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**PITTSFIELD TOWNSHIP PLANNING COMMISSION AGENDA**


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- 1.0 Call Meeting to Order at 6:30 p.m. / Determination of a Quorum**
- 2.0 Pledge of Allegiance**
- 3.0 Approval of Agenda** 3/4
- 4.0 Approval of Prior Minutes** 4/:
- 5.0 Public Comment I**
- If there is a member of the public that wishes to address the Planning Commission, please step forward.
- 6.0 Public Hearings**
- 6.1 ZOA # 20-210 Revisions to Open Space Preservation Development Option** 76/87
- 7.0 Old Business**
- 8.0 New Business**
- 8.1 CSPA 19-13 Residence Inn** ;/63  
Submitted for Final Site Plan Approval  
3764 S. State Street (L -12-08-400-018), Section 8
- 8.2 RZ 20-05 Alister Park – Concept Plan** 64/75  
Submitted for Concept Plan Review  
4533 Carpenter Road (L -12-13-300-019), Section 13
- 9.0 Planner’s Report**
- 9.1 Carbon Emission Study** 88/98
- 10.0 Chairperson’s Report**
- 11.0 Commissioner’s Report**
- 12.0 Public Comment II**
- 13.0 Adjournment**

**Please Note: This meeting is being recorded**

In compliance with the Governor of Michigan's Executive Order, the Pittsfield Township Planning Commission will conduct its July 9, 2020 meeting electronically. Public participation at the July 9, 2020 Planning Commission meeting will be via teleconference and videoconference in order to reduce the risk of exposure to persons with the COVID-19 virus

and to comply with the Governor's Executive Order restrictions on in-person governmental functions.

To participate as a member of the public:

- For videoconferencing go to:
- <https://zoom.us/j/93414172981?pwd=Zk0rTWZQMisvbTQ4M0o5VDZQUXhFdz09>  
Password: Pittsfield
- Or iPhone one-tap :  
US: +19292056099,,93414172981#,,,,0#,,728703# or  
+13017158592,,93414172981#,,,,0#,,728703#
- Or Telephone:  
Dial(for higher quality, dial a number based on your current location):  
US: +1 929 205 6099 or +1 301 715 8592 or +1 312 626 6799 or +1 669 900 6833  
or +1 253 215 8782 or +1 346 248 7799 or 888 475 4499 (Toll Free) or 877 853 5257  
(Toll Free)
- Webinar ID: 934 1417 2981
- International numbers available: <https://zoom.us/u/adxxDSYYH2>

If you are a member of the public and cannot connect, please call (734) 216-9347.

Further instructions on participating in public comment will be provided once the meeting has been called to order in order to ensure two-way communication between the Planning Commission and the members of the public.

Written comments will be received at [zoning@pittsfield-mi.gov](mailto:zoning@pittsfield-mi.gov) until 3:00 p.m. the day of the hearing.

Any person who wishes to contact members of the Planning Commission to provide input or ask questions on any business coming before the Planning Commission on July 9, 2020 may do so by calling 734-216-9347 or emailing [zoning@pittsfield-mi.gov](mailto:zoning@pittsfield-mi.gov) prior to the meeting. Reasonable auxiliary aids and services can be provided at the meeting to individuals with disabilities by contacting the Clerk's Office at (734) 822-3120 or via email at [clerk@pittsfield-mi.gov](mailto:clerk@pittsfield-mi.gov) at least three business days in advance.

This notice is posted in compliance with PA 267 of 1976 (as amended) Open Meetings Act, MCL 125.3103 and 125.3502 and the Americans with Disabilities Act (ADA). Individuals with disabilities requiring auxiliary aids or services should contact the Pittsfield Charter Township Clerk's Office 3 business days prior to the meeting. The Clerk's Office can be reached at 734-822-3120 or via email [clerk@pittsfield-mi.gov](mailto:clerk@pittsfield-mi.gov).

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**PITTSFIELD TOWNSHIP PLANNING COMMISSION MINUTES**

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**Members Present:** Stanley Young, Deborah Williams, Roland Kibler, George Ralph, Ann Harris, Mike Petraszko, Matthew Payne

**Members Absent:** None

**Others Present:** Greg Windingland, John Ackerman, Christina Lirones, Benjamin Carlisle, Township Planning Consultant, Deb Brown, Typographer, and Zoe Crowley, Recording Clerk.

**1.0 Call Meeting to Order at 6:30 p.m. / Determination of a Quorum**

Chairperson Payne called the meeting to order at 6:30 p.m. A quorum was present.

**2.0 Pledge of Allegiance**

Chairperson Payne led the Pledge of Allegiance.

**3.0 Approval of Agenda**

Motion to approve the agenda as recommended.

**Motion by Commissioner Williams, supported by Commissioner Harris, to approve the agenda as recommended.**

**MOTION CARRIED**

**4.0 Approval of Prior Minutes**

**4.1 Regular Minutes of June 4, 2020**

**Motion by Commissioner Williams, supported by Commissioner Kibler, to approve the Regular Meeting Minutes of June 4, 2020.**

**MOTION CARRIED**

**5.0 Public Comment I**

Christina Lirones, 151 E. Textile Road, argued that the Open Space Development Ordinance is not necessary. She is concerned about the number of changes. It is a By Right Ordinance as she remembers. The reason it was done is because a number of Townships do not have adequate planning or robust zoning ordinances. Ms. Lirones stated developers will exploit the ordinance. She objects to the changes.

**6.0 Public Hearings**

None.

## **7.0 Old Business**

None.

## **8.0 New Business**

### **8.1 CSPA 19-17 Monarch Estates**

Submitted for Final Site Plan Approval  
5662 Platt Road (L -12-22-400-024), Section 22

Mr. Carlisle summarized his review, stating the applicant is seeking final site plan approval of Phase 1 (20-units) of the 22-unit site condominium project on the east side of Platt Road. The project's first approval was obtained in 2013. The applicant then received two (2) extensions of approval totaling 18 months – 6-months in 2014 and 12-months in 2015. The applicant requested a third 12-month extension in May 2016 which was denied. The Preliminary Site plan was then approved for a third time on October 20, 2016 and again, most recently on October 3, 2019. The size of the subject parcel is 5.79 acres with approximately six-hundred and sixty (660) feet of frontage on Platt Road. The site had been improved with a single-family home and graded for agriculture. The house was demolished, and the site is currently vacant. The applicant has provided a connection to the proposed Pittsfield Glen subdivision, which is located just west of this proposed development. The connection provides better integration between Monarch Estates site condominium and the Pittsfield Glen site condominiums, specifically access and circulation. 22-units were approved as part of the Preliminary Site Plan. However, the applicant is requesting final site plan for Phase 1 of the development (20-units) with the two (2) additional units encompassing the site's wetland area to be approved for construction at a future date. Those two (2) units were removed from this phase because of wetland issues with MDEQ. If those units are proposed in the future, the applicant would come back to the Planning Commission for a revised final site plan approval.

Discussion was held on:

- 1) Necessary outside agency approvals
- 2) Township ordinance floodplain requirements
- 3) Floodplain mitigation
- 4) Space for guardrails

John Ackerman, applicant, addressed the Commission. He discussed the improvements on Platt Road. He stated that the floodplain will not be on the Monarch Estates lots. He explained that the drain will be widened, so when it floods, the flood will not be on the property. There is a guard rail requirement, per the Washtenaw County Road Commission.

Greg Windingland of Lombardo Homes stated that it is disclosed to the customers. He is not opposed to it being a requirement of the development agreement.

**Motion by Commissioner Williams, supported by Commissioner Ralph, to approve CSPA 19-71 Monarch Estates Site Plan, with the following conditions:**

- 1) **Demonstrate compliance with any floodplain regulation.**
- 2) **Township Engineer and Fire Marshal review of grass paver drive to detention pond.**

#### **ROLL CALL**

**YES: HARRIS, PETRASZKO, WILLIAMS, YOUNG, PETRASZKO, KIBLER, RALPH, PAYNE**

**NO: None**

**ABSENT: None**

**ABSTAIN: None**

#### **MOTION CARRIED**

### **9.0 Planner's Report**

#### **9.1 Open Space Preservation Development Option Discussion**

Mr. Carlisle summarized the June 4, 2020 discussion. He felt as though there was consensus on:

- Permitting OPSDO development in urban service areas.
- Permitting OPSDO development for multiple family residential.
- Allowing the Planning Commission to grant deviations from dimensional (setbacks, lot coverage, etc) requirements.
- Providing a 20% density bonus to encourage the use of the OSPDO, but such bonus shall be discretionary based on Planning Commission review.

Mr. Carlisle addressed Ms. Lirones' concerns. He stated it might come down to different philosophies of the uses of zoning. He stated that this is a positive tool for the Township. In the past ten (10) years, there have only been two open space developments in the Township. Other than the bonus density and flexibility for the Planning Commission deviations, all the other amendments reduce unnecessary restrictions. The PUD is not used to replace other ordinances such as the cluster. The use of the PUD is not necessary, the purpose of it is to relax ordinances for design betterment. Developers will try to avoid PUD at all costs. Much higher bar of standards. He answered a series of questions raised by the Planning Commission at the June 4, 2020 meeting:

1. Is this the appropriate tool to encourage/require the type of development the Township desires?

It is recognized that the use of OSPDO, is a useful tool for development in Pittsfield, as it promotes smart growth and preserves valuable natural resources, open space and agricultural land. However, in the past ten (10) years, there have only been two (2) OSPDO developments in the Township. The purpose of the proposed amendment was to reduce unnecessary restrictions, such as locational restrictions, but also incentivize the development community to use this tool.

Other than the bonus density and flexibility for Planning Commission deviations, all the other amendments are offer the ability to use the OSPDO in locations that were not previously permitted such as on small lots, within the public utility portions of the township, and for multiple family developments.

Other development options, such as a PUD, should not be used when we have an appropriate tool such as the OSPDO in place. In other words, the use of a PUD is unnecessary for open space developments, when OSPDO is an appropriate tool already in place. Furthermore, development types that we encourage or wish to see more of should be made procedurally easier to achieve rather than more difficult. A PUD is a form of rezoning that has a much higher procedural bar.

2. Is a one-acre minimum to limited in lot area. Should it be increased?

The current ordinance requires a minimum of five (5) acres for an OSPDO. This large parcel acreage minimum is appropriate in the non-utility areas of the township, however, if the township desires to see more OSPDO especially in the more urban areas, the five (5) acre minimum is a high bar. The purpose of this amendment is to reduce that regulatory hurdle.

However, after further consideration, I feel that a one (1) acre site is probably unrealistic to achieve a proper OSPDO development. As such, I recommend increasing the proposed minimum lot size from one (1) to three (3) acres. A three (3) acre is achievable both in the more agricultural and urban portions of the township.

3. Should the Planning Commission be allowed to vary height?

Height is often the most significant concern of property owners adjacent to newly proposed development. Issues such as a reduced setback, or lot coverage, can be addressed with an increase in screening or increased landscaping. Camouflaging or mitigating height is much more difficult. I will suggest the Planning Commission consider if they want the authority to allow for a height deviation.

4. Should the Planning Commission allow for a density bonus?

As I noted, the purpose of the ordinance amendments was to both reduce unnecessary regulatory requirements but also incentives the use of the tool. As currently written there is no direct incentive to use the OSPDO tool. The developer will have reduced infrastructure costs due to less roads and utility pipes, but in the end density and units it is often what developers look for as incentives. If the township desires to see more OSPDO, an incentive may be best way to achieve this.

That being said, I have amended the draft to state that the up to a maximum 20% density bonus is purely discretionary based on the Planning Commission, and any density bonus shall be commensurate to the proposed benefit achieved by the development. I have put in language to note the discretionary nature of the bonus and the “types” of benefits considered including preservation of natural features, provision of recreation facilities, or preservation of agricultural land. I am open to suggestions from the Planning Commission of potential benefits that would qualify for increased density.

5. Why was 30% the minimum open space required to qualify for an OSPDO.

Currently there is no minimum percentage of open space that must be provided to qualify for an OSPDO. The only percentage distinction is that if you provide less than 50% open space you are reviewed as a conditional use. Part in parcel with the proposed regulatory flexibility and potential density bonus, I want to establish a minimum open space percentage to qualify for an OSPDO.

6. Does approving this ordinance lock future Township Boards or Planning Commissions?

Ultimately, the authority to amend the zoning ordinance lies with the Township Board. The Planning Commission is only a recommending body on this matter. Any decision by the Township Board, based upon a recommendation from this Planning Commission, would not bind a future Boards, as they may choose to amend the zoning ordinance in the same process that this Board and Planning Commission are following.

Discussion was held on:

1. Where has OSPDO been used?
2. What form have the green spaces taken?
3. Should the Planning Commission be allowed to vary height?
4. Affordable Housing

**10.0 Chairperson's Report**

None.

**11.0 Commissioner's Report**

None.

**12.0 Public Comment II**

Christina Lirones expressed enthusiasm about the Affordable Housing project. Mr. Carlisle explained there is a well-known developer in the area currently working on it.

**13.0 Adjournment**

**Motion by Commissioner Harris, seconded by Commissioner Young, to adjourn the meeting.**

Chairperson Payne adjourned the meeting at 7:31 pm.

*This notice is posted in compliance with PA 267 of 1976 (as amended) Open Meetings Act, MCL 125.3103 and 125.3502 and the Americans with Disabilities Act (ADA). Individuals with disabilities requiring auxiliary aids or services should contact the Pittsfield Charter Township Clerk's Office 3 business days prior to the meeting. The Clerk's Office can be reached at 734-822-3120 or via email [clerk@pittsfield-mi.gov](mailto:clerk@pittsfield-mi.gov).*

DRAFT

# Residence Inn



Meeting Date:  
July 9, 2020

Project:  
CSPA 19-13

Applicant:  
Group 10 Management

Action:  
Preliminary & Final Site Plan  
Review

6	5	4	3	2	1
7	8 ★	9	10	11	12
18	17	16	15	14	13
19	20	21	22	23	24
30	29	28	27	26	25
31	32	33	34	35	36





**Pittsfield Charter Township**  
**Department of Utilities & Municipal Services**  
 6201 West Michigan Avenue, Ann Arbor, MI 48108  
 Phone: (734) 822-3130 Fax: (734) 944-1103  
 Website: www.pittsfield-mi.gov Email: planning@pittsfield-mi.gov

# Commercial Site Plan Approval Application

**Applicant Requirement Checklist**

- Project Fees** (must be paid by cash or check when application is submitted)  
*Administrative Fee is non-refundable*
- Completed Application Form**
- Ten (10) sets of the proposed site plan.** Three (3) full size plan sets, and seven (7) reduced (11x17) plan sets (N/A with Engineering Plan Submittal)
- A CD or USB Drive** containing the entire plan set

**:: OFFICE USE ::**

CSPA # 19 - 13

ZP App Fee \$ 1,169.40

Escrow Fee \$ 4,000.00

Total \$ 5,169.40

**Submittal Information**

This application and site plan is being submitted for the following consideration:

Preliminary Site Plan    Combined Preliminary/Final Site Plan    Administrative Review

Final Site Plan    Amendment of Approved Plan    Engineering Plan

Date of Plan: April 13, 2020

Number of Sheets: 33

Name of Proposed Development: Group 10 Management - Residence Inn

Total Number of:    Lots: \_\_\_\_\_    Units: \_\_\_\_\_    Units/Buildings: 1

Total Floor Area Proposed (Sq. Ft.): 84,618sf   Estimated Cost of Site Work: \_\_\_\_\_

Estimated Cost of Vertical Building: \_\_\_\_\_   Proposed Date of Construction: Spring 2021

**Property Information**

General Location of Site \_\_\_\_\_ Or 3764 S. State Street

Street Number   Street Name

Parcel I.D. # 12 - 08 - 400 - 018   Gross Acreage of Site: 3.47 Ac   Net Acreage: 3.36 Ac

**Applicant Information**

(Please Print)

Group 10 Management   Jack Knowles

Company Name (if Applicable)   Applicant's Name

29200 Northwestern Hwy, Suite 450   Southfield   Michigan   48034

Address   City   State   Zip

(248) 855-2100   (248) 855-1080   Information@group10managment.com

Contact Number   Fax Number   Email Address

**Applicant's Compliance Agreement**

The applicant(s) represents that they are the owner(s) of the subject property or are acting on behalf of the above listed owner, and herewith file thirteen (13) copies of the identified drawing of the property or site plan and all supporting material. The applicant also acknowledges that the filing of this application grants permission for Township staff and/or officials to enter the property to determine the accuracy of the submitted information including existing conditions. If the applicant is not the owner, the owner must fill out the owner affidavit.

JACK KNOWLES   Jack Knowles

Applicant's Signature   Applicant's Name (Please Print)

4/15/2020

Date

<b>:: Office Use ::</b>	<b>Time Stamp</b>
Received By: <u>JBC</u>	<u>5/1/20</u>
(Initials)	

<b>Escrow Information (To be filled out if different than the applicant information)</b>			
(Please Print)			
Company Name		Contact Name	
Address	City	State	Zip
( )	( )		
Contact Number	Fax Number	Email Address	

<b>Property Owner Information</b>			
(Please Print)			
A2 Hospitality, LLC		(248 ) 855-2100	
Property Owner's Name		Contact Number	
29200 Northwestern Highway, Suite 450	Southfield	MI	48034
Address	City	State	Zip
mkoza@group10.net		(248 ) 855-1080	
Email Address		Fax Number	
		4/15/2020	
Property Owner's Signature		Date	

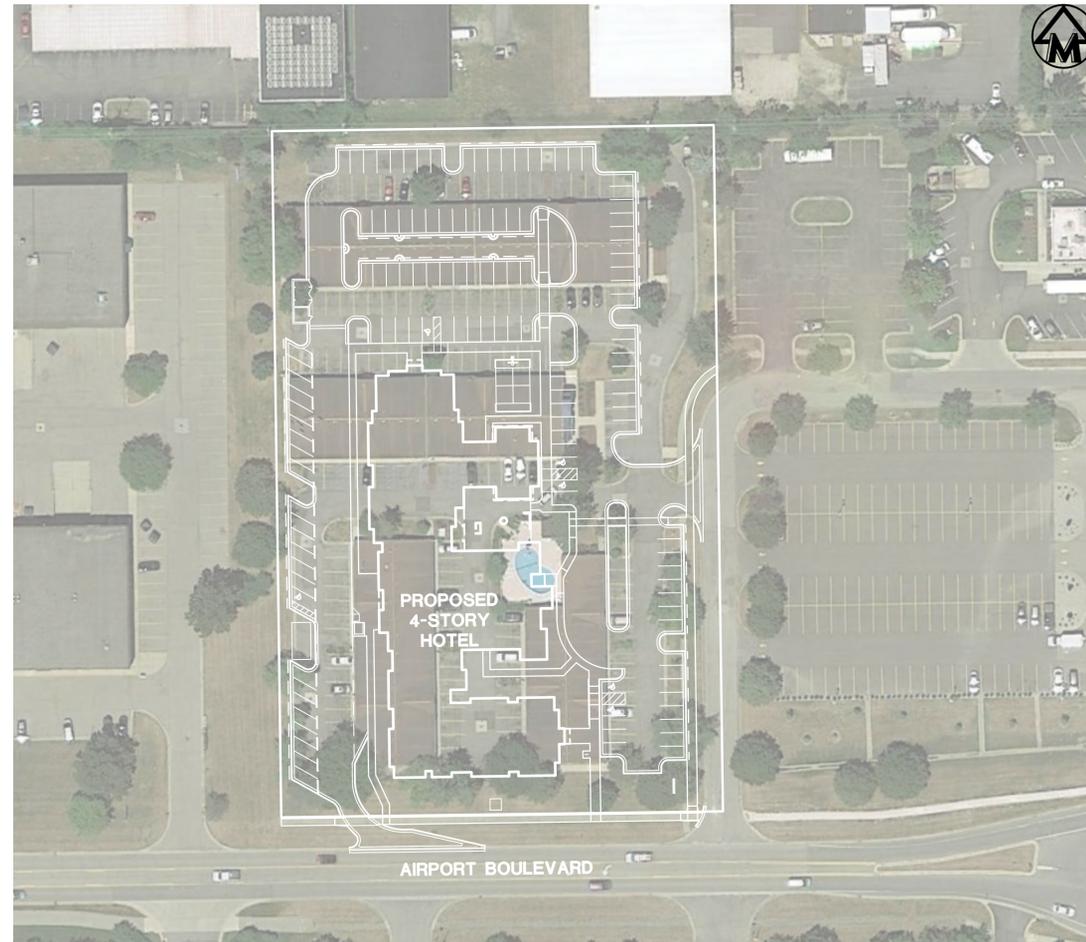
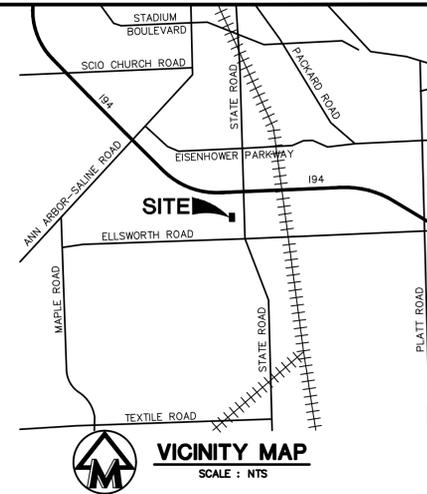
<b>Site Planner/Engineer</b>			
(Please Print)			
Midwestern Consulting LLC		Tom Covert	
Company Name		Contact Name	
3815 Plaza Drive	Ann Arbor	Michigan	48103
Address	City	State	Zip
(734 ) 389-5303	( )	tjc@midwesternconsulting.com	
Contact Number	Fax Number	Email Address	

Submittal by the application deadline does not guarantee placement on the agenda for the meeting date indicated on the meeting schedule.

# RESIDENCE INN

## PITTSFIELD TOWNSHIP, WASHTENAW COUNTY, MICHIGAN

### FINAL SITE PLAN



**SITE MAP**  
NOT TO SCALE

**OWNER**  
A2 HOSPITALITY, LLC  
29200 NORTHWESTERN HIGHWAY, SUITE 450  
SOUTHFIELD, MI 48034  
CONTACT: M. JACK KNOWLES  
PH: 248-855-2100

**ENGINEER/SURVEYOR/LAND ARCH.**  
MIDWESTERN CONSULTING, LLC  
3815 PLAZA DR.  
ANN ARBOR, MI 48108  
CONTACT: THOMAS COVERT, RLA, AICP, LEED AP  
734-995-0200

**APPLICANT**  
GROUP 10 MANAGEMENT  
29200 NORTHWESTERN HIGHWAY, SUITE 450  
SOUTHFIELD, MI 48034  
CONTACT: M. JACK KNOWLES  
PH: 248-855-2100

**ARCHITECT**  
BOWERS ASSOCIATES  
2400 S. HURON PARKWAY  
ANN ARBOR, MICHIGAN 48104  
CONTACT: SCOTT BOWERS, AIA, NCARB  
734-975-2400

**CONTRACTOR**  
TBD

**SITE DATA**

Site Data Comparison		Existing Form Based Mixed Use (FB)		Required / Allowed Form Based Mixed Use (FB)		Proposed Form Based Mixed Use (FB)	
Zoning		FB		FB		FB	
Form Based District		State Street Mixed Use		State Street Mixed Use District		State Street Mixed Use District	
Site Type		Site Type B		Site Type B		Site Type C	
Street Type		Suburban		Suburban		Urban	
Building Form				Permitted: A / D		Building Form D	
Use Group				Conditionals: B / C		Lodging (Use Group 6)	
				Permitted: 2, 3, 5			
				2: residential/Dwelling uses (see zoning chart)			
				3: Office/Institutional (see zoning chart)			
				5: Retail, entertainment, and service (see zoning chart)			
				Conditional: None			
				<b>Building Form A</b>		<b>Building Form D</b>	
				typically single purpose		multi-story mixed use buildings	
				retail/office/restaurant/service			
<b>Site Density</b>							
Min. Lot Area	151,142	Ac. Gross approx.		Not specified		Not specified	151,142
	3.47	Ac. Gross approx.					3.47
		sf net approx.		Not specified		Not specified	146,472
	146,472	Ac. Net approx.					3.36
	3.36	Ac. Net approx.					26,073
Ground Floor Area							84,618
Total Floor Area							312.58
Min. Lot Width	312.58	ft		Not specified		Not specified	18%
Maximum Lot Coverage (Net lot area)	Not			Not specified		Not specified	69%
Maximum Impervious Surface Ratio (Net lot area)	Determined		80	%	90	%	58%
Maximum Floor Area Ratio (Net lot area)	Not		Not specified		Not specified		
	Determined						
Building Height		ft	14	ft min.	24	ft min.	50
			38	ft max.	50	ft max.	
	1	Story	1	story min.	2	story min.	4
			3	stories max.	4	stories max.	
<b>Site Setbacks (to lot lines)</b>							
Front	36	ft	10	ft building line (75% must meet) if provided, min. 5 ft	10	ft building line (75% must meet) if provided, min. 5 ft	26
Side	85	ft	none		none		65
							111
							6
Rear	57	ft	10	ft min	40	ft	166
Natural Features Setback - Wetland	25	ft	N/A		N/A		N/A
Natural Features Setback - OHWM	25	ft	N/A		N/A		N/A
Natural Features Setback - Bldg to watercourse	100	ft OR 100-yr floodplain whichever is greater	N/A		N/A		N/A
<b>Parking</b>							
Setbacks	Not Determined		rear or side yard, if abutting bldg line adj. to row - screen with 30-inch masonry wall w/in 5 ft of building line with		rear or side yard for surface parking; below grade/garage parking access from side or rear yard, alley or side street		rear or side yards
Required Parking	Not Determined		1 per guestroom + 1 per assumes 5 employees, 111 rooms		1 per guestroom + 1 per assumes 5 employees, 111 rooms		
			116	spaces required	116	spaces required	129
Bicycle Parking			2	spaces required	2	spaces required	2
<b>Loading</b>							
Non-Residential	Not Determined		3	required if less than 60,000sf building	3	required if less than 60,000sf building	2
							1

**LEGAL DESCRIPTION**  
SEE SHEET 3 FOR LEGAL DESCRIPTION

**PROJECT NARRATIVE**

**GENERAL**  
THE PROJECT SITE IS LOCATED ON A PRIVATE DRIVE OFF SOUTH STATE STREET, JUST WEST OF THE McDONALD'S AND BLACK ROCK RESTAURANTS. THE PROPERTY ALSO HAS OVER 300 FEET OF FRONTAGE ON AIRPORT BOULEVARD.

