



# COMMUNITY DEVELOPMENT DEPARTMENT

45175 Ten Mile Road  
Novi, MI 48375  
(248) 347-0415 Phone  
(248) 735-5600 Facsimile  
[www.cityofnovi.org](http://www.cityofnovi.org)

## ZONING BOARD OF APPEALS STAFF REPORT

FOR: City of Novi Zoning Board of Appeals

ZONING BOARD APPEALS DATE: June 9, 2020

REGARDING: 39465 Fourteen Mile Road, Parcel # 50-22-01-200-037 (PZ20-0018)

BY: Larry Butler, Deputy Director Community Development

### I. GENERAL INFORMATION:

**Applicant**

Behavioral Care Solutions

**Variance Type**

Dimensional Variance

**Property Characteristics**

Zoning District:	Office Service Technology
Location:	West of Haggerty Road and South of Fourteen Mile Road
Parcel #:	50-22-01-200-037

**Request**

The applicant is requesting a variance from the City of Novi Zoning Code Section 5.4.1 to locate a loading zone in the side yard. Section 5.3.11 for a drive-through lane that does not meet ordinance requirements for separation of drive through and egress lane, by-pass lane width, encroachment into minimum side yard parking setback, and minimum number of stacking spaces. This property is zoned Office Service Technology (OST).

### II. STAFF COMMENTS:

### III. RECOMMENDATION:

The Zoning Board of Appeals may take one of the following actions:

1. I move that we **grant** the variance in Case No. **PZ20-0018**, sought by \_\_\_\_\_, for \_\_\_\_\_ because Petitioner has shown practical difficulty requiring \_\_\_\_\_.
  - (a) Without the variance Petitioner will be unreasonably prevented or limited with respect to use of the property because \_\_\_\_\_.
  - (b) The property is unique because \_\_\_\_\_.

- (c) Petitioner did not create the condition because\_\_\_\_\_.
- (d) The relief granted will not unreasonably interfere with adjacent or surrounding properties because\_\_\_\_\_.
- (e) The relief if consistent with the spirit and intent of the ordinance because\_\_\_\_\_.
- (f) The variance granted is subject to:
  - 1. \_\_\_\_\_.
  - 2. \_\_\_\_\_.
  - 3. \_\_\_\_\_.
  - 4. \_\_\_\_\_.

2. I move that we **deny** the variance in Case No. **PZ20-0018**, sought by \_\_\_\_\_, for \_\_\_\_\_ because Petitioner has not shown practical difficulty requiring \_\_\_\_\_.

- (a) The circumstances and features of the property including \_\_\_\_\_ are not unique because they exist generally throughout the City.
- (b) The circumstances and features of the property relating to the variance request are self-created because\_\_\_\_\_.
- (c) The failure to grant relief will result in mere inconvenience or inability to attain higher economic or financial return based on Petitioners statements that \_\_\_\_\_.
- (d) The variance would result in interference with the adjacent and surrounding properties by\_\_\_\_\_.
- (e) Granting the variance would be inconsistent with the spirit and intent of the ordinance to\_\_\_\_\_.

Should you have any further questions with regards to the matter please feel free to contact me at (248) 347-0417.

Larry Butler  
Deputy Director Community Development  
City of Novi



## MEMORANDUM

**TO:** ZONING BOARD OF APPEALS  
**THRU:** BARBARA MCBETH, AICP, CITY PLANNER  
**FROM:** LINDSAY BELL, AICP, SENIOR PLANNER  
**SUBJECT:** ZBA VARIANCE REQUESTS FOR 'BEHAVIORAL CARE SOLUTIONS' PZ20-0018  
**DATE:** MAY 13, 2020

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On May 6, 2020 the Planning Commission approved the Preliminary Site Plan and Storm Water Management Plan subject to Zoning Board of Appeals approval of the following deviations requested by the applicant. Excerpts from Planning review letter that relate to current request are provided below.

1. Drive-Through ATM (Sec. 5.3.11): The drive-through ATM was relocated to its current location on the outside drive aisle without formal review or receiving permits. **The site plan does not provide dimensions or details of the drive-through lane to demonstrate compliance with the ordinance requirements:**
  - i. *Drive-Through lanes shall be separate from the circulation routes and lanes necessary for ingress to, egress from, the property. **The drive through lane is not separate from the egress lane - variance required.***
  - ii. *Drive-through lanes and stacking spaces shall be setback from the property line a distance equivalent to the minimum parking setback (OST - 20 feet parking setback). **The drive-through lane is not 20 feet from the east property line - variance required.***
  - iii. *Drive-through facilities shall provide one bypass lane (minimum 18 feet) to allow unobstructed travel for vehicles to pass those waiting to be served. **Plans show a 25 foot drive aisle. If the drive-through meets the minimum width of 9 feet, the bypass lane is only 16 feet wide. Variance required.***
  - iv. *Drive-through lanes of financial institutions shall have a minimum of 3 vehicle stacking spaces, inclusive of the vehicle at the window. **Minimum of 3 stacking spaces must be shown on the plan, otherwise variance would be required.***
2. Loading Zone (Sec. 5.4.1): " Within the OS districts, loading space shall be provided in the rear yard..." **A variance is required from Section 5.4.1 to permit the loading area in the side yard.**

Please let me know if you have any questions or comments regarding this memorandum, you can contact me at 248.345.0484 or [lbell@cityofnovi.org](mailto:lbell@cityofnovi.org).



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# ZONING BOARD OF APPEALS APPLICATION

APPLICATION MUST BE FILLED OUT COMPLETELY

**RECEIVED**  
 MAY 05 2020  
 CITY OF NOVI  
 COMMUNITY DEVELOPMENT

<b>I. PROPERTY INFORMATION (Address of subject ZBA Case)</b>				Application Fees: <u>\$300.00 (paid)</u>	
PROJECT NAME / SUBDIVISION Behavioral Care Solutions, Building Addition				Meeting Date: <u>June 14, 2020</u>	
ADDRESS 39465 W 14 Mile Road, Novi, MI 48377		LOT/SIUTE/SPACE #		ZBA Case #: <u>PZ 20-0018</u>	
SIDWELL # 50-22-01 -200 -031		May be obtain from Assessing Department (248) 347-0485			
CROSS ROADS OF PROPERTY 14 Mile and Haggerty					
IS THE PROPERTY WITHIN A HOMEOWNER'S ASSOCIATION JURISDICTION? <input type="checkbox"/> YES <input checked="" type="checkbox"/> NO			REQUEST IS FOR: <input type="checkbox"/> RESIDENTIAL <input checked="" type="checkbox"/> COMMERCIAL <input type="checkbox"/> VACANT PROPERTY <input type="checkbox"/> SIGNAGE		
DOES YOUR APPEAL RESULT FROM A NOTICE OF VIOLATION OR CITATION ISSUED? <input type="checkbox"/> YES <input type="checkbox"/> NO					
<b>II. APPLICANT INFORMATION</b>					
<b>A. APPLICANT</b>		EMAIL ADDRESS mdonofrio@bcsgps.com		CELL PHONE NO. 313 909-2977	
NAME Monica Donofrio				TELEPHONE NO. 248 859-3900	
ORGANIZATION/COMPANY Behavioral Care Solutions				FAX NO. 888 483-0118	
ADDRESS 39465 W. 14 Mile Rd		CITY Novi		STATE MI	ZIP CODE 48324
<b>B. PROPERTY OWNER</b> <input checked="" type="checkbox"/> CHECK HERE IF APPLICANT IS ALSO THE PROPERTY OWNER					
Identify the person or organization that owns the subject property:		EMAIL ADDRESS		CELL PHONE NO.	
NAME				TELEPHONE NO.	
ORGANIZATION/COMPANY				FAX NO.	
ADDRESS		CITY		STATE	ZIP CODE
<b>III. ZONING INFORMATION</b>					
<b>A. ZONING DISTRICT</b>					
<input type="checkbox"/> R-A <input type="checkbox"/> R-1 <input type="checkbox"/> R-2 <input type="checkbox"/> R-3 <input type="checkbox"/> R-4 <input type="checkbox"/> RM-1 <input type="checkbox"/> RM-2 <input type="checkbox"/> MH <input type="checkbox"/> I-1 <input type="checkbox"/> I-2 <input type="checkbox"/> RC <input type="checkbox"/> TC <input type="checkbox"/> TC-1 <input checked="" type="checkbox"/> OTHER <u>OST</u>					
<b>B. VARIANCE REQUESTED</b>					
INDICATE ORDINANCE SECTION (S) AND VARIANCE REQUESTED:					
1. Section <u>5.4.1</u>		Variance requested		<u>For the loading/unloading space in the Side Yard</u>	
2. Section <u>5.3.11</u>		Variance requested		<u>For the Drive-Through ATM</u>	
3. Section _____		Variance requested		_____	
4. Section _____		Variance requested		_____	
<b>IV. FEES AND DRAWINGS</b>					
<b>A. FEES</b>					
<input type="checkbox"/> Single Family Residential (Existing) \$200 <input type="checkbox"/> (With Violation) \$250 <input type="checkbox"/> Single Family Residential (New) \$250 <input checked="" type="checkbox"/> Multiple/Commercial/Industrial \$300 <input type="checkbox"/> (With Violation) \$400 <input type="checkbox"/> Signs \$300 <input type="checkbox"/> (With Violation) \$400 <input type="checkbox"/> House Moves \$300 <input type="checkbox"/> Special Meetings (At discretion of Board) \$600					
<b>B. DRAWINGS 1-COPY &amp; 1 DIGITAL COPY SUBMITTED AS A PDF</b>					
<ul style="list-style-type: none"> <li>Dimensioned Drawings and Plans</li> <li>Site/Plot Plan</li> <li>Existing or proposed buildings or addition on the property</li> <li>Number &amp; location of all on-site parking, if applicable</li> </ul>			<ul style="list-style-type: none"> <li>Existing &amp; proposed distance to adjacent property lines</li> <li>Location of existing &amp; proposed signs, if applicable</li> <li>Floor plans &amp; elevations</li> <li>Any other information relevant to the Variance application</li> </ul>		



# ZONING BOARD OF APPEALS APPLICATION

## V. VARIANCE

### A. VARIANCE (S) REQUESTED

DIMENSIONAL     USE     SIGN

There is a five-(5) hold period before work/action can be taken on variance approvals.

### B. SIGN CASES (ONLY)

Your signature on this application indicates that you agree to install a **Mock-Up Sign ten-(10) days** before the schedule ZBA meeting. Failure to install a mock-up sign may result in your case not being heard by the Board, postponed to the next schedule ZBA meeting, or cancelled. A mock-up sign is **NOT** to be actual sign. Upon approval, the mock-up sign must be removed within five-(5) days of the meeting. If the case is denied, the applicant is responsible for all costs involved in the removal of the mock-up or actual sign (if erected under violation) within five-(5) days of the meeting.

### C. ORDINANCE

#### City of Novi Ordinance, Section 3107 – Miscellaneous

No order of the Board permitting the erection of a building shall be valid for a period longer than one-(1) year, unless a building permit for such erection or alteration is obtained within such period and such erection or alteration is started and proceeds to completion in accordance with the terms of such permit.

No order of the Board permitting a use of a building or premises shall be valid for a period longer than one-hundred and eighty-(180) days unless such use is establish within such a period; provided, however, where such use permitted is dependent upon the erection or alteration or a building such order shall continue in force and effect if a building permit for such erection or alteration is obtained within one-(1) year and such erection or alteration is started and proceeds to completion in accordance with the terms of such permit.

### D. APPEAL THE DETERMINATION OF THE BUILDING OFFICIAL

PLEASE TAKE NOTICE:

The undersigned hereby appeals the determination of the Building Official / Inspector or Ordinance made

CONSTRUCT NEW HOME/BUILDING     ADDITION TO EXISTING HOME/BUILDING     SIGNAGE

ACCESSORY BUILDING     USE     OTHER \_\_\_\_\_

## VI. APPLICANT & PROPERTY SIGNATURES

### A. APPLICANT

*Monica Donofrio, COO May 4, 2020*

Applicant Signature

Date

### B. PROPERTY OWNER

**If the applicant is not the owner, the property owner must read and sign below:**

The undersigned affirms and acknowledges that he, she or they are the owner(s) of the property described in this application, and is/are aware of the contents of this application and related enclosures.

Property Owner Signature

Date

## VII. FOR OFFICIAL USE ONLY

### DECISION ON APPEAL:

GRANTED

DENIED

The Building Inspector is hereby directed to issue a permit to the Applicant upon the following and conditions:

Chairperson, Zoning Board of Appeals

Date



**Community Development Department**

45175 Ten Mile Road  
Novi, MI 48375  
(248) 347-0415 Phone  
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**REVIEW STANDARDS  
DIMENSIONAL VARIANCE**

The Zoning Board of Appeals (ZBA) will review the application package and determine if the proposed Dimensional Variance meets the required standards for approval. In the space below, and on additional paper if necessary, explain how the proposed project meets each of the following standards. (Increased costs associated with complying with the Zoning Ordinance will not be considered a basis for granting a Dimensional Variance.)

**Standard #1. Circumstances or Physical Conditions.**

Explain the circumstances or physical conditions that apply to the property that do not apply generally to other properties in the same zoning district or in the general vicinity. Circumstances or physical conditions may include:

- a. **Shape of Lot.** Exceptional narrowness, shallowness or shape of a specific property in existence on the effective date of the Zoning Ordinance or amendment.

Not Applicable     Applicable    If applicable, describe below:

The original use for the site was a TCF Bank, and a loading/unloading area was not required. For the present usage of the site, the zoning requirements are to provide a loading/unloading area at the rear yard. Due to the exceptional narrowness and shallowness of the existing conditions of the rear yard we are proposing a loading/unloading area in the side yard behind an existing drive through canopy.

*and/or*

- b. **Environmental Conditions.** Exceptional topographic or environmental conditions or other extraordinary situations on the land, building or structure.

Not Applicable     Applicable    If applicable, describe below:

*and/or*

- c. **Abutting Property.** The use or development of the property immediately adjacent to the subject property would prohibit the literal enforcement of the requirements of the Zoning Ordinance or would involve significant practical difficulties.

Not Applicable     Applicable    If applicable, describe below:

It would involve significant practical difficulties for the placement a loading/unloading area at the rear yard due to present location of the existing landscaping along the South property line.

## **Standard #2. Not Self-Created.**

Describe the immediate practical difficulty causing the need for the Dimensional Variance, that the need for the requested variance is not the result of actions of the property owner or previous property owners (i.e., is not self-created).

The immediate practical difficulty is caused by the previous property use.

## **Standard #3. Strict Compliance.**

Explain how the Dimensional Variance in strict compliance with regulations governing area, setback, frontage, height, bulk, density or other dimensional requirements will unreasonably prevent the property owner from using the property for a permitted purpose, or will render conformity with those regulations unnecessarily burdensome.

Dimensional Variance in strict compliance with regulations governing rear yard setback will unreasonably prevent the property owner from using the property for a permitted use, or will render conformity with those regulations unnecessarily burdensome.

## **Standard #4. Minimum Variance Necessary.**

Explain how the Dimensional Variance requested is the minimum variance necessary to do substantial justice to the applicant as well as to other property owners in the district.

The Dimensional Variance requested is the minimum variance necessary to do substantial justice to the property use.

## **Standard #5. Adverse Impact on Surrounding Area.**

Explain how the Dimensional Variance will not cause an adverse impact on surrounding property, property values, or the use and enjoyment of property in the neighborhood or zoning district.

The Dimensional Variance will not cause an adverse impact on surrounding values or the use and enjoyment of the property in the neighborhood or zoning district.



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**REVIEW STANDARDS  
DIMENSIONAL VARIANCE**

The Zoning Board of Appeals (ZBA) will review the application package and determine if the proposed Dimensional Variance meets the required standards for approval. In the space below, and on additional paper if necessary, explain how the proposed project meets each of the following standards. (Increased costs associated with complying with the Zoning Ordinance will not be considered a basis for granting a Dimensional Variance.)

**Standard #1. Circumstances or Physical Conditions.**

Explain the circumstances or physical conditions that apply to the property that do not apply generally to other properties in the same zoning district or in the general vicinity. Circumstances or physical conditions may include:

- a. Shape of Lot.** Exceptional narrowness, shallowness or shape of a specific property in existence on the effective date of the Zoning Ordinance or amendment.  
 Not Applicable     Applicable    If applicable, describe below:

a. The existing drive-through ATM is currently located on the outside drive isle. The drive-through lanes and stacking spaces shall be setback from the property line, a distance of 20 feet. Due to the exceptional narrowness of the existing lane location we are seeking the setback variance from the East property line for a distance of 16 feet.

b. The drive-through facilities shall provide one bypass lane minimum 18 feet wide. Due to the exceptional narrowness of the existing lane location, we are seeking the bypass lane to be 16 feet wide.

