- WOODLAND TREE REPLACEMENT - DECIDUOUS
- WOODLAND TREE REPLACEMENT - EVERGREEN
- PLANT CODE - CALIPER SIZE IF APPLICABLE
- ORDINANCE REQUIREMENT CODE (SEE BELOW QUANTITY)
- WOODLAND CANOPY REPLACEMENT TREES
- WOODLAND REPLACEMENT CANOPY TREES
- WOODLAND REPLACEMENT EVERGREEN TREES

Note Key:

- EXISTING WETLAND AND PROPOSED WOODLAND TREE REPLACEMENT AREA
- EXISTING WETLAND AND LANDSCAPE AREA TO REMAIN UNDISTURBED AND PROTECTED THROUGHOUT CONSTRUCTION
- WOODLAND CANOPY REPLACEMENT TREE
- WOODLAND REPLACEMENT CANOPY TREE
- WOODLAND REPLACEMENT EVERGREEN TREE
- WETLAND BANK RESTORATION (AS NECESSARY) - 4" TOPSOIL AND SEED
- DRIVEWAY ACCESS



Key Map

Scale: NAD 83 State



Richard G. Houder



Detroit
Catholic Central
High School

**GRISSIM
METZ
ANDRIESE**
Associates

Landscape Architecture
311 East Cady Street
Northville, MI 48167
Ph: 248-347-7010

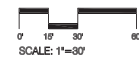
Project:
Catholic Central High School
STEM Addition
New, Michigan, Section 1B

Sheet:
Landscape Plan - Woodland Replacements

Job Number: C22-201
Drawn: BBB / SAE
Checked: RGH

Date: Issued for:
10.08.2021 PROJEKT 10/8/2021
11.05.2021 3RD PLAN 10/8/2021

Sheet Number:
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L203

PLANNING REVIEW



PLAN REVIEW CENTER REPORT

Planning Review

CATHOLIC CENTRAL STEM ADDITION

JSP 21-44

December 2, 2021

PETITIONER

Catholic Central High School

REVIEW TYPE

Preliminary Site Plan

PROPERTY CHARACTERISTICS

Section	18	
Site Location	West of Wixom Road, South of Grand River; Catholic Central HS Campus; 22-18-200-027; 22-18-200-026;	
Site School District	Novi Community School District	
Site Zoning	RA, R-1 & R-4 One Family Residential, B-1 Local Commercial & I-1 Light Industrial	
Adjoining Zoning	North	City of Wixom north of 12 Mile (RM-1 Low Density Multiple Family)
	East	RM-1 Low Density Multiple Family on eastern side
	West	RA Residential Acreage, R-4 One-Family Residential
	South	R-1 One-Family Residential
Current Site Use	Detroit Catholic Central High School campus	
Adjoining Uses	North	Multifamily Residential in Wixom, vacant
	East	Berkshire Pointe residential community
	West	Northwest Park; Andelina Ridge single family residential
	South	Island Lake residential community
Site Size	115.77 acres	
Plan Date	November 5, 2021	

PROJECT SUMMARY

The applicant is proposing an addition to the northeast side of Catholic Central High School building to house their Science Technology Engineering and Mathematics (STEM) classrooms and labs. The first floor footprint of the addition is 31,690 square feet, and the second floor consists of 23,155 square feet (total GFA: 54,845). The project would also involve the removal and reconfiguration of existing parking areas. Woodland impacts are proposed, which will require permitting following public hearing and approval by the Planning Commission. A revision of the Special Land Use permit for educational facilities in the residential district is also required.

SPECIAL LAND USE REVIEW

Parochial schools in the R-1 District are subject to Special Land Use approval from the Planning Commission. The proposed addition to the building requires a revised Special Land Use approval, since the use is intensified. The Planning Commission shall consider the following in the review of the Special Land Use Permit request:

- i. Whether, relative to other feasible uses of the site, the proposed use will cause any detrimental impact on existing thoroughfares in terms of overall volumes, capacity, safety, vehicular turning patterns, intersections, view obstructions, line of sight, ingress and egress, accel/decel lanes, off-street parking, off-street loading/unloading, travel times and thoroughfare level of service. **The applicant states that enrollment at the school will not increase with the addition, so no additional traffic should be generated once construction is complete.**
- ii. Whether, relative to other feasible uses of the site, the proposed use will cause any detrimental impact on the capabilities of public services and facilities, including water service, sanitary sewer service, storm water disposal, and police and fire protection to serve existing and planned uses in the area. **The applicant states that enrollment at the school will not increase with the addition, so no significant impact on public services and facilities is anticipated.**
- iii. Whether, relative to other feasible uses of the site, the proposed use is compatible with the natural features and characteristics of the land, including existing woodlands, wetlands, watercourses and wildlife habitats. **The proposed addition is to be located in an area that is currently a parking lot, and no impact to surrounding wetlands are proposed. Woodland replacement trees planted previously are impacted, which the applicant indicates will be replaced with new plantings elsewhere on the site.**
- iv. Whether, relative to other feasible uses of the site, the proposed use is compatible with adjacent uses of land in terms of location, size, character, and impact on adjacent property or the surrounding neighborhood. **The school has been in this location since 2005, predating many of the residential neighborhoods that have developed in the surrounding area. The proposed addition to the school building will not measurably change the character of the use, and because enrollment is not going to increase the impact on adjacent properties is not expected to change.**
- v. Whether, relative to other feasible uses of the site, the proposed use is consistent with the goals, objectives and recommendations of the City's Master Plan for Land Use.
- vi. Whether, relative to other feasible uses of the site, the proposed use will promote the use of land in a socially and economically desirable manner.
- vii. Whether, relative to other feasible uses of the site, the proposed use is:
 - a. Listed among the provision of uses requiring special land use review as set forth in the various zoning districts of this Ordinance, and
 - b. Is in harmony with the purposes and conforms to the applicable site design regulations of the zoning district in which it is located.**Parochial schools are listed as a use requiring special land use review and the proposed project largely conforms to the R-1 Zoning District.**

RECOMMENDATION

Staff **recommends approval of the Preliminary Site Plan.** Planning Commission approval of the Preliminary Site Plan, Woodland Permit and Storm Water Management Plan is required.

ORDINANCE REQUIREMENTS

This project was reviewed for compliance with the City of Novi Zoning Ordinance, Article 3 (Residential Acreage), Article 24 (Schedule of Regulations), Article 25 (General Provisions), and any other areas of the ordinance, as noted. The plans show general compliance with ordinance requirements.

1. Noise Impact Statement (Section 4.3.): The Zoning Ordinance requires a noise impact statement for school uses in a residential district. **The applicant requests a waiver from the requirement, as permitted in Section 5.14.10.B.iii, with the justification that no new outdoor uses are proposed.**

Additionally, the proposed roof top heating and cooling units will be screened and the noise level will be below the allowable 55 decibel level at the property line.

2. Traffic Impact Study: The standard number of vehicles expected with an addition of this size exceeds the City's threshold and indicates a Traffic Impact Statement is warranted. However, the applicant has stated that school enrollment will not increase with the addition of the new facilities, and only four new teachers would be hired, and therefore minimal new traffic will be generated as a result of this project. **If this is the case, the applicant should request a waiver of the TIS requirement from the Planning Commission.**
3. Building Height (Section 3.1.1.E): The building includes elements that exceed the 35 foot height limit for the district. **The applicant intends to request a Zoning Board of Appeals variance to allow the 43 foot building height.**
4. Barrier Free Parking: The ADA standards for accessible parking spaces state that the required number of spaces is calculated separately for each parking lot on a site. The eastern parking area, with 73 proposed parking spaces, requires a total of 3 accessible spaces (2 standard and 1 van-accessible). The northern parking areas could be considered one lot, and with 50 spaces would require a total of 2 accessible spaces (1 standard, 1 van). As the law also requires all accessible spaces to be located on the shortest accessible route to an accessible entrance. It is unclear from the plans what entrances are accessible. **The applicant shall ensure they are correctly meeting the ADA law requirements.**
5. Bicycle Parking (Section 5.16): The Ordinance requires 3 bicycle parking spaces per classroom, with a minimum of 10 spaces, for school uses. With 50 classrooms, 150 spaces would be required. The applicant states 8 spaces are existing on the west side of the building. Four additional spaces are proposed on the east side of the building at this time. **The applicant states that as many of their students commute from other communities it makes biking to school infeasible. As the existing spaces are very rarely used, the applicant requests a waiver from the Planning Commission for not providing the full number of spaces required.**

The applicant should clarify whether the building exit closest to the proposed bike rack is available for general use. If it is not, the closest entrance for general use shall be identified to ensure the bike racks are within 120 feet. The sidewalk route to the bike racks shall also be widened to 6 feet per the ordinance requirements.

6. Lighting Plan (Section 5.7): There are minor lighting comments to be addressed in the Final Site Plan submittal – see Planning Chart.

Other Reviews

- Engineering Review: Engineering review recommends approval of the Preliminary Site Plan and Storm Water Management Plan. Additional comments to be addressed with Final Site Plan submittal.
- Landscape Review: Three landscape waivers are recommended for approval. Approval of the Preliminary Site Plan is recommended, contingent on the plan being modified to address concerns detailed in the Landscape Letter to be addressed with Final Site Plan submittal.
- Wetland Review: An Authorization to Encroach in the Natural Feature Setback may be required. MSG recommends approval of the Preliminary Site Plan, with additional comments to be addressed with Final Site Plan submittal.
- Woodland Review: Woodland permit and replacement credits will be required. DRG recommends approval of the Preliminary Site Plan. See woodland review letter for additional details.
- Traffic Review: Approval of the Preliminary Site Plan is recommended. Additional comments to be addressed with Final Site Plan submittal.

- Fire Review: Conditional approval is recommended. Additional comments to be addressed with Final Site Plan submittal, particularly in regard to hydrant spacing.

PLANNING COMMISSION MEETING

This Site Plan will be scheduled to go before the Planning Commission for public hearing on **January 12, 2022**. Please provide the following via email by **January 6, 2022**:

1. Preliminary Site Plan submittal in PDF format (maximum of 10MB). **NO CHANGES MADE**.
2. A response letter addressing ALL the comments from ALL the review letters and a request for waivers/variances as you see fit.
3. A color rendering of the Site Plan (optional, to be used for Planning Commission presentation).

ZONING BOARD OF APPEALS MEETING

If the Planning Commission approves the site plan, the applicant should then seek Zoning Board of Appeals variances for any required items noted. The application can be found at this [link](#). Please call 248-347-0459 for meeting and deadline schedules.

FINAL SITE PLAN SUBMITTAL

After receiving the Preliminary Site Plan approval from the Planning Commission, please submit the following for Final Site Plan review and approval:

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

ELECTRONIC STAMPING SET SUBMITTAL AND RESPONSE LETTER

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

STAMPING SET APPROVAL

Stamping sets are still required for this project. After receiving approval of the Electronic Stamping Set from City staff, the applicant should submit **10 size 24" x 36" copies, folded, with original signature and original seals**, to the Community Development Department for final Stamping Set approval.

If required, drafts for all legal documents with a legal transmittal are to be submitted along with stamping sets. Any off-site easements must be reviewed, approved, and executed prior to approval of the Stamping Set.

PRE-CONSTRUCTION MEETING

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

CHAPTER 26.5

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

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



Lindsay Bell, AICP, Senior Planner



PLANNING REVIEW CHART: R-1 One Family Residential

Review Date: November 30, 2021
Review Type: Preliminary Site Plan
Project Name: **JSP 21-44 CATHOLIC CENTRAL STEM ADDITION**
Plan Date: November 5, 2021
Prepared by: Lindsay Bell, Planner
Contact: **E-mail:** lbell@cityofnovi.org; **Phone:** (248) 347-0484

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

Item	Required Code	Proposed	Meets Code	Comments
Zoning and Use Requirements				
Master Plan <i>(adopted July 26, 2017)</i>	Educational Facility	Existing parochial school	Yes	
Area Study	The site does not fall under any special category	NA	Yes	
Zoning <i>(Effective January 8, 2015)</i>	One-family Residential (RA, R-1, R-4, I-1 and B-1) Article 3	R-1, R-4, and I-1	Yes	Rezoning is not proposed at this time
Uses Permitted (Sec 3.1.1.B & C)	Sec 3.1.1.B Principal Uses Permitted. Sec 3.1.1.C Special Land Uses	Private parochial schools are a special land use in the R-1 District	Yes	Expansion of Special Land Use permit (see Planning Review letter for details);
Phasing	Phasing requires Planning Commission Approval	Phasing not proposed at this time	NA	
Required Conditions: Schools (Section 4.3)				
Site Access <i>(Sec 5.13)</i>	- Vehicular access shall be provided to existing or planned major thoroughfare or freeway service drive	Two existing access drives on Wixom Road; New proposed road would provide another access point to Twelve Mile Road	Yes	Road project reviewed as separate submittal
Noise Impact Statement <i>(Sec 5.14.10.B)</i>	- A noise impact statement is required subject to the standards of Section 5.14.10.B	Changes proposed may increase noise emissions of site	No	Applicant requests a waiver of the Noise Impact Statement requirement
Height, bulk, density and area limitations (Sec 3.1.1.E)				
Maximum % of Lot Area Covered <i>(By All Buildings)</i>	25% <i>Site size total sf: 5,009,400</i>	222,204 square feet 4.4% lot coverage with addition	Yes	
Building Height <i>(Sec. 3.1.1.E)</i>	35 feet or 2 ½ stories	43 feet	No	<u>ZBA variance for building height would be required</u>