THE PROPERTY IS RECTANGULAR IN SHAPE, MEASURING APPROXIMATELY 312' X 483', AND COMPRISES 3.46 ACRES OF LAND. THE SITE TOPOGRAPHY IS RELATIVELY LEVEL AND THERE ARE NO DISTINGUISHING PHYSICAL FEATURES WITH THE EXCEPTION OF SCATTERED TREES ALONG THE PERIMETER. CURRENTLY THE SITE CONTAINS 4, ONE-STORY BUILDINGS AND ASSOCIATED SITE IMPROVEMENTS OPERATING AS A MOTEL.

**HOTEL BUILDING**  
THE PROPOSED HOTEL IS A MARRIOTT 'RESIDENCE INN', WHICH IS THE PREMIER BRAND IN THE EXTENDED STAY HOTEL CATEGORY. THE BUILDING IS PLANNED FOR 111 ROOMS, 4 STORIES IN HEIGHT (50 FEET). THE BUILDING AMENITIES WILL INCLUDE AN INDOOR SWIMMING POOL, BREAKFAST/DINING AREA, OUTDOOR TERRACE, FITNESS AREA, LOUNGE AREA, MEETING ROOM, LAUNDRY FACILITY, AND AN OUTDOOR SPORT COURT.

THE GUEST ACCOMMODATIONS WILL INCLUDE A TOTAL OF 111 STUDIO AND ONE BEDROOM SUITES, AS FOLLOWS:

- DOUBLE QUEEN - 24
- DOUBLE QUEEN / TUB ADA - 2
- KING - 58
- KING CONNECT - 8
- KING 1 BEDROOM - 14
- KING TUB ADA - 3
- KING SHOWER ADA - 2

THE BUILDING MATERIALS WILL INCLUDE A CULTURED STONE BASE, CEMENT FIBER SIDING AND TRIM, STANDING SEAM METAL ROOF ACCENTS, GLASS AND ALUMINUM FRAMES, AND NICHIHA FIBER CEMENT ACCENTS AT LOWER LEVEL. ALL BUILDING MATERIALS WILL BE HIGH QUALITY IN KEEPING WITH THE MARRIOTT STANDARDS.

**SITE**  
PRIMARY VEHICULAR ACCESS IS FROM THE PRIVATE DRIVE OFF OF STATE STREET (PUBLIC ROADWAY), WITH A SECONDARY ACCESS DRIVE FROM AIRPORT BOULEVARD (PUBLIC ROADWAY). THE FRONT BUILDING ENTRANCE IS ON THE EAST SIDE OF THE BUILDING, WITH A DEDICATED GUEST LOADING/UNLOADING LANE. VEHICULAR PARKING IS PROVIDED ON THE WEST, NORTH AND EAST SIDES, AND 129 PARKING SPACES ARE PROVIDED. SECONDARY GUEST ACCESS DOORS ARE ALSO PROVIDED ON THE NORTH AND WEST SIDES OF THE BUILDING FOR CONVENIENCE.

THIS PROPERTY IS CURRENTLY SERVICED BY EXISTING PUBLIC WATERMAIN AND SANITARY SEWER, AND WILL CONTINUE TO BE SO. MINOR MODIFICATIONS TO THESE EXISTING LINES MAY BE NEEDED DUE TO THE PROJECT LAYOUT. PRIVATE/FRANCHISEE UTILITIES (ELECTRIC, GAS, CABLE, FIBER) ARE ALSO READILY AVAILABLE TO THIS PROPERTY. ALL UTILITY WORK WILL BE IN CONFORMANCE WITH TOWNSHIP REQUIREMENTS. ALL SIDEWALKS SHALL BE CONSTRUCTED PER CURRENT ADA STANDARDS.

STORMWATER MANAGEMENT WILL BE HANDLED BY AN ON SITE STORMWATER MANAGEMENT SYSTEM TREATING BOTH QUANTITY AND QUALITY. STORM WILL BE COLLECTED AND CONVEYED ON-SITE VIA SLOPE AND/OR PIPES. A RAIN GARDEN/FILTRATION AREA IS PROPOSED CENTRAL TO THE PARKING AREA TO PROMOTE INFILTRATION. STORM WATER DETENTION WILL BE ACCOMMODATED BY AN UNDERGROUND STORAGE SYSTEM, WHICH WILL ALSO HAVE ELEMENTS TO PROMOTE ON-SITE INFILTRATION OF STORMWATER. ALL STORMWATER MANAGEMENT WORK WILL BE DESIGNED AND CONSTRUCTED IN ACCORDANCE WITH TOWNSHIP AND COUNTY WATER RECURSES STANDARDS.

**SHEET INDEX**

#	SHEET TITLE
1	COVER SHEET
2	ALTA-NSPS LAND TITLE SURVEY
3	LEGAL DESCRIPTION, TREE LIST, STRUCTURE SCHEDULE AND NOTES
4	SITE REMOVALS PLAN
5	SITE LAYOUT PLAN
6	SITE LANDSCAPE PLAN
7	UTILITY PLAN
8	OVERALL GRADING AND SOIL EROSION CONTROL PLAN
9	DETAILED GRADING PLAN - NORTH
10	DETAILED GRADING PLAN - SOUTH
11	SANITARY SEWER PLAN, PROFILE AND STRUCTURE SCHEDULE
12	STORM SEWER PLAN, PROFILE AND STRUCTURE SCHEDULE
13	STORM SEWER PLAN AND PROFILE
14	STORM SEWER PLAN AND PROFILE
15	WATER MAIN PLAN, PROFILE AND STRUCTURE SCHEDULE
16	STORMWATER MANAGEMENT PLAN
17	STORMWATER CALCULATIONS
18	FIRE ACCESS PLAN
19	SITE DETAILS
20	SITE DETAILS
21	PHOTOMETRIC PLAN
22	EARTHWORK SPECIFICATIONS
23	SANITARY SEWER DETAILS
24	SANITARY SEWER SPECIFICATIONS
25	PITTSFIELD TOWNSHIP SIDEWALK DETAILS
26	SOIL EROSION DETAILS AND NOTES
27	STORM SEWER DETAILS AND SPECIFICATIONS
28	WATER MAIN DETAILS
29	WATER MAIN SPECIFICATIONS
A1-00	FIRST FLOOR PLAN
A1-01	UPPER FLOOR PLANS
A5-00	ELEVATIONS
A5-01	EXTERIOR ELEVATIONS
A5-02	RENDERINGS
A5-03	RENDERINGS

**PERMIT APPROVALS**

PERMITTING AGENCY	DATE APPROVED
WCRC	
SESC, SOM	
SESC, PITTSFIELD TWP	
MDEQ, WATER/SEWER	
GRADING PERMIT, PITTSFIELD TWP	

## RESIDENCE INN

JOB No. <b>19117</b>	DATE: 11/18/19	1
REVISIONS:	SHEET 1 OF 35	
PER WCRC REVIEW	REV. DATE: 1/21/20	
PER MUNICIPAL REVIEW	REV. DATE: 2/20/20	
PER WCRC REVIEW	REV. DATE: 4/13/20	
	REV. DATE: 6/19/20	
	REV. DATE: FINAL/19117CV1	

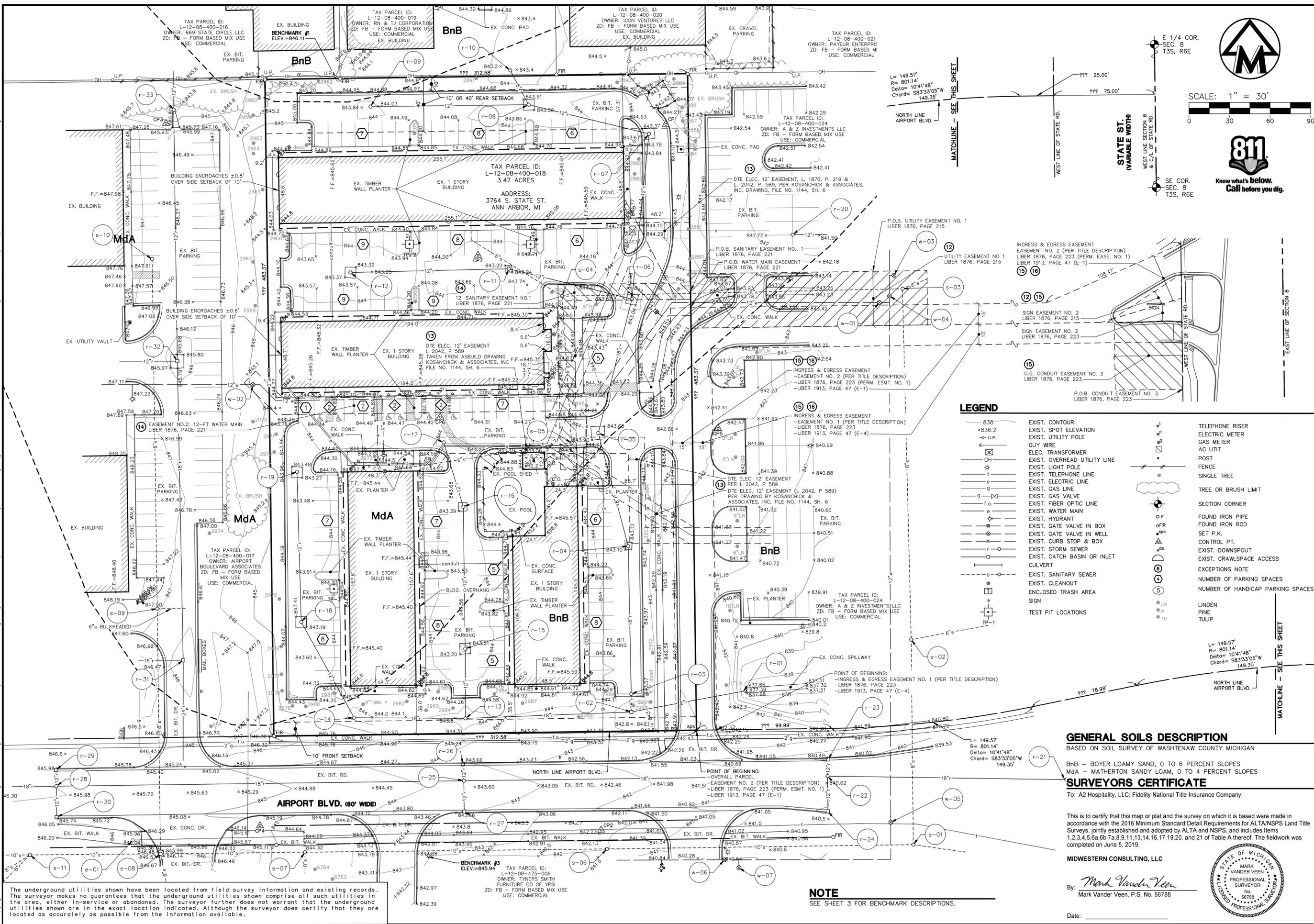
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<b>RELEASED FOR:</b>	<b>DATE:</b>

HEATH HARTT, P.E.  
No. 56247

M:\Civ\134\_P\19117\Final\19117CV1.dwg, 6/17/2020 1:05 PM, Chir's T. Somers, 1 COVER SHEET, MCLLC PDF, ps3  
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MA:CV132\_P01\19117\19117.dwg, 6/17/2020 1:07 PM, Chir T. Somers, 2 ALTA-NSPS LAND TITLE SURVEY, MCLLC PDF, P03  
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SCALE: 1" = 30'  
0 30 60 90



MATCHLINE - SEE THIS SHEET

MATCHLINE - SEE THIS SHEET

### LEGEND

- 838 - EXIST. CONTOUR
- x836.2 - EXIST. SPOT ELEVATION
- OH - EXIST. UTILITY POLE
- U.P. - GUY WIRE
- EX. TRANSFORMER
- EX. OVERHEAD UTILITY LINE
- EX. LIGHT POLE
- EX. TELEPHONE LINE
- EX. ELECTRIC LINE
- EX. GAS LINE
- EX. GAS VALVE
- EX. FIBER OPTIC LINE
- EX. WATER MAIN
- EX. HYDRANT
- EX. GATE VALVE IN BOX
- EX. CURB STOP & BOX
- EX. STORM SEWER
- EX. CATCH BASIN OR INLET
- CULVERT
- EX. SANITARY SEWER
- EX. CLEANOUT
- ENCLOSED TRASH AREA
- SIGN
- TEST PIT LOCATIONS
- 8" - TELEPHONE RISER
- 8" - ELECTRIC METER
- 8" - GAS METER
- AC UTILITY
- POST
- FENCE
- SINGLE TREE
- TREE OR BRUSH LIMIT
- SECTION CORNER
- FOUND IRON PIPE
- FOUND IRON ROD
- SET P.K.
- CONTROL PT.
- EXIST. DOWNSPOUT
- EXIST. CRAWLSPACE ACCESS
- EXCEPTIONS NOTE
- NUMBER OF PARKING SPACES
- NUMBER OF HANDICAP PARKING SPACES
- LIN - LINDEN
- P - PINE
- TU - TULIP

### GENERAL SOILS DESCRIPTION

BASED ON SOIL SURVEY OF WASHTENAW COUNTY MICHIGAN

BnB - BOYER LOAMY SAND, 0 TO 6 PERCENT SLOPES  
MdA - MATHERTON SANDY LOAM, 0 TO 4 PERCENT SLOPES

### SURVEYORS CERTIFICATE

To: A2 Hospitality, LLC; Fidelity National Title Insurance Company.

This is to certify that this map or plat and the survey on which it is based were made in accordance with the 2016 Minimum Standard Detail Requirements for ALTA/NSPS Land Title Surveys, jointly established and adopted by ALTA and NSPS, and includes Items 1.2, 3.4, 5.6a, 6b, 7a, 8.9, 11, 13, 14, 16, 17, 19, 20, and 21 of Table A thereof. The fieldwork was completed on June 5, 2019.

MIDWESTERN CONSULTING, LLC

By: *Mark Vander Veen*  
Mark Vander Veen, P.S. No. 56788

Date: \_\_\_\_\_



### NOTE

SEE SHEET 3 FOR BENCHMARK DESCRIPTIONS.

The underground utilities shown have been located from field survey information and existing records. The surveyor makes no guarantees that the underground utilities shown comprise all such utilities in the area, either in-service or abandoned. The surveyor further does not warrant that the underground utilities shown are in the exact location indicated. Although the surveyor does certify that they are located as accurately as possible from the information available.

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M. JACK KOWLES  
248.855.2100

## RESIDENCE INN

FINAL SITE PLAN  
ALTA-NSPS LAND TITLE SURVEY

# 2

DATE: 11/18/19	SHEET 2 OF 35
REV. DATE	ADD: CTS
REV. DATE	ENG: RTH
REV. DATE	PM: TJC
REV. DATE	TECH: TJC
REV. DATE	DATE: 6/17/1917EX1

JOB NO. **19117**

LEGAL DESCRIPTION

(from Fidelity National Title Company, LLC, Commitment No. A0740410, Commitment Date: June 27, 2019)
Land Situated in the State of Michigan, County of Washtenaw, Township of Pittsfield.
Commencing at the Southeast corner of Section 8, Town 3 South, Range 6 East, Pittsfield Township, Washtenaw County, Michigan; thence North 01°06' West 1043.88 feet along the East line of said Section 8 and the centerline of State Street; thence South 88°54' West 75.00 feet to the West line of State Street; thence along the North line of Airport Boulevard in the following five courses; South 88°54' West 25.0 feet; thence along the arc of a circular curve to the left, radius 801.14 feet, chord South 83°33'05" West 149.35 feet; thence South 78°12'10" West 78.98 feet; thence along the arc of a circular curve to the right, radius 801.14 feet, chord South 83°33'05" West 149.35 feet; thence North 88°54' West 99.99 feet for a place of beginning; thence continuing along the North line of Airport Boulevard South 88°54' West 312.58 feet; thence North 01°06' West 483.37 feet; thence North 88°54' East 312.58 feet; thence South 01°06' East 483.37 feet to the place of beginning, being part of the Southeast 1/4 of said Section 8. Also including and being subject to two easements for ingress and egress contained in Agreement recorded in Liber 1876 on Page 223, described as follows:

EASEMENT NO. 1:
Commencing at the Southeast corner of Section 8, Town 3 South, Range 6 East, Pittsfield Township, Washtenaw County, Michigan; thence North 01°06' West 1043.88 feet along the East line of said Section and the centerline of State Street; thence South 88°54' West 75.00 feet to the West line of State Street; thence along the North line of Airport Boulevard in the following five courses; South 88°54' West 25.0 feet; along the arc of a circular curve to the left, radius 801.14 feet, chord South 83°33'05" West 149.35 feet; South 78°12'10" West 78.98 feet; along the arc of a circular curve to the right, radius 801.14 feet, chord South 83°33'05" West 149.35 feet; South 88°54' West 84.99 feet for a place of beginning; thence continuing along said North line South 88°54' West 15.00 feet; thence North 01°06' West 296.00 feet; thence North 88°54' East 44.00 feet; thence North 73°04'40" East 62.36 feet; thence South 01°06' East 32.00 feet along the West line of State Street; thence South 88°54' West 485.00 feet; thence South 01°06' East 281.00 feet to the place of beginning, being part of the Southeast 1/4 of said Section; and

EASEMENT NO. 2:
Commencing at the Southeast corner of Section 8, Town 3 South, Range 6 East, Pittsfield Township, Washtenaw County, Michigan; thence North 01°06' West 1043.88 feet along the East line of said Section and the centerline of State Street; thence South 88°54' West 75.00 feet to the West line of State Street; thence along the North line of Airport Boulevard in the following five courses; South 88°54' West 25.0 feet; along the arc of a circular curve to the left, radius 801.14 feet, chord South 83°33'05" West 149.35 feet; South 78°12'10" West 78.98 feet; along the arc of a circular curve to the right, radius 801.14 feet, chord South 83°33'05" West 149.35 feet; South 88°54' West 99.99 feet for a place of beginning; thence continuing along said North line South 88°54' West 15.00 feet; thence North 01°06' West 311.00 feet; thence North 88°54' East 414.99 feet; thence North 66°07'05" East 108.47 feet; thence South 01°06' East 40.00 feet along the West line of State Street; thence South 73°04'40" West 62.36; thence South 88°54' West 440.00 feet; thence South 01°06' East 296.00 feet to the place of beginning, being part of the Southeast 1/4 of said Section 8.

Being described per survey as follows
Part of the S.E. 1/4 of Sec. 8, T. 3 N., R. 6 E., Pittsfield Twp., Washtenaw Co., Mich. Described as beginning at a point on the North line of Airport Blvd, said point located N. 01 Degrees 06'00" W. 1043.88 ft. along the East line of said Sec. 8 and S. 88 Degrees 54'00" W. 75.00 ft. to the West line of State Street and continuing along said North line the following five courses and distances continuing S. 88 Degrees 54'00" W. 25.00 ft. and on a curve to the left (radius=801.14 ft., chord bears S. 83 Degrees 33'05" W. 149.35 ft.) a distance of 149.57 ft. and S. 78 Degrees 12'10" W. 78.98 ft. and on a curve to the right (radius=801.14 ft., chord bears S 83 Degrees 33. 05' W. 149.35 ft.) a distance of 149.57 ft. and S. 88 Degrees 54'00" W. 99.99 ft. from the S.E. corner of said Sec. 8, thence continuing S. 88 Degrees 54'00" W. 312.58 ft., thence N. 01 Degrees 06'00" W. 483.37 ft., thence N 88 Degrees 54' 00' E. 312.58 ft., thence S. 01 Degrees 06'00" E. 483.37 ft. to the point of beginning.

EXCEPTIONS

- 12. Deed of Easement to the Township of Pittsfield, Michigan as evidenced by instrument recorded in Liber 1876, Page 215, Washtenaw County Records. (PLOTTED)
13. Right of Way Agreement in favor of the Detroit Edison Company as evidenced by the instrument recorded in Liber 1876, Page 219 and re-recorded in Liber 2042, Page 589, Washtenaw County records. (PLOTTED)
14. Deed of Easement to the Township of Pittsfield, Michigan as evidenced by instrument recorded in Liber 1876, Page 221, Washtenaw County Records. (PLOTTED)
15. Agreement recorded May 24, 1983 in Liber 1876, Page 223, Washtenaw County Records. (PLOTTED)
16. Agreement recorded January 25, 1984 in Liber 1913, Page 47, Washtenaw County Records. (PLOTTED)
17. Underground Easement in favor of The Detroit Edison Company and Michigan Bell Telephone Company as evidenced by instrument recorded in Liber 1929, Page 614, Washtenaw County Records. (NOT PLOTTED DUE TO ILLEGIBLE EASEMENT SKETCH)
18. The following matters of survey and encroachments as disclosed by survey prepared by Millman Surveying, Inc., MSI Site No 23295, Site ID# 1247, dated October 8, 2011, revised September 12, 2012. Updated in Midwestern Consulting LLC drawing No. 19117 13. 2019. (PLOTTED)

TREES

Table with columns: TAG#, DBH, DBH, COMMON NAME, GENUS/SPECIES, STEMS, SCORE, INV\*, HERITAGE, NOTES, REMOVAL, HERITAGE MITIGATION. Contains detailed tree inventory data for various species like Norway Spruce, Black Pine, etc.

Summary table with columns: Total DBH Heritage Removed, Total DBH Mitigation, Total Heritage Trees Mitigation, Total Trees Mitigation. Values: 57, 1207, 3, 48.

STORM SEWER SCHEDULE

Table with columns: STRUCT. NO., DESC., RIM ELEV., INVERTS. Lists storm sewer structures from r-01 to r-33 with their respective elevations and invert levels.

NOTES

- 1) THIS SURVEY WAS PREPARED USING FIDELITY NATIONAL TITLE INSURANCE COMPANY TITLE COMMITMENT No. A0740410 WITH A COMMITMENT DATE OF JUNE 27, 2019.
2) THE LEGAL DESCRIPTION DESCRIBES THE SAME PROPERTY AS INSURED IN THE TITLE COMMITMENT AND ANY EXCEPTIONS HAVE BEEN NOTED HEREIN.
3) BEARINGS ARE BASED ON COMMITMENT LEGAL DESCRIPTION No. A0740410 WITH A COMMITMENT DATE OF JULY 27, 2019.
4) SAID DESCRIBED PROPERTY IS NOT LOCATED WITHIN A 100-YEAR FLOOD PLAIN ZONE PER FLOOD INSURANCE RATE MAP NO. 26161C0401E WITH AN EFFECTIVE DATE OF APRIL 3, 2012. FOR COMMUNITY NUMBER 260213 AND 260623, IN WASHTENAW COUNTY, STATE OF MICHIGAN, WHICH IS THE CURRENT FLOOD INSURANCE RATE MAP FOR THE COMMUNITY IN WHICH SAID PROPERTY IS SITUATED.
5) THERE IS NO EVIDENCE OF CURRENT EARTH MOVING WORK, BUILDING CONSTRUCTION OR BUILDING ADDITIONS.
6) THERE IS NO OBSERVED EVIDENCE OF THIS BEING USED AS A SOLID WASTE DUMP, SUMP OR SANITARY LANDFILL.
7) THERE IS NO OBSERVED EVIDENCE INDICATING ANY CEMETERIES ARE LOCATED ON THE PARCEL HEREIN DESCRIBED.
8) THERE IS NO EVIDENCE OF PROPOSED CHANGES TO STREET RIGHT OF WAY LINES.
9) DISTANCE TO NEAREST INTERSECTION: FROM SE PROPERTY CORNER TO THE INTERSECTION OF AIRPORT BLVD AND STATE STREET IS +/-575 FEET.
10) THERE ARE PLOTTABLE OFFSITE EASEMENTS OR SERVITUDES, AS IS SHOWN ON THIS SURVEY.
11) THE PARCEL HEREIN DESCRIBED HAS 131 REGULAR STRIPPED PARKING SPACES AND 6 HANDICAP.
12) THE PARCEL HEREIN DESCRIBED IS CURRENTLY ZONED FB - (FORM BASED MIXED USE) PER PITTSFIELD TOWNSHIP ZONING.