*and/or*

- b. Environmental Conditions.** Exceptional topographic or environmental conditions or other extraordinary situations on the land, building or structure.  
 Not Applicable     Applicable    If applicable, describe below:

*and/or*

- c. Abutting Property.** The use or development of the property immediately adjacent to the subject property would prohibit the literal enforcement of the requirements of the Zoning Ordinance or would involve significant practical difficulties.  
 Not Applicable     Applicable    If applicable, describe below:

It would involve significant practical difficulties for the placement of the ATM at the distance of 27 feet from the East property line due to the location of the existing drive isle Easterly curb line on the East property line.

## **Standard #2. Not Self-Created.**

Describe the immediate practical difficulty causing the need for the Dimensional Variance, that the need for the requested variance is not the result of actions of the property owner or previous property owners (i.e., is not self-created).

The immediate practical difficulty is caused by the previous property use.

## **Standard #3. Strict Compliance.**

Explain how the Dimensional Variance in strict compliance with regulations governing area, setback, frontage, height, bulk, density or other dimensional requirements will unreasonably prevent the property owner from using the property for a permitted purpose, or will render conformity with those regulations unnecessarily burdensome.

Dimensional Variance in strict compliance with regulations governing setback and a bypass lane width will unreasonably prevent the property owner from using the property for a permitted use, or will render conformity with those regulations unnecessarily burdensome.

## **Standard #4. Minimum Variance Necessary.**

Explain how the Dimensional Variance requested is the minimum variance necessary to do substantial justice to the applicant as well as to other property owners in the district.

Requested 2 feet of the Dimensional Variance is the minimum variance necessary to do substantial justice to the property use.

## **Standard #5. Adverse Impact on Surrounding Area.**

Explain how the Dimensional Variance will not cause an adverse impact on surrounding property, property values, or the use and enjoyment of property in the neighborhood or zoning district.

The Dimensional Variance will not cause an adverse impact on surrounding values or the use and enjoyment of the neighborhood or zoning district.

# BUILDING ADDITION Section 1, City of Novi, Oakland County, MI PRELIMINARY SITE PLAN Prepared For Behavioral Care Solutions

**OWNER**

Behavioral Care Solutions  
39465 W. 14 Mile Rd.  
Novi, MI 48377

Robert A. Clemente  
Phone: (248) 859-3900  
Fax: (888) 483-0118

**CIVIL ENGINEER**

Orman Engineering, LLC  
5476 Vivian Lane  
Waterford, MI 48327  
Phone (248) 682-6001  
Email: alex@ormanengineering.com

Contact: Mr. Alexander Orman, P.E.

**ARCHITECT**

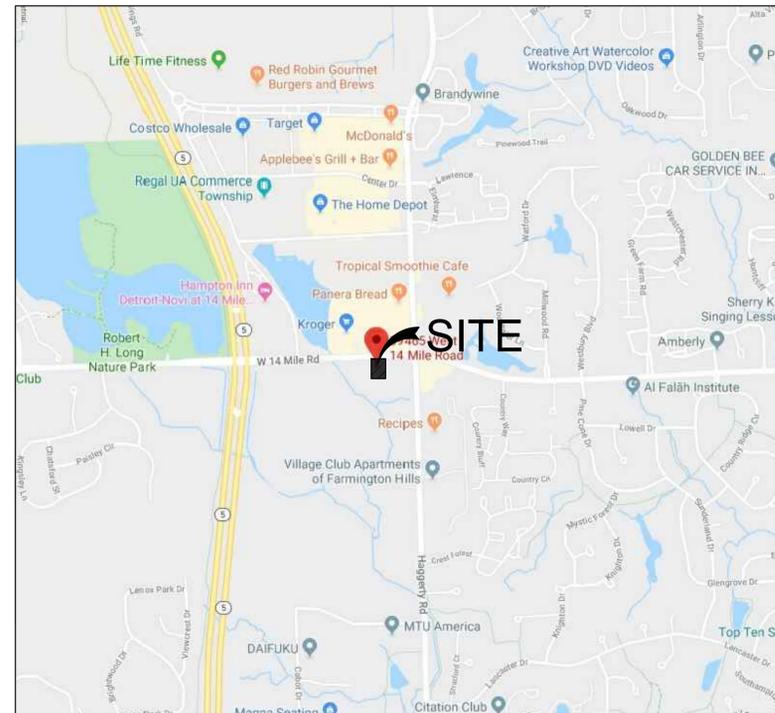
DS Architects  
7300 Dixie Hwy.  
Clarkston, MI 48346

Derek Slupka  
Phone: (248) 605-2030  
Cell Phone: (248) 310-3899

**LANDSCAPE ARCHITECT**

Deak Planning & Design  
Steve Deak, RLA, LEED AP

Phone: (866) 355-4202  
Cell Phone: (248) 444-7892



**SHEET INDEX**

NO.	SHEET NAME
SP-1	COVER SHEET
SP-2	SITE PLAN
SP-3	DETAILS
SP-4	KSI DETAILS
SP-5	TRUCK ROUTE PLAN
1	TOPOGRAPHIC/BOUNDARY SURVEY
A-3	FLOOR PLAN
A-8	ELEVATIONS
LP-1	SITE LANDSCAPE
LP-2	LANDSCAPE REQUIREMENTS / CITY SPECS.
V-2	PHOTOMETRIC PLAN (2 SHEETS)

**ISSUANCE DATE:**

DATE	REVISION OR SUBMITTAL
01/23/2020	SUBMITTAL FOR PRE-APPLICATION REVIEW
03/19/2020	SUBMITTAL FOR SITE PLAN REVIEW

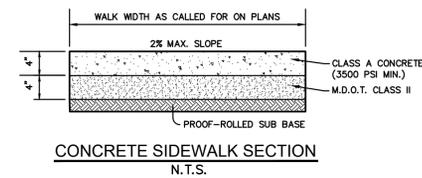
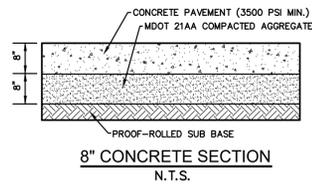
**LEGAL DESCRIPTION**

LEGAL DESCRIPTION: WARRANTY DEED LIBER 53148, PAGE 565  
A PARCEL OF LAND IN THE NORTHEAST 1/4 OF SECTION 1, TOWN 1 NORTH, RANGE 8 EAST, CITY OF NOVI, OAKLAND COUNTY, MICHIGAN. DESCRIBED AS: BEGINNING AT A POINT DISTANCE SOUTH 87 DEGREES 24 MINUTES 33 SECONDS WEST 360.00 FEET AND SOUTH 02 DEGREES 30 MINUTES 22 SECONDS EAST 70.00 FEET FROM THE NORTHEAST SECTION CORNER; THENCE SOUTH 02 DEGREES 30 MINUTES 22 SECONDS EAST 200.00 FEET; THENCE SOUTH 87 DEGREES 24 MINUTES 33 SECONDS WEST 200.00 FEET; THENCE NORTH 02 DEGREES 30 MINUTES 22 SECONDS WEST 200.00 FEET; THENCE NORTH 87 DEGREES 24 MINUTES 33 SECONDS EAST 200.00 FEET TO BEGINNING.

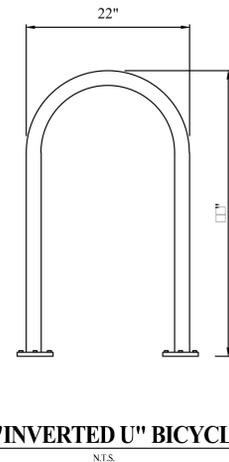
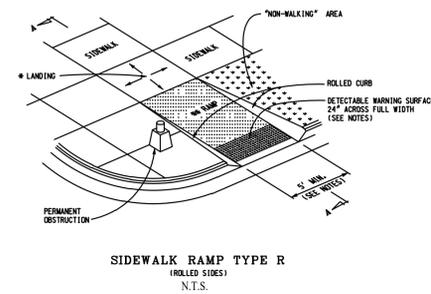


Civil Engineers • Land Planning  
Land Surveying

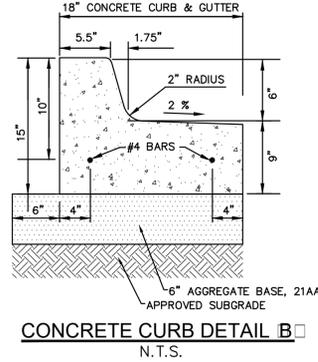
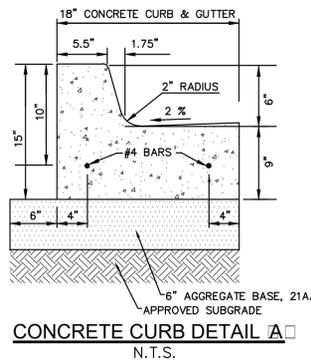
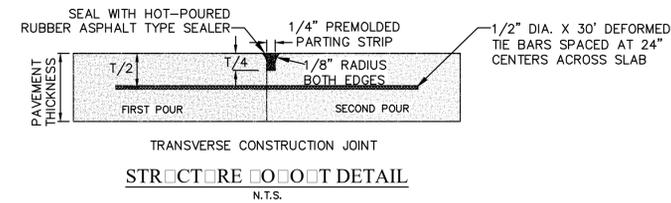
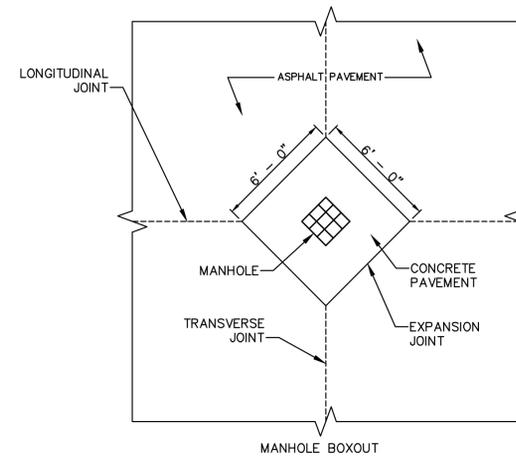
Orman Engineering, LLC  
5476 Vivian Lane  
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phone: 248.682.6001  
email: alex@ormanengineering.com



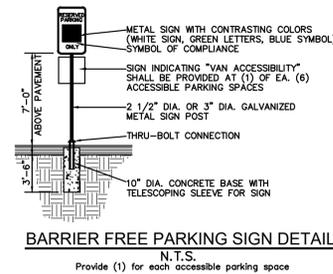
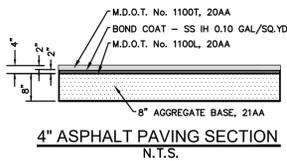
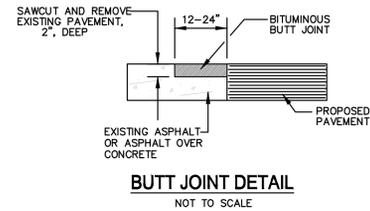
\* MAXIMUM LANDING SLOPE IS 2.0% IN EACH DIRECTION OF TRAVEL. LANDING MINIMUM DIMENSIONS 5' x 5'. SEE NOTES IF THE RAMP RUNNING SLOPE IS LESS THAN 5%. IT IS CONSIDERED A "BLENDED TRANSITION" AND DOES NOT REQUIRE A LANDING.  
\*\* MAXIMUM RAMP CROSS SLOPE IS 2.0% RUNNING SLOPE 5% - 7% (0.1% MAXIMUM). SEE NOTES.



TO BE PLACED ON EXISTING PAVEMENT



THE CONTRACTOR IS REQUIRED TO COLD MILL EX. HOT MIX ASPHALT PAVEMENT TO PROVIDE A LONGITUDINAL BUTT JOINT. ALL WORK SHALL BE IN ACCORDANCE WITH THE 2012 MDOT STANDARD SPECIFICATIONS FOR CONSTRUCTION. ALL PAVEMENT PATCHES WILL REQUIRE A BUTT JOINT.



Natural Resources Conservation Service Web Soil Survey National Cooperative Soil Survey 1/20/2020 Page 1 of 3

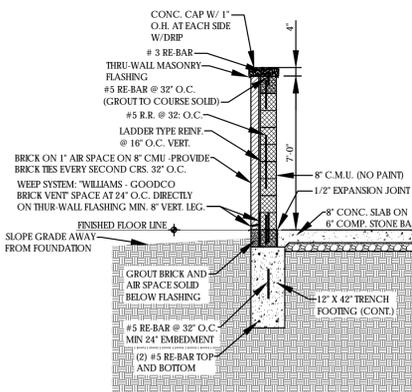
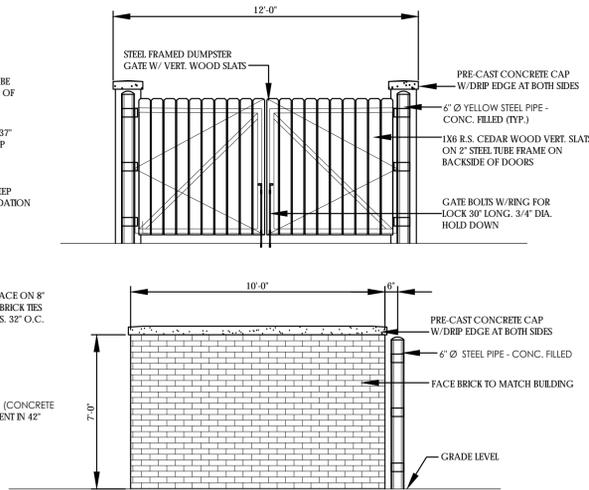
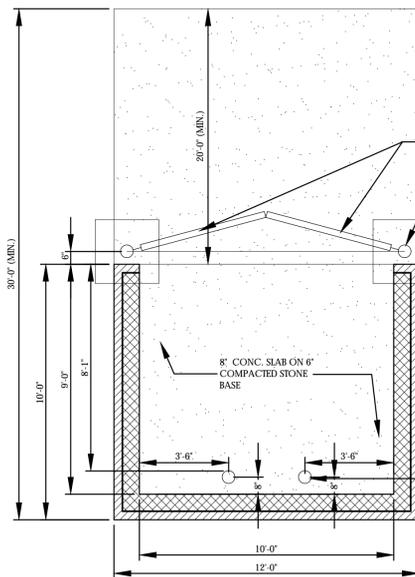
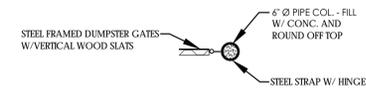
**Map Unit Legend**

Map Unit Symbol	Map Unit Name	Acres in AOI	Percent of AOI
10B	Marlette sandy loam, 1 to 6 percent slopes	29.2	33.4%
10C	Marlette sandy loam, 6 to 12 percent slopes	21.5	24.6%
10D	Marlette loam, 12 to 18 percent slopes	4.1	4.7%
11B	Capac sandy loam, 0 to 4 percent slopes	10.6	12.1%
12	Brookston and Colwood loams	3.1	3.6%
27	Houghton and Adrian mucks	6.4	7.3%
36A	Metamora sandy loam, 0 to 3 percent slopes	7.3	8.3%
42	Pits	0.1	0.1%
44B	Riddells sandy loam, 1 to 6 percent slopes	2.7	3.1%
BlountB	Blount loam, 0 to 4 percent slopes	2.6	2.9%
Totals for Area of Interest		87.5	100.0%

**SCHEDULE OF MATERIALS**

**USE**  
STORM SEWER:  
SEWER SERVICE:

**MATERIAL**  
CLASS IV RCP  
TYPE "C" COPPER



**GENERAL NOTES:**  
1. ALL EXTERIOR MATERIALS TO MATCH BUILDING IF THERE IS NO BRICK TO MATCH - MATCH MASONRY  
2. ADHERE TO ALL LOCAL ORDINANCES AND DESIGN REQUIREMENTS. NOTIFY ARCHITECT OF ANY DISCREPANCIES.

**Dumpster Enclosure Plan**  
N.T.S.



**Orman Engineering, LLC**  
5476 Vivian Lane  
Waterford, MI 48327  
phone: 248.682.6001  
email: alex@ormanengineering.com

**PROJECT**  
BUILDING ADDITION

**CLIENT**  
Behavioral Care Solutions  
39465 W. 14 Mile Rd.  
Novi, MI 48377

Robert A. Clemente  
Phone: (248) 859-3900  
Fax: (888) 483-0118

**SEAL**

**SHEET**  
DETAILS

**PROJECT LOCATION**  
39465 W. 14 Mile Rd.  
Novi, MI 48377



Know what's below  
Call before you dig.