Item	Required Code	Proposed	Meets Code	Comments
Building Setbacks (Sec 3.1.1.E)				
Front @ Wixom Road (Sec. 3.6.2.B)	75 feet	631 feet	Yes	
Side (south and north)	75 feet 75 feet	778 feet 493 feet	Yes	
Rear (west)		1637 feet	Yes	
Parking Setback (Sec 3.1.1.E) Refer to applicable notes in Sec 3.6.2				
Front @ Wixom Road (Sec. 3.6.2.B)	75 feet for non-residential uses	New parking not closer than existing parking	Yes	
Side (north and south)	20 ft. 35ft. (lot abuts a residential district)	432 ft (north) 896 ft (south)	Yes	
Rear (west)	20 ft. 35ft. (lot abuts a residential district)	No new parking on west	Yes	
Note To District Standards (Sec 3.6.2)				
Area Requirements (Sec 3.6.2.A)	NA	Non-residential use	NA	
Parking Setbacks (Sec 3.6.2.B)	Refer to Sec 3.6.2 for more details	New parking areas no closer to lot lines than existing parking	NA	
Exterior side yard setback equal to front yard setback (Sec 3.6.2.C)	Refer to Sec 3.6.2 for more details – Would apply to 12 Mile Road frontage	Minimum required setbacks are met	Yes	
Wetland/Watercourse Setback (Sec 3.6.2.M)	Refer to Sec 3.6.2 for more details			See Wetland review letter for detailed comments
Parking, Loading and Dumpster Requirements (Sec. 5.2)				
Number of Parking Spaces (Sec. 5.2) Senior High Schools (Sec. 5.2.12.B)	1 for each teacher, administrator, and other day employee, and 1 for each 4 students over driving age, or the requirements of the auditorium, whichever is the greater	1 space for each 3.4 (gym) seats = 603 1 space for each employee = 120 Total Required: 723 spaces Total proposed: 805	Yes	Net loss of 126 parking spaces; As no auditorium on campus, gym capacity has been used to calculate parking required
Shared Parking Study (Sec. 5.2.7)	One is required if the applicant is requesting reduction of parking space due to multiple uses on Site. This would require Planning Commission's approval		NA	

Item	Required Code	Proposed	Meets Code	Comments
Parking Space Dimensions and Maneuvering Lanes (Sec. 5.3.2)	<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 	<ul style="list-style-type: none"> - 90° Parking: 9 ft. x 19 ft. & 9 ft. x 17 ft. - Drive aisles 24 ft min. - Angled parking: 9 ft. x 18 ft. with 26 ft drive aisle 	Yes	
Parking stall located adjacent to a parking lot entrance (public or private) (Sec. 5.3.13)	Shall not be located closer than twenty-five (25) feet from the street right-of-way (ROW) line, street easement or sidewalk, whichever is closer	No improvements proposed near street ROW	NA	
End Islands (Sec. 5.3.12)	<ul style="list-style-type: none"> - End Islands with landscaping and raised curbs are required at the end of all parking bays that abut traffic circulation aisles. - The end islands shall generally be at least 8 feet wide, have an outside radius of 15 feet, and be constructed 3' shorter than the adjacent parking stall as illustrated in the Zoning Ordinance 	New end islands shown	No	Additional information required to verify conformance – See Traffic Review for further details
Barrier Free Spaces Barrier Free Code	Based on Total Parking proposed in each facility Eastern lot: 73 spaces, 3 accessible spaces required Northern lot: 50 spaces, 2 accessible spaces required	2 spaces shown	No	Applicant shall indicate accessible entrances to building, and locate all accessible parking spaces on shortest accessible route to those entrances
Barrier Free Space Dimensions Barrier Free Code	<ul style="list-style-type: none"> - 8' wide with an 8' wide access aisle for van accessible spaces - 8' wide with a 5' wide access aisle for regular accessible spaces 	8' wide with an 8' wide access aisle for van accessible spaces	Yes	
Barrier Free Signs Barrier Free Code	One sign for each accessible parking space.	Shown	Yes	Revisions required if spaces are moved
Minimum number of Bicycle Parking Sec. 5.16.1	Three (3) spaces per classroom, ten spaces minimum	4 spaces shown	No	8 additional spaces existing; Applicant requests PC waiver

Item	Required Code	Proposed	Meets Code	Comments
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 	No new dumpster proposed	NA	
Lighting and Other Equipment Requirements				
Exterior lighting <i>Sec. 5.7</i>	Photometric plan and exterior lighting details needed at time of Preliminary Site Plan submittal	A lighting plan is provided	Yes	
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	Rooftop equipment proposed	Yes	
Roof top appurtenances screening	Roof top appurtenances shall be screened in accordance with applicable facade regulations, and shall not be visible from any street, road or adjacent property.	Screening proposed	Yes	
Sidewalk Requirements				
Article XI. Off-Road Non-Motorized Facilities	6-foot concrete path is required along public roads	Existing sidewalk on 12 Mile Road and Wixom Road	NA	
Pedestrian Connectivity (Design & Construction Standards)	Assure safety and convenience of both vehicular and pedestrian traffic both within the site and in relation to access streets		NA	
Building Code	Building exits must be connected to sidewalk system or parking lot.	Sidewalks shown around the building addition, all exits appear to be	Yes	

Item	Required Code	Proposed	Meets Code	Comments
		connected to sidewalk		
Other Permit and Legal Requirements				
Design and Construction Standards Manual	Land description, Sidwell number (metes and bounds for acreage parcel, lot number(s), Liber, and page for subdivisions).	Legal descriptions for all parcels are provided	Yes	
General layout and dimension of proposed physical improvements	Location of all existing and proposed buildings, proposed building heights, building layouts, (floor area in square feet), location of proposed parking and parking layout, streets and drives, and indicate square footage of pavement area (indicate public or private).	Mostly provided	Yes	
Economic Impact	- Total cost of the proposed building & site improvements Number of anticipated jobs created (during construction & after building is occupied, if known)		NA	<u>Provide prior to Planning Commission public hearing</u>
Development/ Business Sign & Street addressing	- Signage if proposed requires a permit. - The applicant should contact the Building Division for an address prior to applying for a building permit.	No new signage proposed	NA	
Building Permits	- Any wall over 48" requires building permit	Signage wall will require permit and retaining walls if they exceed the threshold		<u>Contact Building Division for permit requirements 248-347-0415</u>
Project and Street naming	Some projects may need approval from the Street and Project Naming Committee.	This project does not need approval of the Project Name	NA	
Property Split	All property splits and combination must be submitted to the Assessing Department for approval.		NA	Applicant states parcels cannot be combined due to school district boundaries

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		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	Plan provided	Yes	
Building Lighting (Sec. 5.7.2.A.iii)	Relevant building elevation drawings showing all fixtures, the portions of the walls to be illuminated, illuminance levels of walls and the aiming points of any remote fixtures.	Not provided	No	Provide elevation drawings with illuminance levels of walls in FSP submittal
Lighting Plan (Sec.5.7.2.A.ii)	Specifications for all proposed & existing lighting fixtures	Provided	Yes	
	Photometric data	Provided	Yes	
	Fixture height	25 feet	Yes	
	Mounting & design	Shown	Yes	
	Glare control devices	Shown	Yes	
	Type & color rendition of lamps	4000K	Yes	
	Hours of lighting operation	Not provided	No	
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 feet	Yes	
Standard Notes (Sec. 5.7.3.B)	<ul style="list-style-type: none"> - Electrical service to light fixtures shall be placed underground - Flashing light shall not be permitted - Only necessary lighting for security purposes & limited operations shall be permitted after a site's hours of operation 	Not shown	No	Include standard notes on next submittal
Security Lighting (Sec. 5.7.3.H) Lighting for	- All fixtures shall be located, shielded, and aimed at the areas to be secured.	Not provided	No	Provide security lighting plan as required

Item	Required Code	Proposed	Meets Code	Comments
security purposes shall be directed only onto the area to be secured.	- Fixtures mounted on the building and designed to illuminate the facade are preferred			
Average Light Levels (Sec.5.7.3.E)	Average light level of the surface being lit to the lowest light of the surface being lit shall not exceed 4:1	3.8:1 max at NE walkway	Yes	
Type of Lamps (Sec. 5.7.3.F)	Use of true color rendering lamps such as metal halide is preferred over high & low pressure sodium lamps	LED, 4000k		
Min. Illumination (Sec. 5.7.3.k)	Parking areas: 0.2 min	.6 min shown	Yes	
	Loading & unloading areas: 0.4 min		NA	
	Walkways: 0.2 min	0.5 min shown	Yes	
	Building entrances, frequent use: 1.0 min	6.9 min shown	Yes	
	Building entrances, infrequent use: 0.2 min	3.0 min shown	Yes	
Max. Illumination adjacent to Non-Residential (Sec. 5.7.3.K)	When site abuts a non-residential district, maximum illumination at the property line shall not exceed 1 foot candle	House-side shield proposed	Yes	
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	Photometrics not shown to property line	No?	Show fc levels at the property line to verify conformance

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

11/30/2021

Engineering Review

Catholic Central Stem Addition
JSP21-0044

Applicant

Catholic Central High School

Review Type

Preliminary Site Plan

Property Characteristics

- Site Location: West of Wixom Road, South of Twelve Mile Road
- Site Size: 70.88 acres
- Plan Date: 11/05/2021
- Design Engineer: Zeimet Wozniak & Associates

Project Summary

- Construction of an approximately 54,805 square foot addition to existing building and associated parking.
- Relocation of existing water main, sanitary sewer and storm sewer.

Recommendation

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

Comments:

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

General

1. Provide a traffic control sign table listing the quantities of each *permanent* sign type proposed for the development. Provide a note along with the table stating all traffic signage will comply with the current MMUTCD standards.

2. Provide a note that compacted sand backfill (MDOT sand Class II) shall be provided for all utilities within the influence of paved areas, and illustrate and label on the profiles.
3. Provide a construction materials table on the Utility Plan listing the quantity and material type for each utility (water, sanitary and storm) being proposed.
4. 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.
5. 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.
6. 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.
7. 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.
8. Show the locations of all light poles on the utility plan and indicate the typical foundation depth for the pole to verify that no conflicts with utilities will occur. Light poles in a utility easement will require a License Agreement.

Water Main

9. All water main easements shall be 20 feet wide. Revise the proposed easement accordingly.
10. A tapping sleeve, valve and well is required at the connection to the existing water main.
11. Provide water main modeling calculations demonstrating that the required water supply of 2,000/4,000 GPM will be available.
12. Provide additional valves if pipe runs 800 feet between valves.
13. Per current EGLE requirement, provide a profile for all proposed water main 8-inch and larger.
14. Label length of hydrant leads 6-inch hydrant leads are allowed for leads less than or equal to 25 feet in length. 8-inch leads are required for leads greater than 25 feet in length.
15. Provide a separate domestic lead and, if required by the Fire Marshal, a minimum 6-inch fire lead for each building with a unique shut-off valve for each.

Sanitary Sewer

16. Provide a sanitary sewer monitoring manhole, unique to this site, within a dedicated access easement or within the road right-of-way. If not in the right-of-way, provide a 20-foot wide access easement to the monitoring manhole from the right-of-way (rather than a public sanitary sewer easement).
17. Sanitary Sewer leads shall generally be less than one hundred (100) feet in length. Refer to section 11-68 design considerations: https://library.municode.com/mi/novi/codes/code_of_ordinances?nodeId=PTIICOOR_CH11DECOST_ARTIIIWAMA_S11-68DECO
18. Provide more information for proposed bridge footings, needed for sanitary lead under building.
19. Provide a sanitary sewer basis of design for the development on the utility plan sheet.
20. Note on the construction materials table that 6-inch sanitary leads shall be a minimum SDR 23.5, and mains shall be SDR 26.
21. Provide a note on the Utility Plan and sanitary profile stating the sanitary leads will be buried at least 5 feet deep where under the influence of pavement.
22. Label any proposed internal drop connections if any are proposed.
23. Illustrate all pipes intersecting with manholes on the sanitary profiles.

Storm Sewer

24. A minimum cover depth of 3 feet shall be maintained over all proposed storm sewer.
25. Storm manholes with differences in invert elevations exceeding two feet shall contain a 2-foot deep plunge pool.
26. Provide profiles for all storm sewer 12-inch and larger.
27. 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.
28. 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.
29. Illustrate all pipes intersecting storm structures on the storm profiles.
30. 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.
31. Show and label all roof conductors, and show where they tie into the storm sewer.

Storm Water Management Plan

32. 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.
33. Provide calculations verifying the post-development runoff rate directed to the proposed receiving drainage course does not exceed the pre-development runoff rate for the site.
34. Provide release rate calculations for the three design storm events (first flush, bank full, 100-year).
35. Provide supporting calculations for the runoff coefficient determination for green roof.

Paving & Grading

36. Provide a construction materials table on the Paving Plan listing the quantity and material type for each pavement cross-section being proposed.
37. Attach City Paving Standards to plans. Removed proposed cross sections for curb, asphalt road, and sidewalk.
38. 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.
39. Provide existing and proposed contours on the Grading Plan at the time of the Final Site Plan submittal.
40. Provide at least 3-foot of buffer distance between the sidewalk and any fixed objects, including hydrants and irrigation backflow devices. Include a note on the plan where the 3-foot separation cannot be provided.
41. Site grading shall be limited to 1V:4H (25-percent), excluding landscaping berms.
42. More than 15 adjacent spaces shown on plan with out an island. (The end islands shall conform to the City standard island design, or variations of the standard design, while still conforming to the standards as outlined in Section 2506 of Appendix A of the Zoning ordinance)

Engineering Review of Preliminary Site Plan

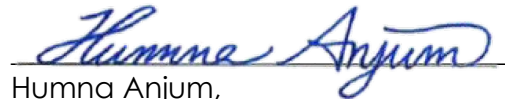
Catholic Central Stem Addition
JSP21-0044

11/30/2021

Page 5 of 5

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 Humna Anjum/ at (248) 735-5632 with any questions.