SANITARY SEWER SCHEDULE

Table with columns: STRUCT. NO., DESC., RIM ELEV., INVERTS. Lists sanitary sewer structures from s-01 to s-11 with their respective elevations and invert levels.

ELECTRIC STRUCTURE SCHEDULE

Table with columns: STRUCT. NO., DESC., RIM ELEV., T/PIPE. Lists electric structure e-01 with its description and pipe type.

WATER MAIN SCHEDULE

Table with columns: STRUCT. NO., DESC., RIM ELEV., T/PIPE. Lists water main structures from w-01 to w-07 with their respective elevations and pipe types.

BENCHMARKS

- BENCHMARK #1: BENCH TIE IN THE SOUTH SIDE OF A UTILITY POLE LOCATED, ON THE NORTH PROPERTY LINE, ±52' WEST OR THE NORTHWEST PROPERTY CORNER, AND ±72' NORTHEAST OF THE NORTHWEST CORNER OF THE NORTHERN BUILDING. ELEVATION = 846.11 (NAVD 88)
BENCHMARK #2: TOP OF CONCRETE BASE TO A LIGHT POLE LOCATED AT THE SOUTH RIGHT OF WAY OF AIRPORT BLVD. AND EAST SIDE OF THE WESTERLY ENTRANCE TO TYNERS. ELEVATION = 845.94 (NAVD 88)
BENCHMARK #4: TOP OF MAIN STREAMER TO A HYDRANT LOCATED ON THE NORTH RIGHT OF WAY OF AIRPORT BLVD. AND EAST OF THE 2ND ENTRANCE WEST OF THE WESTERLY PROPERTY LINE. ELEVATION = 848.89 (NAVD 88)

TEST PIT LOGS

Log of Test Pit TP-1. Includes project info, location, dates, and a detailed log of soil layers with descriptions like '3" HMA, 12" Aggregate Base' and 'Dark gray clayey SAND, mostly medium to fine sand, some clayey fines, moist, fill with occasional roots'.

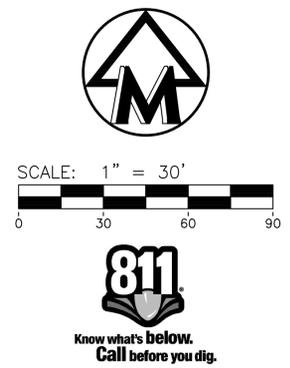
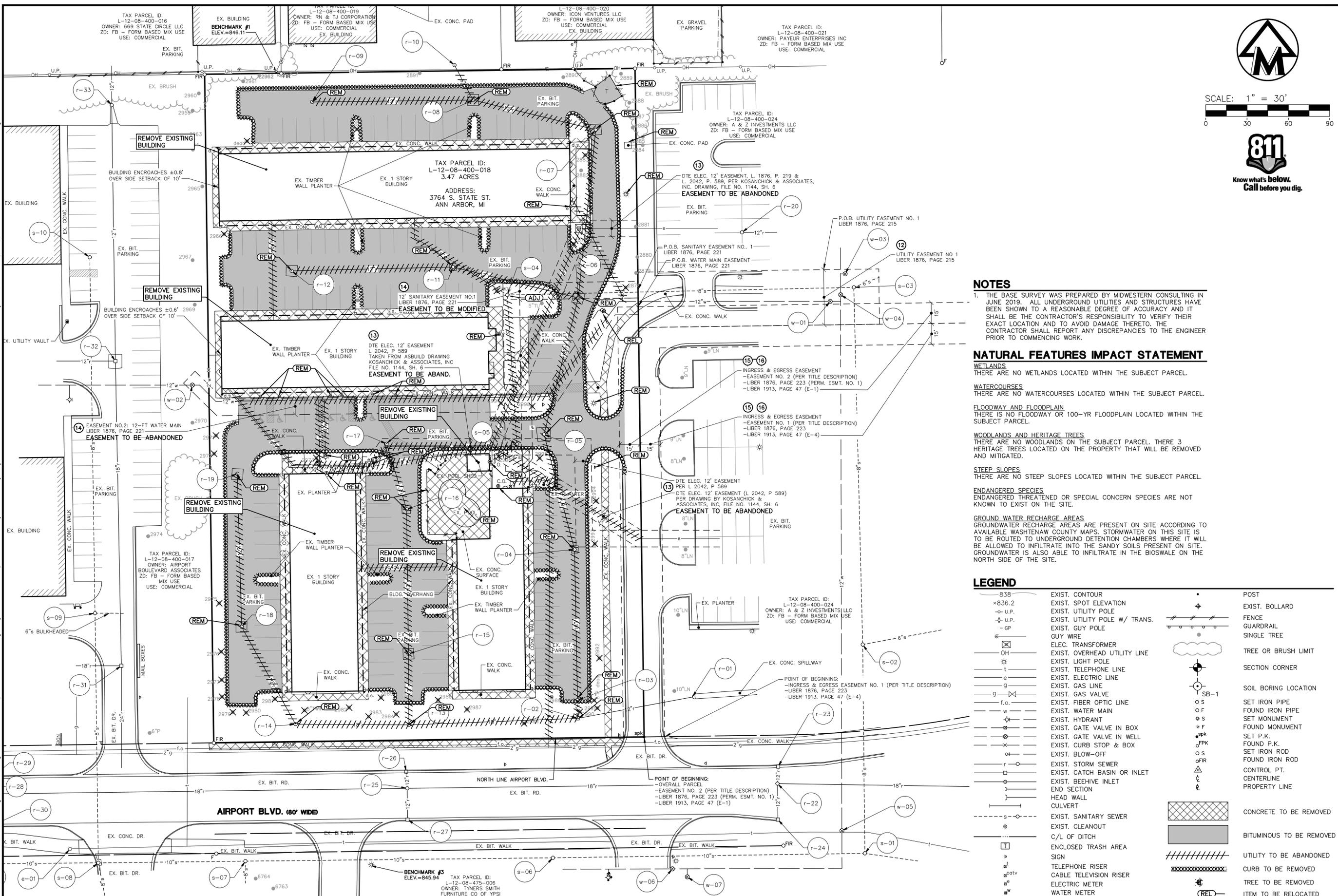
Log of Test Pit TP-2. Includes project info, location, dates, and a detailed log of soil layers with descriptions like '4" HMA, 10" Aggregate Base' and 'Brown poorly graded GRAVEL with sand and clay, mostly coarse to fine gravel, some coarse to fine sand, moist, frequent COBBLE'.

Log of Test Pit TP-3. Includes project info, location, dates, and a detailed log of soil layers with descriptions like '4" HMA, 8" Aggregate Base' and 'Dark gray clayey SAND, mostly medium to fine sand, some clayey fines, moist, fill with occasional roots and twigs'.

Vertical text on the left margin: M:\Civil\136\_P\0\19117\Final\19117.dwg, 6/17/2020 1:07 PM, Chir's T. Somers, 3 LEGAL DESCRIPTION TREE LIST STRUCTURE SCHEDULE AND NOTES, MCLLC PDF, pc3 Copyright © 2020 Midwestern Consulting L.L.C. All rights reserved. No part of this drawing may be used or reproduced in any form or by any means, or stored in a database or retrieval system, without prior permission of Midwestern Consulting L.L.C.

Vertical text on the right margin: MIDWESTERN CONSULTING, 3855 Plaza Drive Ann Arbor, Michigan 48108, (734) 995-0200 • www.midwesternconsulting.com, Land Development • Land Survey • Institutional • Municipal • Wireless Communications • Transportation • Landfill Services. CLIENT: GROUP 10 MANAGEMENT, 29220 NORTHWESTERN HWY., SUITE 450, SOUTHFIELD, MI 48034, M. JACK KKWOWLES, 248.855.2100. RESIDENCE INN FINAL SITE PLAN LEGAL DESCRIPTION, TREE LIST, STRUCTURE SCHEDULE AND NOTES. JOB No. 19117, REV. DATE, SHEET 3 OF 35, DATE: 11/18/19, ADD: CTS, ENG: RTH, PM: TJC, TECH: MFL/19117EX1, PLOT: 19117.

MA:\civil\135\_P\19117\Final\19117RM1.dwg, 6/17/2020 1:08 PM, Chris T. Somers, 4 SITE REMOVALS PLAN, MCLLC PDF, .p3  
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**NOTES**  
1. THE BASE SURVEY WAS PREPARED BY MIDWESTERN CONSULTING IN JUNE 2019. ALL UNDERGROUND UTILITIES AND STRUCTURES HAVE BEEN SHOWN TO A REASONABLE DEGREE OF ACCURACY AND IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO VERIFY THEIR EXACT LOCATION AND TO AVOID DAMAGE THERETO. THE CONTRACTOR SHALL REPORT ANY DISCREPANCIES TO THE ENGINEER PRIOR TO COMMENCING WORK.

**NATURAL FEATURES IMPACT STATEMENT**  
**WETLANDS**  
THERE ARE NO WETLANDS LOCATED WITHIN THE SUBJECT PARCEL.

**WATERCOURSES**  
THERE ARE NO WATERCOURSES LOCATED WITHIN THE SUBJECT PARCEL.

**FLOODWAY AND FLOODPLAIN**  
THERE IS NO FLOODWAY OR 100-YR FLOODPLAIN LOCATED WITHIN THE SUBJECT PARCEL.

**WOODLANDS AND HERITAGE TREES**  
THERE ARE NO WOODLANDS ON THE SUBJECT PARCEL. THERE 3 HERITAGE TREES LOCATED ON THE PROPERTY THAT WILL BE REMOVED AND MITIGATED.

**STEEP SLOPES**  
THERE ARE NO STEEP SLOPES LOCATED WITHIN THE SUBJECT PARCEL.

**ENDANGERED SPECIES**  
ENDANGERED THREATENED OR SPECIAL CONCERN SPECIES ARE NOT KNOWN TO EXIST ON THE SITE.

**GROUND WATER RECHARGE AREAS**  
GROUNDWATER RECHARGE AREAS ARE PRESENT ON SITE ACCORDING TO AVAILABLE WASHTENAW COUNTY MAPS. STORMWATER ON THIS SITE IS TO BE ROUTED TO UNDERGROUND DETENTION CHAMBERS WHERE IT WILL BE ALLOWED TO INFILTRATE INTO THE SANDY SOILS PRESENT ON SITE. GROUNDWATER IS ALSO ABLE TO INFILTRATE IN THE BIOSWALE ON THE NORTH SIDE OF THE SITE.

LEGEND	
838	EXIST. CONTOUR
x836.2	EXIST. SPOT ELEVATION
-o-U.P.	EXIST. UTILITY POLE
-o-U.P.	EXIST. UTILITY POLE W/ TRANS.
-GP	EXIST. GUY POLE
-GP	GUY WIRE
-E	ELEC. TRANSFORMER
-OH	EXIST. OVERHEAD UTILITY LINE
-*	EXIST. LIGHT POLE
-t	EXIST. TELEPHONE LINE
-e	EXIST. ELECTRIC LINE
-g	EXIST. GAS LINE
-g	EXIST. GAS VALVE
-f.o.	EXIST. FIBER OPTIC LINE
-w	EXIST. WATER MAIN
-H	EXIST. HYDRANT
-B	EXIST. GATE VALVE IN BOX
-B	EXIST. GATE VALVE IN WELL
-X	EXIST. CURB STOP & BOX
-O	EXIST. BLOW-OFF
-r	EXIST. STORM SEWER
-□	EXIST. CATCH BASIN OR INLET
-□	EXIST. BEEHIVE INLET
-□	END SECTION
-□	HEAD WALL
-□	CULVERT
-s-o	EXIST. SANITARY SEWER
-o	EXIST. CLEANOUT
-□	C/L OF DITCH
-□	ENCLOSED TRASH AREA
-□	SIGN
-s <sup>atv</sup>	TELEPHONE RISER
-s <sup>b</sup>	CABLE TELEVISION RISER
-s <sup>cb</sup>	ELECTRIC METER
-s <sup>dc</sup>	WATER METER
-s <sup>gm</sup>	SPRINKLER CONTROL BOX
-s <sup>fm</sup>	FIRE DEPARTMENT CONNECTION
-s <sup>fm</sup>	GAS METER
-s <sup>fm</sup>	GAS LINE MARKER
-s <sup>fm</sup>	FIBER OPTIC MARKER
-□	POST
-□	EXIST. BOLLARD
-□	FENCE
-□	GUARDRAIL
-□	SINGLE TREE
-□	TREE OR BRUSH LIMIT
-□	SECTION CORNER
-□	SOIL BORING LOCATION
-□	SET IRON PIPE
-□	FOUND IRON PIPE
-□	SET MONUMENT
-□	FOUND MONUMENT
-□	SET P.K.
-□	FOUND P.K.
-□	SET IRON ROD
-□	FOUND IRON ROD
-□	CONTROL PT.
-□	CENTERLINE
-□	PROPERTY LINE
-□	CONCRETE TO BE REMOVED
-□	BITUMINOUS TO BE REMOVED
-□	UTILITY TO BE ABANDONED
-□	CURB TO BE REMOVED
-□	TREE TO BE REMOVED
-□	ITEM TO BE RELOCATED
-□	ITEM TO BE REMOVED
-□	ITEM TO BE ADJUSTED

The underground utilities shown have been located from field survey information and existing records. The surveyor makes no guarantees that the underground utilities shown comprise all such utilities in the area, either in-service or abandoned. The surveyor further does not warrant that the underground utilities shown are in the exact location indicated. Although the surveyor does certify that they are located as accurately as possible from the information available.

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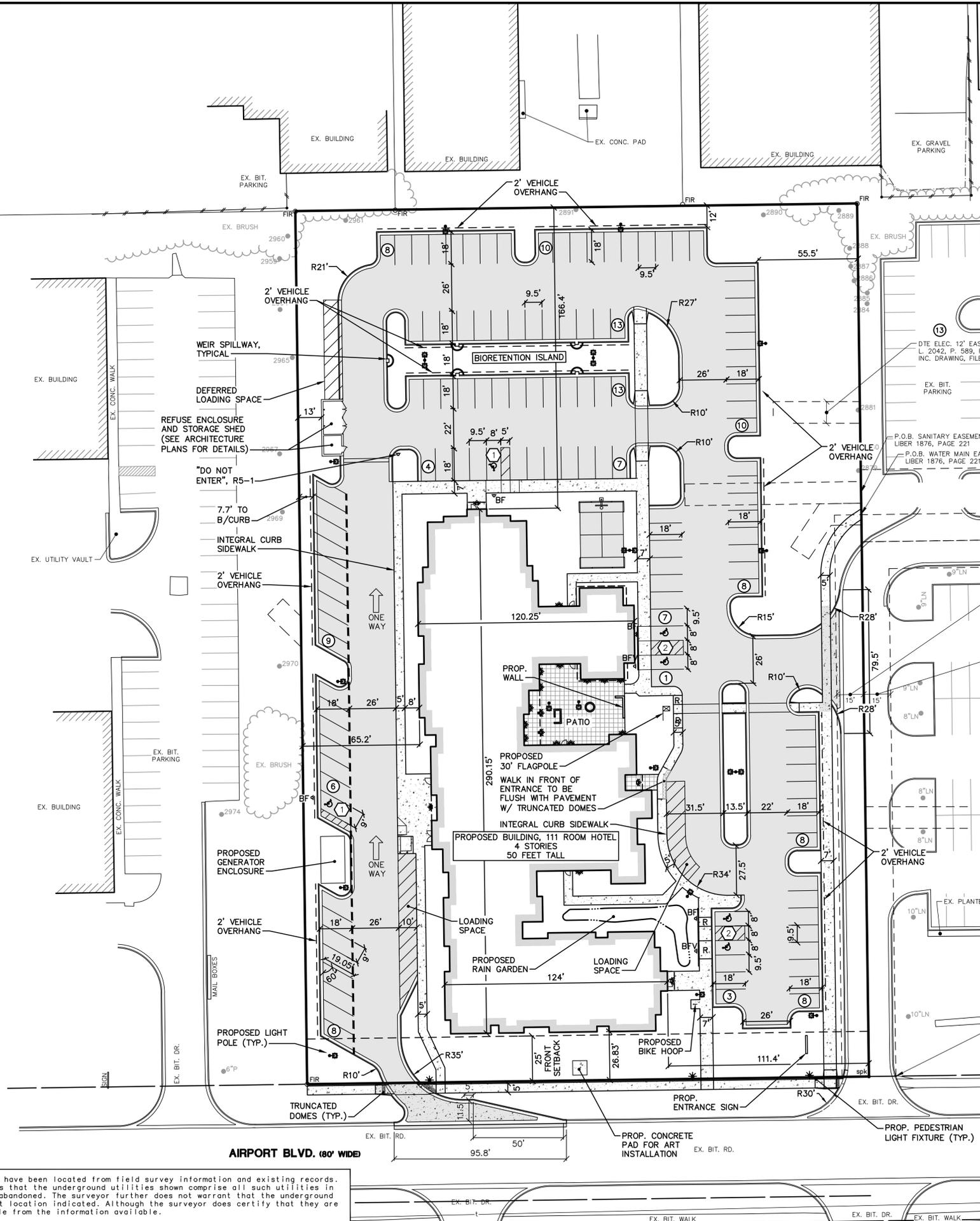
**RESIDENCE INN**  
FINAL SITE PLAN  
SITE REMOVALS PLAN

**4**

DATE: 11/18/19  
SHEET 4 OF 35  
REV. DATE: 12/21/20  
REV. DATE: 4/13/20  
CADD: GTS  
ENG: RTH  
PM: TJC  
TECH: JTC  
PINS/19117RM1

JOB No. **19117**  
REV. DATE: 12/21/20  
REV. DATE: 4/13/20

MA:\Civ\132\_P\19117591.dwg, 6/17/2020 1:10 PM, Chris T. Somers, 5 SITE LAYOUT PLAN, MCLLC PDF, p.3  
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SCALE: 1" = 30'  
 0 30 60 90



Know what's below.  
 Call before you dig.

INGRESS & EGRESS EASEMENT  
 EASEMENT NO. 2 (PER TITLE DESCRIPTION)  
 LIBER 1876, PAGE 223 (PERM. EASE. NO. 1)  
 LIBER 1913, PAGE 47 (E-1)

DTE ELEC. 12" EASE  
 L. 2042, P. 589, P  
 INC. DRAWING, FILE

P.O.B. SANITARY EASEMEN  
 LIBER 1876, PAGE 221

P.O.B. WATER MAIN EA  
 LIBER 1876, PAGE 221

SIGN EASEMENT NO. 2  
 LIBER 1876, PAGE 215

SIGN EASEMENT NO. 2  
 LIBER 1876, PAGE 223

U.G. CONDUIT EASEMENT NO. 3  
 LIBER 1876, PAGE 223

P.O.B. CONDUIT EASEMENT NO. 3  
 LIBER 1876, PAGE 223

**NOTES**

1. ALL CURB RADI DIMENSIONS ARE TO BACK OF CURB AND ALL DIMENSIONS ARE TO FACE OF CURB, UNLESS OTHERWISE SPECIFIED.
2. ALL BACK OF CURB RADI DIMENSIONS ARE 5 FEET, UNLESS OTHERWISE SPECIFIED.
3. SEE ARCHITECTURAL DRAWINGS FOR DETAILED BUILDING DIMENSIONS.
4. ALL SIDEWALKS SHALL BE CONSTRUCTED PER CURRENT ADA STANDARDS.

**LEGEND**

- ⊙ NUMBER OF STANDARD PARKING SPACES IN ROW
- ⊕ NUMBER OF BARRIER FREE PARKING SPACES IN ROW
- BF BARRIER FREE PARKING SIGN
- BFV VAN ACCESSIBLE BARRIER FREE PARKING SIGN
- R BARRIER FREE SIDEWALK RAMP
- PROP. CURB & GUTTER
- PROP. BITUMINOUS PAVEMENT
- ▨ PROP. CONCRETE PAVEMENT
- ▩ PROP. HEAVY DUTY CONCRETE PAVEMENT
- ▧ PROP. CONCRETE PAVERS
- ▲ PROP. SIGN
- PROP. SINGLE LIGHT POLE
- ⊙ PROP. DOUBLE LIGHT POLE
- ⊛ PROP. PEDESTRIAN LIGHT FIXTURE
- ⊞ PROP. WALL OR CANOPY MOUNTED LIGHT
- ▭ PROP. FLAG POLE

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 GROUP 10 MANAGEMENT  
 29220 NORTHWESTERN HWY, SUITE 450  
 SOUTHWALK, MI 48034  
 M. JACK KOWLES  
 248.855.2100

**RESIDENCE INN**  
 FINAL SITE PLAN  
 SITE LAYOUT PLAN

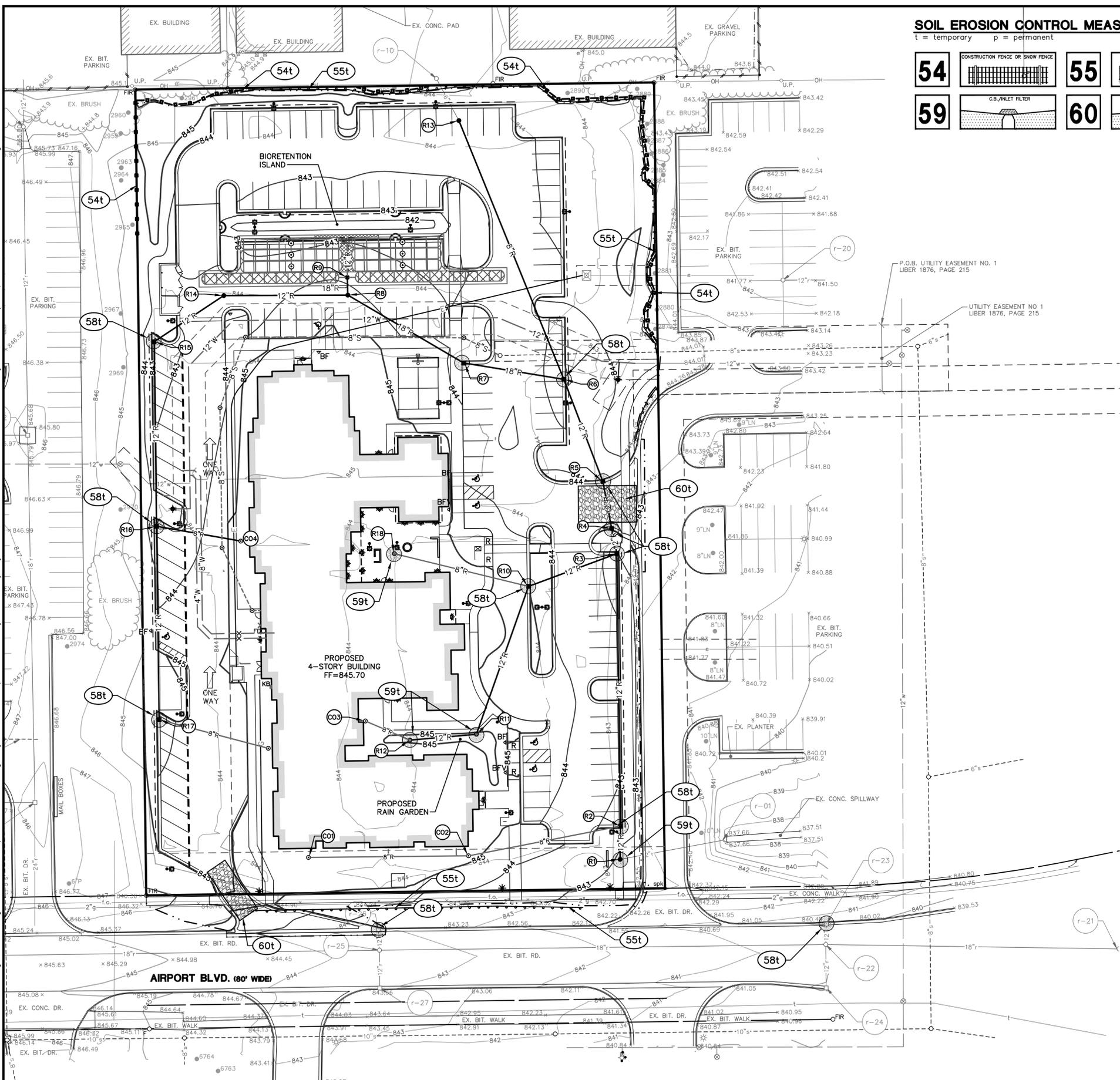
**5**

DATE: 11/18/19	REV. DATE:	REV. DATE:	REV. DATE:
SHEET 5 OF 35	01/21/20	07/20/20	07/13/20
	CADD: GTS	ENG: RTH	PM: TJC
		TECH: JTC	
		PER MUNICIPAL REVIEW	
		FINN/19117591	

The underground utilities shown have been located from field survey information and existing records. The surveyor makes no guarantees that the underground utilities shown comprise all such utilities in the area, either in-service or abandoned. The surveyor further does not warrant that the underground utilities shown are in the exact location indicated. Although the surveyor does certify that they are located as accurately as possible from the information available.