**REVISIONS**

Date	Description

03-19-2020 SUB. FOR SITE PLAN REV.  
01-23-2020 SUB. FOR PRE-APP. REV.

Designed by: Drawn by:

A.O. S.D.M.

Approved by: Date:

A.O. 01-15-2020

Scale:

1" = 20'

Job No.: Sheet:

1265

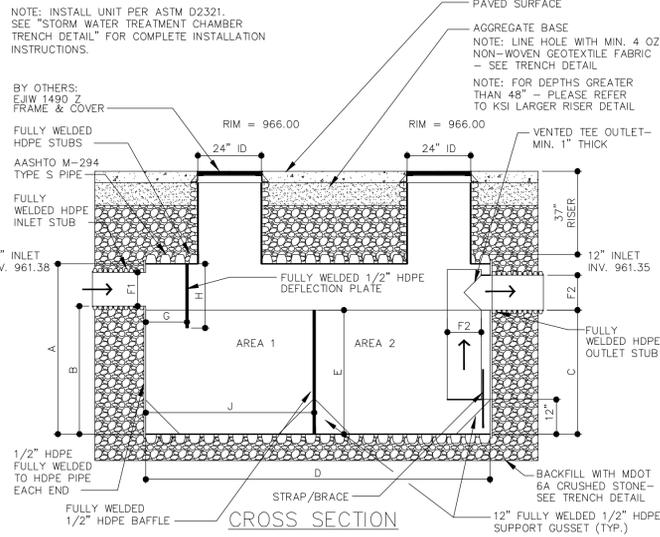
SP-

# SHEDDING

NOVI PROJECT

SHEDDING  
REVISIONS  
SIGNATURE DATE

## STORM WATER TREATMENT CHAMBER KSI SERIES 500 HDPE CHAMBER



STORM WATER TREATMENT CHAMBER DIMENSIONS AND CAPACITIES

MODEL NO.	A	B	C	D	E	F1	F2	G	H	J	AREA 1	AREA 2
500-48-12	48"	33"	32"	72"	32"	12"	12"	12"	21"	36"	24 CF	35 CF

DESIGN BY: AG / RK REV: 1-17-2020 DATE: 10-10-08 1 OF 1  
 MANUF. APPROVAL BY: SCALE: NTS SHEET NO. SI KENNEDY SOLUTIONS, INC. 2111 Sage Lake Road Prescott, MI 48756 Ph: 800-699-4046 Fax: 248-375-8144  
 DRAWING NO. SERIES 500 SWTC v3.19.14

## STORM WATER TREATMENT CHAMBER INSTALLATION AND MAINTENANCE GUIDELINES

### INSTALLATION GUIDELINES

- EXCAVATE AREA FOR KSI SWTC AND PREPARE TRENCH BOTTOM PER ASTM D2321, SECTIONS 6 & 7.
- THE KSI SWTC SHALL BE INSTALLED ON A BED OF NO LESS THAN 12" MDOT 6A CRUSHED STONE COMPACTED TO 95% PROCTOR DENSITY. COMPACTED TO 95% (90% MIN. FOR MDOT 6A MATERIAL) OF THE BACKFILL MATERIAL'S MAXIMUM WEIGHT AT A MOISTURE CONTENT NOT GREATER THAN THE OPTIMUM.
- INSTALL KSI SWTC UNIT, HIGH FLOW BYPASS LINE (IF APPLICABLE), DIVERSION STRUCTURE AND EXITING STRUCTURE AT ELEVATIONS INDICATED ON SITE PLAN. COUPLE INLET AND OUTLET STUBS WITH APPROPRIATE PIPE COUPLINGS, FERNOCOS OR HDPE SPLIT COUPLERS TO CONVEYANCE PIPE.
- BACKFILL UNIT WITH MDOT 6A CRUSHED STONE PER ASTM D2321. BACKFILL SHALL BE COMPACTED TO 95% PROCTOR DENSITY.
- THE HDPE ACCESS RISERS SHALL BE FIELD CUT TO FINISH GRADE BY THE CONTRACTOR. SEE RISER INSTALLATION OPTIONS PAGE.
- KSI RECOMMENDS FILLING THE UNIT WITH WATER UPON COMPLETION OF INSTALLATION UP TO THE BAFFLE HEIGHT.

### MAINTENANCE GUIDELINES

- ALL STORM WATER TREATMENT CHAMBERS WILL REQUIRE PERIODIC MAINTENANCE DEPENDING ON SPECIFIC SITE CONDITIONS.
  - KSI RECOMMENDS CLEANING THE SWTC QUARTERLY AND AFTER HEAVY RAIN STORMS. SEDIMENT IS EASIER TO REMOVE WHEN IT IS REMOVED ON A REGULAR BASIS.
  - DISPOSAL OF MATERIAL FROM THE KSI SWTC ARE SIMILAR TO THAT OF ANY OTHER BEST MANAGEMENT PRACTICES (BMP). LOCAL GUIDELINES SHOULD BE CONSULTED PRIOR TO DISPOSAL OF THE SWTC CONTENTS. PETROLEUM WASTE PRODUCTS SHOULD BE REMOVED BY A LICENSED WASTE MANAGEMENT COMPANY.
  - IF A HYDROCARBON REMOVAL SYSTEM WAS INSTALLED - REPLACE IT WHEN IT TURNS BLACK. UNIT CAN BE DISPOSED OF VIA NORMAL REFUSE REMOVAL. SPENT UNIT DOES NOT LEACH CAPTURED CONTAMINATES.
- WHITE = NEW  
 GREY = WORKING  
 BLACK = SPENT - NEEDS REPLACEMENT - CONTACT KSI FOR REPLACEMENT PARTS
- AFTER CLEANING THE UNIT -KSI RECOMMENDS REFILLING THE UNIT WITH WATER

DESIGN BY: AG / RK REV: 1-17-2020 DATE: 4-17-08 1 OF 1  
 MANUF. APPROVAL BY: SCALE: NTS SHEET NO. SI KENNEDY SOLUTIONS, INC. 2111 Sage Lake Road Prescott, MI 48756 Ph: 800-699-4046 Fax: 248-375-8144  
 DRAWING NO. SWTC INSTALL & MAINT.

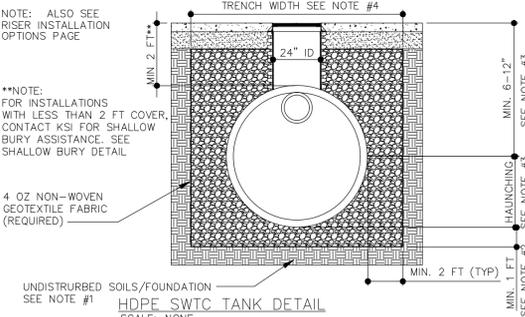
## STORM WATER TREATMENT CHAMBER TRENCH DETAIL

- NOTES:
- FOUNDATION: WHERE THE TRENCH BOTTOM IS UNSTABLE, THE CONTRACTOR SHALL EXCAVATE TO A DEPTH REQUIRED BY THE ENGINEER AND REPLACE WITH A FOUNDATION OF MDOT 6A CRUSHED STONE AS DEFINED IN ASTM D2321, LATEST EDITION. AS AN ALTERNATIVE TRENCH BOTTOM MAY BE STABILIZED USING A WOVEN GEOTEXTILE FABRIC AND OR A GEOGRID.
  - BEDDING: SUITABLE MATERIAL SHALL BE MDOT 6A CRUSHED STONE INSTALLED AS REQUIRED IN ASTM D2321, LATEST EDITION, UNLESS OTHERWISE SPECIFIED BY THE ENGINEER. MINIMUM BEDDING THICKNESS SHALL BE 12" FOR 36"-120" DIA. SWTC.
  - HAUNCHING AND INITIAL BACKFILL: SUITABLE MATERIAL SHALL BE MDOT 6A CRUSHED STONE AND INSTALLED AS REQUIRED IN ASTM D2321, LATEST EDITION, MAXIMUM TEN INCH (10") LIFTS.
  - UNLESS OTHERWISE SPECIFIED BY THE ENGINEER, MIN. TRENCH WIDTHS ARE AS FOLLOWS

NOMINAL I.D.	NOMINAL O.D.	MINIMUM RECOMM. TRENCH WIDTH
36"	42"	90"
48"	54"	102"
60"	66"	114"
72"	80.5"	129"
96"	105.9"	154"
120"	131.3"	190"

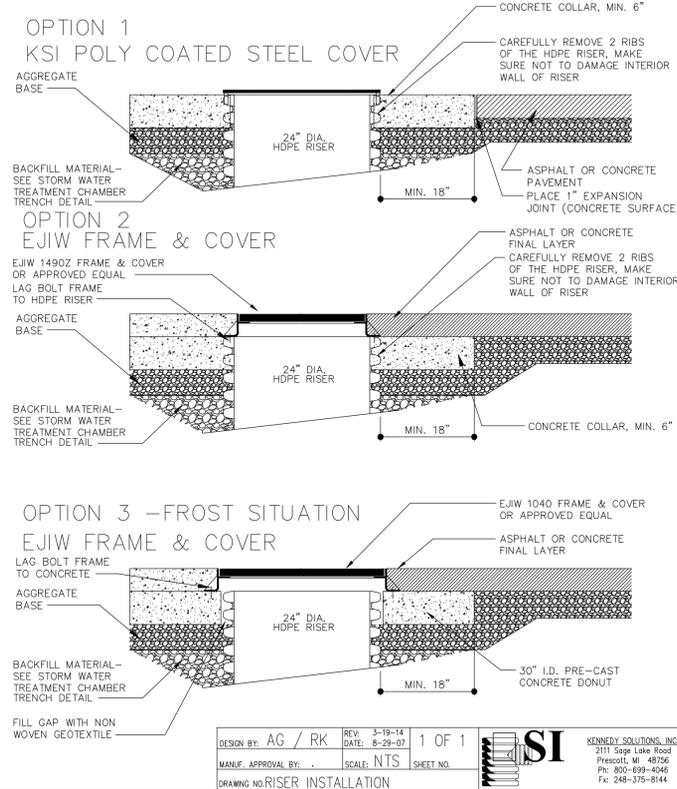
- MINIMUM COVER: MINIMUM RECOMMENDED COVER FOR VARIOUS LIVE LOADING CONDITIONS ARE AS SUMMARIZED IN THE FOLLOWING TABLE. UNLESS OTHERWISE NOTED, ALL DIMENSIONS ARE TAKEN FROM THE TOP OF THE SWTC TANK TO THE GROUND SURFACE.

SURFACE LIVE LOAD	MINIMUM REQUIRED COVER FOR WAYNE COUNTY (ALL SIZES)
HS-25/H25 (FLEXIBLE PAVEMENT)	MIN. 24" AS MEASURED FROM THE BOTTOM OF THE FLEXIBLE PAVEMENT
HS-25/H25 (RIGID PAVEMENT)	MIN. 24" AS MEASURED FROM THE TOP OF THE RIGID PAVEMENT
EBO RAILWAY	24"
HEAVY CONSTRUCTION	48"



DESIGN BY: AG / RK REV: 1-17-2020 DATE: 4-13-09 1 OF 1  
 MANUF. APPROVAL BY: SCALE: NTS SHEET NO. SI KENNEDY SOLUTIONS, INC. 2111 Sage Lake Road Prescott, MI 48756 Ph: 800-699-4046 Fax: 248-375-8144  
 DRAWING NO. SWTC INSTALLATION DETAIL

## KSI RISER INSTALLATION OPTIONS FOR PAVED SURFACE APPLICATIONS



DESIGN BY: AG / RK REV: 3-19-14 DATE: 8-29-07 1 OF 1  
 MANUF. APPROVAL BY: SCALE: NTS SHEET NO. SI KENNEDY SOLUTIONS, INC. 2111 Sage Lake Road Prescott, MI 48756 Ph: 800-699-4046 Fax: 248-375-8144  
 DRAWING NO. RISER INSTALLATION

## SI ENGINEERING REPORT

SI Series S T  
 Sedimentation site

State: MI	Project: Novi project
NCDC Station: Detroit City Airport	
Data Range: 5.5 yrs of 15 min. precipitation data	
Site Area (acres):	0.92
Runoff Coeff:	0.78
Desired Minimum Removal Efficiency:	80%
KSI Model:	
Net Annual TSS Removal Effic.:	84.57
Oil/Floatables Storage Capacity (gallons)	
Sediment Storage Capacity (cu. Yds)	

Rainfall Interval (in./hr.)	Operating Rate (cfs)	Total Rainfall (")	Removal Efficiency (%)	Relative Efficiency (%)
0.080	0.0574	34.40	97.03	33.38
0.160	0.1148	18.20	94.12	17.13
0.240	0.1722	9.40	91.28	8.58
0.320	0.2296	5.70	88.50	5.04
0.400	0.2870	3.30	85.78	2.83
0.480	0.3444	3.10	83.13	2.58
0.560	0.4019	2.20	80.55	1.77
0.640	0.4593	3.10	78.03	2.42
0.720	0.5167	2.10	75.57	1.59
0.800	0.5741	1.60	73.19	1.17
0.880	0.6315	2.00	70.86	1.42
0.960	0.6889	1.00	68.60	0.69
1.040	0.7463	1.50	66.40	1.00
1.120	0.8037	1.20	64.27	0.77
1.200	0.8611	1.30	62.20	0.81
1.280	0.9185	1.10	60.20	0.66
1.360	0.9759	0.90	58.27	0.52
1.440	1.0333	0.70	56.39	0.39
1.520	1.0908	0.70	54.59	0.38
1.600	1.1482	0.30	52.84	0.16
2.000	1.4352	2.00	45.10	0.90
2.400	1.7222	0.80	38.98	0.31
2.800	2.0093	0.20	34.47	0.07

Total Cumulative Rainfall = 96.80  
 Net Annual = 84.57

Note: Removal efficiency is calculated based on field test results on the 1500 Unit for a 75 micron particle size. Equation of a best fit curve through the data and scaled to a 500 Unit is shown below.  
 $y = 9.8234 \times x^2 - 52.351 \times x + 100$   
 $y =$  removal efficiency in %  
 $x =$  operating rate (cfs)



Orman Engineering, LLC  
 5476 Vivian Lane  
 Waterford, MI 48327  
 phone: 248.682.6001  
 email: alex@ormanengineering.com

PROJECT  
 BUILDING ADDITION

CLIENT  
 Behavioral Care Solutions  
 39465 W. 14 Mile Rd.  
 Novi, MI 48377

Robert A. Clemente  
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 Fax: (888) 483-0118

SEAL

SHEET  
 SI DETAILS

PROJECT LOCATION  
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 Novi, MI 48377



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REVISIONS

03-19-2020 SUB. FOR SITE PLAN REV.  
 01-23-2020 SUB. FOR PRE-APP. REV.

Date Description

Designed by: Drawn by:

A.O. S.D.M.