A handwritten signature in blue ink that reads "Humna Anjum". The signature is written in a cursive style and is positioned above a horizontal line.

Humna Anjum,
Project Engineer

cc: Lindsay Bell, Community Development
Ben Croy, PE; Engineering
Victor Boron, Engineering
Kate Purpura, Engineering

LANDSCAPE REVIEW



PLAN REVIEW CENTER REPORT
November 17, 2021
Catholic Central Stem Building Addition
Preliminary Site Plan - Landscaping

Review Type

Preliminary Site Plan Landscape Review

Job #

JSP21-0044

Property Characteristics

- Site Location: 27225 Wixom Road
- Site Acreage: 70.88 ac.
- Site Zoning: RI-1
- Adjacent Zoning: North: R-4, RM-1, I-2, East: I-1, B-1, South: R-1, West: R-4
- Plan Date: 11/5/2021

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 Preliminary Site Plan submittal and underlined items need to be included in Final Site Plans.. 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, if the Planning Commission grants the waiver requests.** The other revisions noted below can be addressed on Final Site Plans.

LANDSCAPE WAIVERS REQUIRED:

- Parking bays longer than 15 consecutive spaces – *Would be supported by staff as an existing condition is being improved*
- One parking lot island does not have a tree – *Would be supported by staff.*
- Deficiency of 8 parking lot perimeter trees along the north and south side of the eastern parking lot – *Would be supported by staff as there is not room for perimeter trees where there are already trees.*
- Deficiency in parking lot perimeter trees on south and east sides where room exists for additional trees – *Would **not** be supported by staff.*
- Deficiency in parking lot accessway perimeter trees – *Would **not** be supported by staff.*

Please work to reduce or eliminate the unsupported waivers.

Ordinance Considerations

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

1. **Provided.**
2. **Please provide more spacing between the woodland replacement trees.**

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

The project is not adjacent to residentially-zoned property so no new screening vegetation

or berms are required for this project.

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

The project does not require any additional right-of-way berms or landscaping.

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

1. Sufficient interior landscape area appears to be provided.
2. **A landscape waiver is required to not add a tree in the northwest island of the eastern parking lot.** *It would be supported by staff since utility conflicts don't provide room for a tree and shrubs have been proposed instead.*
3. A tree is still needed in the new eastern island of the east parking lot.
4. **A landscape waiver is required for a deficiency in parking lot perimeter trees provided.** *It is partially supported for missing parking lot perimeter trees along the north and south sides of the east parking lot because existing trees don't provide room for new trees, but it is not supported for the portions of the south frontage and the east end of the parking lot where there is room.*
5. **A waiver would not be supported for a deficiency in accessway perimeter trees since there is room for them.** *It would not be supported by staff.*
6. **A waiver is required for bays greater than 15 spaces.** *As existing longer bays are being shortened, this waiver is supported by staff, but when additional parking is created in future stages of development, interior islands must be added to break up the long bays.*

Building foundation Landscaping (Zoning Sec 5.5.3.D)

Please add foundation along the south side of the addition as well.

Plant List (LDM 4, 10)

1. The tree diversity standard of Landscape Design Manual Section 4 is far exceeded by birches and blackgums outside of the courtyard. **More tree diversity must be added to the site.**
2. Inside the courtyard, only paper birches are used. This is risky from a potential disease or insect infestation viewpoint, but as it is completely surrounded by building, it is accepted.
3. 3 of 6 (50%) non-woodland replacement species used are native to Michigan. This is accepted.

Planting Notations and Details (LDM 10)

Provided

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

1. No detention basin landscaping is proposed.
2. **If existing detention basins are enlarged for this project, the enlarged portion(s) must be landscaped per the city standard.**

Transformer screening

No screening is provided for the transformer. **Please add it per the city detail.**

Irrigation (LDM 10)

If an irrigation system will be used, it should conform to the rules at the bottom of the Landscape Chart.

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 meader@cityofnovi.org.



Rick Meader – Landscape Architect

LANDSCAPE REVIEW SUMMARY CHART – PRELIMINARY SITE PLAN

Review Date: November 17, 2021
Project Name: JSP21 – 0044: CATHOLIC CENTRAL STEM ADDITION
Plan Date: November 5, 2021
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:

- Parking bays longer than 15 consecutive spaces – *Would be supported by staff as an existing condition is being improved*
- One parking lot islands does not have a tree – *Would be supported by staff.*
- Deficiency of 8 parking lot perimeter trees along the north and south south side of the parking lot – *Would be supported by staff as there is not room for perimeter trees where there are already trees.*
- Deficiency in parking lot perimeter trees on south and east sides – *Would not be supported by staff.*
- Deficiency in accessway perimeter drive trees for both new drives – *Would not be supported by staff.*

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 	Scale: 1" = 30' Courtyard: 1"=10'	Yes	
Project Information <i>(LDM 2.d.)</i>	Name and Address	<ul style="list-style-type: none"> • Yes • Location map provided 	Yes	
Owner/Developer Contact Information <i>(LDM 2.a.)</i>	Name, address and telephone number of the owner and developer or association	Yes – on cover sheet	Yes	Please add the school's address and contact information to the landscape plans, in case the landscape plans are separated from the set.
Landscape Architect contact information <i>(LDM 2.b.)</i>	Name, Address and telephone number of RLA/PLA/LLA who created the plan	Yes – Grissim Metz Andriese Associates	Yes	

Item	Required	Proposed	Meets Code	Comments
Sealed by LA. (LDM 2.g.)	Requires original signature on stamping sets	Yes		<u>Live signatures will be required on the final stamping sets</u>
Miss Dig Note (800) 482-7171 (LDM.3.a.(8))	Show on all plan sheets	Yes	Yes	
Zoning (LDM 2.f.)	Include all adjacent zoning	Shown on the cover sheet <u>Parcel:</u> R-1 <u>North:</u> R-4, RM-1, I-1 <u>East:</u> I-1, B-1 <u>South:</u> R-1, <u>West:</u> R-4	Yes	
Survey information (LDM 2.c.)	<ul style="list-style-type: none"> • Legal description or boundary line survey • Existing topography 	<ul style="list-style-type: none"> • Legal description on Cover Sheet • Existing conditions on Sheet CE-2 	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"> • Existing trees in vicinity and tree chart are shown on Sheet CE-2 • Removals are shown on L101-L102 • Tree protection fencing shown on Sheet CE-7 • Trees planted as woodland replacements have been indicated. • Woodland replacements are shown as being planted near the wetland mitigation area for the entry area project. 	<ul style="list-style-type: none"> • Yes • Yes • Yes • Yes 	<ol style="list-style-type: none"> 1. Please see the DRG letter for a complete review of the woodlands and wetlands. 2. Please space out the woodland replacements more – they are only planted 10'oc on average, which is too close. They should be an average of 20 feet apart. 3. Due to their susceptibility to oak wilt passing through root grafts, please locate clusters of 5-7 red oaks at least 60 feet from other clusters.
Soil types (LDM.2.r.)	<ul style="list-style-type: none"> ▪ As determined by Soils survey of Oakland county ▪ Show types, boundaries 	Sheet CE-7	Yes	
Existing and proposed improvements (LDM 2.e.(4))	Existing and proposed buildings, easements, parking spaces, vehicular use areas, and R.O.W	Sheet CE-5	Yes	
Existing and proposed utilities (LDM 2.e.(4))	Overhead and underground utilities, including hydrants	Existing utilities to remain and proposed utilities	<ul style="list-style-type: none"> • Yes • TBD 	Please use heavier lineweights for utility lines (not easements) to

Item	Required	Proposed	Meets Code	Comments
		are included on landscape plan but they are faint		show more clearly where trees could be safely planted without conflict.
Proposed grading. 2' contour minimum (LDM 2.e.(1))	Provide proposed contours at 2' interval	Spot elevations are provided on Sheet CE-5	Yes	
Snow deposit (LDM.2.q.)	Show snow deposit areas on plan	No	No	Please show areas for snow deposits that won't harm vegetation.
LANDSCAPING REQUIREMENTS				
Parking Area Landscape Requirements LDM 1.c. & Calculations (LDM 2.o.)				
General requirements (LDM 1.c)	<ul style="list-style-type: none"> ▪ Clear sight distance within parking islands ▪ No evergreen trees 	No proposed landscaping appears to block vision of vehicles leaving the parking lot	Yes	
Name, type and number of ground cover (LDM 1.c.(5))	As proposed on planting islands	Grow low fragrant sumac is shown in all new islands.	Yes	
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 ▪ A minimum of 200sf unpaved area per tree planted in an island ▪ 6" curbs ▪ Islands minimum width 10' BOC to BOC 	Some new islands are created for this project.	TBD	
Curbs and Parking stall reduction (c)	Parking stall can be reduced to 17' and the curb to 4" adjacent to a sidewalk of minimum 7 ft.	Yes	Yes	
Contiguous space limit (i)	Maximum of 15 contiguous spaces	<ul style="list-style-type: none"> • 25 is maximum bay length, in eastern lot • There are 21 in the bay north of the building. 	No	<p>1. Endcap islands and islands used to break up bays must be landscaped with a deciduous canopy tree for bays of 15 or less contiguous spaces.</p> <p>2. A landscape waiver is required for the proposed layout. As existing bays are actually being shortened, the</p>

Item	Required	Proposed	Meets Code	Comments
				<p><i>waiver would be supported by staff.</i></p> <p>3. When future landscaping is provided in the vicinity of the site, the long bays should be brought into conformance with the ordinance.</p> <p>4. Please add a canopy tree in the new island at the east end of the parking area north of the building. There is room for a tree to be squeezed in 10 feet from the catch basin, and 5 feet from the existing utility line.</p> <p>5. The tree in the new southwest island of the east lot is almost on top of what appears to be a utility line. Please move it west, 5 feet from the line.</p> <p>6. A landscape waiver is required to not plant a tree in the new western island at the north side of the east parking area. It would be supported by staff due to utility conflicts in that island, and because the school is proposing a mass of shrubs in the island as landscaping.</p>
<p>Plantings around Fire Hydrant (d)</p>	<p>No plantings with mature height greater than 12' within 10 ft. of fire hydrants</p>	<p>No new or existing plantings are shown near existing hydrants but are or would be near utility lines.</p>	<p>Yes/No</p>	<p>To assist contractors, please add a note to the plans stating that all trees are to be at least 10 feet from hydrants or utility structures.</p>
<p>Landscaped area (g)</p>	<p>Areas not dedicated to parking use or driveways exceeding 100 sq. ft.</p>	<p>Yes</p>	<p>Yes</p>	

Item	Required	Proposed	Meets Code	Comments
	shall be landscaped			
Clear Zones (LDM 2.3.(5))	25 ft corner clearance required. Refer to Zoning Section 5.5.9	None	TBD	Clear vision zones aren't required, but are recommended for the entries to the drive.
Category 1: For OS-1, OS-2, OSC, OST, B-1, B-2, B-3, NCC, EXPO, FS, TC, TC-1, RC, Special Land Use or non-residential use in any R district (Zoning Sec 5.5.3.C.iii)				
A = Total square footage of vehicular use areas up to 50,000sf x 7.5%	<ul style="list-style-type: none"> A = x sf * 7.5 % 24828 sf * 7.5% = 1862 sf 		Yes	
B = Total square footage of additional paved vehicular use areas (not including A or B) over 50,000 SF) x 1 %	<ul style="list-style-type: none"> B = x sf * 1% = B sf (xxx - 50000) * 1% = xxx sf 	NA		
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%	A = x sf * 5% = A sf	NA		
B = Total square footage of additional paved vehicular use areas over 50,000 SF x 0.5%	B = 0.5% x 0 sf = B sf	NA		
All Categories				
C = A+B Total square footage of landscaped islands	A + B = C SF 1862 + 0 = 1862 sf	1401 sf <ul style="list-style-type: none"> 626 sf in islands with trees 775 sf in islands without trees It appears the existing eastern islands provide the required remaining area. 	TBD	<ol style="list-style-type: none"> Please label the area of the two existing islands. See below for discussions of waivers related to parking lot trees.
D = C/200 Number of canopy trees required (Zoning Sec 5.5.C)	C/200 = D Trees 1826/200 = 9 trees	10 trees <ul style="list-style-type: none"> 7 existing to remain 3 new trees 	TBD	<ol style="list-style-type: none"> Woodland replacement trees can't be used to meet the interior or perimeter parking lot landscaping requirements or perimeter trees. All interior islands must have a deciduous canopy tree planted in them.

Item	Required	Proposed	Meets Code	Comments
<p>Parking Lot Perimeter trees (Zoning Sec 5.5.C)</p>	<ul style="list-style-type: none"> • 1 Canopy tree per 35 lf • 495 lf/35 = 14 trees • Less 3 trees along south side of parking lot (waiver discussed in notes) • Less 5 trees along north side of parking lot (waiver discussed in notes) 	<p>0 provided</p>	<p>No</p>	<p>3. A landscape waiver would be required if all required trees are not provided.</p> <ol style="list-style-type: none"> 1. Existing trees whose trunks are within 15 feet of the edge of paving can be counted toward the requirement. 2. The 10 trees south of the parking lot can't count toward the requirement as they are further than 15 feet from the pavement and the 5 trees on the north edge of the parking lot can't be double-counted as perimeter trees. <i>Staff would support a waiver to not require parking lot perimeter trees for the 100lf of frontage south of the parking lot with trees and along the entire north edge of the parking lot since there isn't room for perimeter trees to be planted. 3 perimeter trees would still be required along the south frontage.</i> 3. 3 perimeter trees are required along east side of parking lot. 4. Please use a canopy tree with a mature height of at least 30 feet and a mature canopy width of at least 20 feet. The Ginkgo selected does not have a true canopy and only achieves 20 feet width after many years of growth.