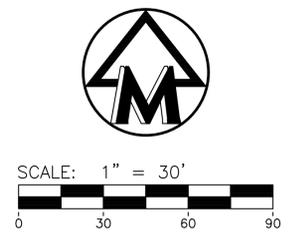
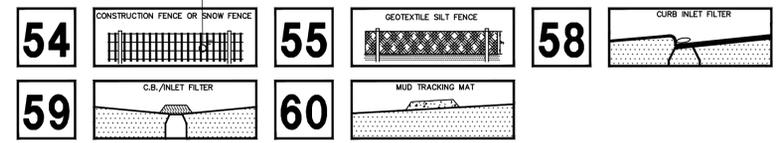
M:\Civil\132\_P\19117\19117.dwg, 6/17/2020 1:14 PM, Chir's T. Somers, 8 OVERALL GRADING AND SOIL EROSION CONTROL PLAN, MCLLC PDF, p.3  
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### SOIL EROSION CONTROL MEASURES

t = temporary p = permanent



### PROGRAM PROPOSAL

THE OWNER SHALL BE RESPONSIBLE FOR THE MAINTENANCE AND REPLACEMENT, IF NECESSARY, OF ANY AND ALL OF THE PERMANENT SOIL EROSION CONTROL FEATURES ASSOCIATED WITH SEDIMENT AND SOIL EROSION CONTROL WITHIN THE DEVELOPMENT. THE FINANCIAL IMPLICATION OF SAID MAINTENANCE WILL BE THE RESPONSIBILITY OF THE OWNER.

### NOTES

- ALL ROOF AND SUMP DRAINAGE MUST BE DIRECTED INTO THE STORM SYSTEM. SUMP DRAINAGE SHALL TIE DIRECTLY INTO THE NEAREST CATCH BASIN.
- ALL UTILITIES SHALL BE CONSTRUCTED IN ACCORDANCE WITH PITTSFIELD TOWNSHIP STANDARD DETAILS AND SPECIFICATION UNLESS OTHERWISE NOTED.
- ALL MATERIAL USED FOR FILL UNDER STRUCTURAL IMPROVEMENTS SHALL CONSIST OF READILY COMPACTABLE MATERIALS MEETING THE FOLLOWING MINIMUM REQUIREMENTS:
  - NO INCLUSION OF ORGANIC OR OTHER DELETERIOUS MATERIALS WHICH MAY BE SUBJECT TO DECAY SHALL BE PERMITTED.
  - ALL FILL SHALL BE FEE OF ICE AND SNOW.
  - NO ROCK WITH A DIMENSION GREATER THAN EIGHT INCHES SHALL BE BURIED WITHIN TWO (2) FEET OF THE FINISHED GRADE OR WITHIN TWO (2) FEET OF A FOUNDATION BASE.
- EXISTING TREES TO REMAIN AS IDENTIFIED ON THE TREE PROTECTION PLAN ARE TO BE PROTECTED DURING LAND CLEARING, DEVELOPMENT, AND CONSTRUCTION THROUGH INSTALLATION OF TREE PROTECTION FENCE AS INDICATED ON THE PLAN. NO COMPACTION OR CLEARING SHALL OCCUR WITHIN THE DRIPLINE OF TREES. TO REMAIN UNLESS OTHERWISE NOTED ON THE PLANS. FUTURE REMOVAL OF PROTECTED TREES SHALL BE APPROVED BY PITTSFIELD TOWNSHIP.
- REMOVAL OF ANY REGULATED TREES IDENTIFIED AS TO REMAIN ON THE PLANS WILL REQUIRE MITIGATION PER THE TOWNSHIP ZONING ORDINANCE.
- TREE PROTECTION FENCE SHALL BE REMOVED AS NECESSARY TO INSTALL PLANTINGS ALONG PERIMETER OF PROPERTY. CARE SHALL BE TAKEN TO AVOID COMPACTION TO EXISTING SOILS AND TO MINIMIZE DISTURBANCE TO EXISTING TREES WITHIN THESE ZONES.
- ALL SIDEWALKS SHALL BE CONSTRUCTED PER CURRENT ADA STANDARDS.

### LEGEND

	EXIST. CONTOUR
	PROP. CONTOUR
	EXIST. SPOT ELEVATION
	PROP. SPOT ELEVATION
	EXIST. UTILITY POLE
	EXIST. UTILITY POLE W/ TRANS.
	GUY WIRE
	ELEC. TRANSFORMER
	EXIST. OVERHEAD UTILITY LINE
	EXIST. LIGHT POLE
	EXIST. TELEPHONE LINE
	EXIST. ELECTRIC LINE
	EXIST. GAS LINE
	EXIST. GAS VALVE
	EXIST. FIBER OPTIC LINE
	EXIST. WATER MAIN
	PROP. WATER MAIN
	EXIST. HYDRANT
	PROP. HYDRANT
	EXIST. GATE VALVE IN BOX
	PROP. GATE VALVE IN BOX
	EXIST. GATE VALVE IN WELL
	PROP. GATE VALVE IN WELL
	EXIST. CURB STOP & BOX
	PROP. CURB STOP & BOX
	REDUCER
	EXIST. BLOW-OFF
	PROP. BLOW-OFF
	POST INDICATOR VALVE
	THRUST BLOCK
	PROP. KNOXBOX
	EXIST. STORM SEWER
	PROP. STORM SEWER
	EXIST. CATCH BASIN OR INLET
	PROP. CATCH BASIN OR INLET
	EXIST. BEEHIVE INLET
	PROP. BEEHIVE INLET
	EXIST. CLEANOUT
	PROP. CLEANOUT
	C/L OF DITCH
	DRAINAGE DIRECTION
	SIGN
	SINGLE TREE
	TREE OR BRUSH LIMIT
	FENCE
	SILTFENCE
	LIMITS OF DISTURBANCE
	CONSTRUCTION FENCE

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 SOUTHFIELD, MI 48034  
 M. JACK KNOWLES  
 248.855.2100

RESIDENCE INN

FINAL SITE PLAN  
 OVERALL GRADING AND SOIL EROSION CONTROL PLAN

8

19117

DATE: 11/18/19  
 SHEET 8 OF 35  
 REV. DATE: 1/21/20  
 CADD: GTS  
 REVISED ENTRY: 2/20/20  
 ENG: RTH  
 PM: TJC  
 TECH: JTB  
 FINN/19117SP1



SCALE: 1" = 20'



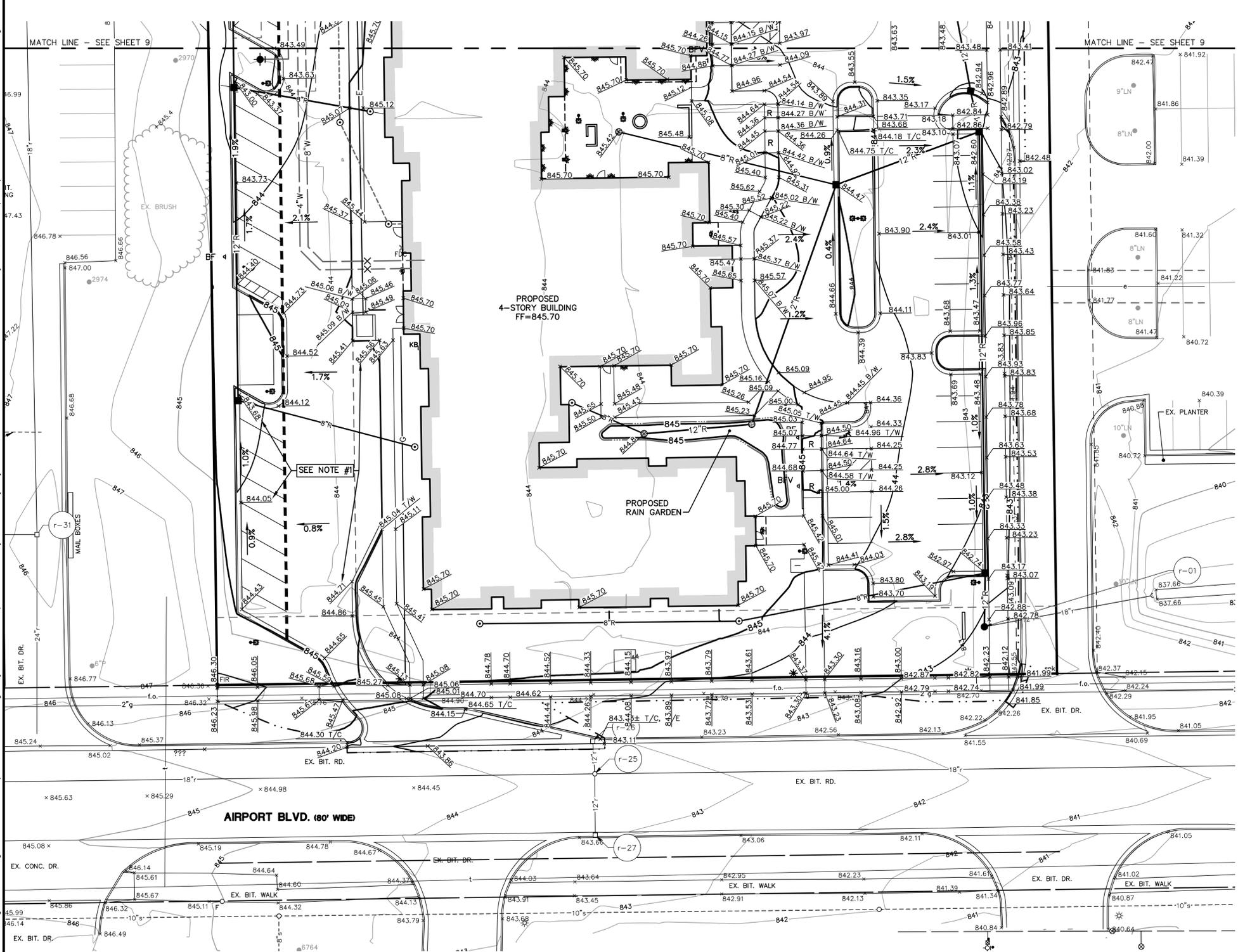
Know what's below.  
Call before you dig.

**NOTES**

- ALL SPOT ELEVATIONS AT INTEGRAL CURB SIDEWALK ARE AT TOP OF WALK, UNLESS SPECIFIED OTHERWISE. ALL SPOT ELEVATIONS AT CURB AND GUTTER ARE SHOWN AT EDGE OF METAL, UNLESS SPECIFIED OTHERWISE.
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**LEGEND**

	EXIST. CONTOUR
	PROP. CONTOUR
	EXIST. SPOT ELEVATION
	PROP. SPOT ELEVATION
	EXIST. UTILITY POLE
	EXIST. UTILITY POLE W/ TRANS.
	GUY WIRE
	ELEC. TRANSFORMER
	EXIST. OVERHEAD UTILITY LINE
	EXIST. LIGHT POLE
	PROP. LIGHT POLE
	EXIST. TELEPHONE LINE
	EXIST. ELECTRIC LINE
	EXIST. GAS LINE
	EXIST. GAS VALVE
	EXIST. FIBER OPTIC LINE
	EXIST. WATER MAIN
	PROP. WATER MAIN
	EXIST. HYDRANT
	PROP. HYDRANT
	EXIST. GATE VALVE IN BOX
	PROP. GATE VALVE IN BOX
	EXIST. GATE VALVE IN WELL
	PROP. GATE VALVE IN WELL
	EXIST. CURB STOP & BOX
	PROP. CURB STOP & BOX
	EXIST. STORM SEWER
	PROP. STORM SEWER
	EXIST. CATCH BASIN OR INLET
	PROP. CATCH BASIN OR INLET
	EXIST. BEEHIVE INLET
	PROP. BEEHIVE INLET
	EXIST. PROP. ROOF DRAIN
	END SECTION
	CULVERT
	PROP. DOWNSPOUT
	EXIST. SANITARY SEWER
	PROP. SANITARY SEWER
	EXIST. CLEANOUT
	PROP. CLEANOUT
	C/L OF DITCH
	SIGN
	SINGLE TREE
	TREE OR BRUSH LIMIT
	FENCE
	LIMITS OF DISTURBANCE



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M:\Civ\132\_P\19117\Final\1911702.dwg, 6/17/2020 1:17 PM, Chris T. Somers, 10 DETAILED GRADING PLAN - SOUTH, MCLLC P0F.pcf  
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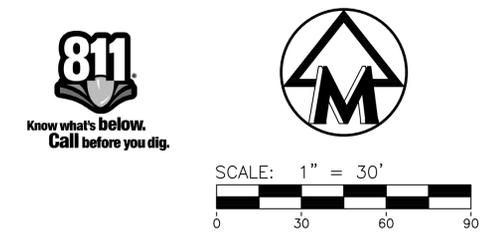
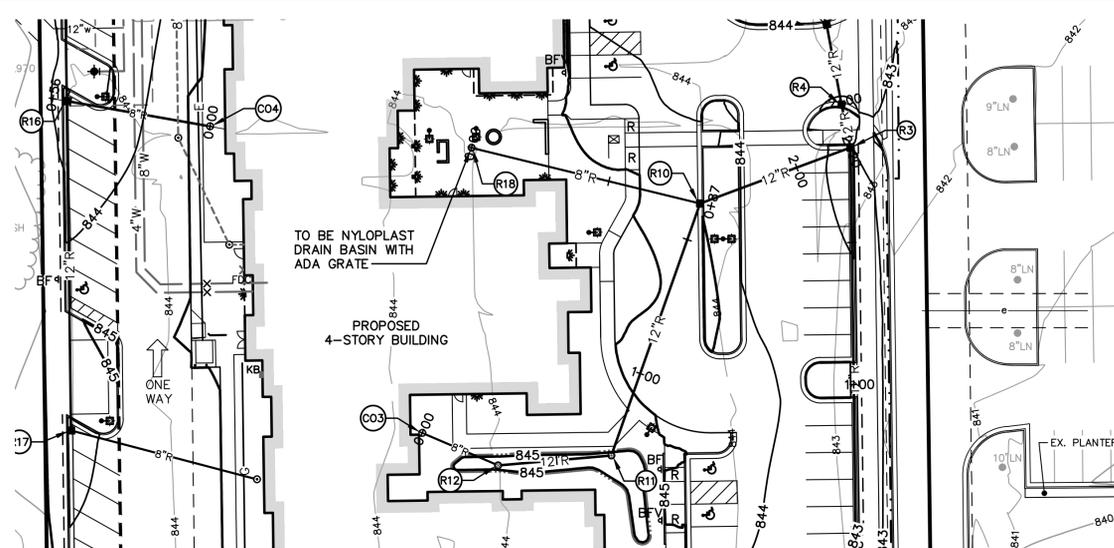
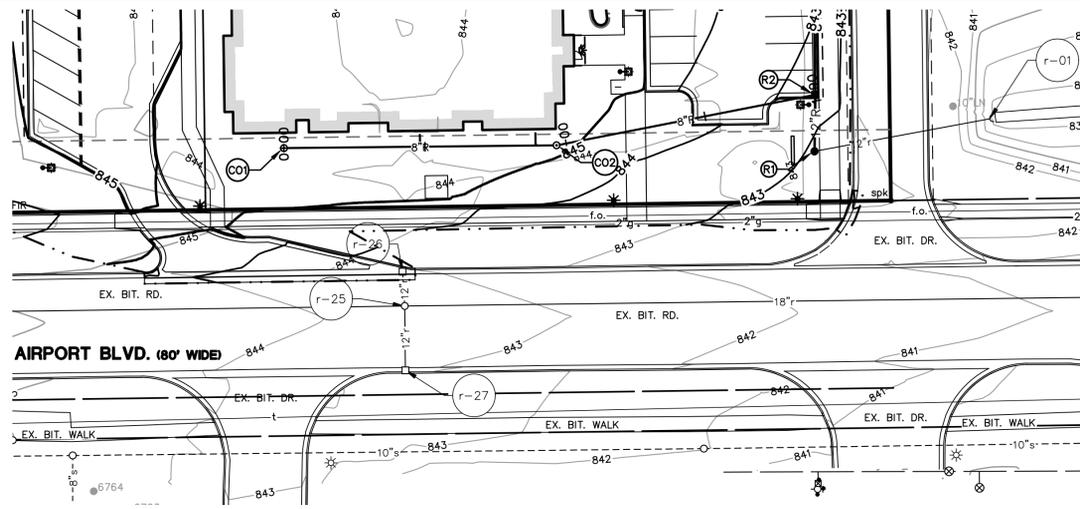
**CLIENT**  
 GROUP 10 MANAGEMENT  
 29220 NORTHWESTERN HWY, SUITE 450  
 SOUTHFIELD, MI 48034  
 M. JACK KROWLES  
 248.855.2100

**RESIDENCE INN**  
 FINAL SITE PLAN  
 DETAILED GRADING PLAN - SOUTH

**10**

JOB No.	19117
DATE:	11/18/19
SHEET 10 OF 35	
REV. DATE	11/21/20
REV. BY	CADD: GTS
REV. DATE	2/20/20
REV. BY	ENG: RTH
REV. DATE	4/13/20
REV. BY	PM: TJC
REV. DATE	7/13/20
REV. BY	TECH: [blank]
REV. DATE	FINC/191702P2

M:\Civ\132\_P\19117\19117.dwg, 6/17/2020 1:19 PM, Chr's T. Somers, 13 STORM SEWER PLAN AND PROFILE.LIC, MCLLC PDF, p.3  
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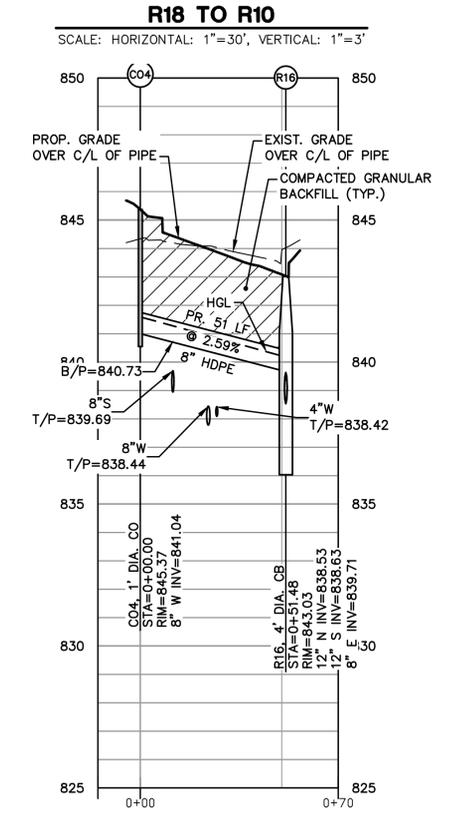
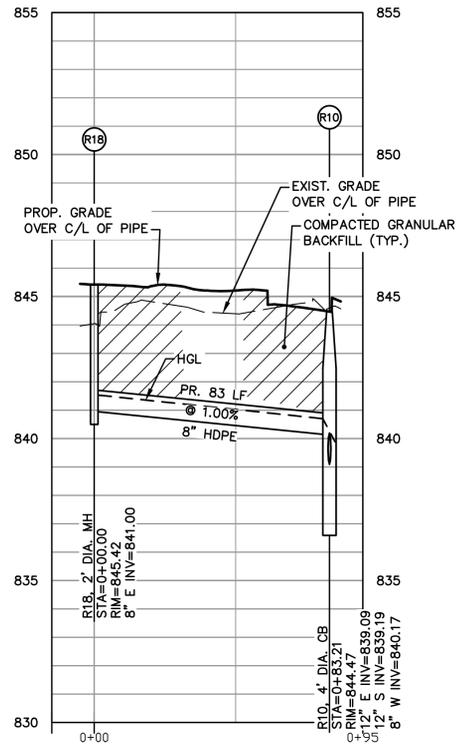
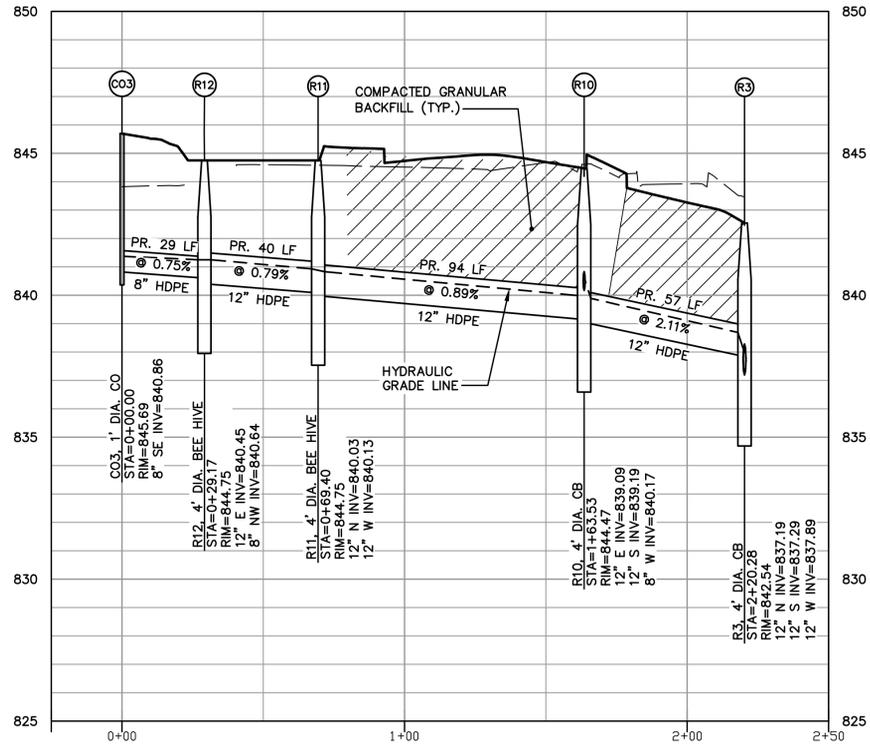
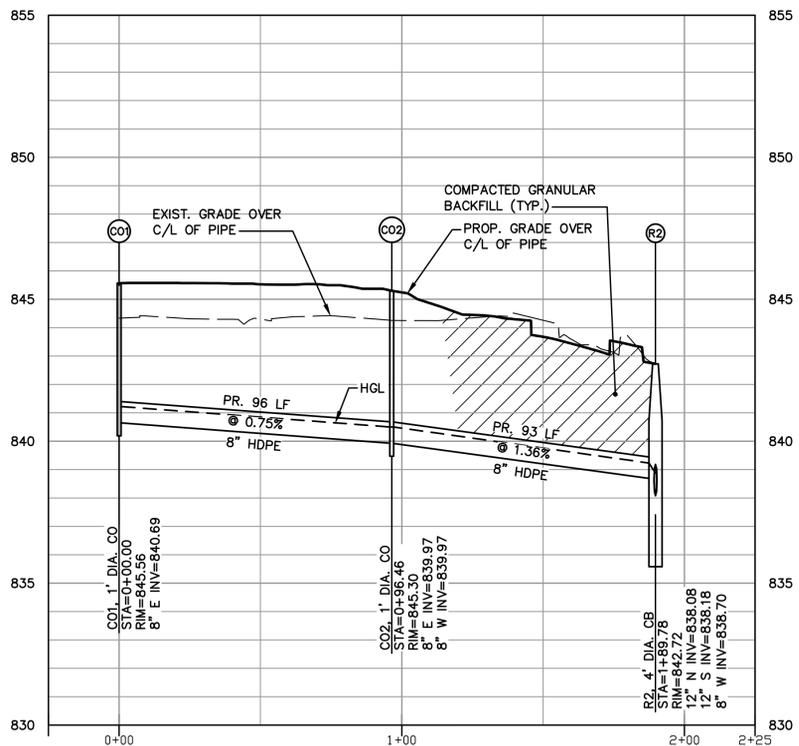


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SOUTHFIELD, MI 48034  
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248.855.2100

**RESIDENCE INN**  
FINAL SITE PLAN  
STORM SEWER PLAN AND PROFILE

**13**

JOB No.	19117
DATE	11/18/19
REV. DATE	1/21/20
REVISED ENTRY	2/20/20
PER MUNICIPAL REVIEW	4/13/20
DATE	11/18/19
REV. DATE	1/21/20
REVISED ENTRY	2/20/20
PER MUNICIPAL REVIEW	4/13/20