Approved by: Date:

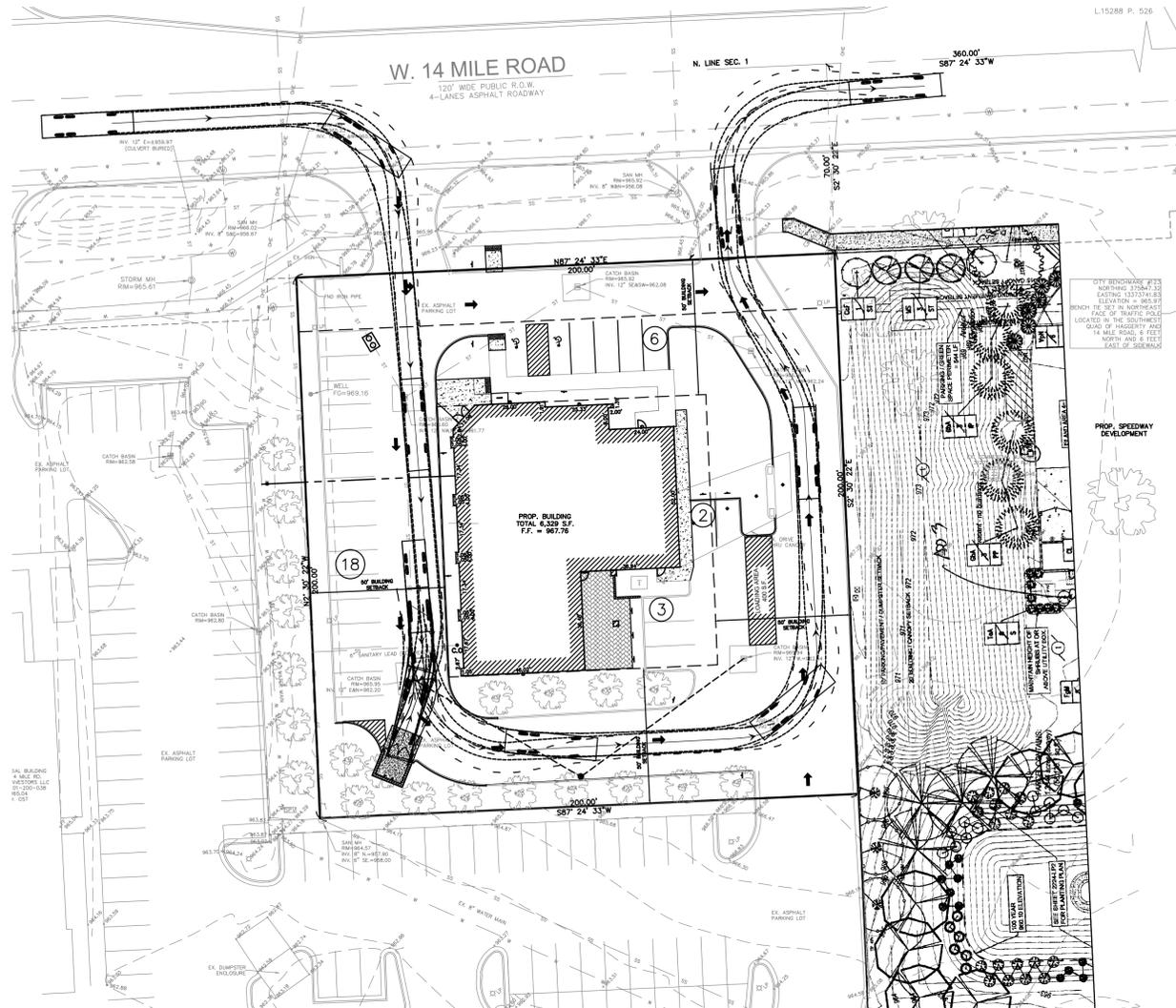
A.O. 01-15-2020

Scale:

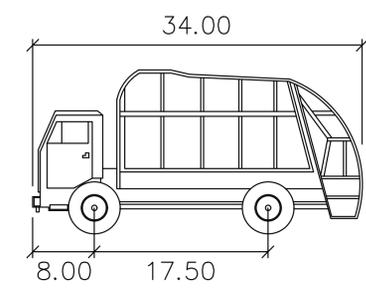
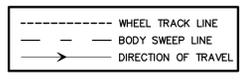
1" = 20'

Job No.: Sheet:

1265 SP-

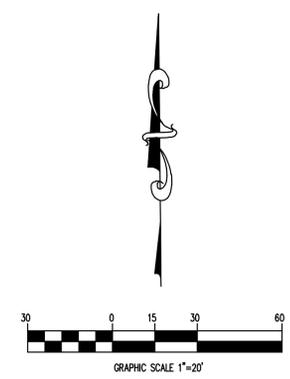


**DUMPSTER TRUCK ROUTE**

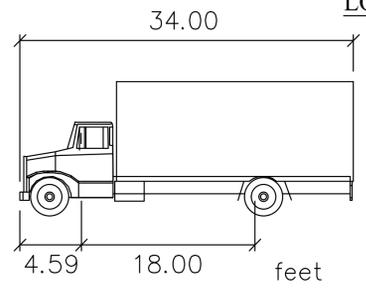


feet  
 Width : 8.50  
 Track : 7.50  
 Lock to Lock Time : 6.0  
 Steering Angle : 40.0

**DUMPSTER TRUCK**  
NOT TO SCALE

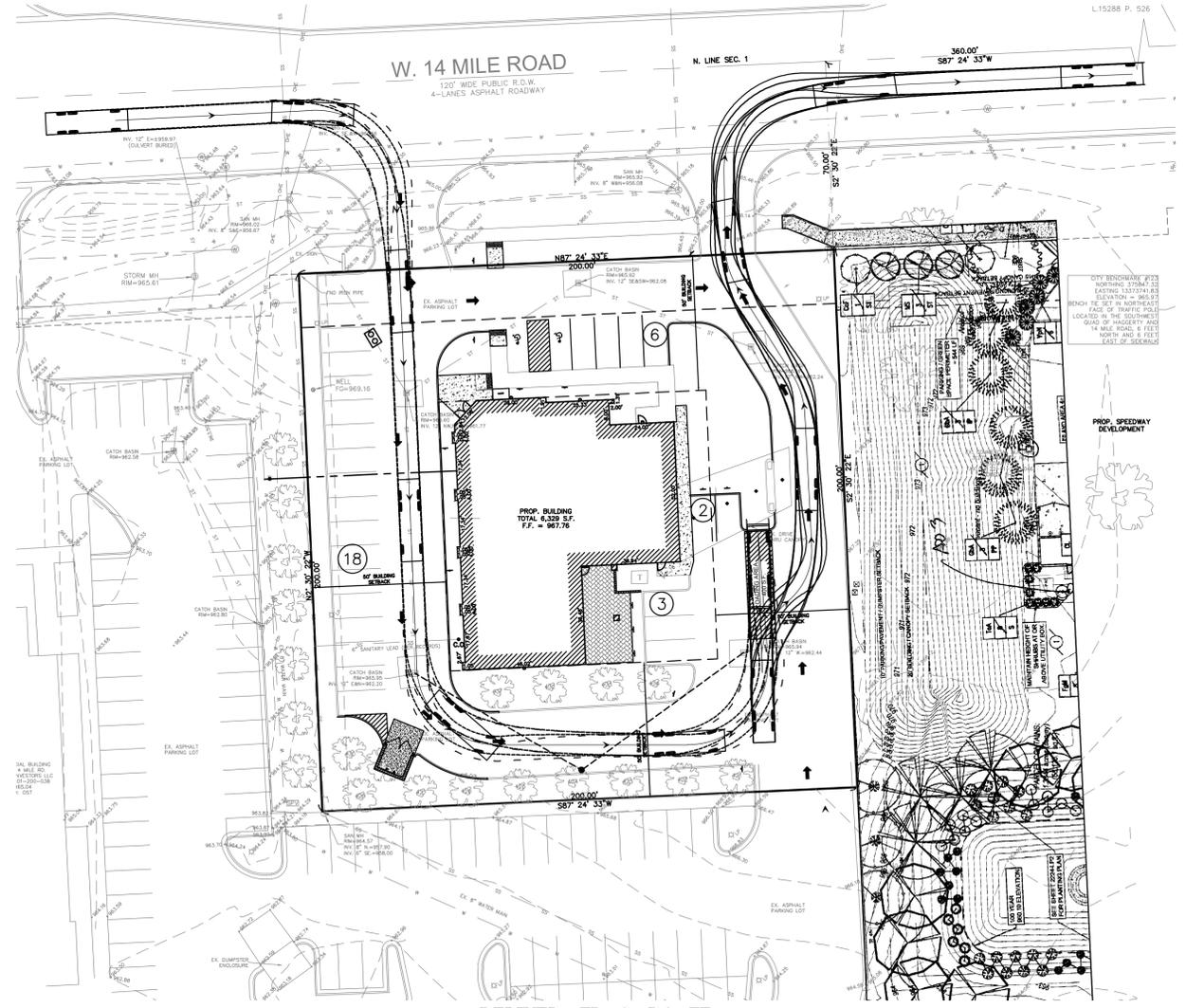


**LOCATION MAP**  
N.T.S.



Width : 8.20  
 Track : 7.84  
 Lock to Lock Time : 6.0 feet  
 Steering Angle : 41.8

**DELIVER TRUCK**  
NOT TO SCALE



**DELIVER TRUCK ROUTE**



**Orman Engineering, LLC**  
 5476 Vivian Lane  
 Waterford, MI 48327  
 phone: 248.682.6001  
 email: alex@ormanengineering.com

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 Novi, MI 48377

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 Phone: (248) 859-3900  
 Fax: (888) 483-0118

**SEAL**

**SHEET**  
 TRUCK ROUTE PLAN

**PROJECT LOCATION**  
 Section 1  
 39465 W. 14 Mile Rd.  
 Novi, MI 48377



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**REVISIONS**

Date	Description

03-19-2020 SUB. FOR SITE PLAN REV.  
 01-23-2020 SUB. FOR PRE-APP. REV.

Designed by: A.O. Drawn by: S.D.M.

Approved by: A.O. Date: 01-15-2020

Scale: 1" = 30'

Job No.: Sheet:

CORNER  
CTION 1  
R.B.E.  
CO., MI  
P. 501

# W. 14 MILE ROAD

120' WIDE PUBLIC R.O.W.  
4-LANES ASPHALT ROADWAY

PERMIT FROM  
O.C.R.C. TO BE  
OBTAINED FOR  
OR IN R.O.

N. LINE SEC. 1

360.00'  
S87° 24' 33" W



LOCATION MAP  
N.T.S.



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SEAL

SHEET  
SITE PLAN

PROJECT LOCATION  
Section 1  
39465 W. 14 Mile Rd.  
Novi, MI 48377



REVISIONS

03-19-2020	SUB. FOR SITE PLAN REV.
01-23-2020	SUB. FOR PRE-APP. REV.
Date	Description
Designed by:	Drawn by:
A.O.	S.D.M.
Approved by:	Date:
A.O.	01-15-2020
Scale:	
1" = 20'	
Job No.:	Sheet:
1265	SP-2

## SITE DATA

EXISTING SITE ZONING: OST - RETAIL SERVICE OVERLAY  
EXISTING SITE AREA:  
GROSS: 40,000 S.F. OR 0.92 ACRES  
NET: 40,000 S.F. OR 0.92 ACRES

EXISTING BUILDING (GROSS): 2,520 S.F.  
PROPOSED ADDITION (GROSS): 3,809 S.F.  
TOTAL PROPOSED BUILDING (GROSS): 6,329 S.F.  
PROPOSED BLDG. HT.: 22'-6 1/2"  
BLDG LOT COVERAGE: 15.9%

REQUIRED BUILDING SETBACKS:  
FRONT: 50'  
SIDE: 50'  
REAR: 50'

PARKING REQUIREMENTS:  
REQUIRED: 1 SPACE PER 222 S.F. GROSS LEASEABLE AREA  
TOTAL: 6,329 / 222 = 29 SPACES  
PROPOSED: 29 SPACES

OUTDOOR STORAGE:  
REQUIRED: NOT REQUIRED  
PROPOSED: NOT PROPOSED

LOADING AREA:  
REQUIRED: 400 S.F.  
PROPOSED: 400 S.F.

PRESENT USE OF PROPERTY: MEDICAL OFFICE BUILDING  
PROPOSED USE OF PROPERTY: MEDICAL OFFICE BUILDING

NOTE: ROOF TOP APPURTENANCES WILL BE SCREENED (SEE ARCHITECTURAL ELEVATIONS)

LEGAL DESCRIPTION: WARRANTY DEED LIBER 53148, PAGE 565  
A PARCEL OF LAND IN THE NORTHEAST 1/4 OF SECTION 1,  
TOWN 1 NORTH, RANGE 8 EAST, CITY OF NOVI, OAKLAND  
COUNTY, MICHIGAN, DESCRIBED AS: BEGINNING AT A POINT  
DISTANCE SOUTH 87 DEGREES 24 MINUTES 33 SECONDS WEST  
360.00 FEET AND SOUTH 02 DEGREES 30 MINUTES 22 SECONDS  
EAST 70.00 FEET FROM THE NORTHEAST SECTION CORNER;  
THENCE SOUTH 02 DEGREES 30 MINUTES 22 SECONDS EAST  
200.00 FEET; THENCE SOUTH 87 DEGREES 24 MINUTES 33  
SECONDS WEST 200.00 FEET; THENCE NORTH 02 DEGREES 30  
MINUTES 22 SECONDS WEST 200.00 FEET; THENCE NORTH 87  
DEGREES 24 MINUTES 33 SECONDS EAST 200.00 FEET TO  
BEGINNING.

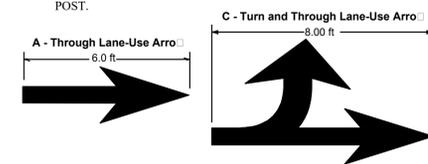
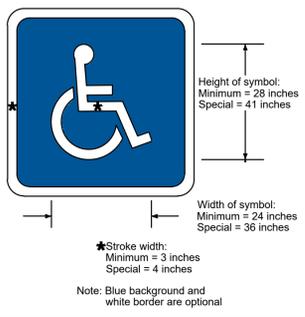
TAX ID# 22-01-200-037

## SIGNAGE SCHEDULE

ITEM	QUANTITY
A MDOT R22 DO NOT ENTER SIGN	1
B MDOT R22 HANDICAP PARKING SIGN	1
B <sub>A</sub> MDOT R22 RAMP PARKING SIGN	1
C MDOT R22 NO LEFT TURN SIGN	1
D 2" X 4" "EMPLOYEE PARKING ONLY" SIGN	1
E 12" X 24" NO PARKING FIRE LANE SIGN	2

- NOTES:
- ALL SIGNS TO BE MOUNTED ON 4 FEET ABOVE FINAL GRADE TO BOTTOM OF SIGN.
  - ALL SIGNS SHALL BE PLACED AT 2 FEET FROM THE FACE OF CURB OR THE EDGE OF THE NEAREST WALL TO THE NEAR EDGE OF THE SIGN.
  - SINGLE SIGNS WITH DIMENSIONS OF 12" X 18" OR SMALLER IN SIZE SHALL BE MOUNTED ON A 2" X 4" ALUMINUM CHANNEL POST. MULTIPLE SIGNS AND OR SIGNS WITH NOMINAL DIMENSION GREATER THAN 12" X 18" SHALL BE MOUNTED ON A 4" X 4" ALUMINUM CHANNEL POST.

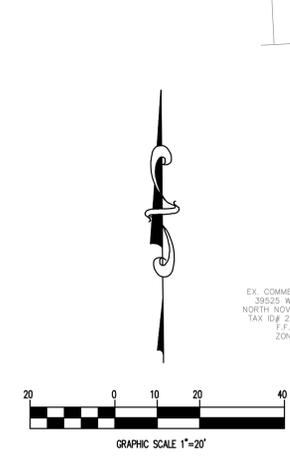
Figure 3B-22. International Symbol of Accessibility Parking Space Marking