Item	Required	Proposed	Meets Code	Comments
Accessway perimeter	<ul style="list-style-type: none"> ▪ 1 canopy tree per 35 lf on each side of road, less widths of access drives. ▪ East Lot: $132/35 = 4$ trees ▪ West Lot: $65/35 = 2$ trees ▪ Trees must be within 15 feet of the drive edge to count. 	<p>East Lot: 1 existing trees West Lot: 1 new tree</p>	No	<p>1. A landscape waiver is required for the deficiency in accessway canopy trees. <i>It would not be supported by staff as there is room for all of the required trees.</i></p> <p>2. Please show all existing and provided trees within fifteen feet of the access perimeters on the plans. (The trunk must be within 15 feet to count).</p>
Parking land banked	▪ NA	No		
Berms, Walls and ROW Planting Requirements				
Berms				
<ul style="list-style-type: none"> ▪ All berms shall have a maximum slope of 33%. Gradual slopes are encouraged. Show 1ft. contours ▪ Berm should be located on lot line except in conflict with utilities. ▪ Berms should be constructed with 6" of topsoil. 				
Residential Adjacent to Non-residential (Sec 5.5.3.A) & (LDM 1.a)				
Berm requirements (Zoning Sec 5.5.A)	Not adjacent to residential so no berm is required	None	Yes	
Planting requirements (LDM 1.a.)	LDM Novi Street Tree List	NA		
Adjacent to Public Rights-of-Way (Sec 5.5.B) and (LDM 1.b)				
Berm requirements (Zoning Sec 5.5.3.A.(5))	The site is not adjacent to the right-of-way so no ROW berm is required.	None	Yes	
Cross-Section of Berms (LDM 2.j)				
Slope, height and width	<ul style="list-style-type: none"> ▪ Label contour lines ▪ Maximum 33% ▪ Min. 3 feet flat horizontal area ▪ Minimum 3 feet high ▪ Constructed of loam with 6' top layer of topsoil. 	NA		
Type of Ground Cover		NA		
Setbacks from Utilities	Overhead utility lines and 15 ft. setback from edge of utility or 20 ft. setback from closest pole	NA		

Item	Required	Proposed	Meets Code	Comments
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 wall is proposed		
Walls greater than 3 ½ ft. should be designed and sealed by an Engineer		NA		
ROW Landscape Screening Requirements (Sec 5.5.3.B. ii)				
Greenbelt width (2)(3) (5)	The site is not adjacent to the right-of-way so no greenbelt is required.	NA		
Min. berm crest width	The site is not adjacent to the right-of-way so no berm is required.	None	Yes	
Minimum berm height (9)	The site is not adjacent to the right-of-way so no berm is required.	None	Yes	
3' wall	(4)(7)	None		
Canopy deciduous or large evergreen trees Notes (1) (10)	The site is not adjacent to the right-of-way so no ROW landscaping is required.	None	Yes	
Sub-canopy deciduous trees Notes (2)(10)	See above	None	Yes	
Canopy deciduous trees in area between sidewalk and curb (Novi Street Tree List)	See above	None	Yes	
Non-Residential Zoning Sec 5.5.3.E.iii & LDM 1.d (2) Refer to Planting in ROW, building foundation landscape, parking lot landscaping and LDM				
Screening of outdoor storage, loading/unloading (Zoning Sec. 3.14, 3.15, 4.55, 4.56, 5.5)		No loading zone is provided in this area	Yes	
Transformers/Utility boxes (LDM 1.e from 1 through 5)	<ul style="list-style-type: none"> ▪ A minimum of 2ft. separation between box and the plants ▪ Ground cover below 4" is allowed up to pad. ▪ No plant materials within 8 ft. from the doors 	The relocated transformer is not screened.	No	<ol style="list-style-type: none"> 1. Please add utility screening detail to the plans. 2. Please add screening per the plans.
Building Foundation Landscape Requirements (Sec 5.5.3.D)				

Item	Required	Proposed	Meets Code	Comments
Interior site landscaping SF	<ul style="list-style-type: none"> ▪ Equals to entire perimeter of the building x 8 with a minimum width of 4 ft. ▪ A: (Perimeter If less entry points) x 8ft = xx SF ▪ A = 790lf * 8 = 6320 sf 	A: 8063 sf	Yes/No	75% of the building perimeter is the minimum coverage, but the intent of the ordinance is that as much of the building foundation as possible be landscaped. Please add landscaping for the south frontage as well.
<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	<ul style="list-style-type: none"> • The building doesn't face the road so the 60% requirement doesn't apply • Greater than 60% of the north and east frontages are 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 shall cover 70-75% of the basin rim area ▪ 10" to 14" tall grass along sides of basin ▪ Refer to wetland for basin mix 	The detention basin is not included in this submittal	TBD	If the existing detention basin needs to be enlarged, the enlarged area must be landscaped per the ordinance.
Phragmites and Japanese Knotweed Control <i>(Sec 5.5.6.C)</i>	<ul style="list-style-type: none"> ▪ Any and all populations of Phragmites australis 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 no Phragmites or Knotweed was found.	Yes	If any is found during construction, it should be chemically treated per MDEGLE standards.
LANDSCAPING NOTES, DETAILS AND GENERAL REQUIREMENTS				
Landscape Notes – Utilize City of Novi Standard Notes				
Installation date <i>(LDM 2.1. & Zoning Sec 5.5.5.B)</i>	Provide intended date	Between Mar 15 and Nov 15.	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 one cultivation in June, July and August 	Yes	Yes	

Item	Required	Proposed	Meets Code	Comments
	for the 2-year warranty period.			
Plant source (LDM 2.n & LDM 3.a.(2))	Shall be northern nursery grown, No.1 grade.	Yes	Yes	
Irrigation plan (LDM 2.s.)	A fully automatic irrigation system or an alternative method of providing sufficient water for plant establishment and survival is required on Final Site Plans.	No	No	<ol style="list-style-type: none"> 1. <u>Please add an irrigation plan or information as to how plants will be watered sufficiently for establishment and long- term survival.</u> 2. <u>If xeriscaping is used, please provide information about plantings included.</u> 3. <u>See the list of requirements for irrigation systems at the end of this chart.</u>
Other information (LDM 2.u)	Required by Planning Commission	NA		
Establishment period (Zoning Sec 5.5.6.B)	2 yr. Guarantee	Yes	Yes	
Approval of substitutions. (Zoning Sec 5.5.5.E)	City must approve any substitutions in writing prior to installation.	Yes	Yes	
Plant List (LDM 4.) – Include all cost estimates				
Quantities and sizes	Refer to LDM suggested plant list	Yes	Yes	
Root type		Yes	Yes	
Botanical and common names		<ul style="list-style-type: none"> ▪ Aside from the trees inside the courtyard, the tree diversity standard of LDM 4 (no more than 15% of a species of 25% of a genus) is not met. ▪ 3 of 6 non-woodland replacement species are native to Michigan. 	<ul style="list-style-type: none"> ▪ No ▪ Yes 	<ol style="list-style-type: none"> 1. While using just <i>Betula papyrifera</i> inside the courtyard is a risky move, it is accepted since it's a contained area. 2. More tree diversity should be added for the trees outside of the building. At least 6 more perimeter trees are required, and more accessway perimeter trees are also required. Please use different species for them, and maintain or exceed

Item	Required	Proposed	Meets Code	Comments
				the 50% minimum native species threshold.
Type and amount of lawn		Yes	Yes	<u>Please add type and quantities of sod or seed to the cost estimate.</u>
Cost estimate (LDM 2.t)	For all new plantings, mulch and sod as listed on the plan	No	No	<u>Please add to final site plan.</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		No	No	
Tree stakes and guys. (Wood stakes, fabric guys)		Yes	Yes	
Tree protection fencing	Located at Critical Root Zone (1' outside of dripline)	Sheet L102	Yes	Please add a callout stating that the fence shall be located 1 foot outside of the trees' driplines.
Other Plant Material Requirements (LDM 3)				
General Conditions (LDM 3.a)	Plant materials shall not be planted within 4 ft. of property line	NA – site is not near any property line		
Plant Materials & Existing Plant Material (LDM 3.b)	Clearly show trees to be removed and trees to be saved.	Yes		
Landscape tree credit (LDM3.b.(d))	Substitutions to landscape standards for preserved canopy trees outside woodlands/ wetlands should be approved by LA. Refer to Landscape tree Credit Chart in LDM	No		
Plant Sizes for ROW, Woodland replacement and others (LDM 3.c)	2.5" canopy trees 6' evergreen trees	On plant list	Yes	
Plant size credit (LDM3.c.(2))	NA	No		
Prohibited Plants (LDM 3.d)	No plants on City Invasive Species List		TBD	

Item	Required	Proposed	Meets Code	Comments
Recommended trees for planting under overhead utilities (LDM 3.e)	Label the distance from the overhead utilities	A note on L201 indicates that there are no overhead lines in the area.	Yes	
Collected or Transplanted trees (LDM 3.f)		None indicated		
Nonliving Durable Material: Mulch (LDM 4)	<ul style="list-style-type: none"> ▪ Trees shall be mulched to 3" depth and shrubs, groundcovers to 2" depth ▪ Specify natural color, finely shredded hardwood bark mulch. Include in cost estimate. ▪ Refer to section for additional information 	Yes	Yes	
<p>NOTES:</p> <ol style="list-style-type: none"> 1. This table is a working summary chart and not intended to substitute for any Ordinance or City of Novi requirements or standards. 2. The section of the applicable ordinance or standard is indicated in parenthesis. 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

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

WOODLAND REVIEW



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800-828-8312

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To: Barbara McBeth, City Planner
Community Development Department, City of Novi

From: Kerry Gray, Principal Consultant
Davey Resource Group

CC: Lindsay Bell, City of Novi Senior Planner
Christian Carroll, City of Novi Planner
Rick Meader, City of Novi Landscape Architect
Madeleine Daniels, City of Novi Planner
Ben Peacock, City of Novi Assistant Planner
Douglas Repen, Mannik and Smith Group

Date: November 30, 2021

RE: Catholic Central High School STEM Addition
Woodland Review #1 - Preliminary Site Plan Review – PSP21-0113

Davey Resource Group, Inc. (DRG) has conducted a review of the Preliminary Site Plan for the proposed **STEM Addition at Catholic Central High School** located at 27225 Wixom Road (Parcel Nos. 22-18-200-026 and 22-18-200-027). The plan set prepared by Zeimet Wozniak and Associates, Inc. (issue date: 11/05/2021), proposes construction of an addition to the high school for their STEM programs. The site contains City of Novi regulated woodland (Figure 1). DRG reviewed the Preliminary Site Plan set for conformance with the City of Novi’s Woodland Protection Ordinance, Chapter 37.

Recommendation: DRG **recommends approval** of the Catholic Central High School STEM Addition Preliminary Site Plan.

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) & Financial Guarantee (Chapter 26.5-5)	YES
Tree Protection (Fence) (Chapter 37, Section 37-9) & Financial Guarantee (Chapter 26.5-5)	YES
Woodland Conservation Easement (Chapter 37-30 (e))	YES

Woodland Impacts and Required Replacements

The plan proposes disturbance to the regulated woodlands adjacent to the current high school building to construct the STEM addition. The woodlands are considered moderate quality with a mix of upland and bottomland species including bur oak, swamp white oak, red maple, silver maple, basswood, and shagbark hickory. In addition to the regulated woodlands within the STEM construction limits of disturbance there are trees that were planted as woodland replacements for the construction of the high school. These woodland replacement trees are also regulated.

A site inspection conducted by DRG on 11/22/2021 confirmed the woodland tree survey (site photos).

The plan proposes the removal of the following trees:

Regulated Woodland Tree Removals	12
Woodland Tree Replacement Removals	36
Total Tree Removals	48

The following woodland tree replacements are required:

Tree Size (DBH)	Number of Trees	Ratio Replacement/Removed Tree	Total Replacements Required
8-11"	7	1	7
>11-20"	5	2	10
>20-29"	-	3	-
>29+"	-	4	-
Multi-Stem	-	Add Stems/8	-
Woodland Replacement Trees	36	1	36
Total Replacement Credits Required			53

There are 53 total replacement trees proposed to be planted to meet the woodland replacement requirements:

- 13 red maple (*Acer rubrum* – 2.5" caliper B&B)
- 13 Green Mountain sugar maple (*Acer saccharum* 'Green Mountain' – 2.5" caliper B&B)
- 8 swamp white oak (*Quercus bicolor*) -2.5" caliper B&B
- 9 red oak (*Quercus rubra*) -2.5" caliper B&B
- 5 white spruce (*Picea glauca*) – 6' tall
- 5 white pine (*Pinus strobus*) – 6' tall

Woodland Review Comments

1. **A Woodland Use Permit is required** to perform construction on any site containing regulated woodlands. The Woodland Use Permit for this project requires Planning Commission approval.
2. **Woodland Replacements Spacing (Sheet L203).** The spacing of the woodland replacement canopy trees is approximately 9-feet apart which is too close to allow for proper growth and development. **Please revise woodland replacements to increase spacing between woodland replacement canopy trees to a minimum of 15-feet.** Alternatively:
 - The applicant could replace some of the canopy tree species, with approved understory species, such as American hornbeam (*Carpinus betulus*), American hophornbeam (*Ostrya virginiana*), redbud (*Cercis canadensis*), and serviceberry spp. (*Amelanchier arborea* or *A. laevis*) at a minimum spacing of 10-feet.
 - Address the spacing issues and reduce the number of woodland replacement credits planted on site and provide woodland replacement credits through payment into the City of Novi Tree Fund at a rate of \$400/tree.
3. **Woodland Replacement Species (Sheet L203).** Nearly 50% of the replacement species to be planted are in the *Acer* (maple) genus. To maintain diversity on the Catholic Central campus and reduce the susceptibility of these species to insect/disease pests – reduce the number of *Acer* species that are to be planted to 25%. Selection of other native Michigan tree species should focus on mimicking the natural forests on the campus.
4. **Critical Root Zone.** The critical root zone and the location of tree protection fence of preserved woodland replacement trees in the new courtyard are not shown on the **sheets CE-7, L201, and L203** of the Preliminary Site Plan.