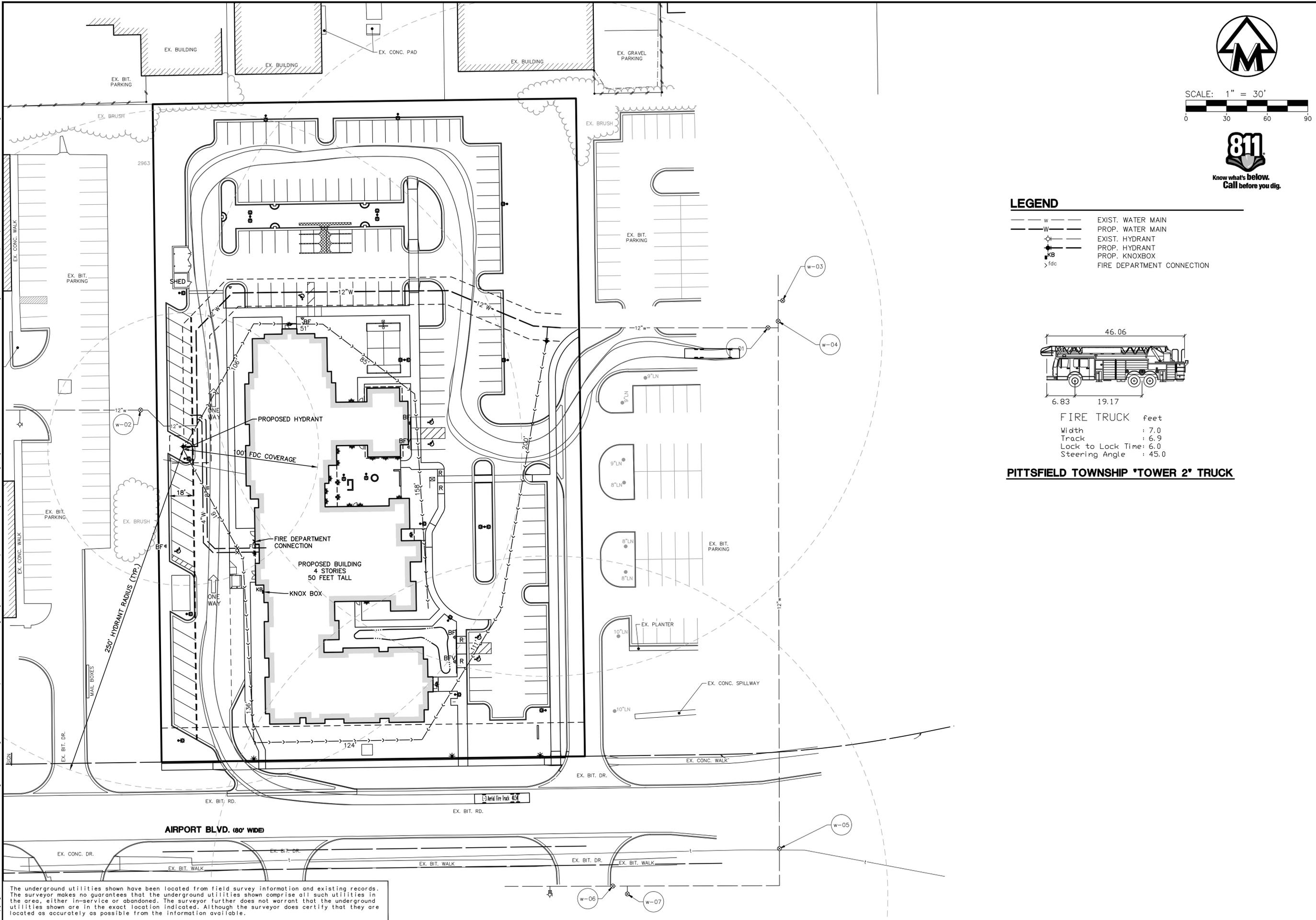


- NOTES**
- ALL ROOF AND SUMP DRAINAGE MUST BE DIRECTED INTO THE STORM SEWER.
  - ALL UTILITIES SHALL BE CONSTRUCTED IN ACCORDANCE WITH PITTSFIELD TOWNSHIP STANDARD DETAILS AND SPECIFICATION UNLESS OTHERWISE NOTED.
  - ALL SIDEWALKS SHALL BE CONSTRUCTED PER CURRENT ADA STANDARDS.

**LEGEND**

	EXIST. LIGHT POLE		EXIST. STORM SEWER
	PROP. LIGHT POLE		PROP. STORM SEWER
	EXIST. BUILDING LIGHT		EXIST. CATCH BASIN OR INLET
	EXIST. TELEPHONE LINE		PROP. CATCH BASIN OR INLET
	PROP. TELEPHONE LINE		EXIST. BEEHIVE INLET
	EXIST. ELECTRIC LINE		PROP. BEEHIVE INLET
	PROP. ELECTRIC LINE		EXIST. ROOF DRAIN
	EXIST. GAS LINE		END SECTION
	PROP. GAS LINE		HEAD WALL
	EXIST. GAS VALVE		CULVERT
	EXIST. FIBER OPTIC LINE		EXIST. DOWNSPOUT
	PROP. FIBER OPTIC LINE		PROP. DOWNSPOUT
	EXIST. WATER MAIN		TELEPHONE RISER
	PROP. WATER MAIN		CABLE TELEVISION RISER
	EXIST. HYDRANT		ELECTRIC METER
	PROP. HYDRANT		WATER METER
	EXIST. GATE VALVE IN BOX		SPRINKLER CONTROL BOX
	PROP. GATE VALVE IN BOX		GAS METER
	EXIST. GATE VALVE IN WELL		GAS LINE MARKER
	PROP. GATE VALVE IN WELL		FIBER OPTIC MARKER
	EXIST. CURB STOP & BOX		EXIST. UTILITY POLE
	PROP. CURB STOP & BOX		EXIST. UTILITY POLE W/ TRANS.
	EXIST. KNOBBOX		EXIST. GUY POLE
	EXIST. SANITARY SEWER		EXIST. GUY WIRE
	PROP. SANITARY SEWER		EXIST. TRANSFORMER
	EXIST. CLEANOUT		EXIST. OVERHEAD UTILITY LINE
	PROP. CLEANOUT		

M:\Civ\132\_P\01911771\Final\1911771.dwg, 6/17/2020 1:20 PM, Chris T. Somers, 18 FIRE ACCESS PLAN, MLLC PDF.p3  
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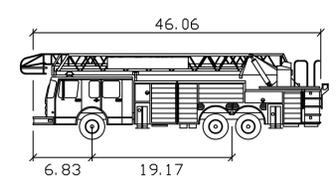


SCALE: 1" = 30'



**LEGEND**

- w — EXIST. WATER MAIN
- - - W - - - PROP. WATER MAIN
- ⊕ EXIST. HYDRANT
- ⊕ PROP. HYDRANT
- KB PROP. KNOXBOX
- > fdc FIRE DEPARTMENT CONNECTION



**FIRE TRUCK** feet

- Width : 7.0
- Track : 6.9
- Lock to Lock Time: 6.0
- Steering Angle : 45.0

**PITTSFIELD TOWNSHIP 'TOWER 2' TRUCK**

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 SOUTHFIELD, MI 48034  
 M. JACK KKWOWLES  
 248.855.2100

**19117**

JOB No.

DATE: 11/18/19

SHEET 18 OF 35

REV. DATE

2/28/20 CADD: GTS

4/13/20 ENG: HTH

PM: TJC

TECH: TJC

FINIS/191177A1

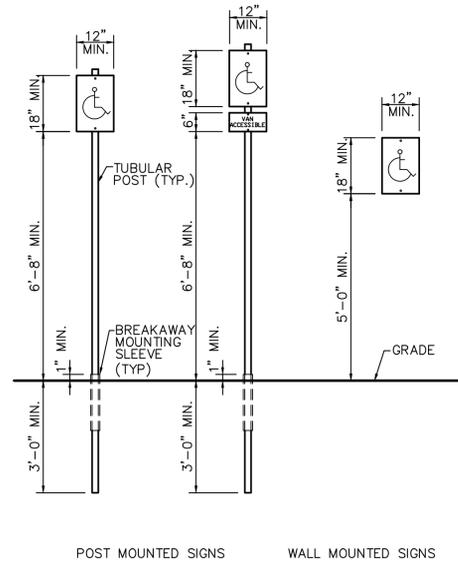
**RESIDENCE INN**

FINAL SITE PLAN

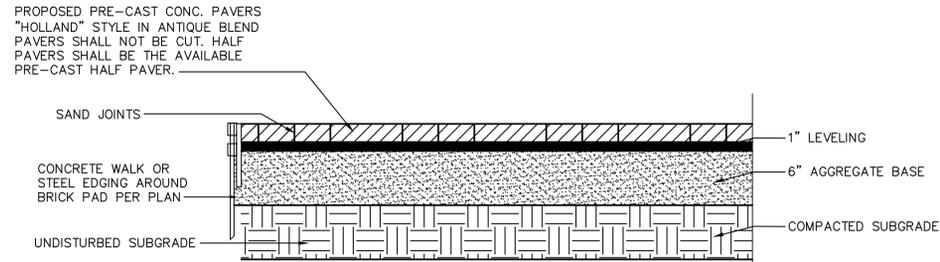
FIRE ACCESS PLAN

**18**

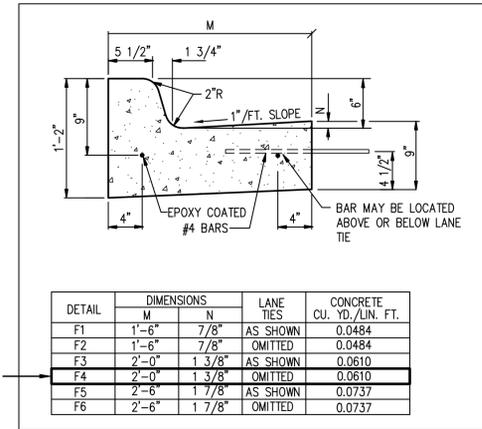
M:\Civ\134\_P\19117\19117.dwg, 6/17/2020 1:22 PM, Chris T. Somers, 19 SITE DETAILS, MCLC PDF, .pc3  
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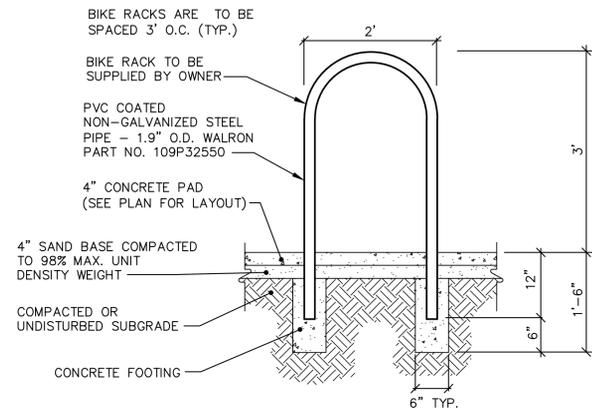
**TYPICAL HANDICAP PARKING SIGNS**  
SCALE: 1/2" = 1'-0"



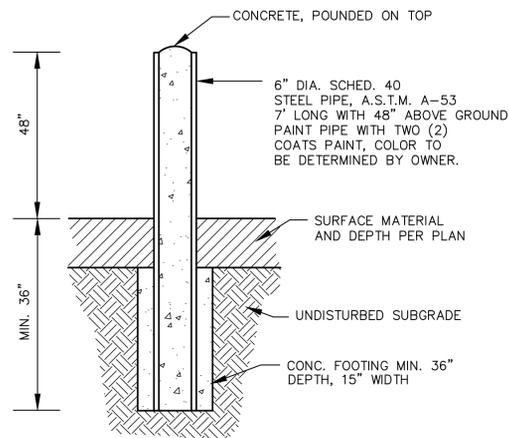
**CONCRETE PAVER DETAIL**  
NOT TO SCALE



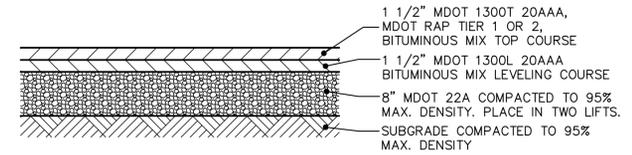
**MDOT TYPE F CONCRETE CURB / GUTTER**  
NOT TO SCALE



**BIKE HOOP DETAIL**  
NOT TO SCALE

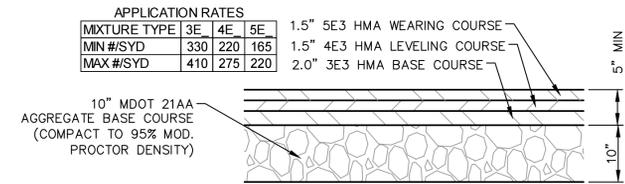


**PIPE BOLLARD DETAILS**  
NOT TO SCALE

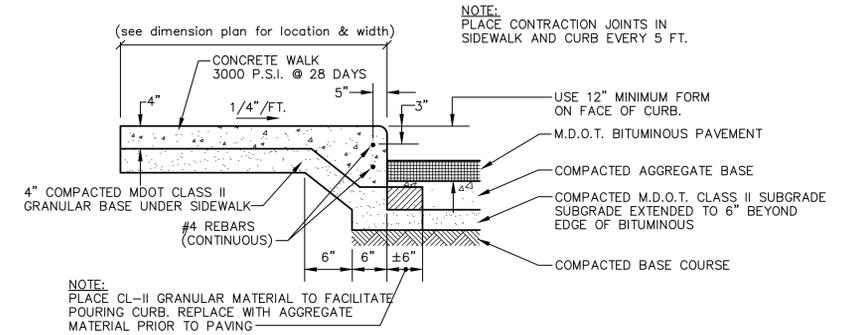


NOTE:  
 1. SECTION MAY VARY DEPENDING ON SUBGRADE. DESIGNER TO SUBMIT PAVEMENT DESIGN VERIFICATION.  
 2. BITUMINOUS MIX DESIGN TO BE MDOT RECYCLED TIER 1 OR TIER 2 PER 12SP501(E).

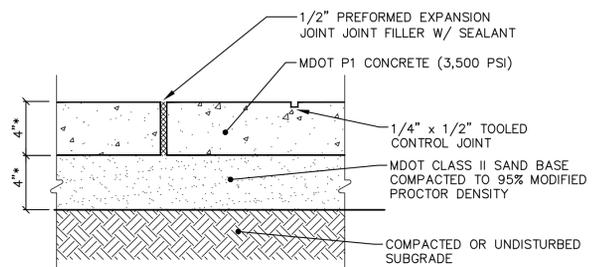
**TYPICAL PARKING LOT CROSS SECTION DETAIL**  
NOT TO SCALE  
MINIMUM REQUIREMENT



**BITUMINOUS PAVEMENT - PUBLIC R.O.W.**  
NOT TO SCALE

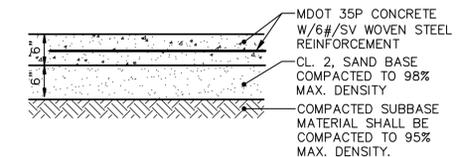


**TYPICAL INTEGRAL WALK / CURB**  
NOT TO SCALE



NOTE:  
 \* INCREASE CONCRETE WALK TO 6" WHEN CROSSING A SINGLE-FAMILY OR DOUBLE-FAMILY DRIVEWAY, AND TO 8" FOR COMMERCIAL DRIVE CROSSINGS. USE 6" CLASS II SAND BASE AT RESIDENTIAL DRIVE CROSSINGS, AND 8" 21AA AGGREGATE BASE (98% MODIFIED PROCTOR) AT COMMERCIAL DRIVE CROSSINGS.

**CONCRETE WALK DETAIL**  
NOT TO SCALE

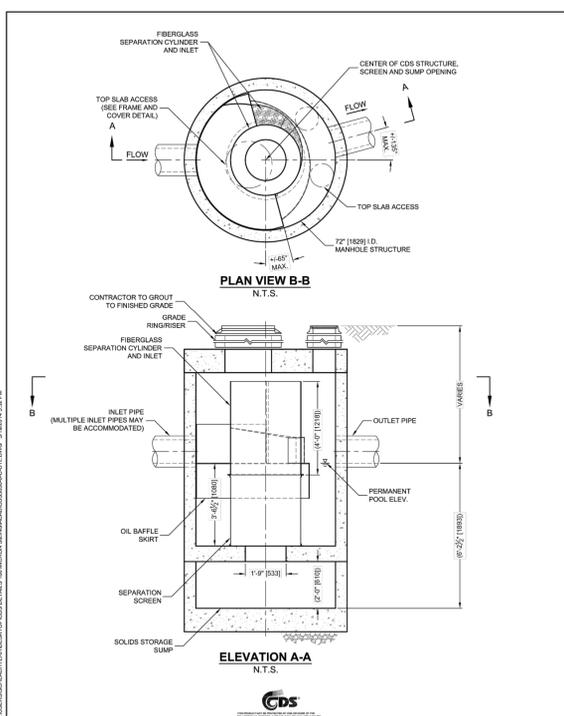


**HEAVY DUTY CONCRETE**  
NOT TO SCALE



DATE: 11/18/19	SHEET 19 OF 35
REV. DATE	CADD: GTS
2/20/20	ENG: RTH
4/13/20	PM: TJC
6/19/20	TECH:
	FINC/1917BD1
<b>19117</b>	
JOB No.	
REVISIONS:	
PER MUNICIPAL REVIEW	
PER WCRS REVIEW	

M:\Civil\134\_P\19117\19117.dwg, 6/17/2020 1:22 PM, Chir T. Somers, 20 SITE DETAILS, MCLLC PDF, p.3  
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**CDS3030-6-C DESIGN NOTES**

THE STANDARD CDS3030-6-C CONFIGURATION IS SHOWN. ALTERNATE CONFIGURATIONS ARE AVAILABLE AND ARE LISTED BELOW. SOME CONFIGURATIONS MAY BE COMBINED TO SUIT SITE REQUIREMENTS.

CONFIGURATION DESCRIPTION	REMARKS
GRATED INLET ONLY (NO INLET PIPE)	
GRATED INLET WITH INLET PIPE OR PIPES	
CURB INLET ONLY (NO INLET PIPE)	
CURB INLET WITH INLET PIPE OR PIPES	
SEWAGE OIL Baffle (DOUBLE INLET PIPE REQUIRED FOR THIS CONFIGURATION)	
SEDIMENT WEIR FOR NUDEP/NUCAT CONFORMING UNITS	

SITE SPECIFIC DATA REQUIREMENTS	
STRUCTURE ID	
WATER QUALITY FLOW RATE (CFS OR L/S)	
PEAK FLOW RATE (CFS OR L/S)	
RETURN PERIOD OF PEAK FLOW (YRS)	
SCREEN APERTURE (2400 OR 4700)	
PIPE DATA	IE MATERIAL DIAMETER
INLET PIPE 1	
INLET PIPE 2	
OUTLET PIPE	
RIM ELEVATION	
ANTI-FLOTATION BALLAST	WIDTH HEIGHT
NOTES/SPECIAL REQUIREMENTS	
* PER ENGINEER OF RECORD	

**GENERAL NOTES:**

- CONTECH TO PROVIDE ALL MATERIALS UNLESS NOTED OTHERWISE.
- DIMENSIONS MARKED WITH 1 ARE REFERENCE DIMENSIONS. ACTUAL DIMENSIONS MAY VARY.
- FOR FABRICATION DRAWINGS WITH DETAILED STRUCTURE DIMENSIONS AND WEIGHTS, PLEASE CONTACT YOUR CONTECH ENGINEERED SOLUTIONS LLC REPRESENTATIVE. [www.contech.com](http://www.contech.com)
- CDS WATER QUALITY STRUCTURE SHALL BE IN ACCORDANCE WITH ALL DESIGN DATA AND INFORMATION CONTAINED IN THIS DRAWING.
- STRUCTURE SHALL MEET AASHTO H-20 AND TRUCKS SHALL MEET H-20 (ASHTO) X 3000 LOAD RATING, ASSUMING GROUNDWATER ELEVATION AT OR BELOW THE OUTLET PIPE INVERT ELEVATION. ENGINEER OF RECORD TO CONFIRM ACTUAL GROUNDWATER ELEVATION.
- PVC HYDRAULIC SHEAR PLATE IS PLACED ON SHELF AT BOTTOM OF SCREEN CYLINDER. REMOVE AND REPLACE AS NECESSARY DURING MAINTENANCE CLEANING.

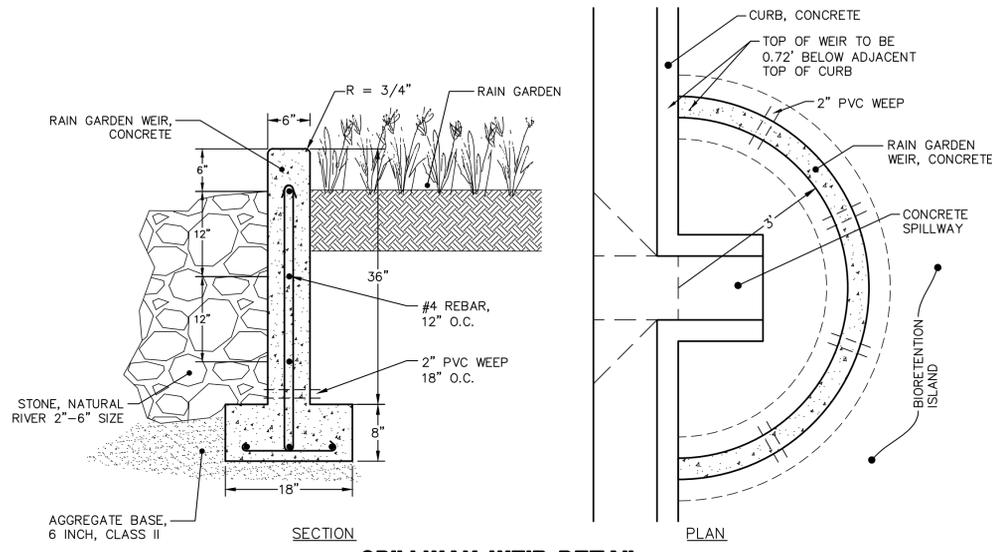
**INSTALLATION NOTES:**

- ANY SUBBASE, BACKFILL DEPTH, AND/OR ANTI-FLOTATION PROVISIONS ARE SITE-SPECIFIC DESIGN CONSIDERATIONS AND SHALL BE SPECIFIED BY ENGINEER OF RECORD.
- CONTRACTOR TO PROVIDE EQUIPMENT WITH SUFFICIENT LIFTING AND REACH CAPACITY TO LIFT AND SET THE CDS MANHOLE STRUCTURE (LIFTING CLUTCHES PROVIDED).
- CONTRACTOR TO ADD JOINT SEALANT BETWEEN ALL STRUCTURE SECTIONS, AND ASSEMBLE STRUCTURE.
- CONTRACTOR TO PROVIDE, INSTALL, AND GROUT PIPES. MATCH PIPE INVERTS WITH ELEVATIONS SHOWN.
- CONTRACTOR TO TAKE APPROPRIATE MEASURES TO ASSURE UP TO WATER TIGHT, HOLDING WATER TO FLOWLINE INVERT MINIMUM. IT IS SUGGESTED THAT ALL JOINTS BELOW PIPE INVERTS ARE GROUTED.