PAVEMENT MARKINGS SHALL BE WHITE ACCEPT ACCESSIBLE PARKING

STRIPING SHALL BE WHITE

CHMARK #122  
13372650.65  
N = 965.22  
55 FEET SOUTH  
R.L. OF 14 MILE  
> 100 FEET EAST  
#39955  
ROAD

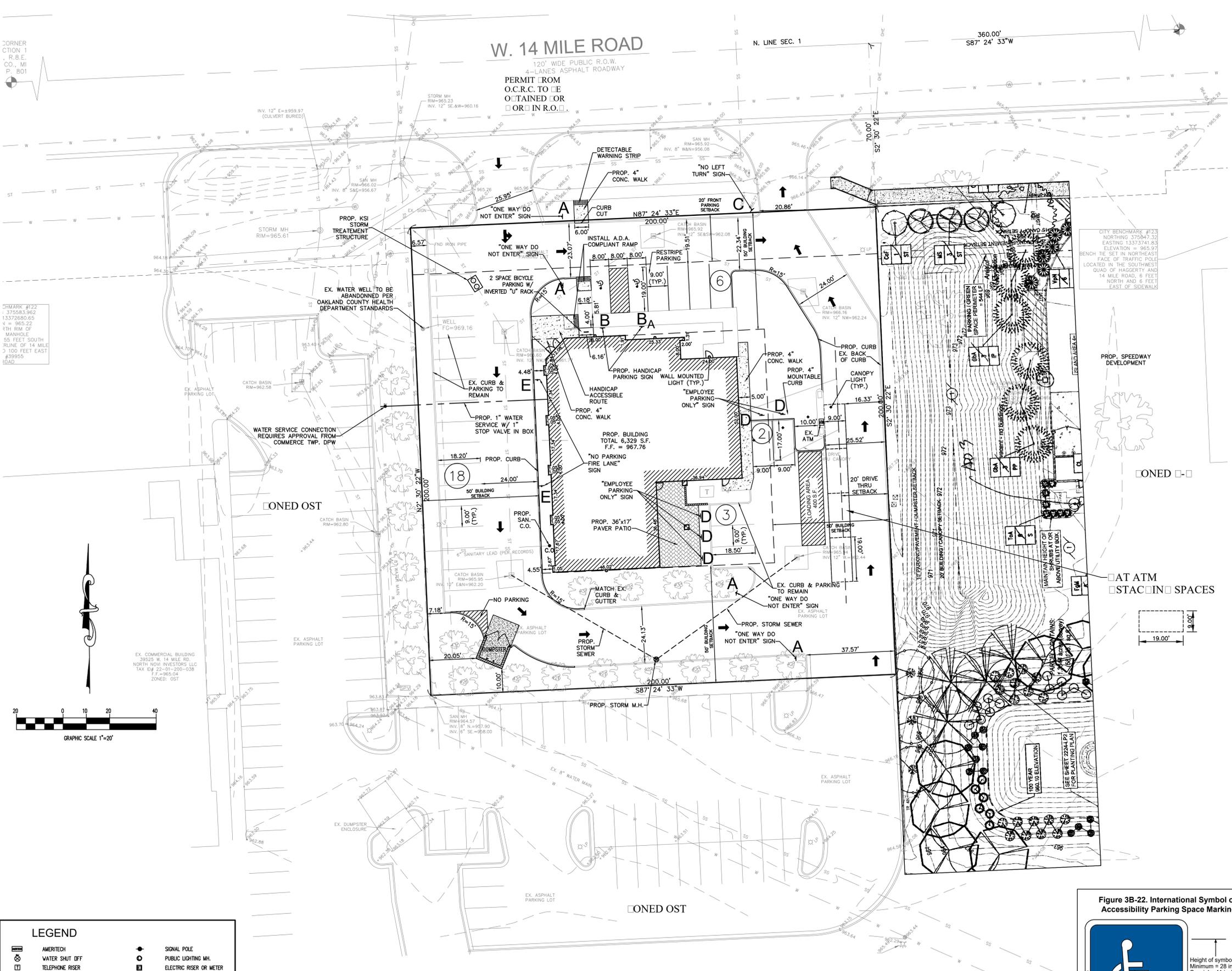


LEGEND	
	AMERTECH
	WATER SHUT OFF
	TELEPHONE RISER
	TELEPHONE
	SEWER CLEAN OUT
	GAS METER
	GAS VALVE / GAS MARKER
	MANHOLE (OH)
	CATCH BASIN (C.B.)
	GATE VALVE IN WELL (G.V.W.)
	FIRE HYDRANT
	STORM MANHOLE (ST. MH.)
	FENCE POST
	UTILITY POLE
	UTILITY POLE W/ LAMP EXTENSION
	SIGNAL POLE
	PUBLIC LIGHTING MH.
	ELECTRIC RISER OR METER
	CATHODIC PROTECTION
	GUY WIRE
	HIGH TENSION TOWER
	FLAG POLE
	GUARD/METAL POST
	STEEL COLUMN
	MAILBOX
	SIGN
	ELECTRIC TRANSFORMER
	EXISTING
	PROPOSED
	WATER FLOW INDICATOR

EXISTING	PROPOSED
	GAS
	SANITARY (SND) STORM (STM) WATERMAIN (WV) DIVERHEAD (VD) UNDERGROUND CABLE
	EX. DITCH
	SWALE CENTERLINE
	EASEMENTS
	CHAIN LINK FENCE
	SAND BACKFILL UNDER PAVEMENT

PAVING LEGEND	
	PROPOSED CONCRETE PAVEMENT
	PROPOSED ASPHALT PAVEMENT
	PROPOSED CURB & GUTTER

- LIGHTING NOTES:
- HOURS OF LIGHTING OPERATION SHALL BE FROM 6 P.M. TO 6 A.M.
  - POLE MOUNTED LIGHTS SHALL NOT EXCEED 20' MAXIMUM HEIGHT.
  - LIGHTS ARE SHIELDED.



**NOVI SPECIFICATIONS**

- Wherever in this Ordinance landscape plantings are required or permitted, they shall be planted in accordance with the approved final stamped landscape plan.
- All plant materials shall be installed between April 15th and November 15th. All installed landscapes including plant materials, mulch, staking, irrigation, and sodding, must be installed and inspected by the City prior to issuance of a Temporary Certificate of Occupancy. At that time, a financial guarantee of 1.2 times the cost of any deficiencies will be held until inspection occurs for a Final Certificate of Occupancy. In order to receive a Final Certificate of Occupancy, the deficiencies must be addressed within 30 days during the April 15th to November 15th planting season. If the deficiencies are not addressed in the time period outlined above, the City will cash in the amount being held for the outstanding items and remedy those items.
- A City representative will perform landscape inspections following a request from the developer or owner. The inspection time period is from April 15th to November 15th. If an inspection is requested between November 16 and April 14, a financial guarantee is to be provided based on 1.2 times the percent incomplete for a Temporary Certificate of Occupancy as outlined above. Beginning April 15th, the Applicant then has 30 days to complete items or the City will cash in the amount being held and finish the job.
- The establishment period for the plant material guarantee will occur beginning at the Final Certificate of Occupancy inspection approval to 2 years from that date. All plantings shall be properly planted as to be in a healthy, growing condition at the commencement of the establishment period. At the end of the establishment period, any plantings, which are 20% dead or greater, shall be replaced.
- Notice of Installation/Minor changes:**
  - The owner or developer must notify the City of the installation schedule. The City may reject any material which is defective or in generally poor condition.
  - Minor changes regarding plant materials per the approved and stamped landscape plan may be altered upon written notification to, and written sign-off by, the City Landscape Architect of species, size, change, and location.
  - Minor changes due to seasonal planting problems and lack of plant availability may be approved in writing by the City Landscape Architect when there is no reduction in the quality of plant materials, no significant change in size or location of plant material, the new plant material is compatible with the area and is the same general type (deciduous/evergreen), exhibiting same design characteristics (mature height, crown), as the material being replaced. If these criteria are not fulfilled or changes are significant from approved plan, the landscape plan shall be revised and resubmitted for plan approval.
- Maintenance:**
  - Maintenance of required plantings by the owner shall be carried out so as to present a healthy, neat and orderly appearance, free from refuse and debris.
  - To insure proper maintenance and as a condition of Final Site Plan approval, the property owner shall enter into and record with the office of the Oakland County Register of Deeds a Landscape Maintenance Agreement, or include such provisions as part of subdivision restrictions or condominium master deed, each of which shall be approved by the City Attorney. Such instrument shall identify the minimum plan of maintenance, the person or entity responsible for maintenance, and shall provide the procedure, authority and finance for City cure of breaches by the responsible entity. Such instrument shall also include provisions that all unhealthy and dead material shall be replaced within one (3) months, or the next appropriate planting period, whichever occurs first. All landscaped areas shall be provided with sufficient water for establishment and long-term survival: tree stakes, guy wires and tree wrap are to be removed after one winter season; plantings shall be guaranteed for two (2) growing seasons after date of the acceptance of the installation if grass or weeds exceed the height specified in Chapter 21 of the Novi Code of Ordinances, or if shrubs are allowed to obstruct vision across any portion of the island and the responsible party is unwilling to rectify the problem, the City will abate such violations and shall assess the cost of such abatement measures in the manner proposed by the developer and approved by the City in such instrument.
  - Responsibility and Certificates of Occupancy.** The owner of the property subject to the requirements of this Section shall be responsible for installing and maintaining per landscaping the approved final landscape plan as specified in this Section. Where the property is occupied by a person other than the owner, the occupant shall also be responsible for maintenance. All landscaping work required pursuant to this Section shall be treated as a site improvement for purposes of Subsections 3005-8 and 9 to be maintained on an ongoing basis by the occupant and/or landowner.

*These requirements supersede all other planting requirements or specifications.*

**PLANT LIST - Parking Lot**

QUAN.	KEY	COMMON/ BOTANICAL NAME	SIZE	SPEC.	UNIT	TOTAL
2	GT(P)	Skyline Thornless Honeylocust <i>Gleditsia t. 'Skyline'</i>	3" cal.	B&B	\$ 400.00	\$ 800.00
3	UP(P)	Princeton Elm <i>Ulmus americana 'Princeton'</i>	3" Cal.	B&B	\$ 400.00	\$ 1,200.00
0.5		SHREDDED HARD BARK MULCH (C.Y.)			\$ 35.00	\$ 17.50
					TOTAL:	\$ 2,490.00

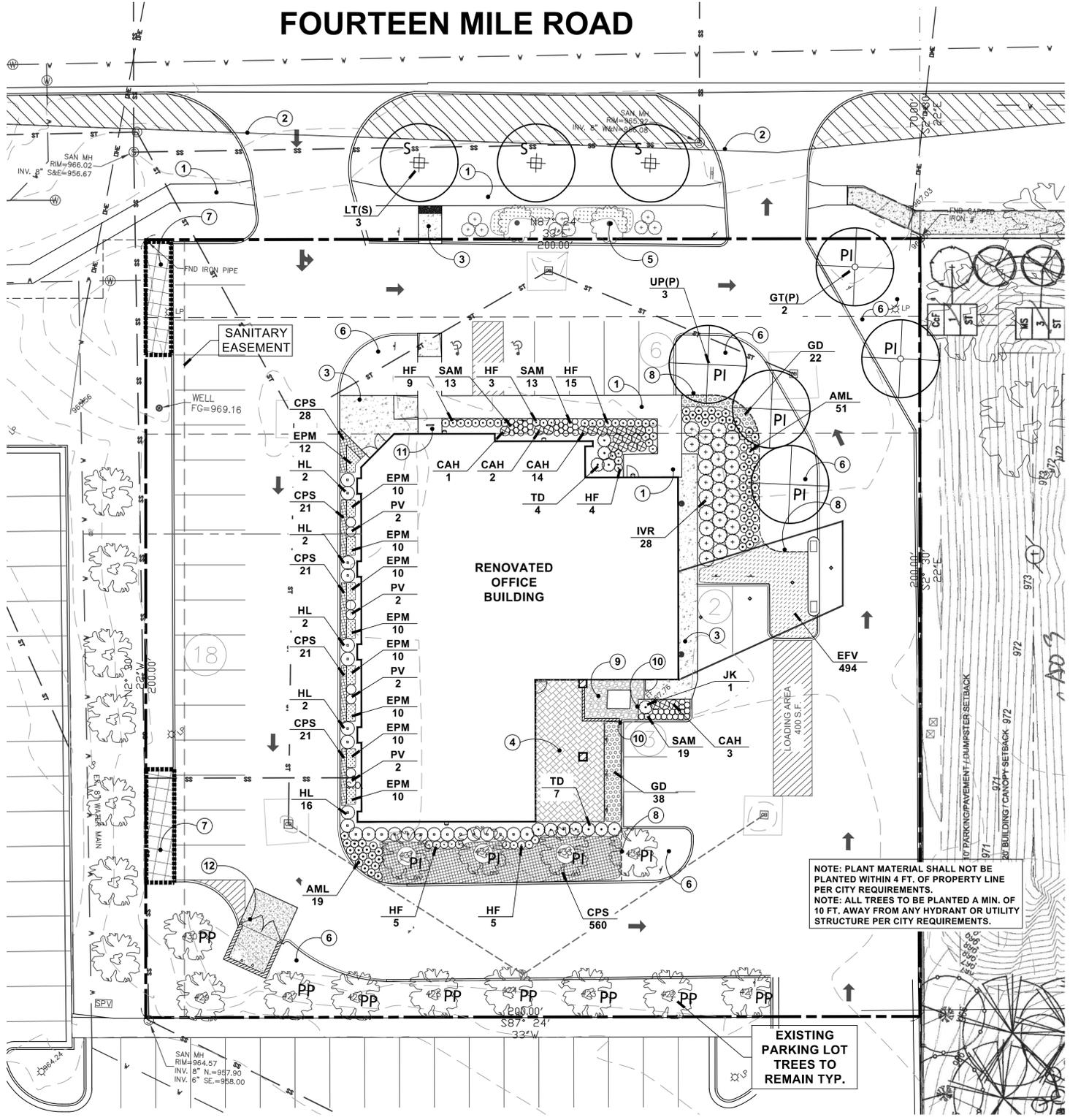
**PLANT LIST - Street Trees**

QUAN.	KEY	COMMON/ BOTANICAL NAME	SIZE	SPEC.	UNIT	TOTAL
3	LT(S)	Tulip Tree <i>Liriodendron tulipifera</i>	3" Cal.	B&B	\$ 400.00	\$ 1,200.00
0.25		SHREDDED HARD BARK MULCH (C.Y.)			\$ 35.00	\$ 8.75
					TOTAL:	\$ 1,208.75

**PLANT LIST - Foundation Plants**

QUAN.	KEY	COMMON/ BOTANICAL NAME	SIZE	SPEC.	UNIT	TOTAL
70	AML	Low Scape Black Chokeberry <i>Aronia m. 'Low Scape Mound'</i>	3 gal.	Cont.	\$ 50.00	\$ 3,500.00
20	CAH	Hummingbird Summersweet <i>Clethra alnifolia 'Hummingbird'</i>	3 gal.	Cont.	\$ 50.00	\$ 1,000.00
24	HL	Little Quick Fire Hydrangea <i>Hydrangea p. 'Little Quick Fire'</i>	5 gal.	Cont.	\$ 50.00	\$ 1,200.00
28	IVR	Red Sprite Holly <i>Ilex verticillata 'Red Sprite'</i>	5 gal.	Cont.	\$ 50.00	\$ 1,400.00
1	JK	Ketter Juniper <i>J. 'Ketterii'</i>	5' Ht.	B&B	\$ 50.00	\$ 50.00
11	TD	Dense Yew <i>Taxus x m. 'Densiflora'</i>	30" ht.	B&B	\$ 50.00	\$ 550.00
672	CPS	Pennsylvania Sedge <i>Carex pensylvanica</i>	1 Gal.	Cont.	\$ 15.00	\$ 10,080.00
108	EPM	Pixie Meadowbrite Purple Coneflower <i>Echinacea 'Pixie Meadowbrite'</i>	1 Gal.	Cont.	\$ 15.00	\$ 1,620.00
59	GD	Dily's Geranium <i>Geranium x 'Dily's'</i>	1 Gal.	Cont.	\$ 15.00	\$ 885.00
41	HF	Francee Hosta <i>Hosta 'Francee'</i>	1 gal.	Cont.	\$ 15.00	\$ 615.00
8	PV	Shenandoah Switchgrass <i>Panicum virgatum 'Shenandoah'</i>	3 gal.	Cont.	\$ 15.00	\$ 120.00
45	SAM	Autumn Moor Grass <i>Sesleria autumnalis</i>	1 Gal.	Cont.	\$ 15.00	\$ 675.00
494	EFV	Purpleleaf Wintercreeper <i>Euonymus f. 'Coloratus'</i>	38 / flat	Cont.	\$ 15.00	\$ 195.00
36		SHREDDED HARD BARK MULCH (C.Y.)			\$ 35.00	\$ 1,260.00
246		SEEDED LAWN (S.Y.) - 2,214 S.F.			\$ 3.00	\$ 738.00
					TOTAL:	\$ 23,888.00

NOTE: CONTRACTOR TO VERIFY ALL PLANT QUANTITIES ON SITE LANDSCAPE PLAN SHEETS.



**SITE PLANTING PLAN**

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

- NOTES:
- NO OVERHEAD UTILITIES EXIST OR ARE PROPOSED ON SITE.
  - SEE CIVIL DRAWINGS FOR SOIL MAP AND TYPES PRESENT ON SITE.
  - SEE CIVIL DRAWINGS FOR PRESERVED TREE INVENTORY

**PLANTING KEY**

- STREET TREES
- PARKING LOT INTERIOR TREES
- PARKING LOT PERIMETER TREES



**NOTE KEY:**

- EXISTING SIDEWALK
- 25' CLEAR VISION TRIANGLE
- NEW CONCRETE SIDEWALK - SEE CIVIL DWGS.
- NEW PATIO - SEE CIVIL DWGS.
- EXISTING LANDSCAPING TO REMAIN
- SEEDED LAWN OVER MINIMUM 4" DEPTH TOPSOIL. SEE TOPSOIL NOTE BELOW
- SNOW DEPOSIT AREA
- SHOVEL CUT BED EDGE - TYP.
- 2" DIA. EGGSTONE OVER FILTER MAT
- 4" RYERSON STEEL EDGING, 1/2" THICK
- PROPOSED BIKE RACKS - SEE CIVIL DWGS.
- DUMPSTER ENCLOSURE - SEE CIVIL DWGS.