Revise plans to:

- a. Accurately depict the location of the critical root zone per Section 37-9(1)
 - b. If tree protection fence must be located within the critical root zone of preserved regulated woodland replacement trees, provide the woodland replacement credits required per the woodland replacement requirements outlined in Chapter 37 and calculate the amount to be paid into the City of Novi Tree Fund
5. **Financial Guarantees**
- 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.
 - b. **Woodland Replacement Financial Guarantee of \$21,200.00 (53 woodland replacement credits x \$400 per woodland replacement credit)** is required as part of the Woodland Use Permit fees to ensure planting of the on-site Woodland Replacement tree credits. This amount may change dependent on how comment #2 is addressed.

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 (comment 6).

- c. The applicant will be required to pay into the City of Novi Tree fund at a rate of \$400/credit for any Woodland Replacement tree credits that cannot be planted on site.
6. **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 of twenty-five (25) percent of the value of the trees (\$5,300), 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 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.

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



Figure 1. Catholic Central High School
City of Novi Regulated Woodland Map
Location of proposed STEM addition circled in blue

Site Photos



Photos Above. Areas adjacent to existing building where woodland replacement trees are proposed to be removed



Photo Left. Area east of the existing building. Foreground woodland replacement evergreen trees proposed to be removed. Background regulated woodland.



Photos Above. Regulated woodlands to the east of the proposed STEM addition. Seven regulated woodland trees along the edge and within this woodland are proposed to be removed.

WETLAND REVIEW



November 29, 2021

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

RE: Catholic Central High School – STEM Addition; JSP21-0044
Wetland Review of Preliminary Site Plan
MSG Project No. N1030085

Dear Ms. Bell:

The Mannik & Smith Group, Inc. (MSG) completed a project site inspection relative to Sheet CE-2, *Existing Conditions*, Sheet CE-7, *Erosion Control Concept Plan*, and Sheet L101, *Tree Removals Plan*, of the *Preliminary Site Plan and Stormwater Management Plan for STEM Addition, Catholic Central High School* prepared by Zeimet Wozniak & Associates dated November 5, 2021 (the PSP). The project site is located at 27225 Wixom Road, west of Wixom Road and south of Twelve Mile Road, Parcel 50-22-18-200-027, in Section 18 (Site). The PSP depicts construction of a two-story addition to the existing Catholic Central High School building with associated utility connections and landscaping changes (Project). Sheet CE-2 of the PSP depicts the current limits of the nearby wetland and its wetland buffer. Sheet L101 of the PSP depicts the planned location of silt fence within the wetland buffer.

Published Data

MSG reviewed the City of Novi Wetlands Maps and the Michigan Department of Environment, Great Lakes, and Energy (EGLE) Wetlands Map Viewer for the Site. The Site contains City-regulated wetlands, wetlands as identified on National Wetland Inventory (NWI) and Michigan Resource Inventory System (MIRIS) maps, and hydric (wetland) soil (Figures 1 and 2, respectively). NWI and MIRIS wetlands are identified through interpretation of topographic data and aerial photographs by the associated governmental bodies. Hydric soil is mapped by the U.S. Department of Agriculture, Natural Resource Conservation Service.

MSG approximated the relative location of the proposed Project on the City and EGLE maps, and compared the City wetland map to Sheet CE-2. It appears the area shown as wetland in the PSP approximately corresponds to City-regulated wetland. The PSP portrays impact to the wetland buffer but not the wetland.

MSG Wetland Boundary Verification

MSG visited the Site on November 11, 2021 to evaluate the accuracy of the PSP's depiction of wetland buffer impacts at the Site. The proposed location of the silt fence was not evident in the field; MSG inferred its location relative to wetland delineation flags and numbered tree tags. The conditions at the Project area wetland generally consisted of forested wetland. Wetland delineation markers (numbered pink ribbon) were observed that appeared to correspond to the perimeters of the wetland as depicted on the PSP. Selected inspection photographs are found at the end of this letter.



Proposed Impacts

The PSP does not quantify the extent of temporary and/or permanent impact to the wetland buffer. The PSP sheets identified above depict the temporary installation of silt fence in the wetland buffer. The extent of temporary and/or permanent impact to the wetland buffer must be quantified on the plan set.

Sheet CE-8, *Drainage Conditions Plan*, of the PSP appears to depict a portion of the wetland buffer will be permanently maintained as lawn. MSG recommends the permanent buffer impact areas be minimized and the buffer be naturalized as much as possible to maintain the efficacy of the buffer in protecting the wetland from runoff from lawn areas (fertilizers, pesticides, etc.) and parking lots (oils, greases, salts, etc.).

Permits and Regulatory Status

The following wetland related items appear to be required for the Project:

Item	Required/Not Required/Not Applicable
Wetland Permit (specify Non-Minor or Minor)	Not Required
Wetland Mitigation	Not Required
Wetland Buffer Authorization	Required
EGLWetland Permit	Not Required
Wetland Conservation Easement	Not Required

Based on available information, **MSG recommends approval of the Preliminary Site Plan for wetlands.** Please contact the undersigned if you have any questions regarding the matters addressed in this letter.

Sincerely,

The Mannik & Smith Group, Inc.



Douglas Repen, CDT

Environmental Scientist & Project Manager

Certified Storm Water Management Operator C-20319



John A. Freeland, PhD, PWS

Senior Scientist

CC: Sarah Marchioni, City of Novi Project Coordinator
Barbara McBeth, City of Novi Planner
Christian Carroll, City of Novi Planner
Madeleine Daniels, City of Novi Planner
Ben Peacock, City of Novi Planning Assistant
Rick Meader, City of Novi Landscape Architect

FIGURES



Figure 1

City of Novi Regulated Wetland & Woodland Map. Approximate Site boundary is shown in red. Approximate location of the Project area is depicted in pink. Regulated Wetland areas are shown in blue and Regulated Woodland areas are shown in green.

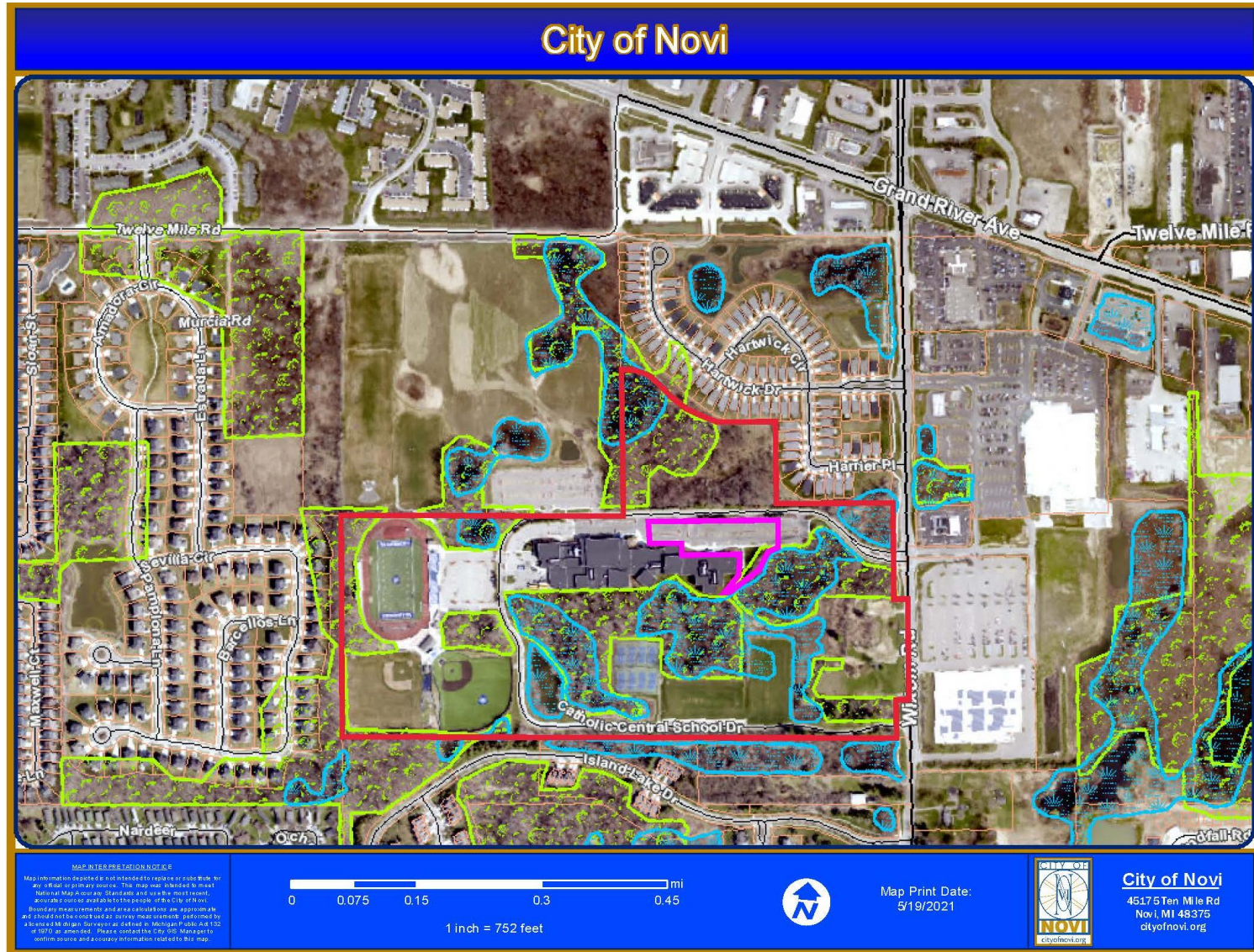
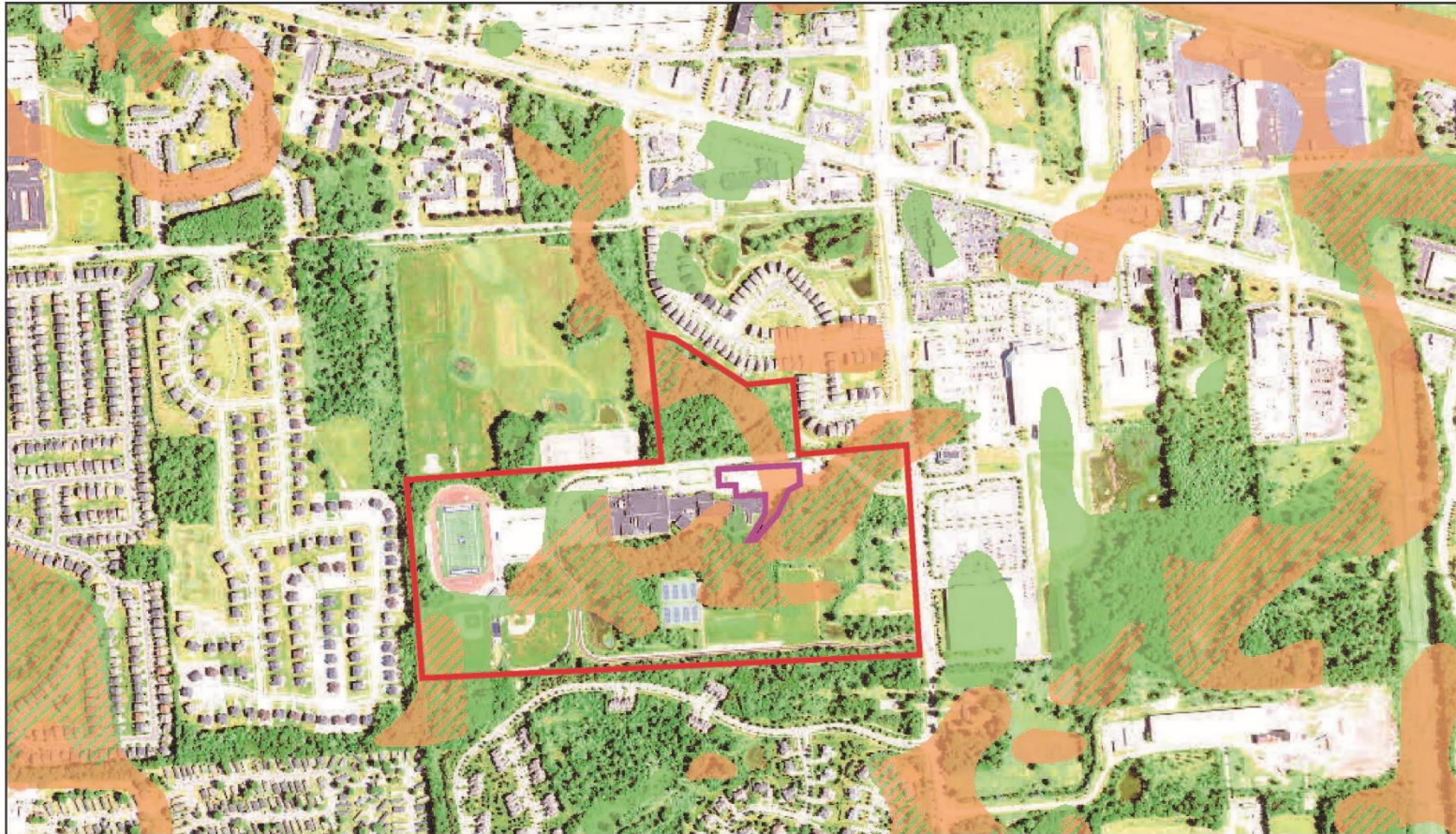


Figure 2 | EGLE Wetlands Viewer Map. Approximate Site boundary is shown in red. Approximate location of the Project area is depicted in pink.