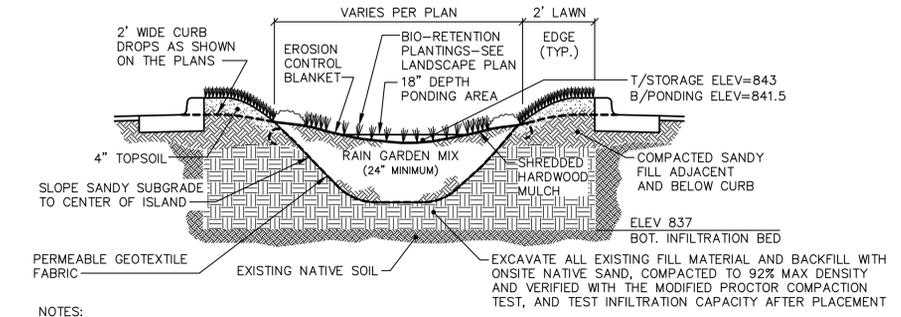
**CONTECH ENGINEERED SOLUTIONS LLC**  
 8025 Centre Pointe Dr., Suite 100, West Chester, OH 45380  
 800.336.1122 513.645.7000 513.645.7993 FAX

CDS3030-6-C  
 INLINE CDS  
 STANDARD DETAIL

**WATER QUALITY UNIT (R8)**  
NOT TO SCALE

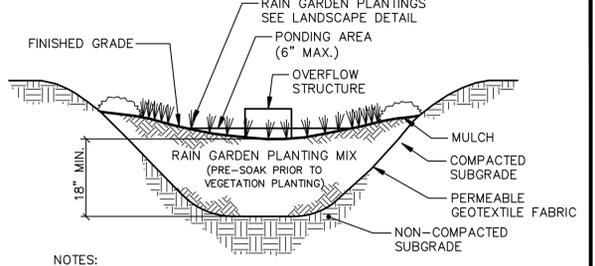


**SPILLWAY WEIR DETAIL**  
NO SCALE

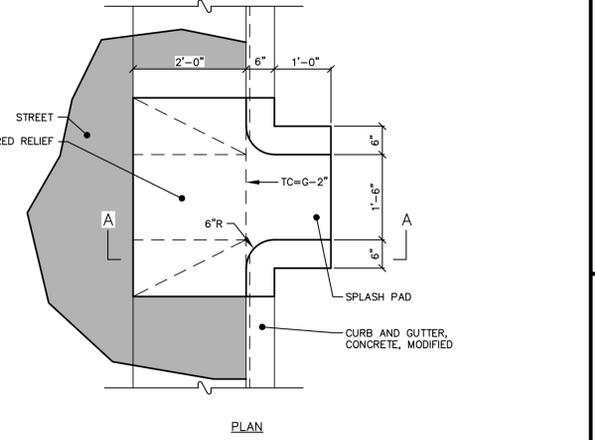


- NOTES:**
- RAIN GARDEN PLANTING SOIL SHALL HAVE A SANDY LOAM, LOAMY SAND, OR LOAM TEXTURE PER THE USDA TEXTURAL TRIANGLE. THE SOIL MIXTURE SHOULD HAVE PH BETWEEN 5.5 AND 6.6. THE SOIL MIXTURE SHALL HAVE MAXIMUM CLAY CONTENT OF 10% AND 20-30% COMPOST. PRE-SOAK PRIOR TO VEGETATION PLANTING TO AID IN SETTLEMENT.
  - RAIN GARDEN PLANTING MIXTURE SHALL HAVE AN INFILTRATION RATE GREATER THAN 0.5 IN/HR. PERMEABILITY SHALL BE VERIFIED BY INFILTRATION PRIOR TO ACCEPTANCE.
  - REMOVE STONES, ROOTS, PLANTS, SOIL, CLODS, CLAY LUMPS, POCKETS OF COARSE BUILDIN DEBRIS, AND OTH EXTRANEIOUS MATERIALS HARMFUL TO PLANT GROWTH. PLANTING SOIL SHALL BE FREE OF WEED SEED INCLUDING BUT NOT LIMITED TO BERMUDA GRASS, QUACK GRASS, JOHNSON GRASS, MUGWORT, NUTSEDEGE, POISON IVY, CANADIAN THISTLE, TEARHUB, ETC.
  - SAND SHALL BE CLEAN AND FREE OF DELETERIOUS MATERIALS.
  - INFILTRATION TESTING OF NEWLY PLACED FILL MUST BE VERIFIED TO MEET THE DESIGN INFILTRATION RATE PRIOR TO PLACEMENT OF PLANTING SOIL.
  - MULCH SHALL CONSIST OF SHREDDED HARDWOOD MULCH, MDT QUALITY PRODUCT LIST.
  - GEOTEXTILE FABRIC SHALL MAINTAIN FLOW RATE OF 125GPM PER SQUARE FOOT PER MDT SPECIFICATIONS.

**BIORETENTION ISLAND DETAIL**  
NOT TO SCALE



**RAIN GARDEN DETAIL**  
NOT TO SCALE

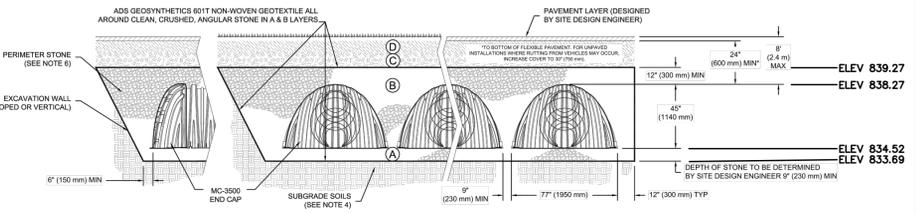


**SPILLWAY, CONCRETE DETAIL**  
NOT TO SCALE

**ACCEPTABLE FILL MATERIALS: STORMTECH MC-3500 CHAMBER SYSTEMS**

MATERIAL LOCATION	DESCRIPTION	AASHTO MATERIAL CLASSIFICATIONS	COMPACTION / DENSITY REQUIREMENT
D	FINAL FILL: FILL MATERIAL FOR LAYER 'D' STARTS FROM THE TOP OF THE 'C' LAYER TO THE BOTTOM OF FLEXIBLE PAVEMENT OR UNPAVED FINISHED GRADE ABOVE. NOTE THAT PAVEMENT SUBBASE MAY BE PART OF THE 'D' LAYER.	N/A	PREPARE PER SITE DESIGN ENGINEER'S PLANS. PAVED INSTALLATIONS MAY HAVE STRINGENT MATERIAL AND PREPARATION REQUIREMENTS.
C	INITIAL FILL: FILL MATERIAL FOR LAYER 'C' STARTS FROM THE TOP OF THE EMBEDEDMENT STONE (IF LAYERS TO 24" (600 mm) ABOVE THE TOP OF THE CHAMBER, NOTE THAT PAVEMENT SUBBASE MAY BE A PART OF THE 'C' LAYER.	AASHTO M1457 A-1, A-2, A-3 OR AASHTO M37 3, 357, 4, 487, 5, 56, 57, 6, 67, 68, 7, 78, 8, 85, 9, 10	BEGIN COMPACTIONS AFTER 24" (600 mm) OF MATERIAL OVER THE CHAMBERS IS REACHED. COMPACT ADDITIONAL LAYERS IN 12" (300 mm) MAX LIFTS TO A MIN. 98% PROCTOR DENSITY FOR WELL GRADED MATERIAL, AND 90% RELATIVE DENSITY FOR PROCESSOR AGGREGATE MATERIALS.
B	EMBEDMENT STONE: FILL SURROUNDING THE CHAMBERS FROM THE FOUNDATION STONE ('A' LAYERS) TO THE 'C' LAYER ABOVE.	AASHTO M37 3, 4	NO COMPACTION REQUIRED.
A	FOUNDATION STONE: FILL BELOW CHAMBERS FROM THE SUBGRADE UP TO THE FOOT (BOTTOM) OF THE CHAMBER.	AASHTO M37 3, 4	PLATE COMPACT OR ROLL TO ACHIEVE A FLAT SURFACE.

- PLEASE NOTE:**
- THE LISTED AASHTO DESIGNATIONS ARE FOR GRADATIONS ONLY. THE STONE MUST ALSO BE CLEAN, CRUSHED, ANGULAR, NO. 4 (SAND/10MM) STONES.
  - STORMTECH COMPACTION REQUIREMENTS ARE MET FOR 'A' LOCATION MATERIALS WHEN PLACED AND COMPACTED IN 9" (230 mm) (MAX) LIFTS USING TWO FULL COVERSAGES WITH A VIBRATORY COMPACTOR.
  - WHERE INFILTRATION SURFACES MAY BE COMPROMISED BY COMPACTION, FOR STANDARD DESIGN LOAD CONDITIONS, A FLAT SURFACE MAY BE ACHIEVED BY RAKING OR DRAGGING WITHOUT COMPACTOR EQUIPMENT FOR SPECIAL LOAD DESIGNS, CONTACT STORMTECH FOR COMPACTION REQUIREMENTS.



\*FOR COVER DEPTHS GREATER THAN 8.0' (2.4 m) PLEASE CONTACT STORMTECH

- NOTES:**
- MC-3500 CHAMBERS SHALL CONFORM TO THE REQUIREMENTS OF ASTM F2118 "STANDARD SPECIFICATION FOR POLYPROPYLENE (PP) CORRUGATED WALL, STORMWATER COLLECTION CHAMBERS".
  - MC-3500 CHAMBERS SHALL BE DESIGNED IN ACCORDANCE WITH ASTM F2129 "STANDARD PRACTICE FOR STRUCTURAL DESIGN OF THERMOPLASTIC CORRUGATED WALL, STORMWATER COLLECTION CHAMBERS".
  - "ACCEPTABLE FILL MATERIALS" TABLE ABOVE PROVIDES MATERIAL LOCATIONS, DESCRIPTIONS, GRADATIONS, AND COMPACTION REQUIREMENTS FOR FOUNDATION, EMBEDEDMENT, AND FILL MATERIALS.
  - THE SITE DESIGN ENGINEER IS RESPONSIBLE FOR ASSESSING THE BEARING RESISTANCE (ALLOWABLE BEARING CAPACITY) OF THE SUBGRADE SOILS AND THE DEPTH OF FOUNDATION STONE WITH CONSIDERATION FOR THE RANGE OF EXPECTED SOIL MOISTURE CONDITIONS.
  - PERIMETER STONE MUST BE EXTENDED HORIZONTALLY TO THE EXCAVATION WALL FOR BOTH VERTICAL AND SLOPED EXCAVATION WALLS.
  - ONCE LAYER 'C' IS PLACED, ANY SOIL MATERIAL CAN BE PLACED IN LAYER 'D' UP TO THE FINISHED GRADE. MOST PAVEMENT SUBBASE SOILS CAN BE USED TO REPLACE THE MATERIAL REQUIREMENTS OF LAYER 'C' OR 'D' AT THE SITE DESIGN ENGINEER'S DISCRETION.

**STORMTECH CHAMBERS - UNDERGROUND DETENTION**  
NOT TO SCALE

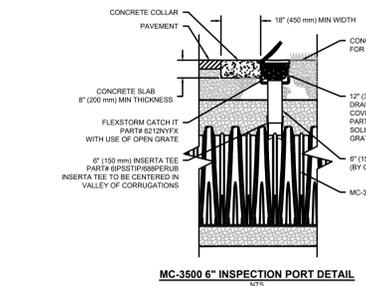
**INSPECTION & MAINTENANCE**

- STEP 1) INSPECT ISOLATOR ROW FOR SEDIMENT**
- INSPECTION PORTS (IF PRESENT)
  - REMOVE COVER LID ON NYLOPLAST INLINE DRAIN
  - USING A FLASHLIGHT AND STADA ROD, MEASURE DEPTH OF SEDIMENT AND RECORD ON MAINTENANCE LOG
  - LOWER A CAMERA INTO ISOLATOR ROW FOR VISUAL INSPECTION OF SEDIMENT LEVELS (OPTIONAL)
  - IF SEDIMENT IS AT OR ABOVE 2" (50 mm) PROCEED TO STEP 2. IF NOT, PROCEED TO STEP 3.
- STEP 2) CLEAN OUT ISOLATOR ROW USING THE JETVAC PROCESS**
- A FIXED CURLETT CLEANING NOZZLE WITH REAR FACING SPREAD OF 45° (1.1 m) OR MORE IS PREFERRED
  - APPLY MULTIPLE PASSES OF JETVAC UNTIL BACKFLOW WATER IS CLEAN
  - VACUUM STRUCTURE SLUMP AS REQUIRED
- STEP 3) REPLACE ALL COVERS, GRATES, FILTERS, AND LIDS; RECORD OBSERVATIONS AND ACTIONS.**
- STEP 4) INSPECT AND CLEAN BASINS AND MANHOLES UPSTREAM OF THE ISOLATOR SYSTEM.**

**NOTES**

- INSPECT EVERY 6 MONTHS DURING THE FIRST YEAR OF OPERATION. ADJUST THE INSPECTION INTERVAL BASED ON PREVIOUS OBSERVATIONS OF SEDIMENT ACCUMULATION AND HIGH WATER ELEVATIONS.
- CONDUCT JETTING AND VACTORING ANNUALLY OR WHEN INSPECTION SHOWS THAT MAINTENANCE IS NECESSARY.

**STORMTECH CHAMBERS - ISOLATOR ROW DETAIL**  
NOT TO SCALE



**MIDWESTERN CONSULTING**  
 3845 Plaza Drive Ann Arbor, Michigan 48108  
 (734) 995-0200 • www.midwesternconsulting.com  
 Land Development • Land Survey • Institutional • Municipal  
 Wireless Communications • Transportation • Landfill Services

**CLIENT**  
 GROUP 10 MANAGEMENT  
 29220 NORTHWESTERN HWY, SUITE 450  
 SOUTHWFIELD, MI 48034  
 M. JACK KKWOWLES  
 248.855.2100

**RESIDENCE INN**  
 FINAL SITE PLAN  
 SITE DETAILS

**20**

DATE: 11/18/19  
 SHEET 20 OF 35  
 REV. DATE 11/21/20  
 CADD: CTS  
 ENG. HTH  
 P.M.: TJC  
 TECH: HTH  
 PLS/19117D1

JOB No. 19117  
 REVISIONS:  
 PER MWRIC REVIEW  
 PER MWRIC REVIEW  
 PER MUNICIPAL REVIEW





\* MAXIMUM LANDING SLOPE IS 2.0% IN EACH DIRECTION OF TRAVEL. LANDING MINIMUM DIMENSIONS 5' x 5'. SEE NOTES.  
 \* MAXIMUM RAMP CROSS SLOPE IS 2.0%. RUNNING SLOPE 5% - 7% (8.3% MAXIMUM). SEE NOTES.

**SIDEWALK RAMP TYPE R**  
(ROLLED SIDES)

**SIDEWALK RAMP TYPE F**  
(FLARED SIDES, TWO RAMPS SHOWN)

MICHIGAN DEPARTMENT OF TRANSPORTATION  
BUREAU OF DEVELOPMENT STANDARD PLAN FOR

**SIDEWALK RAMP AND DETECTABLE WARNING DETAILS**

PREPARED BY: DESIGN DIVISION  
DRAWN BY: B.L.L.  
CHECKED BY: M.E.L.

APPROVED BY: DIRECTOR, BUREAU OF FIELD SERVICES

APPROVED BY: DIRECTOR, BUREAU OF DEVELOPMENT

F.I.R.A. APPROVAL: \_\_\_\_\_ PLAN DATE: 12-11-2017 R-28-J SHEET 1 OF 1

\* MAXIMUM LANDING SLOPE IS 2.0% IN EACH DIRECTION OF TRAVEL. LANDING MINIMUM DIMENSIONS 5' x 5'. SEE NOTES.  
 \* MAXIMUM RAMP CROSS SLOPE IS 2.0%. RUNNING SLOPE 5% - 7% (8.3% MAXIMUM). SEE NOTES.

**SIDEWALK RAMP TYPE RF**  
(ROLLED / FLARED SIDES)

**SECTION A-A**  
SECTION THROUGH CURB RAMP OPENING  
(TYPICAL ALL RAMP TYPES)

CURB TYPE	MAXIMUM RISE (INCHES)	A	B
B1	1/4	1	1
B2	1/4	1	1
B3	1/4	1	1
B4	1/4	1	1
B5	1/4	1	1
B6	1/4	1	1
B7	1/4	1	1
B8	1/4	1	1
B9	1/4	1	1
B10	1/4	1	1
B11	1/4	1	1
B12	1/4	1	1
B13	1/4	1	1
B14	1/4	1	1
B15	1/4	1	1
B16	1/4	1	1
B17	1/4	1	1
B18	1/4	1	1
B19	1/4	1	1
B20	1/4	1	1

FOR CURB TYPES SEE STANDARD PLAN R-30-SERIES

MICHIGAN DEPARTMENT OF TRANSPORTATION  
BUREAU OF DEVELOPMENT STANDARD PLAN FOR

**SIDEWALK RAMP AND DETECTABLE WARNING DETAILS**

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 \* MAXIMUM RAMP CROSS SLOPE IS 2.0%. RUNNING SLOPE 5% - 7% (8.3% MAXIMUM). SEE NOTES.

**SIDEWALK RAMP TYPE P**  
(PARALLEL RAMP)  
DO NOT USE IN AREAS WHERE FLOODING MAY OCCUR

**SIDEWALK RAMP TYPE C**  
(COMBINATION RAMP)

**SIDEWALK RAMP TYPE M**  
(MEDIAN ISLAND)

MICHIGAN DEPARTMENT OF TRANSPORTATION  
BUREAU OF DEVELOPMENT STANDARD PLAN FOR

**SIDEWALK RAMP AND DETECTABLE WARNING DETAILS**

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APPROVED BY: DIRECTOR, BUREAU OF FIELD SERVICES

APPROVED BY: DIRECTOR, BUREAU OF DEVELOPMENT

F.I.R.A. APPROVAL: \_\_\_\_\_ PLAN DATE: 12-11-2017 R-28-J SHEET 3 OF 1

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 \* MAXIMUM RAMP CROSS SLOPE IS 2.0%. RUNNING SLOPE 5% - 7% (8.3% MAXIMUM). SEE NOTES.

**SIDEWALK RAMP TYPE D**  
(DEPRESSED CORNER)  
USE ONLY WHEN INDEPENDENT DIRECTIONAL RAMPS CAN NOT BE CONSTRUCTED FOR EACH CROSSING DIRECTION

MICHIGAN DEPARTMENT OF TRANSPORTATION  
BUREAU OF DEVELOPMENT STANDARD PLAN FOR

**SIDEWALK RAMP AND DETECTABLE WARNING DETAILS**

PREPARED BY: DESIGN DIVISION  
DRAWN BY: B.L.L.  
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APPROVED BY: DIRECTOR, BUREAU OF FIELD SERVICES

APPROVED BY: DIRECTOR, BUREAU OF DEVELOPMENT

F.I.R.A. APPROVAL: \_\_\_\_\_ PLAN DATE: 12-11-2017 R-28-J SHEET 4 OF 1

\* THE DETECTABLE WARNING SURFACE SHALL BE LOCATED SO THAT THE EDGE NEAREST THE RAIL CROSSING IS 6' MINIMUM AND 15' MAXIMUM FROM THE CENTERLINE OF THE NEAREST RAIL. DO NOT PLACE DETECTABLE WARNING ON RAILROAD CROSSING MATERIAL.

**DETECTABLE WARNING AT RAILROAD CROSSING**

\* THE DETECTABLE WARNING SURFACE SHALL BE LOCATED SO THAT THE EDGE NEAREST THE ROADWAY SHOULDER IS 2' MINIMUM FROM THE SHOULDER.

**DETECTABLE WARNING AT FLUSH SHOULDER OR ROADWAY**

MICHIGAN DEPARTMENT OF TRANSPORTATION  
BUREAU OF DEVELOPMENT STANDARD PLAN FOR

**SIDEWALK RAMP AND DETECTABLE WARNING DETAILS**

PREPARED BY: DESIGN DIVISION  
DRAWN BY: B.L.L.  
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APPROVED BY: DIRECTOR, BUREAU OF FIELD SERVICES

APPROVED BY: DIRECTOR, BUREAU OF DEVELOPMENT

F.I.R.A. APPROVAL: \_\_\_\_\_ PLAN DATE: 12-11-2017 R-28-J SHEET 5 OF 1

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 \* MAXIMUM RAMP CROSS SLOPE IS 2.0%. RUNNING SLOPE 5% - 7% (8.3% MAXIMUM). SEE NOTES.

**SIDEWALK RAMP ORIENTATION**

**SECTION B-B**  
SECTION THROUGH CURB RAMP OPENING  
(TYPICAL ALL RAMP TYPES)

MICHIGAN DEPARTMENT OF TRANSPORTATION  
BUREAU OF DEVELOPMENT STANDARD PLAN FOR

**SIDEWALK RAMP AND DETECTABLE WARNING DETAILS**

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APPROVED BY: DIRECTOR, BUREAU OF FIELD SERVICES

APPROVED BY: DIRECTOR, BUREAU OF DEVELOPMENT

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 \* MAXIMUM RAMP CROSS SLOPE IS 2.0%. RUNNING SLOPE 5% - 7% (8.3% MAXIMUM). SEE NOTES.

**DOMES SECTION**

**DOMES SPACING**

**DOMES ALIGNMENT**

**DETECTABLE WARNING DETAILS**

\* THE DETECTABLE WARNING SURFACE SHALL BE LOCATED SO THAT THE EDGE NEAREST THE RAIL CROSSING IS 6' MINIMUM AND 15' MAXIMUM FROM THE CENTERLINE OF THE NEAREST RAIL. DO NOT PLACE DETECTABLE WARNING ON RAILROAD CROSSING MATERIAL.

\* THE DETECTABLE WARNING SURFACE SHALL BE LOCATED SO THAT THE EDGE NEAREST THE ROADWAY SHOULDER IS 2' MINIMUM FROM THE SHOULDER.

MICHIGAN DEPARTMENT OF TRANSPORTATION  
BUREAU OF DEVELOPMENT STANDARD PLAN FOR

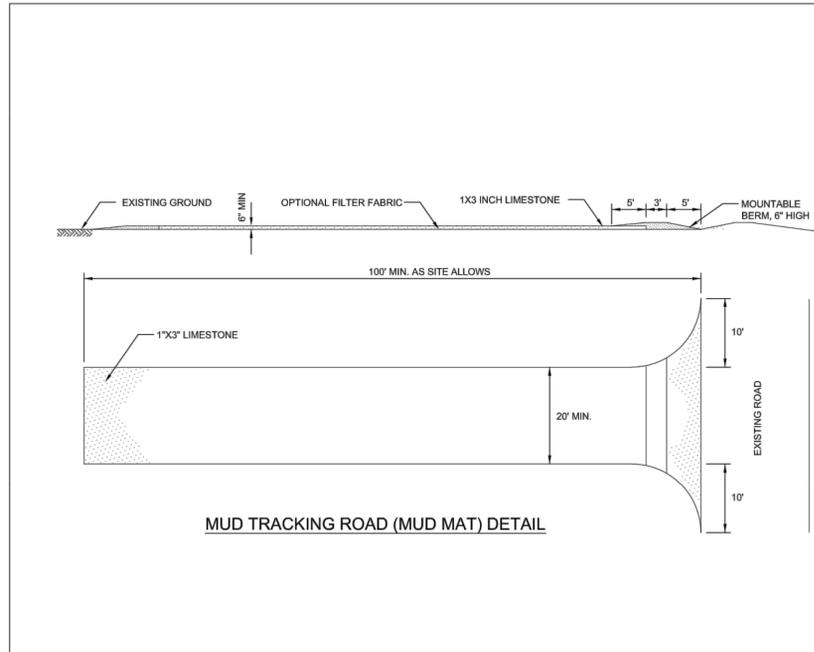
**SIDEWALK RAMP AND DETECTABLE WARNING DETAILS**

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CHECKED BY: M.E.L.

APPROVED BY: DIRECTOR, BUREAU OF FIELD SERVICES

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F.I.R.A. APPROVAL: \_\_\_\_\_ PLAN DATE: 12-11-2017 R-28-J SHEET 7 OF 1



MUD TRACKING ROAD (MUD MAT) DETAIL

**PITTSFIELD CHARTER TOWNSHIP  
SOIL EROSION AND SEDIMENTATION CONTROL NOTES**

- GENERAL**
- The contractor shall implement and maintain the soil erosion control measures as shown on the plans at all times during construction on this project. Any modifications or additions to the soil erosion control measures due to construction or changed conditions, shall be complied with as required or directed by the owner, project engineer or Pittsfield Township.
  - All soil erosion and sedimentation control work shall conform to the permit requirements of Pittsfield Township and the laws of the State of Michigan.
  - A NPDES construction activity permit is required for all sites greater than 5 acres.
  - Daily inspections shall be made by the contractor. Periodic inspections may be made by the owner/project engineer/Township to determine the effectiveness of erosion and sedimentation control measures. Any necessary corrections shall be made without delay.
  - Erosion and sedimentation from work on the site shall be contained on the site and not be allowed to collect on any off-site areas or in waterways.
  - All mud/dirt tracked onto roads from the site due to construction, shall be promptly removed by the contractor.
  - Restoration of all disturbed areas, including placement of topsoil, seed, fertilizer and mulch and/or sod shall be done within 5 days of the completion of final grade.
  - Construction operations shall be scheduled and performed so that preventative soil erosion control measures are in place prior to excavation in critical areas and temporary stabilization measures are in place immediately following backfilling operations.
  - Special precautions will be taken in the use of construction equipment to prevent situations that promote erosion.
  - Proper dust control shall be maintained during construction by use of water trucks and/or chloride as required.
  - The contractor shall be responsible for maintaining all temporary soil erosion control measures and removal of some upon authorized completion of project. Completion of project will not be authorized until all site work, home building, road work and utility construction is complete and all soils are stabilized.
  - The contractor shall not grade in existing wetland or conservation areas to be protected. Silt fence shall be installed and maintained adjacent to existing wetland and conservation areas to prevent grading, erosion and sedimentation into them.
  - Tree protection fencing must remain intact until restoration of the site is complete.