**GENERAL PLANTING REQ.:**

- THE WORK SHALL CONSIST OF PROVIDING ALL NECESSARY MATERIAL, LABOR, EQUIPMENT, TOOLS, AND SUPERVISION REQUIRED FOR THE COMPLETION AS SHOWN ON THE DRAWING.
- ALL PLANT MATERIALS SHALL CONFORM TO THE TYPE STATED ON THE PLANT LIST. SIZES SHALL BE THE MINIMUM STATED ON THE PLANT LIST OR LARGER. ALL MEASUREMENTS SHALL BE IN ACCORDANCE WITH THE LATEST EDITION OF THE "A.N. STANDARDS FOR GRADE NO. 1 NURSERY STOCK" AND NORTHERN NURSERY GROWN.
- ALL TREE LOCATIONS SHALL BE STAKED BY LANDSCAPE CONTRACTOR AND ARE SUBJECT TO THE APPROVAL OF THE LANDSCAPE ARCHITECT PRIOR TO INSTALLATION OF THE PLANT MATERIAL.
- ALL SINGLE TRUNK SHADE TREES TO HAVE A CENTRAL LEADER. TREES WITH FORKED OR IRREGULAR TRUNKS WILL NOT BE ACCEPTED. ALL SINGLE STEM SHADE TREES TO HAVE STRAIGHT TRUNKS AND SYMMETRICAL CROWNS.
- ALL MULTI-STEM TREES SHALL BE HEAVILY BRANCHED AND HAVE SYMMETRICAL CROWNS, ONE SIDED TREES OR THOSE WITH THIN OR OPEN CROWNS SHALL NOT BE ACCEPTED.
- ALL EVERGREEN TREES SHALL BE HEAVILY BRANCHED AND FULL TO THE GROUND, SYMMETRICAL IN SHAPE AND NOT SHEARED FOR THE LAST FIVE GROWING SEASONS.
- THE CONTRACTOR IS RESPONSIBLE FOR PLANTING THE MATERIALS AT THE CORRECT GRADES AND SPACING. THE PLANTS SHALL BE ORIENTED AS TO GIVE THE BEST APPEARANCE.
- WHEN THE PLANT HAS BEEN PROPERLY SET, THE PIT SHALL BE BACKFILLED WITH A TOPSOIL AND NATIVE SOIL MIXTURE, GRADUALLY FILLING, PATTING AND SETTLING WITH WATER.
- ALL PLANT MATERIALS SHALL BE PRUNED AND INJURIES REPAIRED. THE AMOUNT OF PRUNING SHALL BE LIMITED TO THE REMOVAL OF DEAD OR INJURED TWIGS AND TO COMPENSATE FOR THE LOSS OF ROOTS FROM TRANSPORTING. CUTS SHOULD BE FLUSH, LEAVING NO STUBS.
- THE CONTRACTOR AGREES TO GUARANTEE ALL PLANT MATERIALS FOR THE PERIOD OF TWO (2) YEARS. ALL PLANT MATERIAL SHALL HAVE A MINIMUM OF ONE CULTIVATION IN JUNE, JULY, AND AUGUST FOR THE TWO YEAR WARRANTY. AT THAT TIME THE OWNER'S REPRESENTATIVE RESERVES THE RIGHT FOR A FINAL INSPECTION. PLANT MATERIAL WITH 25% DIE BACK AS DETERMINED BY THE OWNER'S REPRESENTATIVE SHALL BE REPLACED. THIS GUARANTEE INCLUDES THE FURNISHING OF NEW PLANTS, LABOR AND MATERIALS. THESE NEW PLANTS SHALL ALSO BE GUARANTEED FOR THE PERIOD OF ONE YEAR.
- TOPSOIL SHALL BE FRIABLE, FERTILE TOPSOIL OF CLAY LOAM CHARACTER CONTAINING AT LEAST 5% BUT NOT MORE THAN 20% BY WEIGHT OF ORGANIC MATTER WITH A PH RANGE FROM 6.0 TO 7.0. SOIL SHALL BE FREE FROM CLAY LUMPS, COARSE SAND, PLANT ROOTS, STICKS AND OTHER FOREIGN MATERIALS.
- NO MACHINERY IS TO BE USED WITHIN THE DRIP LINE OF EXISTING TREES. HAND GRADE ALL LAWN AREAS WITHIN DRIP LINE OF EXISTING TREES.
- IT IS MANDATORY THAT POSITIVE DRAINAGE IS PROVIDED AWAY FROM ALL BUILDINGS, WALKS AND PAVED AREAS.
- ALL PLANTING BEDS SHALL RECEIVE 4" SHREDDED BARK MULCH. SEE SPECIFICATIONS.
- SOD SEED LAWN AREAS - ALL LAWN AREAS BETWEEN CURBS AND BUILDINGS OR BETWEEN BUILDINGS. DISK SOIL TO 4" DEEP BEFORE TOPSOIL PLACEMENT
- SOD SHALL BE TWO YEAR OLD "BARONCHERDELPHI" KENTUCKY BLUE GRASS GROWN IN A SOD NURSERY ON LOAM SOIL.

**PLANT MIX**

- ALL PLANTING/ PERENNIAL BEDS TO RECEIVE:
- 1-6 CU FT. QTY. OF COMPOST
  - 1-40 LB BAG DRIMANURE
  - 1-1 LB BAG SHEMENS 13-13-13 MULTI PURPOSE FERTILIZER

PER 100 SQ FT BED AREA, HAND TILL INTO SOIL TO A DEPTH OF 12" MINIMUM

**MULCH**

- MULCH TO BE DOUBLE SHREDDED HARDWOOD BARK MULCH
- NO GROUND WOOD PALETTE MULCH PERMITTED

**TOPSOIL**

CONTRACTOR TO TILL OR DISK SUBGRADE TO 4" DEPTH AND INSTALL 4" COMPACTED DEPTH TOPSOIL IN ALL LAWN AREAS - TOPSOIL SHALL BE PROVIDED BY CONTRACTOR

**PLANT KEY**

- TREE SYMBOL
- TREE TYPE KEY - SEE PLANT LIST THIS SHEET
- QUANTITY NOV PLANTING DETAILS SEE SHEET LP-2

**IRRIGATION**

ALL LANDSCAPE AREAS WILL BE IRRIGATED WITH A FULLY AUTOMATIC IRRIGATION SYSTEM.



**Orman Engineering, LLC**  
5476 Vivian Lane  
Waterford, MI 48327  
phone: 248.682.6001  
email: alex@ormanengineering.com

**PROJECT**  
BUILDING ADDITION

**CLIENT**  
Behavioral Care Solutions  
39465 W. 14 Mile Rd.  
Novi, MI 48377

Robert A. Clemente  
Phone: (248) 859-3900  
Fax: (888) 483-0118

**SEAL**



**SHEET**  
SITE LANDSCAPE

**PROJECT LOCATION**  
39465 W. 14 Mile Rd.  
Novi, MI 48377

**REVISIONS**

Date	Description
03-19-2020	SUBMIT FOR SITE PLAN RW. 03-02-2020
03-02-2020	RVSD PER CMNTS.
01-23-2020	SITE PLAN APPROV.

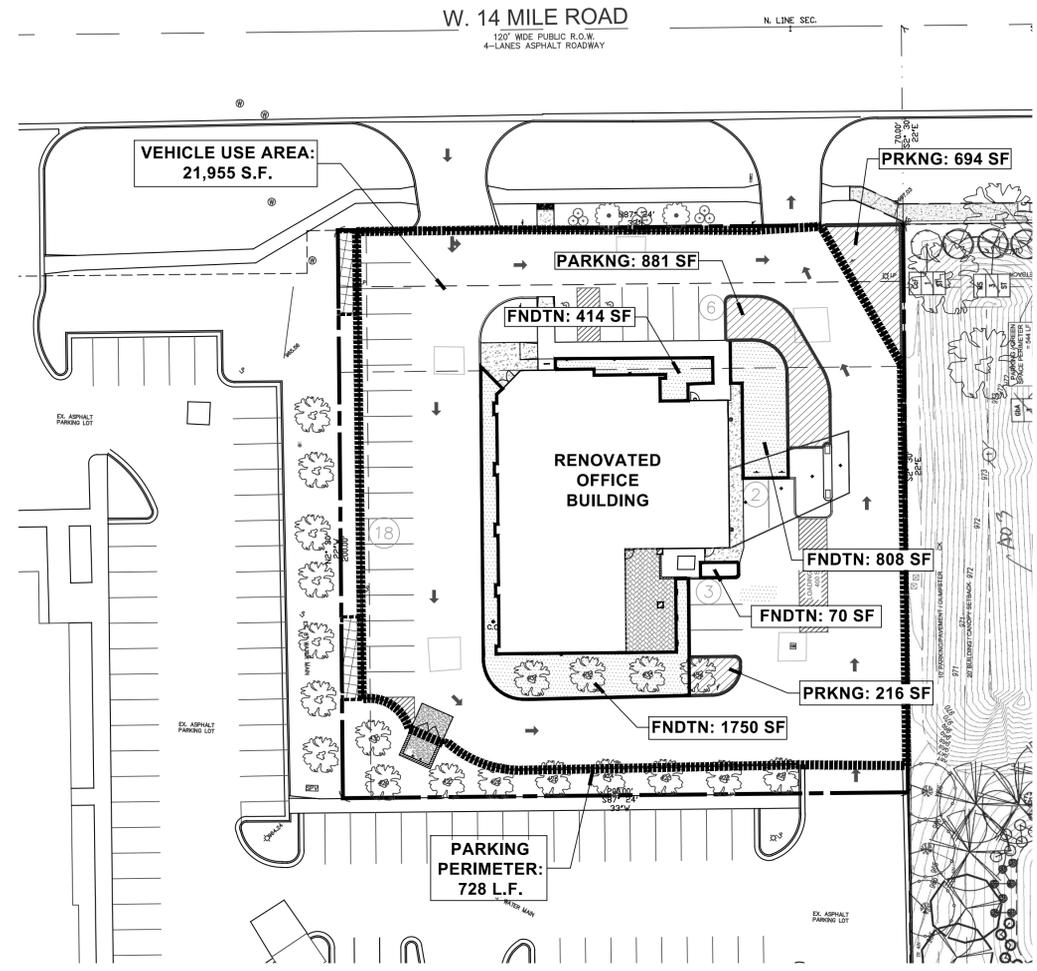
Designed by: \_\_\_\_\_ Drawn by: \_\_\_\_\_  
S.D. S.D.  
Approved by: \_\_\_\_\_ Date: \_\_\_\_\_  
S.D. 01-10-2020  
Scale: \_\_\_\_\_  
1/16" = 1'-0"  
Job No.: \_\_\_\_\_ Sheet: \_\_\_\_\_



143 cadycentre #79  
northville, mi 48167  
deakplanningdesign.com

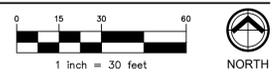


NOT TO BE USED AS CONSTRUCTION DRAWING



### ORDINANCE REQUIREMENT MAP

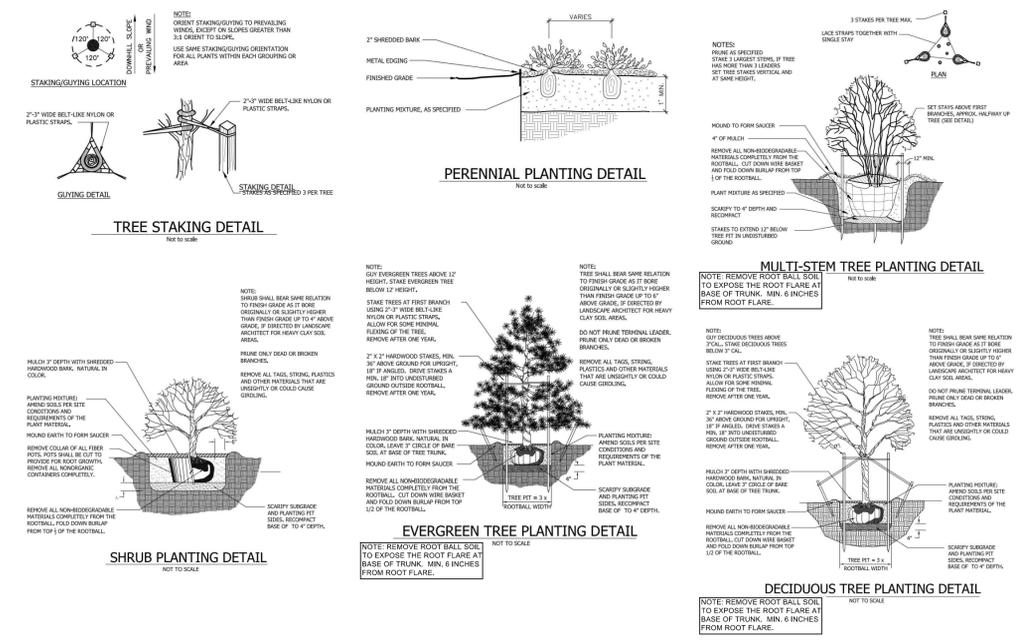
SCALE: 1" = 30'



#### Landscape Waivers Requested:

1. Contiguous Space Limit (Zoning Sec 5.5.3C.ii) Max 15 spaces - Proposed 18 due to existing parking lot condition.
2. Perimeter Parking Canopy Trees (Zoning Sec 5.5.3C.ii) Required 21 trees - Proposed 8 trees due to existing conditions.
3. Adjacent to R.O.W. (Sec 5.5.B) Required Berm - No berm due to existing condition and landscaping - no change.
4. Greenbelt Screening (Sec 5.5.3.B.ii) 20 ft. Width Required - None proposed due to existing lot conditions - no change.
5. Greenbelt Screening (Sec 5.5.3.B.ii) Berm Crest & Width - None proposed due to existing lot conditions - no change.
6. Greenbelt Screening (Sec 5.5.3.B.ii) Canopy Trees - 4 Trees Required. 2 existing trees to remain due to existing lot conditions - no change.
7. Greenbelt Screening (Sec 5.5.3.B.ii) Sub-canopy Trees - 7 Trees Required - None proposed due to existing lot conditions - no change.

### NOVI PLANTING DETAILS



### LANDSCAPE DATA

<b>R.O.W. Greenbelt</b> 14 Mile Road Frontage: (200 l.f. - 21 in. ft. - 32 in. ft. = 147 in. ft.)	<b>147 in. ft.</b>	<b>Interior Parking Lot Landscaping</b> Total Parking Area: Required Landscape Area: V.U.A. x 0.075 s.f. (up to 50,000 s.f.): (21,879 s.f. x 0.075)	<b>21,955 s.f.</b> <b>1,647 s.f.</b>
Canopy/Evergreen Trees Req.:	<b>5 Trees</b>	Total s.f. of Landscape Area Prov.:	<b>1,791 s.f.</b>
(1 Tree/ 35 in. ft.)		Parking Lot Tree Requirement:	<b>9 Trees</b>
Canopy/Evergreen Trees Prov.:	<b>*None</b>	Total Trees Required (1 per 200 s.f.):	<b>9 Trees</b>
Sub-Canopy Trees Req.:	<b>8 Trees</b>	Existing Trees:	<b>4 Trees</b>
(1 Tree/ 20 in. ft.)		Total Trees Provided:	<b>5 Trees</b>
Sub-Canopy Trees Prov.:	<b>*None</b>	<b>Parking Perimeter Landscaping</b> Parking Lot Perimeter: Canopy/Evergreen Trees Req.:	<b>728 l.f.</b> <b>21 Trees</b>
*Note: Existing parking lot directly adjacent to R.O.W. - no space for required plantings. All existing plants to remain.		Trees Provided:	<b>8 Trees*</b>
<b>Street Trees</b> Twelve Mile Road Frontage: (200 l.f. less 51 l.f + 48 l.f.) (1 Tree/ 35 in. ft.)	<b>101 in. ft.</b>	* Note: North perimeter is existing R.O.W.; west perimeter is utility easement; and east perimeter is property line.	
Trees Required:	<b>3 Trees</b>		
Total Trees Provided:	<b>3 Trees</b>		
<b>Building Foundation Perimeter Landscaping</b> Building Perimeter: Landscape Area Req.:	<b>373 l.f.</b> <b>2,984 s.f.</b>		
Foundation Landscape Area Prov.:	<b>3,042 s.f.</b>		

#### REVISIONS

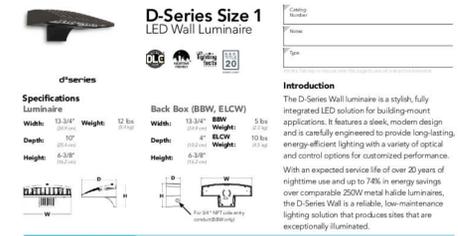
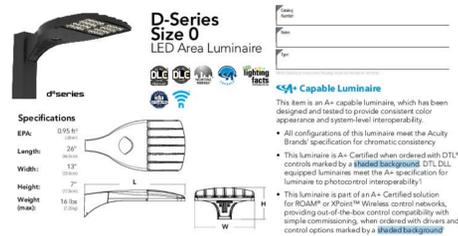
Date	Description

03-19-2020 SUBMIT FOR SITE PLAN RWV.  
03-02-2020 RVSD PER CMNTS.  
01-23-2020 SITE PLAN APPROV.