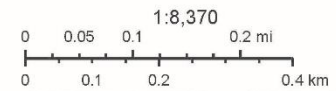
Wetlands Map Viewer



May 19, 2021

Part 303 Final Wetlands Inventory

- Wetlands as identified on NWI and MIRIS maps
- Soil areas which include wetland soils
- Wetlands as identified on NWI and MIRIS maps and soil areas which include wetland soils



Sources: Esri, HERE, Garmin, USGS, Intermap, INCREMENT P, NRCan, Esri Japan, METI, Esri China (Hong Kong), Esri Korea, Esri (Thailand), NGCC, (c) OpenStreetMap contributors, and the GIS User Community

Disclaimer: This map is not intended to be used to determine the specific

SITE PHOTOGRAPHS





Photo 1: Typical view of Project area wetland.



Photo 2: Typical view of wetland delineation flag at the Project area.



Photo 3: Typical view of numbered tree tag at the Project area.

TRAFFIC REVIEW



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

Project name:
 JSP21-44 – Catholic Central Stem Addition
 Preliminary Site Plan Traffic Review

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

From:
 AECOM

Date:
 December 3, 2021

CC:
 Lindsay Bell, Madeleine Daniels, Kate Purpura,
 Victor Boron, Christian Carroll, Humna Anjum

Memo

Subject: JSP21-44 – Catholic Central Stem Addition Preliminary Site Plan Traffic Review

The preliminary site plan was reviewed to the level of detail provided and AECOM recommends **approval** for the applicant to move forward until they have addressed the following comments to the satisfaction of the City.

GENERAL COMMENTS

1. The applicant, Central Catholic High School, is proposing a 54,805 SF addition to the existing building.
2. The development is located along Catholic Central School Drive, on the west side of Wixom Road. Catholic Central School Drive is a private road.
3. The site is currently zoned R-1 (One-Family Residential).
4. There following traffic-related deviations will be required for this development if changes are not made to the plans.
 - a. Greater than 15 adjacent parking spaces without an island.

TRAFFIC IMPACTS

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

ITE Code: 534 (Private High School)
 Development-specific Quantity: 0 New Students
 Zoning Change: No Change

Trip Generation Summary				
	Estimated Trips	Estimated Peak-Direction Trips	City of Novi Threshold	Above Threshold?
AM Peak-Hour Trips	0	0	100	No
PM Peak-Hour Trips	0	0	100	No
Daily (One-Directional) Trips	0	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	N/A

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.1	N/A	N/A	
2	Driveway Width O Figure IX.1	N/A	N/A	
3	Driveway Taper			
3a	Right Turn or Taper O Figure IX.10	N/A	N/A	
3b	Taper length O Figure IX.11	N/A	N/A	
3c	Tangent	N/A	N/A	
4	Emergency Access O 11-194.a.19	N/A	N/A	
5	Driveway sight distance O Figure VIII-E	N/A	N/A	
6	Driveway spacing			
6a	Same-side O 11.216.d.1.d	N/A	N/A	
6b	Opposite side O 11.216.d.1.e	N/A	N/A	
7	External coordination (Road agency)	N/A	N/A	
8	External Sidewalk Master Plan & EDM	N/A	N/A	
9	Sidewalk Ramps EDM 7.4 & R-28-J	N/A	N/A	
10	Any Other Comments:	The City has indicated that Catholic Central School Drive is considered a driveway for the purposes of external access.		

INTERNAL SITE OPERATIONS				
No.	Item	Proposed	Compliance	Remarks
11	Loading zone ZO 5.4	None indicated	N/A	Not required for R-1 zoning.
12	Trash receptacle ZO 5.4.4	Not indicated	N/A	Present elsewhere on site.
13	Emergency Vehicle Access	Turning movements	Met	
14	Maneuvering Lane ZO 5.3.2	24.47' to 24.78'	Met	Applicant could consider reducing width to 24' to increase green space.
15	End islands ZO 5.3.12			
15a	Adjacent to a travel way	Floating end islands dimensioned, anchored not dimensioned	Partially Met	End islands with parking on one side and travel way on the other should be 3' shorter than adjacent parking spaces.
15b	Internal to parking bays	None present	N/A	
16	Parking spaces ZO 5.2.12	>100' setback from ROW	Met	
17	Adjacent parking spaces ZO 5.3.3.C.ii.i	Max of 20	Not Met	More than 15 spaces adjacent without an island. Applicant is requesting a variance for number of adjacent parking spaces without an island.
18	Parking space length ZO 5.3.2	17.5' and 19'	Met	17.5' spaces, if measured to front of curb, could be decreased to 17'.
19	Parking space Width ZO 5.3.2	9'	Met	Applicant should indicate a 9' dimension on a spaces in the east lot as well.
20	Parking space front curb height ZO 5.3.2	4" at parking spaces	Met	
21	Accessible parking – number ADA	2 spaces	Met	
22	Accessible parking – size ADA	8' spaces with 8' aisle	Met	
23	Number of Van-accessible space ADA	2	Met	
24	Bicycle parking			
24a	Requirement ZO 5.16.1	4 spaces provided	Met	Applicant has indicated no classrooms are to be added.
24b	Location ZO 5.16.1	Close to entrance	Met	
24c	Clear path from Street ZO 5.16.1	5' Path	Not Met	6' clear path from bicycle parking to adjacent facilities is required.
24d	Height of rack ZO 5.16.5.B	None detailed	Inconclusive	36" required, include in future plans.
24e	Other (Covered / Layout) ZO 5.16.1	Included	Met	
25	Sidewalk – min 5' wide Master Plan	5'	Met	
26	Sidewalk ramps EDM 7.4 & R-28-J	Ramp indicated abutting barrier free spaces	Met	Applicant could consider providing additional ramps for improved access.

INTERNAL SITE OPERATIONS				
No.	Item	Proposed	Compliance	Remarks
27	Sidewalk – distance back of curb EDM 7.4	No offset	Inconclusive	Applicant could consider providing a sidewalk offset where the sidewalk does not abut parking spaces, for increased pedestrian safety.
28	Cul-De-Sac O Figure VIII-F	N/A	-	-
29	EyeBrow O Figure VIII-G	N/A	-	-
30	Minor/Major Drives ZO 5.10	N/A	-	-
31	Any Other Comments:			

SIGNING AND STRIPING				
No.	Item	Proposed	Compliance	Remarks
32	Signing: Sizes MMUTCD	Included	Met	
33	Signing table: quantities and sizes	Included	Met	
34	Signs 12" x 18" or smaller in size shall be mounted on a galvanized 2 lb. U-channel post MMUTCD	Not present	Not Met	Include note in future submittals.
35	Signs greater than 12" x 18" shall be mounted on a galvanized 3 lb. or greater U-channel post MMUTCD	Not present	Not Met	Include note in future submittals.
36	Sign bottom height of 7' from final grade MMUTCD	Not present	Not Met	Include note in future submittals.
37	Signing shall be placed 2' from the face of the curb or edge of the nearest sidewalk to the near edge of the sign MMUTCD	Not present	Not Met	Include note in future submittals.
38	FHWA Standard Alphabet series used for all sign language MMUTCD	Not present	Not Met	Include note in future submittals.
39	High-Intensity Prismatic (HIP) sheeting to meet FHWA retro-reflectivity MMUTCD	Not present	Not Met	Include note in future submittals.
40	Parking space striping notes	Not present	Not Met	Include note in future submittals.
41	The international symbol for accessibility pavement markings ADA	Not present	Not Met	Include detail in future submittals.
42	Crosswalk pavement marking detail	N/A	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.

Memo

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

Sincerely,

AECOM



Patricia Thompson, EIT
Traffic Engineer



Paula K. Johnson, PE
Senior Transportation Engineer



Saumil Shah, PMP
Project Manager

FAÇADE REVIEW



November 30, 2021

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

Façade Review Status Summary:
Approved, Full Compliance

Re: **FACADE ORDINANCE – Catholic Central STEM Addition, JSP21-44**
 Façade Region: 1, Zoning District: R-1

Dear Ms. McBeth;

The following is the Façade Review for Preliminary Site Plan Approval of the above referenced project based on the drawings prepared by IDS Architecture, dated 11/5/21. The percentages of materials for each façade are shown on the table below. The maximum and minimum percentages required by the Ordinance Section 5.15 are shown in the right-hand column. A sample board as required by Section 5.15.4.D of the Ordinance was not provided, however the proposed colors adequately represent via the renderings found on sheet S.A1.1.

	North (Front)	South	East	West	Ordinance Maximum (Minimum)
Brick	60%	30%	65%	60%	100% (30% MIN)
Limestone	20%	50%	35%	20%	50%
Stone (roof)	20%	20%	0%	25%	50%

As shown above, all proposed façade materials are in full compliance with the Façade Ordinance. The proposed addition is constructed of high quality materials and exhibits eclectic collegiate architecture found on other famous Catholic university campuses. The robotics room (north east corner of addition) has a distinct form with strong vertical expression. This will be the first-viewed portion of the building upon entering the site and will visually anchor the significant length (nearly 1,000') of building beyond. The addition harmonizes well with the original structure by virtue of the color of materials and overall massing.

Notes to the Applicant:

1. It should be noted that all roof top equipment (RTU) must be screened from view from all vantage points both on-site and off-site using materials in compliance with the Façade Ordinance. RTU Screens are not currently indicated on the drawings.

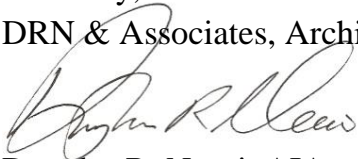
2. Inspections – The Façade Ordinance requires inspection(s) for all projects. It is the applicant’s responsibility to request the inspection of each façade material at the appropriate time. Inspections may be requested using the Novi Building Department’s Online Inspection Portal with the following link. Please click on “Click here to Request an Inspection” under “Contractors”, then click “Façade”.

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

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

Sincerely,

DRN & Associates, Architects PC

A handwritten signature in black ink, appearing to read "Douglas R. Necci". The signature is fluid and cursive, written over the typed name below.

Douglas R. Necci, AIA

FIRE REVIEW



November 12, 2021

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

RE: Catholic Central Stem Addition and Connector Road

PSP# 21-0113

PSP# 21-0105

PSP# 21-0070

PSP# 21-0038

CITY COUNCIL

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Assistant Chief of Police

Scott R. Baetens

Assistant Fire Chief

John B. Martin

Project Description:

Add an addition to the main building.

Comments:

- An unobstructed outside turning radius of 50 feet minimum and an inside turning radius of 30 feet maximum are to be provided at intersections of private or public roadways and cul-de-sacs. **(International Fire Code 503.2.4)**
- 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))**
- 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)**
- If a gate will be installed for security, MUST provide a Knox Lock on the gate for fire department use.
- The code official shall require and designate public or private fire lanes as deemed necessary for the efficient and effective use of fire apparatus. Fire lanes shall have a minimum width of twenty (20) feet and minimum height of fourteen (14) feet. **(D.C.S. Sec. 15-99(a)).**
- Posting of Fire Lane. **(D.S.C. Sec. 15-99(e)).**

Recommendation:

APPROVED WITH CONDITIONS – no changes from previous review on 10/18/21.

Sincerely,

Novi Public Safety Administration

45125 Ten Mile Road
Novi, Michigan 48375
248.348.7100
248.347.0590 fax

cityofnovi.org

Andrew Copeland – Acting Fire Marshal
City of Novi Fire Department

APPLICANT RESPONSE LETTERS

January 5, 2022

Ms. Lindsay Bell, AICP, Senior Planner
City of Novi Community Development Department – Planning Division
45175 Ten Mile Road
Novi, MI 48375

Re: Catholic Central High School
Stem Addition: Preliminary Site Plan Review Response
Planning Review
JSP21-44

Dear Ms. Bell:

Thank you for your recommendation of approval. Please accept our response and request for waivers as detailed in your review letter dated December 2, 2021.

1. Noise Impact Statement (Section 4.3.): The Zoning Ordinance requires a noise impact statement for school uses in a residential district.

We are requesting a waiver from the requirement, as permitted in Section 5.14.10.B.iii, with the justification that no new outdoor uses are proposed. Additionally, the proposed rooftop heating and cooling units will be screened, and the noise level will be below the allowable 55 decibel level at the property line.

2. Traffic Impact Study: The standard number of vehicles expected with an addition of this size exceeds the City's threshold and indicates a Traffic Impact Statement is warranted. However, the applicant has stated that school enrollment will not increase with the addition of the new facilities, and only four new teachers would be hired, and therefore minimal new traffic will be generated as a result of this project.

We are requesting a waiver of the TIS requirement from the Planning Commission. Catholic Central has confirmed that the number of students is not expected to increase with the STEM addition. It is anticipated that a handful of additional teachers and staff will be added to support and maintain the addition.

3. Building Height (Section 3.1.1.E): The building includes elements that exceed the 35 foot height limit for the district.

As design has progressed, the building height at the west entrance has increased to 48'-6 3/8". The height of the robotics room located at the east end of the addition is 38' – 5 1/2". Application has been submitted to the Zoning Board of Appeals for a variance to allow the building height.