**SEQUENCE OF CONSTRUCTION**

- Install sediment fence and tree protection fencing prior to any grading operation.
- Install mud-tracking pad.
- Construct temporary sediment/detention basin.
- Place topsoil, fertilizer, seed and mulch over the entire detention basin area.
- Rough grade site, stockpile topsoil and begin building construction.
- Install storm drainage system including riprap and parking lot inlet filters and detention basin standpipe.
- Maintain erosion and sedimentation control measures, as required.
- Install sanitary sewer and water systems.
- Bring pavement areas to sub-base grade, place sub-base and bituminous pavement.
- Install franchised utilities.
- Finish grade, redistribute topsoil, seed and mulch all disturbed areas.
- Remove any accumulated sediment within the detention basin and replace clean washed stone around standpipe.
- Complete construction of site.
- Insure all soil is stabilized. Remove all temporary soil erosion control measures.

**SEEDING/SOD**

- Seed or sod in accordance with project specifications.
- All areas of disturbed earth that are not to be paved or sodded shall have 4 inches of topsoil, seed, fertilizer and mulch.
- Immediately after seeding, mulch all seeded areas with unweathered small grain straw (preferably wheat) or hay spread. Spread uniformly at the rate of 1 1/2 to 2 tons or 100 pounds (2 to 3 bales) per 1,000 square foot. This mulch should be anchored with a disc-type mulch-anchoring tool.
- Any disturbed area not paved, seeded or mulched, sodded or built upon by November 15, is to be mulched in the manner as specified above, in order to provide soil erosion protection during the winter and early spring.
- All erosion and sedimentation control prevention procedures and structures are to comply with the Standards and Specifications for soil erosion and sediment control of the Washtenaw County Soil Conservation District.
- Drainage ditches and slopes steeper than 1:4 (25%) shall be stabilized with erosion control blankets.
- Slope slopes that do not take upon initial seeding must be re-seeded and stabilized with erosion control blankets.
- Where excavation has been through lawn areas, the CONTRACTOR shall restore the disturbed area by placing topsoil and seeding or sodding over the final backfill material.

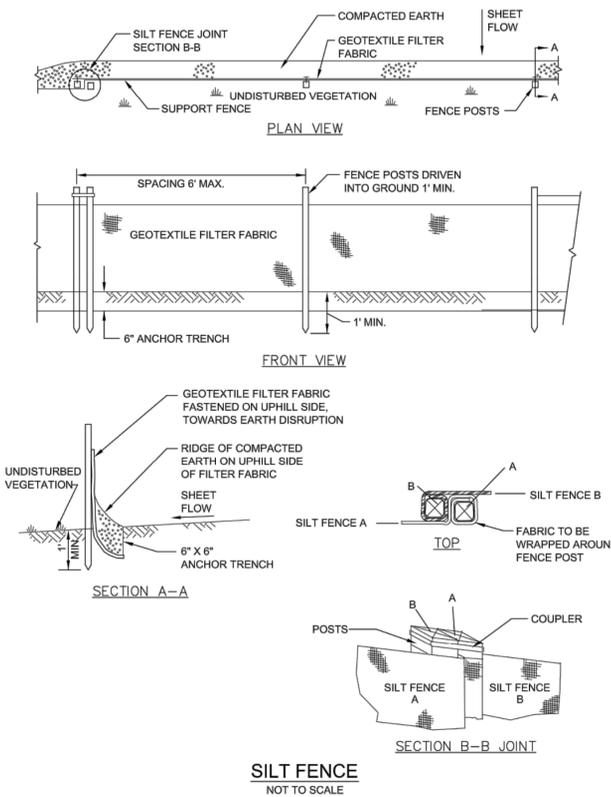
**CATCH BASIN/MANHOLE PROTECTION**

- Protect storm sewer catch basins with SiltSack, or approved equivalent as follows:

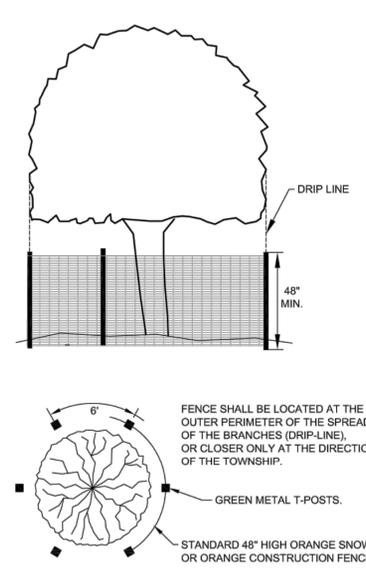
**ROADS**

- During construction, all roads shall be protected from unvegetated areas washing onto road surfaces by placement of silt fence behind curb or a 10 foot wide straw mulch bank behind the curb or other approved method and/or as shown on the plans.
- During construction of any portion of the project, roads shall be maintained free of dirt, silt and construction debris.

Pittsfield SEC 9/22/2009

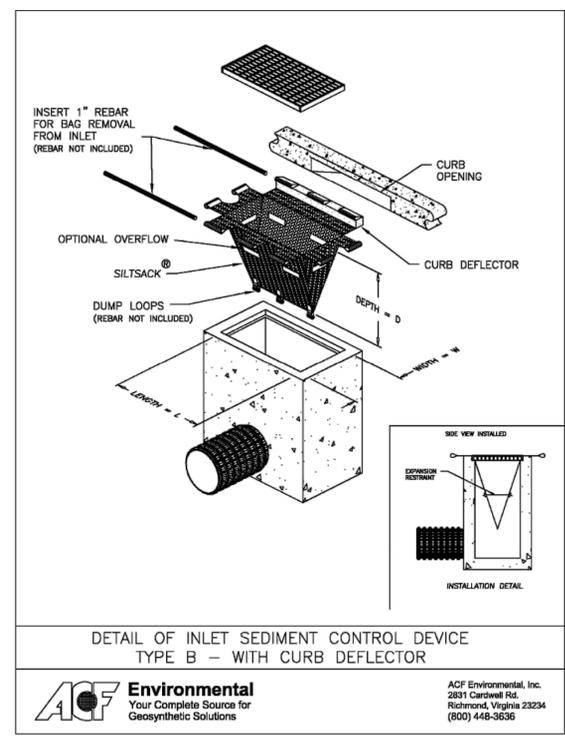


SILT FENCE  
NOT TO SCALE



TREE PROTECTION FENCE DETAIL  
NOT TO SCALE

- NOTES:**
- ALL TREES TO BE REMOVED WILL BE IDENTIFIED BY RED FLAGGING.
  - TREE PROTECTION FENCING IS TO BE ERRECTED PRIOR TO ANY EARTHWORK OR CONSTRUCTION AND IS TO REMAIN IN PLACE UNTIL CONSTRUCTION AND GRADING IS COMPLETE.
  - ALL DEBRIS, FILL, EQUIPMENT OR MATERIAL IS TO BE KEPT CLEAR OF AREA WITHIN PROTECTIVE FENCE. NO CLEANING OF EQUIPMENT OR MATERIAL OR STORAGE OR DISPOSAL OF ANY MATERIAL WITHIN THE DRIPLINE OF ANY TREES TO BE SAVED.



DETAIL OF INLET SEDIMENT CONTROL DEVICE  
TYPE B - WITH CURB DEFLECTOR



ACF Environmental, Inc.  
2681 Carwell Rd.  
Richmond, Virginia 23234  
(800) 448-3636

**SILTSACK®  
SPECIFICATIONS**

NOTE: THE SILTSACK® WILL BE MANUFACTURED FROM A WOVEN POLYPROPYLENE FABRIC THAT MEETS OR EXCEEDS THE FOLLOWING SPECIFICATIONS.

**REGULAR FLOW SILTSACK®**  
(FOR AREAS OF LOW TO MODERATE PRECIPITATION AND RUN-OFF)

PROPERTY	TEST METHOD	UNITS	VALUES
GRAB TENSILE STRENGTH	ASTM D-4632		300 LBS
GRAB TENSILE ELONGATION	ASTM D-4632		20 %
PUNCTURE	ASTM D-4633		120 LBS
MILLEN BURST	ASTM D-3786		800 PSI
TRAPEZOID TEAR	ASTM D-4533		120 LBS
UV RESISTANCE	ASTM D-4325		80 %
APPARENT OPENING SIZE	ASTM D-4751		48 US SIEVE
FLOW RATE	ASTM D-4491		48 GAL/MIN/50 FT
PERMITTIVITY	ASTM D-4491		0.55 SEC -1

**\* HI-FLOW SILTSACK®**  
(FOR AREAS OF MODERATE TO HEAVY PRECIPITATION AND RUN-OFF)

PROPERTY	TEST METHOD	UNITS	VALUES
GRAB TENSILE STRENGTH	ASTM D-4632		265 LBS
GRAB TENSILE ELONGATION	ASTM D-4632		20 %
PUNCTURE	ASTM D-4633		120 LBS
MILLEN BURST	ASTM D-3786		420 PSI
TRAPEZOID TEAR	ASTM D-4533		45 LBS
UV RESISTANCE	ASTM D-4325		90 %
APPARENT OPENING SIZE	ASTM D-4751		25 US SIEVE
FLOW RATE	ASTM D-4491		200 GAL/MIN/50 FT
PERMITTIVITY	ASTM D-4491		15 SEC -1

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Revision	By	Appd.	YY.MM.DD
SILTSACK	BWA	DRW	12.01.03
TWP REV	BWA	DRW	11.04.27
UPDATES	TIN	DRW	10.01.20

File Name: SE-01	TTN	DRW	DRW	07.10.01
	Dwn.	Chkd.	Dsgn.	YY.MM.DD

Permit-Seal

Client/Project  
PITTSFIELD TOWNSHIP

Pittsfield Township, Michigan

Title  
SOIL EROSION DETAILS AND NOTES

Project No. 2075001300 Scale NOT TO SCALE

Revision  
1



CLIENT  
GROUP 10 MANAGEMENT  
29220 NORTHWESTERN HWY, SUITE 450  
SOUTHFIELD, MI 48034  
M. JACK KKWILES  
248.855.2100

**RESIDENCE INN**  
FINAL SITE PLAN  
SOIL EROSION DETAILS AND NOTES

**26**

DATE: 11/18/19	REV. DATE	REV. DATE	REV. DATE
SHEET 26 OF 35	CADD: C/S	ENG: HTH	FINC/19117D1
	PM: TJC	TECH:	

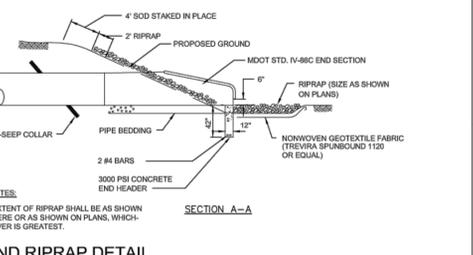
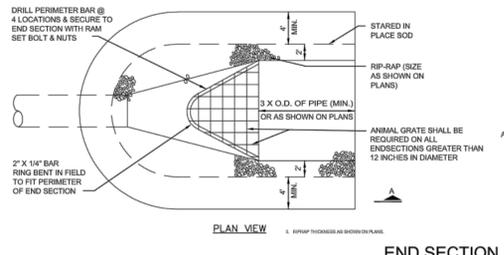
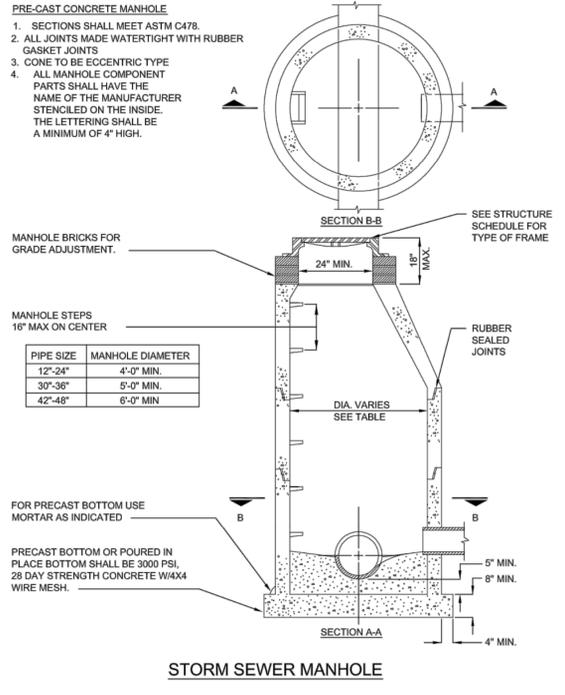
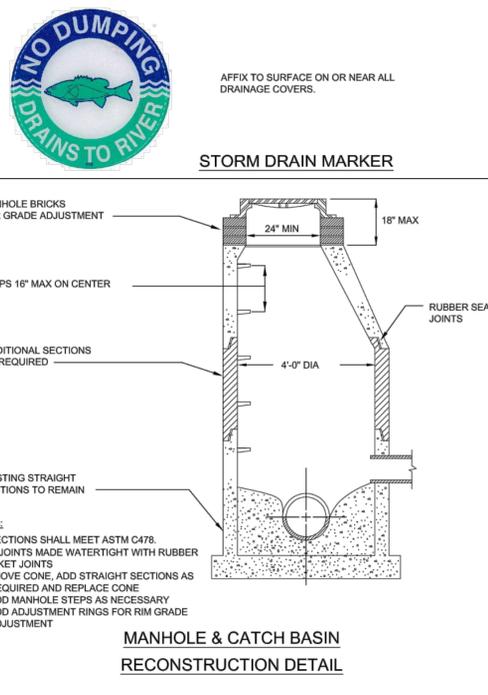
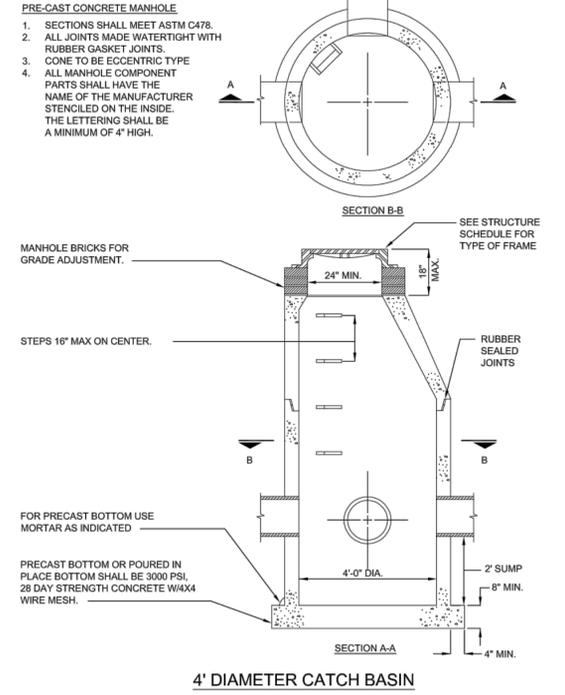
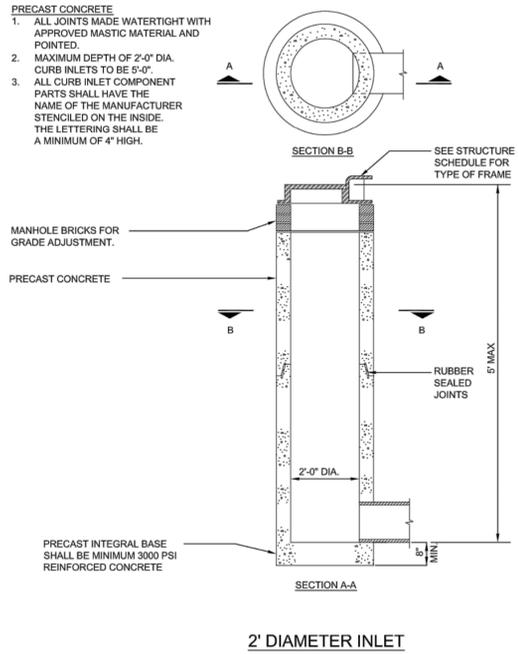
JOB No. 19117

M:\Civ\132\_P\1917D1.dwg, 6/17/2020 1:24 PM, Chri T. Somers, 27 STORM SEWER DETAILS AND SPECIFICATIONS, MCLC PDF.pct  
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**STORM SEWER AND DRAINAGE STRUCTURES**

- 1.00 GENERAL**
- 1.01 DESCRIPTION**
- A. Furnish all labor, tools, equipment and materials to construct all storm sewers, and drainage structures as herein specified. No sewers shall be accepted until the sewer system has passed the system acceptance tests.
- 1.02 TESTING**
- A. General
1. The CONTRACTOR shall furnish all equipment and personnel to conduct system acceptance tests as specified herein on all completed sewers. All tests shall be conducted under the supervision of the ENGINEER. No acceptance tests shall be conducted until the entire sewer system is constructed or just prior to placing the line in service providing the sewer pipe has been installed for not less than 30 days.
- B. Test for Alignment
1. All sewers shall be laid accurately to the line and grade designed by the ENGINEER. The sewers will be tested for alignment by shining a light through the pipe at a manhole and viewing the light from an adjacent manhole. Any section of sewer in which a light cannot be seen from one manhole to the next shall be corrected to the satisfaction of the ENGINEER to pass this test.
- C. Material Tests
1. The CONTRACTOR shall have tests of pipe strength made by an independent testing laboratory. Tests of up to 4 lengths of sewer pipe per hundred lengths may be required to show compliance with the Specifications. All pipe delivered to the job site shall be accompanied with a manufacturer's certificate of compliance to the Specifications.
- D. Submittals
1. The CONTRACTOR shall submit shop drawings, or data sheets for all castings, steps and manholes.
2. The CONTRACTOR shall submit certification letters for all pipes. All letters must contain the following: Contractor's name, project name, township name, current date, certification of pipe provided and letterhead of the certifying company.
- 2.00 PRODUCTS**
- 2.01 PIPE**
- A. Reinforced concrete pipe and manhole tees shall be no less than the latest revision of ASTM C76, with the class designation as shown on the Plans or the Proposal.
- B. Concrete pipe shall have tongue and groove gasketed premium joints.
- C. Corrugated steel pipe shall meet the requirements of AASHTO M-190 for coated pipe latest revision. Minimum gage thickness shall be as shown on the Plans.
- 2.02 REINFORCED CONCRETE MANHOLES**
- A. Manholes shall conform to the current ASTM Specifications for precast reinforced concrete Manhole Sections, serial designation C478. Manhole section joints shall conform to ASTM Designation C990. All cones shall be eccentric with an offset step configuration. Concrete adjustment rings or riser rings shall not be used for adjusting the height of the structure.
- B. All manhole component parts shall have the name of the manufacturer stenciled on the inside. The lettering or logo shall be a minimum of 4 inches high.
- 2.03 MORTAR FOR MANHOLES**
- A. Mortar for plastering manholes and drainage structures shall be made of one part Portland cement and two parts fine aggregate.
- 2.04 BRICK AND BLOCK**
- A. Brick for brick and mortar structures shall conform to the current ASTM Specification C32. Block for block and mortar structures shall conform to the current ASTM Specification C135.
- B. The concrete block masonry used to construct manhole and catch basin walls shall be solid curved blocks with the inside and outside surfaces curved to the required radii. The blocks shall have tongue and groove or other approved type of joint at the ends so that the units interlock to form a strong, rigid structure. Curved blocks shall have the inside and outside surfaces parallel.
- C. The block shall not exceed 18 inches in length or 8 inches in depth (height). No block shall be less than 6 inches in width (thickness). All blocks in one structure shall be of the same height dimension. The blocks shall be designed for length so that only full-length or half-length blocks are required to lay the circular wall of any one course.
- D. Blocks intended for use in the cones or tops of manholes and catch basins shall have such shape as may be required to form the structure as shown on the Plans with inside and outside joint not to exceed 1/4-inch in thickness.
- 2.05 STRUCTURE FRAMES AND COVERS**
- A. Structures frames and covers shall weigh not less than 350 lbs. Each frame and cover shall have machined bearing surfaces and shall be suitably notched for convenient removal of the cover. Each solid manhole cover shall be marked Storm Sewer with letters integrally cast into the cover.
- B. Frames and Covers shall be as follows:
- For use on manholes: East Jordan 1040Z, with Type B cover lettered "STORM SEWER", or equal. Structures 24-inches in diameter shall have the 1045 Z frame.
  - For use on drainage structures in paved areas: East Jordan 1040Z, with Type M1 cover, with "DUMP NO WASTE" lettering and trout logo.
  - For use on drainage structures in curbed areas: East Jordan 7045 or 7065, with "DUMP NO WASTE" lettering and trout logo.
  - For use on drainage structures in landscaped areas: East Jordan 1040Z, with 1040 N 7", with "DUMP NO WASTE" lettering and trout logo.
- C. All frames and covers shall be coated by the manufacturer with coal tar pitch varnish or other asphaltum coating reviewed by the ENGINEER.
- D. All covers for drainage structures shall have storm drain markers affixed to the nearest available flat surface. The storm drain markers shall be manufactured by Das Manufacturing and shall be #SDR "No Dumping, Drains to River." The storm drain markers shall be installed per the manufacturer's recommendations.

- 2.06 MANHOLE STEPS**
- A. Steps shall be plastic coated steel. They shall be M.A. Industries PS1-PF for precast manholes, PS1-B for block manholes, or equal.
- 2.07 DRAINAGE STRUCTURES**
- A. All manholes and catch basins shall be precast unless otherwise specified.
- B. Manhole and catch basin bottoms shall be concrete and top of slab shall have a troweled finish.
- C. Upon approval by the ENGINEER, the manhole and catch basin walls may be constructed of concrete block masonry or concrete manhole pipe conforming to the requirements of the specifications previously listed. Construction shall be in accordance with the details for Catch Basin and Storm Sewer Manhole shown on the Plans.
- D. A plaster coat of mortar 1/2-inch in thickness shall be applied to the inside and outside surface of all manholes and catch basins constructed with concrete block masonry or sewer brick. The inside coat of mortar shall be applied in a smooth, neat workmanlike manner.
- E. Final adjustment of the top of manholes and catch basins, so that the manhole or catch basin cover is at finished elevations as shown on the Plans or meets the finished surface, may be accomplished with sewer brick conforming to the previously listed Specifications. The total height of brick for this purpose shall not exceed 9 inches. The total chimney height shall not exceed 18 inches.
- F. All block and brick masonry units shall be laid in a full bed of mortar. The inside joints of the block masonry construction shall be tooled in a neat and workmanlike manner.
- 3.00 EXECUTION**
- 3.01 EXCAVATION AND BACKFILL**
- A. All excavation and backfill 12 inches above the crown of pipe shall conform to Section 2.04, Earthwork of these specifications.
- B. The trench shall be backfilled closely behind the pipe laying. Unless otherwise directed or permitted by the ENGINEER, the backfilling shall follow and be completed to the top of the trench within four pipe lengths behind pipe laying.
- 3.02 BEDDING**
- A. Concrete pipe shall be laid on a compacted granular material placed on the bottom of the trench to a depth of not less than 4 inches. Where indicated on the Plans or required by the ENGINEER, concrete encasement or cradle shall be used.
- B. For all pipes, compacted aggregate material shall be placed at the sides of the pipe in 12-inch lifts and cover not less than 12 inches above the crown of the pipe.
- C. "Granular Material" shall be MDOT class II, placed in not more than 6-inch layers and compacted to not less than 90% standard density.
- 3.03 PIPE INSTALLATION**
- A. All pipe shall be laid true to the required lines and grades. All trenches when pipe laying is in progress, shall be kept dry, and all pipes and fittings shall be uniformly supported on a properly trimmed bedding with holes at each joint to receive bells. All pipe shall be laid with bells uphill.
- B. The grade as shown on the profiles is that of the pipe invert and that to which the work must conform. The grade shall be kept by laser or other tools which shall be furnished by the CONTRACTOR at his expense. Each pipe shall be laid accurately to the line and grade as shown on the Plans and in such manner as to form a close concentric joint with the adjoining pipe and prevent sudden offsets of the invert. The interior of sewers shall, as the work progresses, be cleaned of all dirt, cement, debris and other superfluous materials of every description. Bulkheads shall be used to keep foreign materials out of the open end of the sewer when work is not in progress.
- C. The location of the piping as shown on the Plans has been determined to avoid, insofar as possible, interference with trees or structures or fixtures above ground and other underground mains, services, utilities or structures. Any change in location or alignment of piping, which may be found more feasible or practicable as the work progresses, shall be made by the CONTRACTOR, as the ENGINEER may direct.
- D. All pipe shall be carefully lowered and moved into position in trench or vault in a controlled manner such as will prevent damage to the pipe and any coatings or lining. An excessive amount of scratching on the surface of the concrete pipe will be considered cause for rejection.
- E. All cutting of the pipe shall be done in a neat workmanlike manner with the least amount of waste and without damage to existing or new lines. A fine tooth saw, tubing cutter or similar tool may be used to cut concrete pipe. Cuts must be square. Ragged edges shall be removed with a cutting tool or file.
- F. Breaks in pipe or joints shall be repaired to the satisfaction of the ENGINEER and at the expense of the CONTRACTOR.
- 3.04 CONNECTIONS TO EXISTING MANHOLES**
- A. When a sewer is connected to an existing manhole, a hole adequate to receive the new pipe shall be cored into the manhole.
- B. If the existing manhole is of brick construction, a single rowlock of brick shall be turned over the new pipe and the existing manhole brick work shall be cleaned, pointed and given a 1/2-inch mortar coat on the outside surface.
- C. For connections to existing precast reinforced concrete manholes, a hole shall be cored into the concrete manhole wall to receive the pipe. Reinforcing steel shall not be cut out shall be bent and replaced in the area that is to be patched. A form shall be constructed over the area of pipe penetration. The formed area shall then be filled with concrete.
- D. Closure of the manhole wall shall be made watertight using concrete.
- 3.05 ANIMAL GRATES**
- A. Animal grates shall be required on all endsections greater than 12-inch diameter.