Designed by:	Drawn by:
S.D.	S.D.
Approved by:	Date:
S.D.	01-10-2020
Scale:	



PLANNING + DESIGN  
143 cadycentre #79  
northville, mi 48167



**Ordering Information**

EXAMPLE: DSKX1 LED 20C 1000 40K T3M MVOLT D0X1D

Code	Qty	Order							
DSKX1	100	1000	40K	T3M	MVOLT	D0X1D			

**Ordering Information**

EXAMPLE: DSKX1 LED 20C 1000 40K T3M MVOLT D0X1D

Code	Qty	Order							
DSKX1	100	1000	40K	T3M	MVOLT	D0X1D			

**Contractor Select™ CNY LED Canopy Lighting**

Application: The CNY LED canopy luminaire is an energy efficient solution for outdoor lighting applications. Available in two sizes, these luminaires can replace a wide range of existing canopy luminaires, anything from 12" to 30" round metal halide. An LED canopy luminaire is designed to be installed in the same mounting bracket as the metal halide luminaire it is replacing. The luminaire is designed to be installed in the same mounting bracket as the metal halide luminaire it is replacing. The luminaire is designed to be installed in the same mounting bracket as the metal halide luminaire it is replacing.

**Features:**

- Energy efficient - Can save up to 80% when replacing metal halide
- LED only light source and translucent lens for visually comfortable illumination
- Quick-mount design eliminates the need to open canopy for installation
- UL Premium listed

**Available Accessories:**

- 18021 Concrete protection cover

**LED recessed wall - shielded**

22379 12" W x 7" H x 1.5" D

**LED recessed wall - shielded**

Application: The shielded light distribution is ideal for the glass face illumination of ground surfaces, banking entrances, stairs, and footpaths.

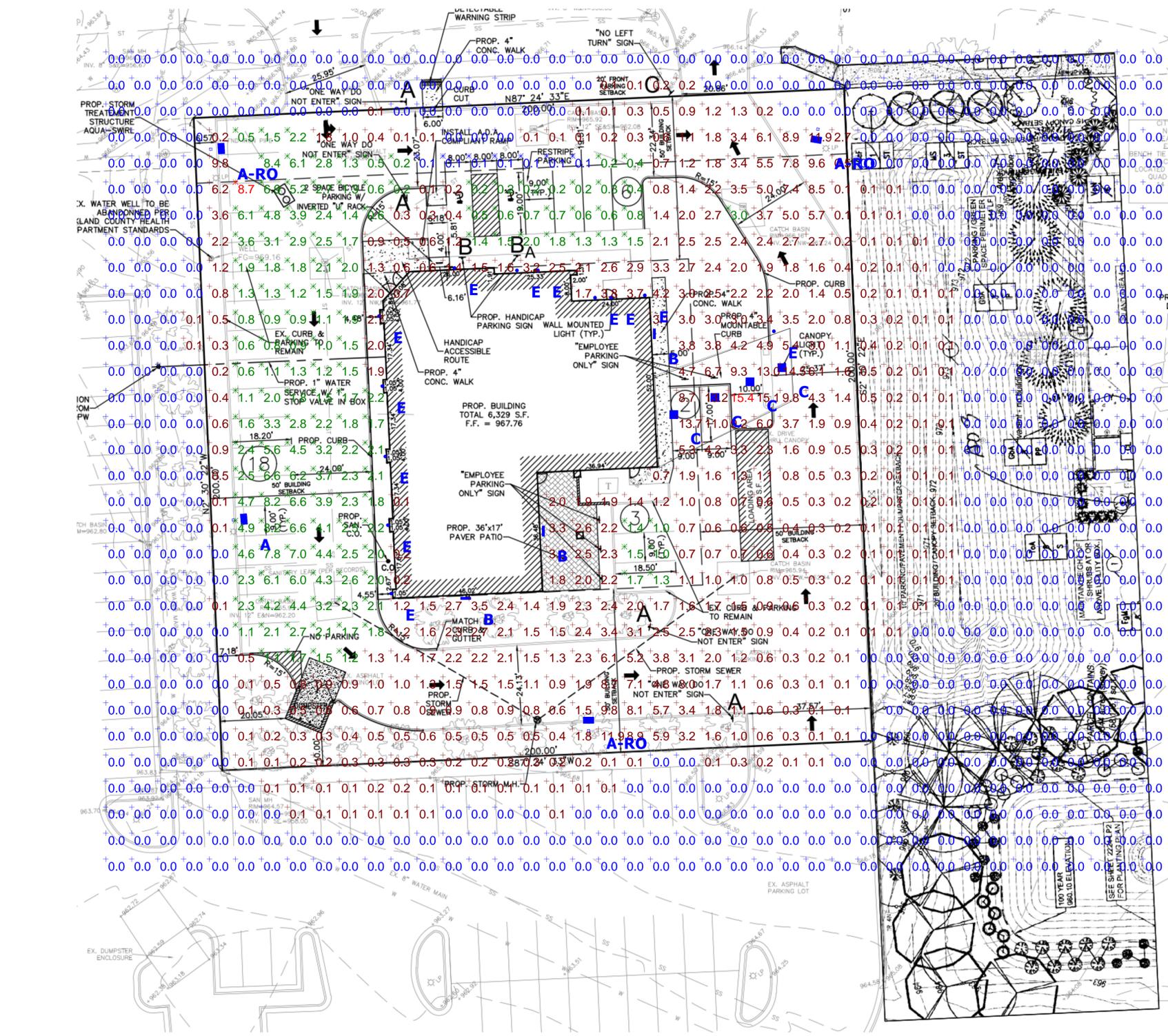
**Material:** Clear safety glass with optical feature

**Electrical:** 120-277VAC, 7.7W, 1000lm

**LED color temperature:** 4000K, 5000K, 6000K

**Finish:** Matte black, White, Silver, Bronze

**Available Accessories:** 18021 Concrete protection cover



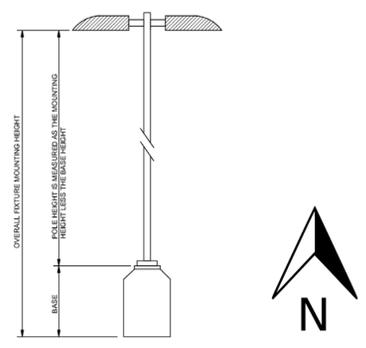
**General Note**

- SEE SCHEDULE FOR LUMINAIRE MOUNTING HEIGHT.
- SEE LUMINAIRE SCHEDULE FOR LIGHT LOSS FACTOR.
- CALCULATIONS ARE SHOWN IN FOOTCANDLES AT: GRADE
- HOURS OF OPERATION ARE 6PM TO 7:30AM
- 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

THE ENGINEER AND/OR ARCHITECT MUST DETERMINE APPLICABILITY OF THE LAYOUT TO EXISTING / FUTURE FIELD CONDITIONS. THIS LIGHTING LAYOUT REPRESENTS ILLUMINATION LEVELS CALCULATED FROM LABORATORY DATA TAKEN UNDER CONTROLLED CONDITIONS IN ACCORDANCE WITH ILLUMINATING ENGINEERING SOCIETY APPROVED METHODS. ACTUAL PERFORMANCE OF ANY MANUFACTURER'S LUMINAIRE MAY VARY DUE TO VARIATION IN ELECTRICAL VOLTAGE, TOLERANCE IN LAMPS, AND OTHER VARIABLE FIELD CONDITIONS. MOUNTING HEIGHTS INDICATED ARE FROM GRADE AND/OR FLOOR UP.

THESE LIGHTING CALCULATIONS ARE NOT A SUBSTITUTE FOR INDEPENDENT ENGINEERING ANALYSIS OF LIGHTING SYSTEM SUITABILITY AND SAFETY. THE ENGINEER AND/OR ARCHITECT IS RESPONSIBLE TO REVIEW FOR MICHIGAN ENERGY CODE AND LIGHTING QUALITY COMPLIANCE.

UNLESS EXEMPT, PROJECT MUST COMPLY WITH LIGHTING CONTROLS REQUIREMENTS DEFINED IN ASHRAE 90.1 2013. FOR SPECIFIC INFORMATION CONTACT GBA CONTROLS GROUP AT ASG@GASSERBUSH.COM OR 734-266-6705

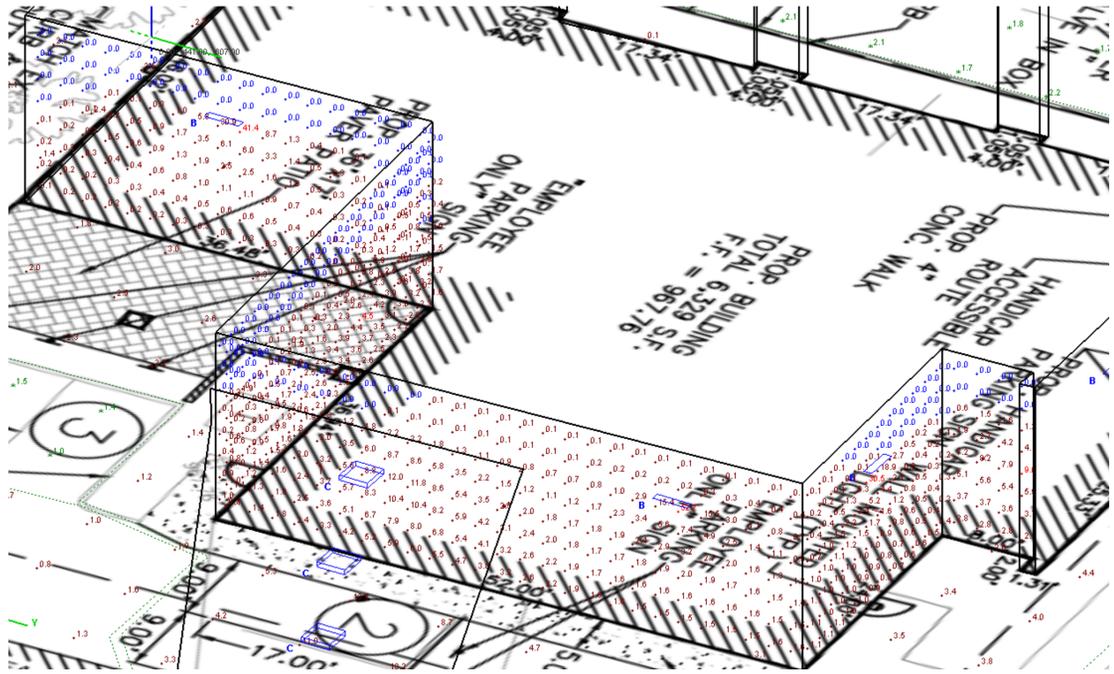


**Statistics**

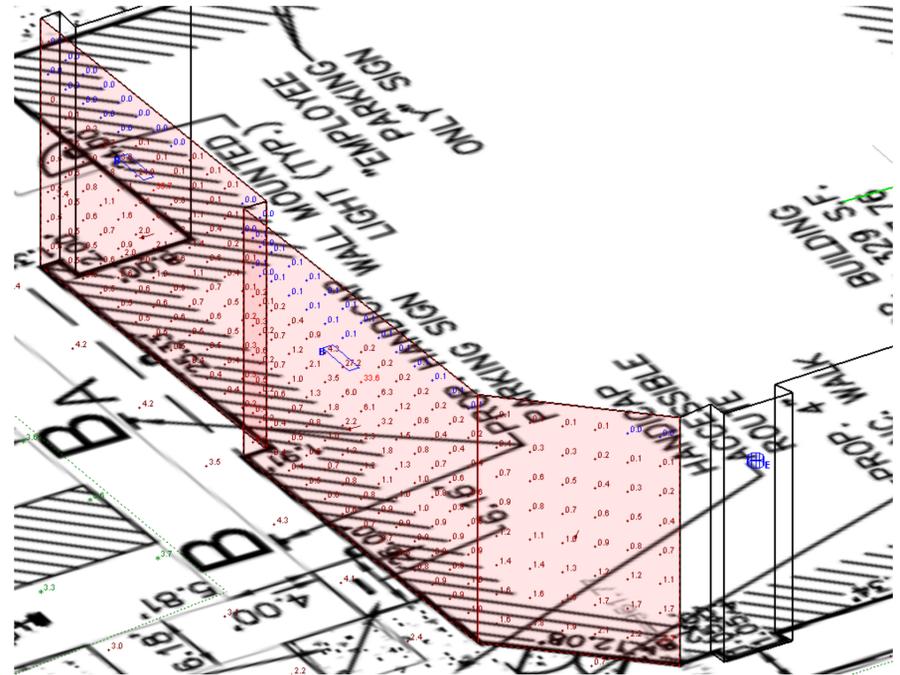
Description	Symbol	Avg	Max	Min	Max/Min	Avg/Min	Avg/Max
EAST FACADES		1.4 fc	52.7 fc	0.0 fc	N/A	N/A	0.0:1
NORTH FACADES		0.3 fc	2.3 fc	0.0 fc	N/A	N/A	0.1:1
PARKING	X	2.3 fc	8.7 fc	0.1 fc	87.0:1	23.0:1	0.3:1
SITE	+	0.9 fc	15.4 fc	0.0 fc	N/A	N/A	0.1:1
SOUTH FACADE	+	0.8 fc	50.7 fc	0.0 fc	N/A	N/A	0.0:1
WEST FACADES		0.1 fc	1.5 fc	0.0 fc	N/A	N/A	0.1:1

**Schedule**

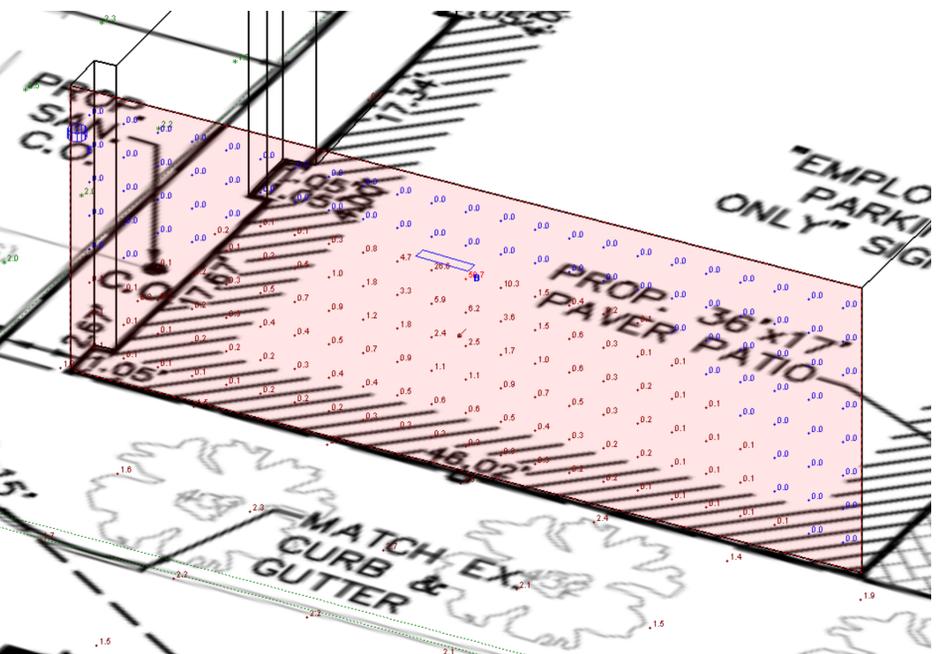
Symbol	Label	QTY	Catalog Number	Description	Lumen per Lamp	LLF	Wattage	Lamp	MOUNTING HEIGHT
□	A	1	DSXO LED P7 40K BLC MVOLT	DSXO LED P7 40K BLC MVOLT	15050	0.9	166	LED	18'
□	A-RO	3	DSXO LED P7 40K LCCO MVOLT	DSXO LED P7 40K LCCO MVOLT	11199	0.9	166	LED	18'
□	B	3	DSXW1 LED 20C 700 40K T3M MVOLT	DSXW1 LED WITH (2) 10 LED LIGHT ENGINES, TYPE T3TM OPTIC, 4000K, @ 700mA.	5554	0.9	45.7	LED	12'
□	C	4	CNY LED P1 40K MVOLT	Contractor Select CNY LED Canopy P1 - 4,500lm	4476	0.9	35.36	LED	11'
○	E	12	22379 K3	22 379 K3	543	0.9	10	LED 7.7W	13'