4. Barrier Free Parking: The ADA standards for accessible parking spaces state that the required number of spaces is calculated separately for each parking lot on a site. The eastern parking area, with 73 proposed parking spaces, requires a total of 3 accessible spaces (2 standard and 1 van-accessible). The northern parking areas could be considered one lot, and with 50 spaces would require a total of 2 accessible spaces (1 standard, 1 van). As the law also requires all accessible spaces to be located on the shortest accessible route to an accessible entrance. It is unclear from the plans what entrances are accessible.

Two additional barrier free parking spaces will be added to the east parking lot and required signage provided. These spaces are located nearest the east entrance. This will be an accessible entrance and will be used for school as well as for after school events. The west and visitor lots are existing parking lots. Barrier free parking for these lots is provided nearest the main entrance to the school. An updated parking schedule is provided below.

Parking Provided after STEM addition

Parking Lot	Regular	Barrier Free	Van Accessible	Total
East	87	2	2	91
West & Visitor	175	4	2	181
Stadium	198	4	2	204
North	281	5	2	288
South	37	0	2	39
TOTAL		15	10	803

5. Bicycle Parking (Section 5.16): The Ordinance requires 3 bicycle parking spaces per classroom, with a minimum of 10 spaces, for school uses. With 50 classrooms, 150 spaces would be required. The applicant states 8 spaces are existing on the west side of the building. Four additional spaces are proposed on the east side of the building at this time.

We are requesting a waiver from the Planning Commission for not providing the full number of spaces required. Catholic Central confirms that the existing spaces are very rarely used. The additional four proposed spaces at the east end of the building will be more than adequate.

The east entrance is available for general use. The proposed spaces will be relocated south of the 8' wide sidewalk near the barrier free parking. Bicycle parking layout and bike rack details will be provided.

6. Lighting Plan (Section 5.7): There are minor lighting comments to be addressed in the Final Site Plan submittal – see Planning Chart.

Below are the responses addressing the site lighting comments from the Planning Chart:

Building Lighting (Section 5.7.2.A.iii) No building façade lighting is being provided as part of this project. All building mounted lighting fixtures are included in the site photometric plan and are included for code required egress and site area lighting purposes. All fixtures are full cutoff.

Lighting Plan (Section 5.7.2.A.ii) The scope of work for this project consists of relocating existing area luminaires and providing new luminaires to accommodate new parking configurations. Existing lighting branch circuits are being modified and extended for these new layouts. No new lighting controls are being added. Existing hours of operation will be maintained.

Standard Notes (Section 5.7.3.B) All lighting branch circuits will be underground.

Security Lighting (Section 5.7.3.H) No additional security lighting is being provided beyond the area and building mounted lighting shown on the site photometric plans.

Cut of Angles (Section 5.7.3.L) Existing estimate lighting levels (at the property line) are not being affected by this work but will be shown on the photometric plans for reference.

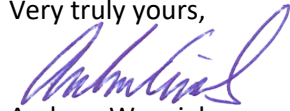
Additional response letters are included with this submittal:

Engineering, Traffic, Facade and Fire Review: Zeimet Wozniak & Associates

Landscape, Woodland and Wetland Review: Grissim Metz Andriese Associates

Please contact us if you have any questions or comments.

Very truly yours,



Andrew Wozniak

January 5, 2022

Ms. Humna Anjum, Project Engineer
City of Novi Public Works – Engineering Division
23600 Lee Begole Drive
Novi, MI 48375

Re: Catholic Central High School
STEM Addition: Preliminary Site Plan Review
Engineering Review Response
JSP21-44

Dear Ms. Anjum:

Thank you for your recommendation of approval of the Preliminary Site Plan. We are responding to the outstanding comments in your Engineering Review letter dated November 30, 2021.

General

1. Provide a traffic control sign table listing the quantities of each *permanent* sign type proposed for the development. Provide a note along with the table stating all traffic signage will comply with the current MMUTCD standards.
A table and note will be provided.
2. Provide a note that compacted sand backfill (MDOT sand Class II) shall be provided for all utilities within the influence of paved areas, and illustrate and label on the profiles.
A note will be provided.
3. Provide a construction materials table on the Utility Plan listing the quantity and material type for each utility (water, sanitary and storm) being proposed.
A table will be provided.
4. 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.
A table will be provided.
5. 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.
Noted.
6. 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.
A note will be added.
7. 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.
Noted.

8. 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.
Location of light poles are shown on sheet CE-6.

Water Main

9. All water main easements shall be 20 feet wide. Revise the proposed easement accordingly.
A 20' wide easement is shown on sheet CE-6.
10. A tapping sleeve, valve and well is required at the connection to the existing water main.
A tapping sleeve valve and well is not required to relocate the water main.
11. Provide water main modeling calculations demonstrating that the required water supply of 2,000/4,000 GPM will be available.
Water modeling calculations will be provided.
12. Provide additional valves if pipe runs 800 feet between valves.
Noted.
13. Per current EGLE requirement, provide a profile for all proposed water main 8- inch and larger.
Profiles will be required.
14. Label length of hydrant leads 6-inch hydrant leads are allowed for leads less than or equal to 25 feet in length. 8-inch leads are required for leads greater than 25 feet in length.
Noted.
15. Provide a separate domestic lead and, if required by the Fire Marshal, a minimum 6-inch fire lead for each building with a unique shut-off valve for each.
Noted.

Sanitary Sewer

16. Provide a sanitary sewer monitoring manhole, unique to this site, within a dedicated access easement or within the road right-of-way. If not in the right-of-way, provide a 20-foot wide access easement to the monitoring manhole from the right-of-way (rather than a public sanitary sewer easement).
A monitoring manhole can be installed on the proposed lead for the STEM addition.
17. Sanitary Sewer leads shall generally be less than one hundred (100) feet in length. Refer to section 11-68 design considerations: https://library.municode.com/mi/novi/codes/code_of_ordinances?nodemd=P_TIIICOR_CH11DECOST_ARTIIIWAMA_S11-68DECO
Connection from the relocated sanitary sewer to the existing lead to the school will exceed 100 feet. The lead will be located under the new addition and will have cleanouts at each end.
18. Provide more information for proposed bridge footings, needed for sanitary lead under building.
Additional bridge footing information will be provided.
19. Provide a sanitary sewer basis of design for the development on the utility plan sheet.
A sanitary basis of design will be provided.
20. Note on the construction materials table that 6-inch sanitary leads shall be a minimum SDR 23.5, and mains shall be SDR 26.
A note will be provided.

21. Provide a note on the Utility Plan and sanitary profile stating the sanitary leads will be buried at least 5 feet deep where under the influence of pavement.
A note will be provided.
22. Label any proposed internal drop connections if any are proposed.
Internal drop connections will be labeled if proposed.
23. Illustrate all pipes intersecting with manholes on the sanitary profiles.
All crossings will be shown on the sanitary profiles.

Storm Sewer

24. A minimum cover depth of 3 feet shall be maintained over all proposed storm sewer.
Noted.
25. Storm manholes with differences in invert elevations exceeding two feet shall contain a 2-foot deep plunge pool.
Noted.
26. Provide profiles for all storm sewer 12-inch and larger.
Profiles will be provided.
27. 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.
Inlets will be labeled if proposed.
28. Label the 10-year HGL on the storm sewer profiles, and ensure the HGL remains at least 1-foot below the rim of each structure.
The 10-year HGL will be labeled.
29. Illustrate all pipes intersecting storm structures on the storm profiles.
All crossings will be shown on the storm sewer profiles.
30. 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.
A casting schedule will be provided.
31. Show and label all roof conductors, and show where they tie into the storm sewer.
Roof conductor connections will be shown.

Storm Water Management Plan

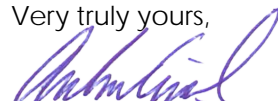
32. The Storm Water Management Plan (SWMP) for this development shall be designed in accordance with the Storm Water Ordinance and Chapter 5 of the Engineering Design Manual.
Noted.
33. Provide calculations verifying the post-development runoff rate directed to the proposed receiving drainage course does not exceed the pre-development runoff rate for the site.
Calculations will be provided.
34. Provide release rate calculations for the three design storm events (first flush, bank full, 100-year).
Calculations will be provided.
35. Provide supporting calculations for the runoff coefficient determination for green roof.
Calculations will be provided.

Paving & Grading

36. Provide a construction materials table on the Paving Plan listing the quantity and material type for each pavement cross-section being proposed.
A construction materials table will be provided.
37. Attach City Paving Standards to plans. Removed proposed cross sections for curb, asphalt road, and sidewalk.
City paving standards will be attached. Proposed cross sections will be removed.
38. 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.
Barrier-free stalls will comply with Michigan Barrier Free regulations.
39. Provide existing and proposed contours on the Grading Plan at the time of the Final Site Plan submittal.
Proposed and existing contours will be provided at Final Site Plan.
40. Provide at least 3-foot of buffer distance between the sidewalk and any fixed objects, including hydrants and irrigation backflow devices. Include a note on the plan where the 3-foot separation cannot be provided.
A minimum 3-foot buffer will be provided.
41. Site grading shall be limited to 1V:4H (25-percent), excluding landscaping berms.
Site grading will be limited to 1V:4H.
42. More than 15 adjacent spaces shown on plan with out an island. (The end islands shall conform to the City standard island design, or variations of the standard design, while still conforming to the standards as outlined in Section 2506 of Appendix A of the Zoning ordinance)
A waiver is requested to allow more than 15 adjacent spaces. The end islands conform to city standards (CE-4).

Please contact us if you have any questions or comments.

Very truly yours,



Andrew Wozniak

January 05, 2022

Mr. Rick Meader, Landscape Architect
City of Novi Planning Department
45175 Ten Mile Road
Novi, MI 48375

**Re: Landscape Review Summary Chart
Catholic Central High School
STEM Building Addition - JSP21 - 0044**

Dear Mr. Meader:

Thank you for your review dated November 17, 2021 and your recommendation for approval of the Preliminary Site Plan. We offer the following response

LANDSCAPE WAIVERS REQUIRED:

- Parking bays longer than 15 consecutive spaces – *Would be supported by staff as an existing condition is being improved*
- One parking lot island does not have a tree – *Would be supported by staff.*
- Deficiency of 8 parking lot perimeter trees along the north and south side of the eastern parking lot – *Would be supported by staff as there is not room for perimeter trees where there are already trees.*
- Deficiency in parking lot perimeter trees on south and east sides where room exists for additional trees – *Would not be supported by staff.*
- Deficiency in parking lot accessway perimeter trees – *Would not be supported by staff.*

Ordinance Considerations

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

1. Provided.
2. Provide more spacing between the woodland replacement trees. **Tree spacing will be increased to minimum 15' o.c. spacing.**

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

The project is not adjacent to residentially zoned property so no new screening vegetation or berms are required for this project.

Noted.

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

The project does not require any additional right-of-way berms or landscaping. **Noted.**

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

1. Sufficient interior landscape area appears to be provided. **Noted.**
2. A landscape waiver is required to not add a tree in the northwest island

January 5, 2022
Rick Meader
City of Novi
Page 2

- of the eastern parking lot. It would be supported by staff since utility conflicts don't provide room for a tree and shrubs have been proposed instead. **Noted.**
3. A tree is still needed in the new eastern island of the east parking lot. **An additional tree will be provided.**
 4. A landscape waiver is required for a deficiency in parking lot perimeter trees provided. It is partially supported for missing parking lot perimeter trees along the north and south sides of the east parking lot because existing trees don't provide room for new trees, but it is not supported for the portions of the south frontage and the east end of the parking lot where there is room. **Additional trees will be provided to meet requirements.**
 5. A waiver would not be supported for a deficiency in accessway perimeter trees since there is room for them. It would not be supported by staff. **Per a phone conversation with Mr. Meader and myself on January 4, 2022, it was clarified that there is an existing watermain and storm line running through the parking lot islands that prevents us from adding trees in the areas requested. It was agreed a waiver would be required for this and would be supported by staff.**
 6. A waiver is required for bays greater than 15 spaces. As existing longer bays are being shortened, this waiver is supported by staff, but when additional parking is created in future stages of development, interior islands must be added to break up the long bays. **Noted.**

Building foundation Landscaping (Zoning Sec 5.5.3.D)

Please add foundation along the south side of the addition as well. **Please refer to Interior site landscaping SF response.**

Plant List (LDM 4, 10)

1. The tree diversity standard of Landscape Design Manual Section 4 is far exceeded by birches and black gums outside of the courtyard. More tree diversity must be added to the site. **Tree diversity will be reviewed and adjusted.**
2. Inside the courtyard, only paper birches are used. This is risky from a potential disease or insect infestation viewpoint, but as it is completely surrounded by building, it is accepted. **Noted.**
3. 3 of 6 (50%) non-woodland replacement species used are native to Michigan. This is accepted. **Noted.**

Planting Notations and Details (LDM 10)

Provided

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

1. No detention basin landscaping is proposed.
2. If existing detention basins are enlarged for this project, the enlarged portion(s) must be landscaped per the city standard. **Noted.**

January 5, 2022
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Page 3

Transformer screening

No screening is provided for the transformer. Please add it per the city detail. **Screening will be provided.**

Irrigation (LDM 10)

If an irrigation system will be used, it should conform to the rules at the bottom of the Landscape Chart. **Irrigation will be installed and will be provided during Final Site Plan submission.**

Landscape Plan Requirements [LDM (2)]

Owner/Developer Contact Information (LDM 2.a.)

1. Owner contact information will be added to the Landscape Plans.

Sealed by LA (LDM 2.g)

1. A live signature and seal will be provided on the Final Stamping set.

Existing plant material / Existing woodlands or wetlands (LDM 2.e.(2))

1. Please refer to the Barr Engineering response letter to Mannik & Smith regarding wetlands and GMAA response letter to Davey Resource Group letter regarding woodlands.
2. Woodland Replacement tree spacing will be adjusted to 15' o.c. spacing per Davey Resource Group recommendations for both the Connector Road and STEM building addition projects and approved.
3. Red Oak spacing will be adjusted.

Existing and proposed utilities (LDM 2.e.(4))

1. Utility lines will be adjusted for improved clarity.

Snow Deposit (LDM.2.q.)

1. Snow deposit zone will be provided.

Landscaping Requirements:

Parking Area Landscape Requirements LDM 1.c. & Calculations (LDM 2.o.)

General (Zoning Sec 5.5.3.C.ii)

Contiguous space limit (i)

1. Noted.
2. Thank you for your support of a waiver for the proposed layout.

January 5, 2022
Rick Meader
City of Novi
Page 4

3. Noted.
4. An additional tree will be added into the new parking lot island at the east end of the parking area north of the building.
5. The tree in the southwest island will be reviewed for adjustment 5' west.
6. Thank you for your support of a waiver to not plant a tree in the new western island at the north side of the east parking area.

Plantings around Fire Hydrant (d)

1. A note will be added to the Landscape Plans stating that all trees are to be planted at least 10' from hydrants or utility structures.

Clear Zones (LDM 2.3.(5))

1. Clear vision zones can be added to the entries.

All Categories

C = A +B Total square footage of landscaped islands

1. The area of the two existing islands will be labeled.
2. Noted.

D = C/200 Number of canopy trees required (*Zoning Sec 5.5.C*)

1. Noted.
2. Noted.
3. Noted.

Parking Lot Perimeter trees (Zoning Sec 5.5.C)

1. Noted.
2. Noted. Thank you for your support of a waiver to not require additional trees in these areas due to limited room. Three (3) trees will be added along the south frontage.
3. Three (3) trees will be added to the east side of the parking lot.
4. An approved variety of Gingko will be selected.

Accessway perimeter

1. As noted above, per a phone conversation with Mr. Meader and myself on January 4, 2022, it was clarified that there is an existing watermain and storm line running through the parking lot islands that prevents us from adding trees in the areas requested. It was agreed a waiver would be required for this and would be supported by staff.
2. All existing trees are reflected. Proposed accessway trees are provided but beyond the 15' setback due to conflicts with existing watermain and storm line locations. A waiver request will be required and understood to be supported by staff.

January 5, 2022
Rick Meader
City of Novi
Page 5

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

Transformers/Utility boxes (LDM 1.e from 1 through 5)

1. Utility screening detail will be added to the plans.
2. Screening will be provided for the relocated transformer.

Interior site landscaping SF

1. The south façade of the building is not visible from the front of the school or the parking lot. It is completely screened by the regulated Woodlands to the south, (approximately 450' deep) and Island Lakes subdivision is approximately another 280' beyond the woodline. Due to the excessive screening to the south, limited visibility to the north and the proposed perimeter landscape square footage exceeds the required amount by over 1,700 SF, we are respectfully asking that this request be removed from consideration.

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

Planting requirements (Sec. 5.5.3.E.iv)

1. Noted. The existing detention basin will not require enlargement.

Phragmites and Japanese Knotweed Control (Sec 5.5.6.C)

1. Noted.

Landscaping Notes, Details and General Requirements:

Landscape Notes – Utilize City of Novi Standard Notes

Irrigation plan (LDM 2.s.)

1. A fully automatic irrigation system is intended to be installed. Irrigation plan drawings as well as required details will be provided at Final Site Plan submission.
2. No xeriscaping will be utilized.
3. Noted.

Plant List (LDM 4) – Include all cost estimates

Botanical and common names

1. Noted.
2. Noted. Adjustment to the tree diversity will be reviewed.

January 5, 2022
Rick Meader
City of Novi
Page 6

Type and amount of lawn

1. Type and amount of lawn will be added to the plans at Final Site Plan submission and included within the Cost Estimate Table.

Cost estimate (LDM 2.t)

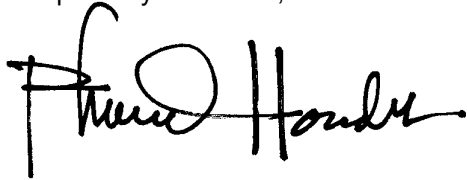
1. Plantings, mulch and sod/seed will be included in the Cost Estimate Table at Final Site Plan submission.

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

Tree protection fencing

1. A note regarding tree protection fence to be located 1 foot outside of the tree dripline shall be added to the plans.

Respectfully submitted,



Richard Houdek, PLA, ASLA, LEED AP BD+C
Principal

Enc.

January 5, 2022

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

**Re: Woodland Review
Catholic Central High School
STEM Addition - JSP 21- 0044**

Dear Ms. McBeth:

Please find the following responses to the Davey Resource Group review letter provided in the Preliminary Application Review dated November 30, 2021.

Woodland Review Comments

1. **A Woodland Use Permit is required to perform construction on any site containing regulated woodlands. The Woodland Use Permit for this project requires Planning Commission approval.**

A Woodland Use Permit will be applied for.

2. **Woodland Replacements Spacing (Sheet L203). The spacing of the woodland replacements canopy trees is approximately 9-feet apart which is too close to allow for proper growth and development. Please revise woodland replacements to increase spacing between woodland replacement canopy trees to a minimum of 15-feet.**

Woodland Replacement spacing will be increased to 15'o.c. Alternatively approved understory trees will be utilized to meet replacement credits. All replacement tree requirements will be planted onsite. No monies will be paid into the City of Novi Tree Fund.

3. **Woodland Replacement Species (Sheet L203). Nearly 50% of the replacement species to be planted are in the *Acer* (maple) genus. To maintain diversity on the Catholic Central campus and reduce the susceptibility of these species to insect/disease pests – reduce the number of *Acer* species that are to be planted to 25%. Selection of other native Michigan tree species should focus on mimicking the natural forests on the campus.**

Replacement tree species will be altered to reflect maximum 25% Maple species.

4. **Critical Root Zone. The critical root zone and the location of tree protection fence of preserved woodland replacement trees in the new courtyard are not shown on the sheets CE-7, L201, and L203 of the Preliminary Site Plan.**

January 5, 2022
Barb McBeth
City of Novi
Page 2

No existing Woodland Replacement trees in the courtyard will be saved due to construction activities. Required replacements will be provided for.

5. Financial Guarantees & Maintenance Bonds.

- 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.**

A woodland fence guarantee will be paid prior to issuance of a Woodland Use Permit.

- b. Woodland Replacement Financial Guarantee of \$21,200.00 (53 woodland replacement credits x \$400 per woodland replacement credit) is required as part of the Woodland Use Permit fees to ensure planting of the on-site Woodland Replacement tree credits. This amount may change dependent on how comment #2 is addressed.**

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 (comment 6).

It is noted that the financial guarantee will need to be paid prior to issuance of the permit and that the fee will be adjusted after comment #2 is addressed.

- c. The applicant will be required to pay into the City of Novi Tree fund at a rate of \$400/credit for any Woodland Replacement tree credits that cannot be planted on site.**

It is intended that all required tree replacements will be planted onsite. The applicant understands that payment to the tree fund will be required for any trees that cannot be planted on-site.

- 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 of 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).**

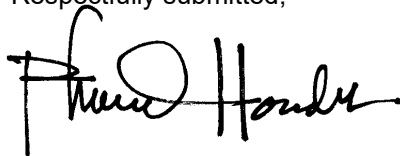
A two-year maintenance bond shall be provided.

January 5, 2022
Barb McBeth
City of Novi
Page 3

- e. **A woodland fence guarantee of \$6,000 (\$5000 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.**

The woodland fence guarantee shall be provided.

Respectfully submitted,

A handwritten signature in black ink, appearing to read "Richard Houdek". The signature is written in a cursive style with a large initial "R" and "H".

Richard Houdek, PLA, ASLA, LEED AP BD+C
Principal

Enc.

January 5, 2022

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

**Re: Wetland Review
Catholic Central High School
STEM Addition - JSP 21- 0044**

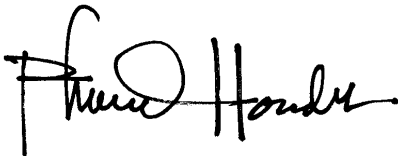
Dear Ms. Bell:

Please find the following responses to The Mannik & Smith Group, Inc. review letter provided for the Preliminary Review dated November 29, 2021.

Proposed Impacts:

1. **The extent of temporary and/or permanent impact to the wetland buffer must be quantified on the plan set.** The extents of temporary and/or permanent impacts will be provided for in the next submittal
2. **Sheet CE-8, *Drainage Conditions Plan*, of the PSP appears to depict a portion of the wetland buffer will be permanently maintained as lawn. MSG recommends the permanent buffer impact areas be minimized and the buffer be naturalized as much as possible to maintain the efficacy of the buffer in protecting the wetland from runoff from lawn areas (fertilizers, pesticides, etc.) and parking lots (oils, greases, salts, etc.).** The impacted buffer will be revised to reflect a wetland buffer seed mix versus lawn.

Respectfully submitted,



Richard Houdek, PLA, ASLA, LEED AP BD+C
Principal

Enc.

January 5, 2022

Ms. Patricia Thompson, EIT, Traffic Engineer
AECOM
27777 Franklin Road
Southfield, MI 48034

Re: Catholic Central High School
Stem Addition: Preliminary Site Plan Review
Traffic Review Response
JSP21-44

Dear Ms. Thompson:

Thank you for your recommendation of approval of the Preliminary Site Plan. We are responding to the outstanding comments noted in bold in your Engineering Review letter dated December 3, 2021.

INTERNAL SITE OPERATIONS

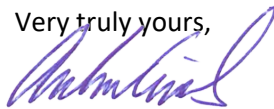
- 15a. End Islands will be 3 feet shorter than adjacent parking spaces.
- 17. The existing parking lots are being reconstructed and currently have more than 15 spaces without an island. **A waiver is being requested.**
- 24. Proposed bicycle spaces will be relocated south of the 8' wide sidewalk near the barrier free parking. The height of the rack will be 36".
- 27. Sidewalks are located adjacent to the back of curb currently and Catholic Central prefers that configuration.

INTERNAL SITE OPERATIONS

- 32-38. Sign type and location are included on Sheet CE-4. Additional sign location will be provided with Final Site Plan submittal.
- 39-41. Striping information will be included with Final Site Plan submittal.

Please contact us if you have any questions or comments.

Very truly yours,



Andy Wozniak

Z EIMET W OZNIAK
& ASSOCIATES

Civil Engineers & Land Surveyors

55800 Grand River Avenue, Suite 100
New Hudson, Michigan 48165-9318
248.437.5099 · 248.437.5222 fax
www.zeimetwozniak.com

January 5, 2022

Mr. Douglas R. Necci, AIA
DRN & Associates, Architects PC
45175 W. 10 Mile Rd.
Southfield, MI 48034

Re: Catholic Central High School
Stem Addition: Preliminary Site Plan Review
Façade Review Response
JSP21-44

Dear Mr. Necci:

Thank you for your recommendation of approval of the Preliminary Site Plan. We are responding to the outstanding comment noted in bold in your Engineering Review letter dated November 30, 2021.

1. It should be noted that all roof top equipment (RTU) must be screened from view from all vantage points both on-site and off-site using materials in compliance with the Façade Ordinance. RTU Screens are not currently indicated on the drawings.

All roof top equipment is screened by the sloped mansard slate roof on all sides.

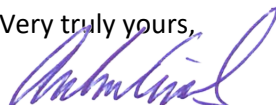
2. Inspections – The Façade Ordinance requires inspection(s) for all projects. It is the applicant's responsibility to request the inspection of each façade material at the appropriate time. Inspections may be requested using the Novi Building Department's Online Inspection Portal with the following link. Please click on "Click here to Request an Inspection" under "Contractors", then click "Façade".

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

Noted.

Please contact us if you have any questions or comments.

Very truly yours,



Andy Wozniak

Updated January 5, 2022

November 5, 2021

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

Re: Catholic Central High School
STEM Addition: Pre-Application Review
Fire Department Review
JSP21-44

Dear Mr. Pierce:

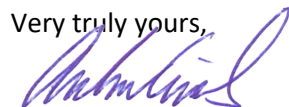
An updated review letter for the Preliminary Site Plan was not received.

As part of the Preliminary Site Plan submittal for this project, we are responding to the outstanding comments in your Fire Department Review dated May 19, 2021:

- A Performance Turning Analysis has been added to this submittal that illustrates that an unobstructed outside turning radius of 50 feet minimum and an inside turning radius of 30 feet maximum are provided at the intersections of the roads. See Sheet CE-4.
- Fire apparatus access drives to and from future buildings through parking lots shall have a minimum fifty (50) feet outside turning radius. The proposed pavement sections conform to the City of Novi's paving standards and are designed to support a minimum of thirty-five (35) tons.
- The proposed fire hydrants are spaced approximately three hundred (300) feet apart online. Please see Sheets CE-6. It is understood that the spacing of hydrants around future buildings shall be considered as individual cases.
- Gates are not proposed as part of this project.
- The drives are 24-feet wide as measured from back of curb to back of curb with no overhead obstructions (such as canopies). The design meets and exceeds the requirement for fire lanes to have a minimum width of twenty (20) feet and minimum height of fourteen (14) feet.
- It is anticipated that the drives will be used for student pick-up/drop/off. They will be posted with No Parking - Fire Lane signs if required. This information will be added during the Final Site Plan submittal.

Please contact us if you have any questions or comments.

Very truly yours,



Andy Wozniak