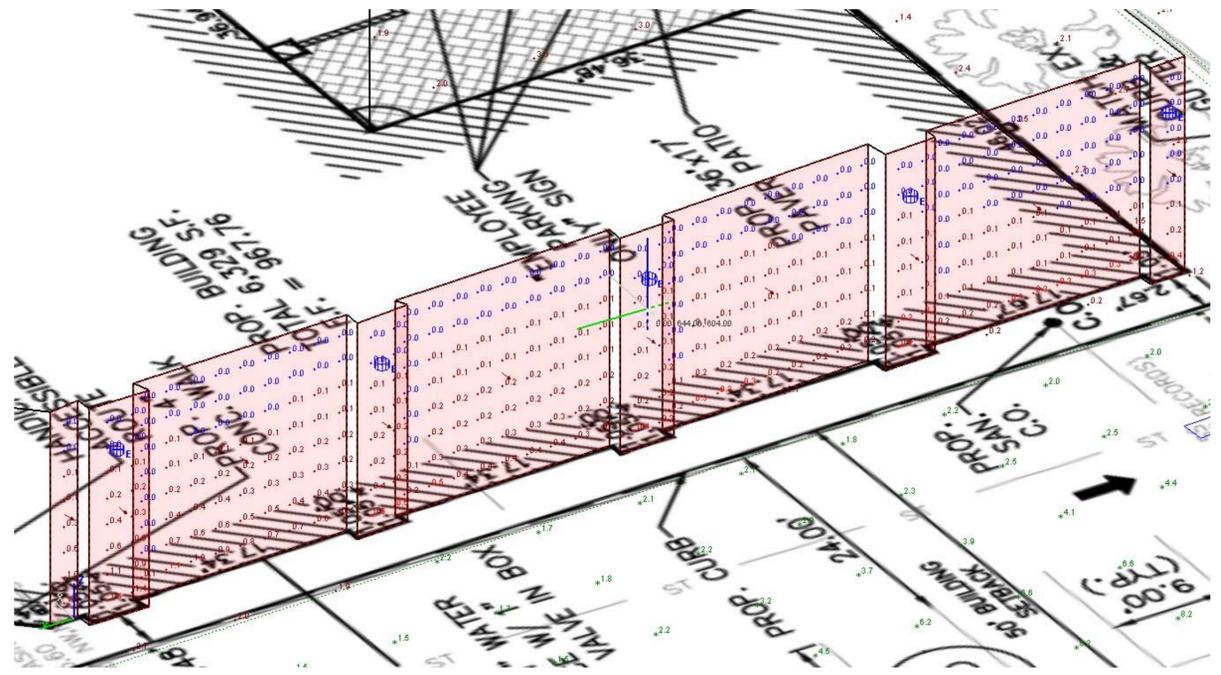
EAST FACADE



NORTH FACADE



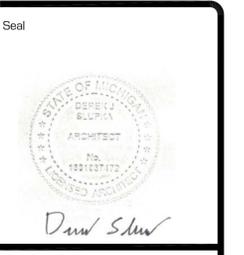
SOUTH FACADE



WEST FACADE



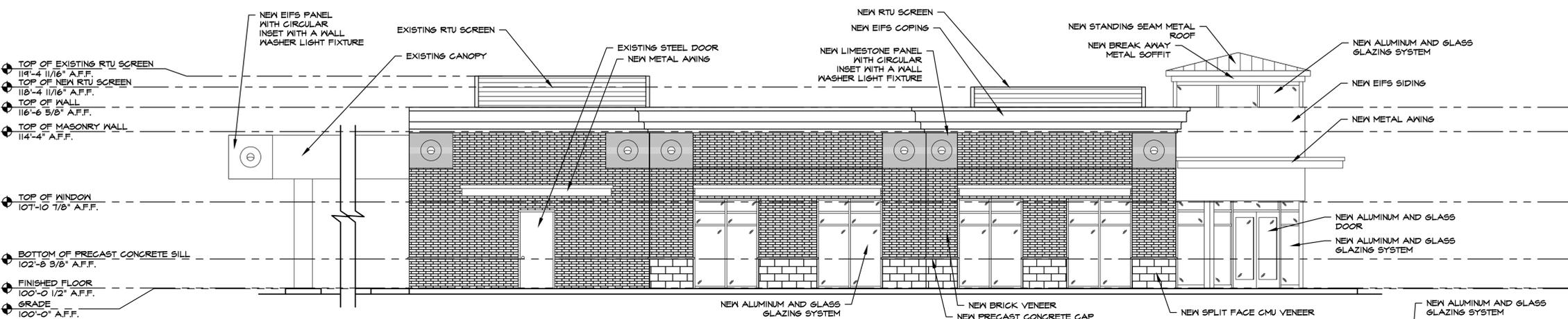
7300 DIXIE HWY. #600  
 CLARKSTON, MI 48346  
 PHONE 248.605.2030  
 FAX 248.605.2030  
 WEB DSARCHITECTS.COM



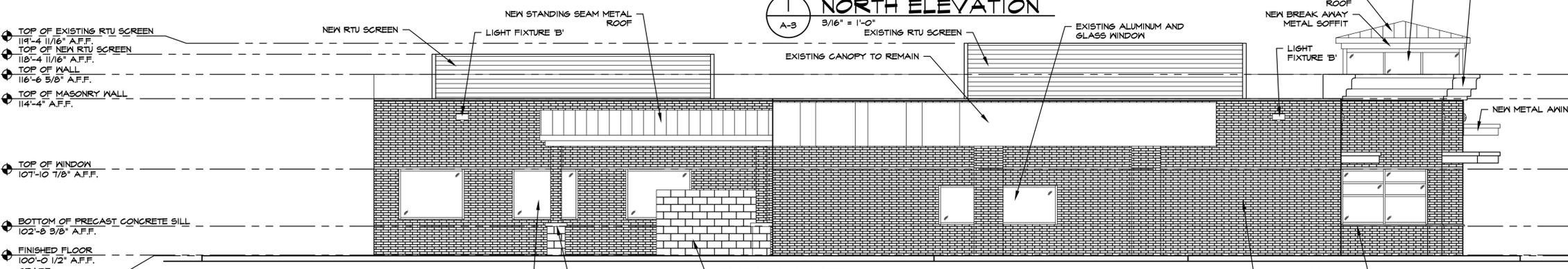
**BEHAVIORAL CARE SOLUTIONS**  
 Project: 17-40-146  
 Drawing Title: ELEVATIONS  
 Drawn: KJM  
 Checked: DJS  
 Scale: 3/16" = 1'-0"  
 Dwg: BEHAVIORAL CARE SOL. CDS  
 Issued for: SITE PLAN REVIEW Date: 3-19-20 By: DJS  
 Sheet Number: **A-8**  
 of 9

39485 W. 14 MILE RD.  
 NOVI, MI 48377

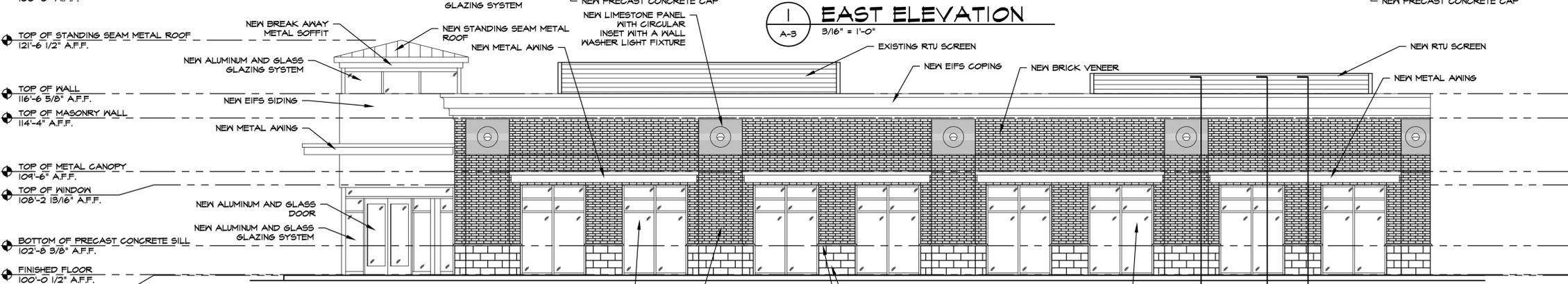
MATERIALS PERCENTAGE		
<b>NORTH</b>		
MATERIALS	SQ.FT. OF MATERIALS	PERCENTAGE OF MATERIALS
BRICK	581 SQ.FT.	57%
SPLIT FACE CMU	65 SQ.FT.	6%
EIFS	218 SQ.FT.	21%
RTU SCREEN	74 SQ.FT.	7%
LIMESTONE	72 SQ.FT.	7%
STANDING SEAM	11 SQ.FT.	1%
<b>EAST</b>		
MATERIALS	SQ.FT. OF MATERIALS	PERCENTAGE OF MATERIALS
BRICK	948 SQ.FT.	65%
SPLIT FACE CMU	63 SQ.FT.	4%
EIFS	195 SQ.FT.	13%
RTU SCREEN	236 SQ.FT.	16%
LIMESTONE	0 SQ.FT.	0%
STANDING SEAM	9 SQ.FT.	1%
<b>WEST</b>		
MATERIALS	SQ.FT. OF MATERIALS	PERCENTAGE OF MATERIALS
BRICK	627 SQ.FT.	31%
SPLIT FACE CMU	111 SQ.FT.	4%
EIFS	289 SQ.FT.	24%
RTU SCREEN	121 SQ.FT.	10%
LIMESTONE	58 SQ.FT.	5%
STANDING SEAM	9 SQ.FT.	1%
<b>SOUTH</b>		
MATERIALS	SQ.FT. OF MATERIALS	PERCENTAGE OF MATERIALS
BRICK	987 SQ.FT.	82%
SPLIT FACE CMU	62 SQ.FT.	5%
EIFS	5 SQ.FT.	1%
RTU SCREEN	146 SQ.FT.	12%
LIMESTONE	0 SQ.FT.	0%
STANDING SEAM	11 SQ.FT.	1%
<b>TOTAL</b>		
MATERIALS	SQ.FT. OF MATERIALS	PERCENTAGE OF MATERIALS
BRICK	3,148 SQ.FT.	61%
SPLIT FACE CMU	301 SQ.FT.	6%
EIFS	707 SQ.FT.	15%
RTU SCREEN	377 SQ.FT.	8%
LIMESTONE	130 SQ.FT.	3%
STANDING SEAM	40 SQ.FT.	1%



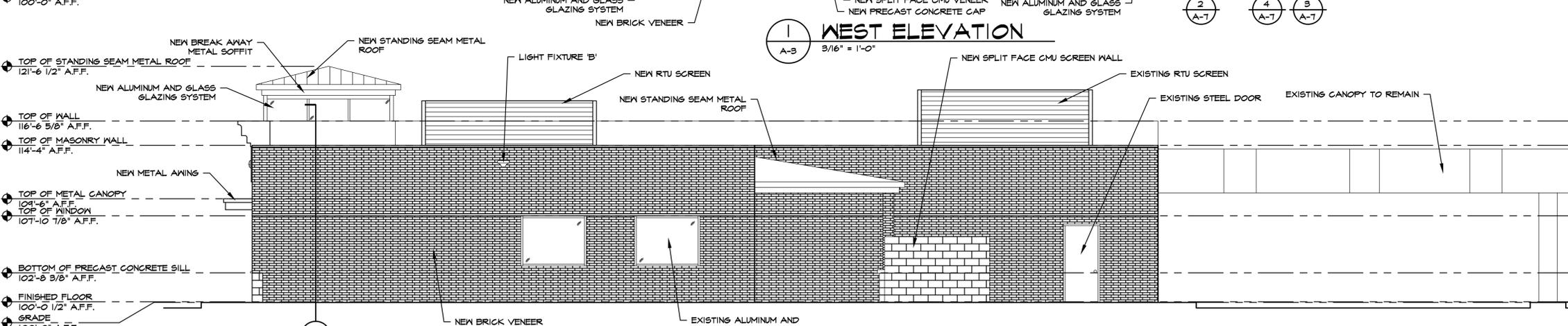
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 A-3 3/16" = 1'-0"



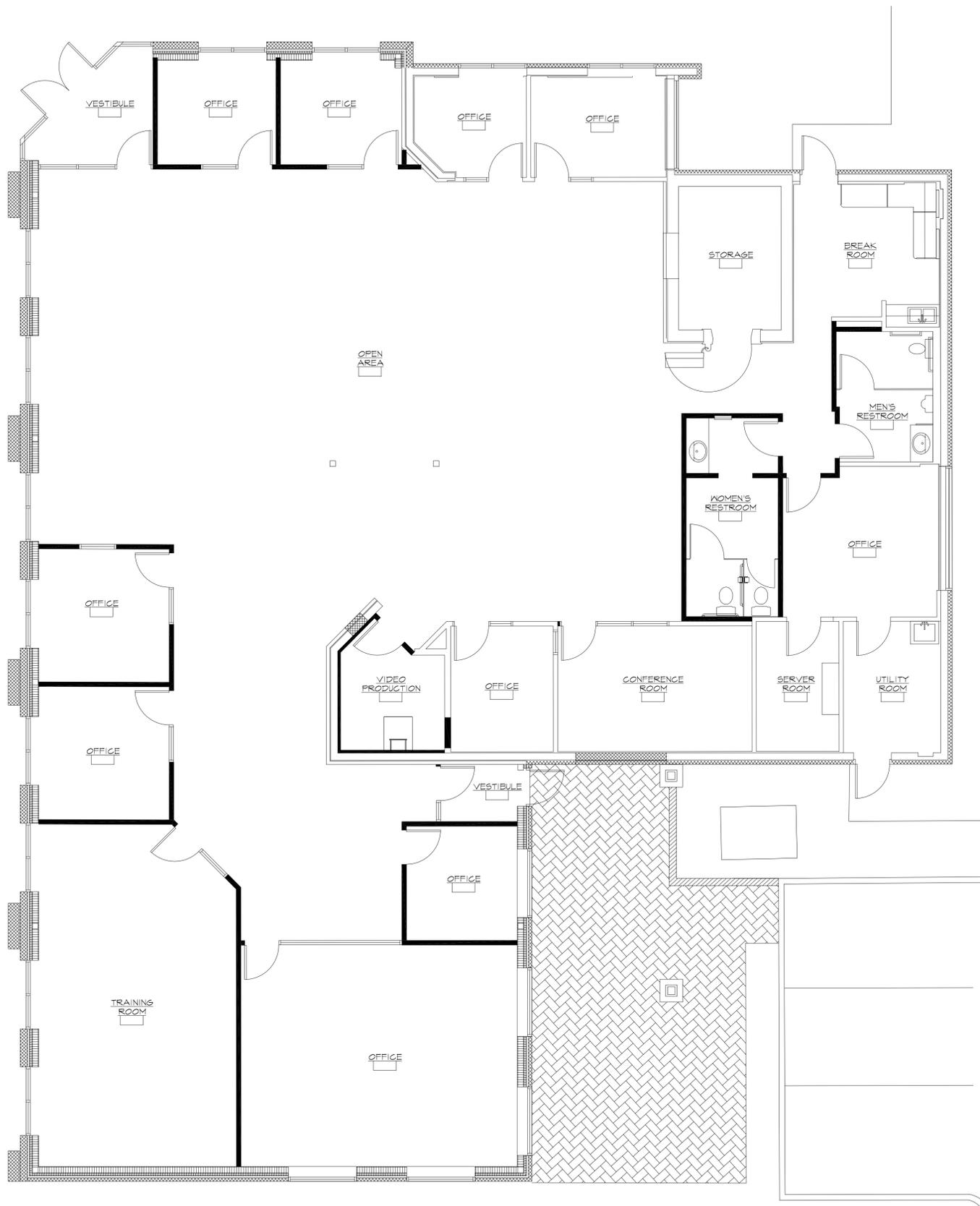
**1 EAST ELEVATION**  
 A-3 3/16" = 1'-0"



**1 WEST ELEVATION**  
 A-3 3/16" = 1'-0"



**1 SOUTH ELEVATION**  
 A-3 3/16" = 1'-0"



FLOOR PLAN  
3/16" = 1'-0"



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Project: **BEHAVIORAL CARE SOLUTIONS**

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Drawing Title  
**FLOOR PLAN**

Project Number  
**17-40-146**

Drawn KJM

Checked DJS

Scale 3/16" = 1'-0"

Dwg. BEHAVIORAL CARE SOL. CDS

Issued for: SITE PLAN REVIEW Date: 3-19-20 By: DJS

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**A-3**  
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