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6201 W. Michigan Ave.  
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REV.	DATE	BY	CHKD.	APPD.	DESCRIPTION
MRH	DRW	14.01.24			UPDATES
BWA	DRW	12.08.09			TWP REV
BWA	DRW	11.04.27			TWP REV
BWA	DRW	10.10.25			UPDATES
BWA	DRW	10.10.20			UPDATES
TTN	DRW	10.01.20			UPDATES
By	Appd.	YY.MM.DD			Revision
By	Appd.	YY.MM.DD			Issued
TTN	DRW	DRW	07.10.01		File Name: ST-01
Drn.	Chkd.	Desgn.	YY.MM.DD		

Client/Project  
**PITTSFIELD TOWNSHIP**

Pittsfield Township, Michigan

Title  
**STORM SEWER DETAILS AND SPECIFICATIONS**

Project No. **2075001300** Scale **NOT TO SCALE**

Revision

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**RESIDENCE INN**  
 FINAL SITE PLAN  
 STORM SEWER DETAILS AND SPECIFICATIONS

CLIENT  
 GROUP 10 MANAGEMENT  
 29220 NORTHWESTERN HWY, SUITE 450  
 SOUTHFIELD, MI 48034  
 M. JACK KKWOWLES  
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JOB No. **19117**  
 REVISIONS:

DATE: 11/18/19  
 SHEET 27 OF 35  
 REV. DATE  
 ADD: CTS  
 ENG: RTH  
 PM: TJC  
 TECH:  
 PINK/1917D1



**Carlisle | Wortman**  
ASSOCIATES, INC.

117 NORTH FIRST STREET SUITE 70 ANN ARBOR, MI 48104 734.662.2200 734.662.1935 FAX

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**Date:** May 7, 2020  
July 1, 2020

**Final Site Plan Review  
For  
Pittsfield Township, Michigan**

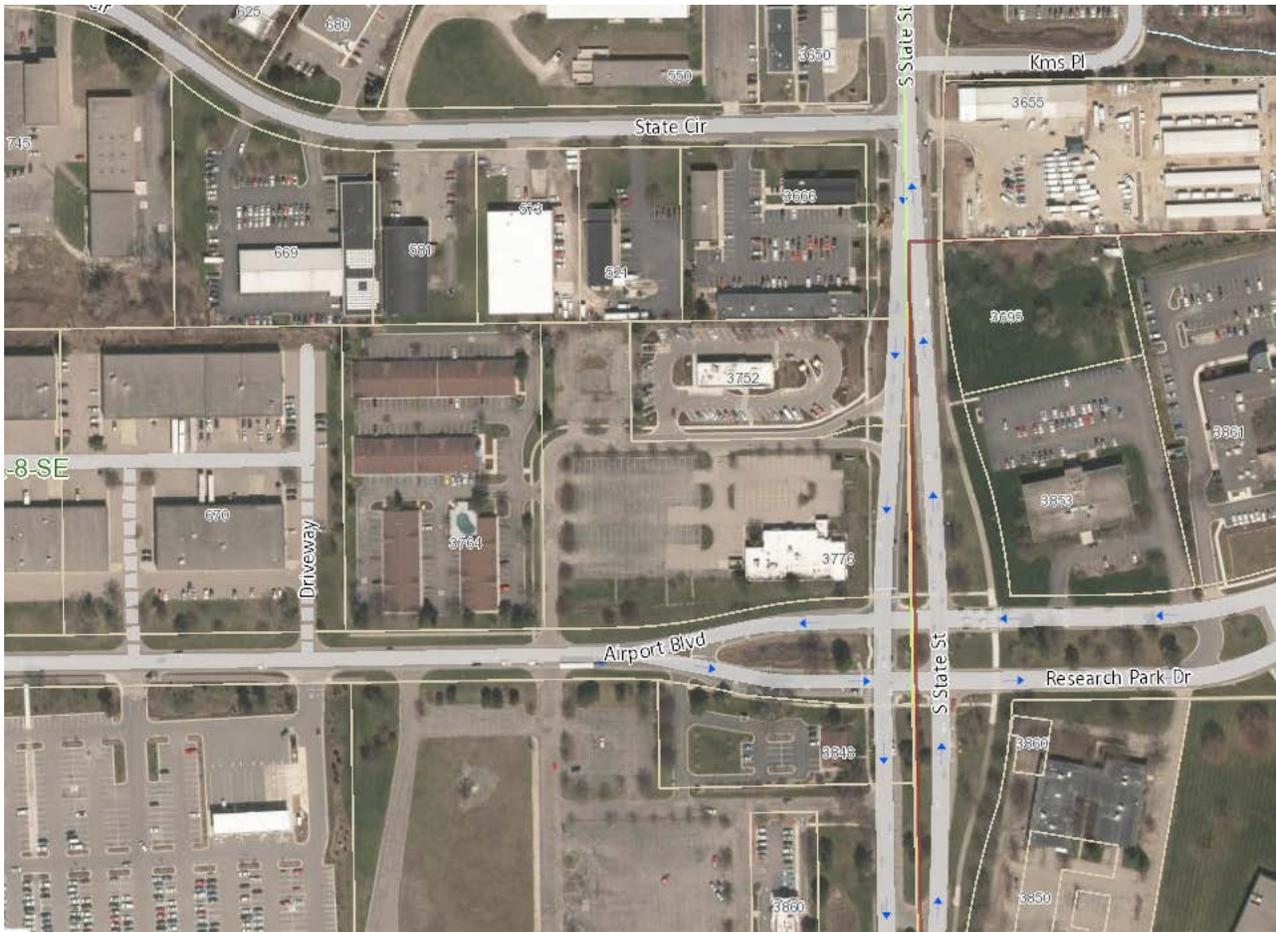
**GENERAL INFORMATION**

**File No.:** CSPA 19-13  
**Applicant:** Residence Inn  
**Plan Date:** April 13, 2020  
**Location:** North Side of Airport Boulevard, west of State Street  
**Zoning:** State Street Form Based District  
**Action Requested:** Final Site Plan Approval

**SUMMARY**

Group 10 Management is seeking final site plan approval to construct a 4-story, 111-room Residence Inn hotel on Airport Boulevard. The 3.47-acre site is formerly used as a Motel 6. In August 2019, the Planning Commission approved a modification to the regulating plan to allow the hotel use and conditional use approval for the hotel in addition a to preliminary site plan approval. The Motel 6 was demolished last fall.

The Planning Commission modified the regulating plan to reclassify the site to Site Type C-Street Type Urban. Hotels are permitted as conditional use for Site Type C-Street Type Urban.



## SUMMARY

The following conditions of approval were placed upon the project during preliminary site plan review.

1. Work with McDonald's and Black Rock to improve the shared private road to required engineering standards.

*The applicant has provided a shared private road maintenance agreement. The Township Engineer will review and approve.*

2. Provide a landscape plan in compliance with Section 13.02.

*A landscape plan is provided on Sheet 6 and meets the landscaping requirements of Section 13.02. Any at-grade or rooftop equipment will need to be screened in accordance with Section 13.04.*

3. Provide streetscape details including light fixtures and proposed public art with the final site plan submittal.

*Bollard pedestrian lighting is proposed along the sidewalk adjacent to Airport Boulevard. A concrete pad is also centered along the Airport Boulevard frontage for art installation. No detail of the proposed art is noted in the plan set. The applicant should confirm that will install some form of public art.*

4. Submit photometric plan that is compliant with Section 13.05.

*A photometric plan is provided on Sheet 21. We defer review of the lighting plan to the Township Engineer.*

5. Provide bicycle parking.

*A bike hoop is proposed at the south building entrance immediately west of the parking area and adjacent to the internal sidewalk.*

**Items to be Addressed:** 1). Confirm intention to install public art; and 2). Review of the photometric plan by the Township Engineer.

#### OUTSIDE AGENCY APPROVALS

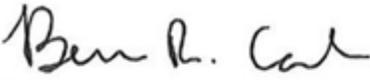
Preliminary approvals from the Washtenaw Road Commission and Washtenaw Water Resources Commission have been obtained.

**Items to be Addressed:** None.

#### RECOMMENDATION

We recommend final site plan approval with the following conditions:

1. Confirm intention to install public art.
2. Review of the photometric plan by the Township Engineer.

 CARLISLE/WORTMAN ASSOC., INC. Benjamin R. Carlisle, AICP, LEED AP Principal	 CARLISLE/WORTMAN ASSOC., INC. Laura K. Kreps, AICP Senior Associate
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**Pittsfield Charter Township**  
**Department of Utilities & Municipal Services**

6201 West Michigan Avenue, Ann Arbor, MI 48108  
Phone: (734) 822-3101 • Fax: (734) 944-1103  
Website: [www.pittsfield-mi.gov](http://www.pittsfield-mi.gov)

**Mandy Grewal, Supervisor**

---

**MEMORANDUM**

**TO:** Ben Carlisle, AICP  
Township Planning Consultant

**FROM:** Eric Humesky, P.E.  
Township Engineer

**DATE:** June 11, 2020

**SUBJECT:** Residence Inn  
C.S.P.A. #19-13  
Detailed Engineering Site Plan Review

We have reviewed the April 13, 2020, 35-sheet submittal of the above detailed engineering plan that was received by the Township on April 29, 2020 and comment as follows:

1. Sheet 1, Cover Sheet:
  - a. All plan sheets shall be numbered consecutively, including the architectural plan sheets. The applicant may keep their numbering system in addition to the consecutive sheet numbers.
2. Sheet 2, ALTA-NSPS Land Title Survey:
  - a. All benchmarks that are listed on Sheet 3 shall be shown and clearly labeled on this sheet. Benchmark #3 shall be added to the list of benchmarks.
  - b. Drip lines of the existing trees to be saved shall be shown on this plan and all other applicable plan sheets.
  - c. The size of the storm sewer from r-01 to r-02 is shown as 12 inches in diameter on some sheets throughout the plan and as 18 inches on others. This shall be corrected.
3. Sheet 3, Legal Description, Tree List, Structure Schedule and Notes:
  - a. The benchmarks listed on this sheet shall be shown on Sheet 2. Benchmark #3 shall be added to the list of benchmarks.
4. Sheet 4, Site Removals Plan:

- a. Curb and asphalt removals shall be shown at Airport Blvd. for the proposed driveway entrance. Any removals or adjustments for the storm sewer in this area shall be shown as well.
- b. Curb removal and replacement at the private drive – Airport Blvd intersection sidewalk shall be shown.

5. Sheet 5, Site Layout Plan:

- a. Commercial site shall provide access for the WB-50 design semi-truck. The turning template and dimensions shall be provided. A template of the WB-50 is available on the Township website.
- b. A detail should be provided for the light pole bases within the bioretention island.
- c. Crosswalk pavement marking should be provided at all crosswalks within the parking lot.
- d. New curb shall be shown at the sidewalk removal on Airport Blvd. at the private road intersection.
- e. The parking vehicle overhang for the northeast corner of the parking lot should be shown to be consistent with the rest of the plan.
- f. Additional details should be provided for the generator enclosure.
- g. The referenced additional details for the refuse and storage enclosures do not appear to be included in the plan.

6. Sheet 6, Site Landscape Plan:

- a. At least 10 feet of horizontal separation shall be provided between trees and utilities (water main, storm sewer, sanitary sewer), including the underground detention basin.
- b. It seems that there could be conflicts with the light poles and proposed trees. The plans should confirm whether or not the trees will conflict with lighting levels.

7. Sheet 7, Utility Plan:

- a. Additional horizontal separation should be provided between light poles and utilities.
- b. At least 10 feet of horizontal separation shall be provided between the water main, sanitary sewer, and storm sewer. Additional separation shall be provided between the proposed storm sewer and the existing sanitary sewer that the sewer lead is connecting to.
- c. The fire lead shown extending beyond the proposed water main connection shall be corrected on this sheet and all other applicable sheets.

- d. The water main easement at the west water main connection shall be shown up to the property line.
  - e. The 90-degree bend at the proposed west hydrant shall be replaced with two 45-degree bends.
  - f. The relocated hydrant near the private drive entrance shall be shown as being removed and replaced on this sheet as well as on the removals plan.
  - g. Hydrants shall be located 3 to 10 feet from the back of curb. The hydrant near the private drive entrance shall be relocated closer to the curb.
  - h. The water main easement at the relocated hydrant should be adjusted so that the water main and hydrant are centered within the easement.
  - i. Cleanouts shall be located at lengths greater than 75 feet on the sanitary sewer lead.
  - j. The modifications to the easement for the existing sanitary sewer should be shown on this sheet.
  - k. At least 20 feet of horizontal separation shall be provided between the storm sewer and structural improvements. The storm sewer in the patio area shall be relocated.
  - l. For the underground detention system, the geotextile note should be revised to refer to the more specific information on Sheet 20. Additionally, further explanation is needed for where the geotextile fabric should be located and its purpose.
  - m. A gate valve in well should be proposed north of the domestic and fire leads.
8. Sheet 8, Overall Grading and Soil Erosion Control Plan:
- a. The mud mats shall be a minimum of 100 feet in length. The mud mat at Airport Blvd shall be at least 20 feet wide.
  - b. Additional tree fence should be proposed along the west property line where trees on the neighboring property should be protected. Tree fence shall not be placed within the driplines of the existing trees.
  - c. Additional silt fence should be proposed along the east limits of disturbance.
  - d. The silt fence at the Airport Blvd. entrance should be relocated around the limits of disturbance.
  - e. The limits of disturbance shall be revised to include sidewalk removals at the private road – Airport Blvd. intersection
9. Sheets 9 and 10, Detailed Grading Plans:

- a. Rim and finished grade elevations for all utilities shall be shown on these plans.
- b. In general, the minimum paving slope for asphalt is 1.0%. Several areas shall be revised to achieve the minimum paving slope.
- c. The locations of spill-out and spill-in curb shall be clearly shown.
- d. In Note 4.2. of the plan Notes, “fee” shall be corrected to “free”.
- e. The location of all ramps and level landings shall be clearly indicated.

10. Sheet 9, Detailed Grading Plan – North:

- a. The proposed contour located east of the transformer shall be labeled.
- b. There is a potential low spot near the ramp southeast of the bioretention island. This shall either be corrected, or additional elevations shall be provided.

11. Sheet 10, Detailed Grading Plan – South:

- a. Slopes greater than 2% appear to be proposed at the southern access aisle. This shall be corrected.
- b. There is a spot elevation of 844.50 at the level landing west of the southern access aisle that is not correct. This shall be corrected.

12. Sheet 11, Sanitary Sewer Plan, Profile and Structure Schedule:

- a. The sanitary lead pipe shall be SDR 26 PVC pipe.
- b. In the profile:
  - i. Compacted sand backfill shall be provided for all areas under the influence of pavement, including sidewalks.
  - ii. Internal drops are required when the invert of the outlet pipe is 18 inches or more below the inlet pipe invert. An internal drop shall be proposed at s-04.
  - iii. The storm roof drain and electrical conduit crossings shall be shown with at least 18 inches of vertical separation.
  - iv. The cleanout sizes shall be corrected to correlate with the Sanitary Structure Schedule. Cleanouts shall be the same size as the sewer lead.
  - v. The minimum slope for non-residential sanitary sewer leads is 2%. This may not be achievable for this site, however the slope shall be maximized. A slope of less than 2% may be permitted due to the relatively high flows anticipated.

vi. The existing grade shall be shown near CO3.

13. Profiles shall be provided for the storm sewer pipe from R10 to R18 and from R16 to CO4.

14. Sheet 12, Storm Sewer Plan, Profile and Structure Schedule:

- a. The plan shall explain how the 12-inch overflow pipe out of R9 drains stormwater to the underground detention chambers north of the isolator row (i.e. is there a direct connection to the chambers, is the 12-inch pipe perforated,...). The ability for sediment to reach these chambers shall be limited as much as possible to ensure long term function of the system. There does not appear to be any way to maintenance these chambers.
- b. The storm sewer pipe shall be Class IV RCP.
- c. Structure R18 shall be added to the Storm Structure Table.
- d. For the Storm Sewer Quantities, the location of the 2-foot structures should be indicated in the plans.
- e. In the profile:
  - i. The water main and electrical conduit crossings shall be shown with at least 18 inches of vertical separation.
  - ii. A note should be added to R8 referring to the detail on Sheet 20.

15. Sheet 13, Storm Sewer Plan and Profile:

- a. The storm sewer pipe shall be Class IV RCP.
- b. In the CO1 to R2 profile:
  - i. The cleanout sizes shall be corrected to correlate with the Storm Structure Table on Sheet 12.
  - ii. Based on the plan view, it seems there should be additional cleanouts and roof drains between CO1 and CO2. This should be clarified.
- c. In the CO3 to R3 profile, the CO3 size shall be corrected to correlate with the Storm Structure Table on Sheet 12.

16. Sheet 14, Storm Sewer Plan and Profile:

- a. The storm sewer pipe shall be Class IV RCP.
- b. In the R13 to R6 profile:

- i. The electrical conduit, water main, and sanitary sewer crossing shall be shown with at least 18 inches of vertical separation.
- ii. The minimum storm sewer pipe size is 12 inches. The proposed 8-inch storm sewer shall be revised.

17. Sheet 15, Water Main Plan, Profile and Structure Schedule:

- a. The plan view shall be revised so that both water leads are shown.
- b. In the Watermain Structure Schedule, Hyd-2 shall be a new hydrant.
- c. In all the profiles:
  - i. The typical depth of cover to top-of-pipe shall be 5.5 feet. This shall be clearly labeled and maintained where possible.
  - ii. The top-of-pipe elevations shall be provided every 50 feet and at each water main appurtenance.
- d. In the Water Main Profile:
  - i. The existing grade shall be shown near STA 0+50.
  - ii. The maximum allowable depth of water main is 7 feet. The water main at the storm sewer crossing shall be revised.
  - iii. The electrical conduit crossing shall be relocated near STA 2+75.
  - iv. The sanitary and storm crossing labels shall be corrected near STA 3+25 and STA 3+50. It seems the pipe elevations and labels are incorrect. At least 18 inches of vertical separation shall be provided at both crossings.
- e. In the Fire Service Lead to Building profile:
  - i. The gate valve in box should be a gate valve in well.
  - ii. Compacted sand backfill shall be provided for all areas under the influence of pavement, including sidewalks.
- f. In the Water Service Lead to Building profile:
  - i. The gate valve in box should be a gate valve in well.
  - ii. The rim elevation for the valve shall be shown.

- iii. Compacted sand backfill shall be provided for all areas under the influence of pavement, including sidewalks.

18. Sheet 16, Stormwater Management Plan:

- a. In the Stormwater Narrative, it should be described how the emergency overflow will function.
- b. A larger detail shall be provided for the underground detention system showing the full system with invert elevations, internal pipe sizes, inlets/outlets, etc.
- c. A note should be added to this sheet referring to the underground detention system inspection and maintenance instructions on Sheet 20.

19. Sheet 17, Stormwater Calculations:

- a. In the Storm Sewer Capacity Calculations, sewer slopes shall provide a minimum flowing full velocity of 3 feet per second. The length of pipe from R18 to R3 shall be revised to achieve the minimum flowing full velocity.
- b. Based on the Stormwater Management Plan on sheet 16, in section W11 of the calculations, the Rain Garden-North should be renamed to Bioretention Island.

20. Sheet 18, Fire Access Plan:

- a. The turning template should be adjusted to the T-2 fire apparatus. The turning template is showing the L-3 Aerial fire apparatus.
- b. The FDC shall be within 50 feet of a hydrant.
- c. The hydrant dedicated to the FDC should not be included when considering hydrant coverage for the building. Additional hydrants shall be proposed to provide coverage for the entire building.
- d. A wall mounted fire service shut off valve shall be proposed.

21. Sheet 19, Site Details:

- a. A detail for the spill-out curb should be provided.

22. Sheet 20, Site Details:

- a. For the Water Quality Unit detail, the site-specific elevations and sizing shall be added to the detail.
- b. The overflow structure should be removed from the rain garden detail.

23. Sheet 21, Photometric Plan:

The Township lighting consultant has reviewed the plans and offer the following comments:

- a. Per ordinance 13.05 B3, full product descriptions and part numbers must be shown for all luminaires. All options and luminaire temperature ratings shall be included.
  - b. Per ordinance 13.05 B3, schedules for all “Z” style fixtures must be shown in the plans.
  - c. Per ordinance 13.05 B5, a lighting controller for 11:00 AM to sunset must be documented. The system that is compliant with these requirements shall be provided.
  - d. The following information should be provided for the proposed generator: purpose of the generator, if the generator will be used for emergency backup lighting, the fuel source, and the proposed sound levels.
  - e. It should be confirmed if façade luminaires will be proposed. If so, they should be submitted for review and should be shown on the photometric plan.
  - f. It should be confirmed if canopy luminaires will be proposed. If so, they should be submitted for review and should be shown on the photometric plan with details of the canopy area.
  - g. The existing luminaires in the surrounding properties should be included on the plan to show how the localized lighting levels will be impacted with the proposed luminaires.
  - h. All crosswalks or areas that may have major pedestrian crossing areas shall be shown on the plan.
  - i. Exterior emergency lights shall be clearly identified on the plan. Details shall also be provided.
  - j. It should be confirmed if all proposed luminaires are 25 feet or lower, including any elevation increases caused by the concrete base.
24. All walkways must be ADA compliant.
25. The Washtenaw County Road Commission reviewed and did not approve the plan in correspondence dated May 19, 2020.
26. The Washtenaw County Water Resources Commissioner reviewed and approved the plan in correspondence dated May 7, 2020.
27. Prior to Final Site Plan approval, a performance guarantee will be required in accordance with Section 3.09 of the Zoning Ordinance.

28. A stormwater management maintenance agreement shall be executed prior to issuance of a certificate of occupancy. The Township will draft the agreement.
29. No earth change activity may commence until a soil erosion control plan and application have been approved, a permit has been issued, and the soil erosion control measures have been inspected and approved. All trees shown on the approved site plan as being saved shall be tagged and have protective tree fence placed around them at the drip line.
30. A Pittsfield Township utility permit application and fee will be required for the water main, sanitary sewer and storm sewer construction. An EGLE construction permit will also be required for the water main. We will assist the proprietor in obtaining the latter permit after the plans are approved by the Engineering Department. No utility construction may begin until these permits have been issued, a pre-construction meeting held, and all construction shop drawings submitted and approved.
31. With each re-submittal, the preparer shall provide a written summary of revisions made to the plans.



**EVAN N. PRATT, P.E.**

WATER RESOURCES COMMISSIONER  
705 North Zeeb Road  
P.O. Box 8645  
Ann Arbor, MI 48107-8645

email: [drains@ewashtenaw.org](mailto:drains@ewashtenaw.org)  
<http://drain.ewashtenaw.org>

HARRY SHEEHAN  
Chief Deputy Water Resources Commissioner

SCOTT A. MILLER, P.E.  
Deputy Water Resources Commissioner

Telephone 734.222.6860  
Fax 734.222.6803

May 7, 2020

Mr. Heath Hartt, P.E.  
Midwestern Consulting, LLC  
3815 Plaza Drive  
Ann Arbor, Michigan 48108

RE: Residence Inn  
Pittsfield Township  
WCWRC Project No. 5823

Dear Mr. Hartt:

This office has reviewed the final site plan for the above referenced project to be located in Pittsfield Township. These plans have a job number of 19117, a date of April 13, 2020, a print/file date of April 29, 2020, and were received on April 30, 2020 via e-mail. As a result of our review, we would like to offer the following comments:

1. The design plans are technically correct and do not require revisions at this time. Please note any future revisions should be submitted to our office for further review.
2. Please see the attached invoice for the current fees and remit these fees upon receipt. As requested, the invoice is being submitted directly to Group 10 Management.

If you have any questions, please contact our office.

Sincerely,

Theresa M. Marsik, P.E.  
Storm Water Engineer  
(approval\Residence Inn rev4)

cc: Jack Knowles, Group 10 Management  
Tom Covert, Midwestern Consulting, LLC  
Michelle Anzaldi, Pittsfield Township Clerk  
Eric Humesky, P.E., Pittsfield Township Engineer (Stantec)  
Zoe Crowley, Pittsfield Township Utilities and Municipal Services  
Sheryl Saliba, Pittsfield Township Utilities and Municipal Services

# Alister Park



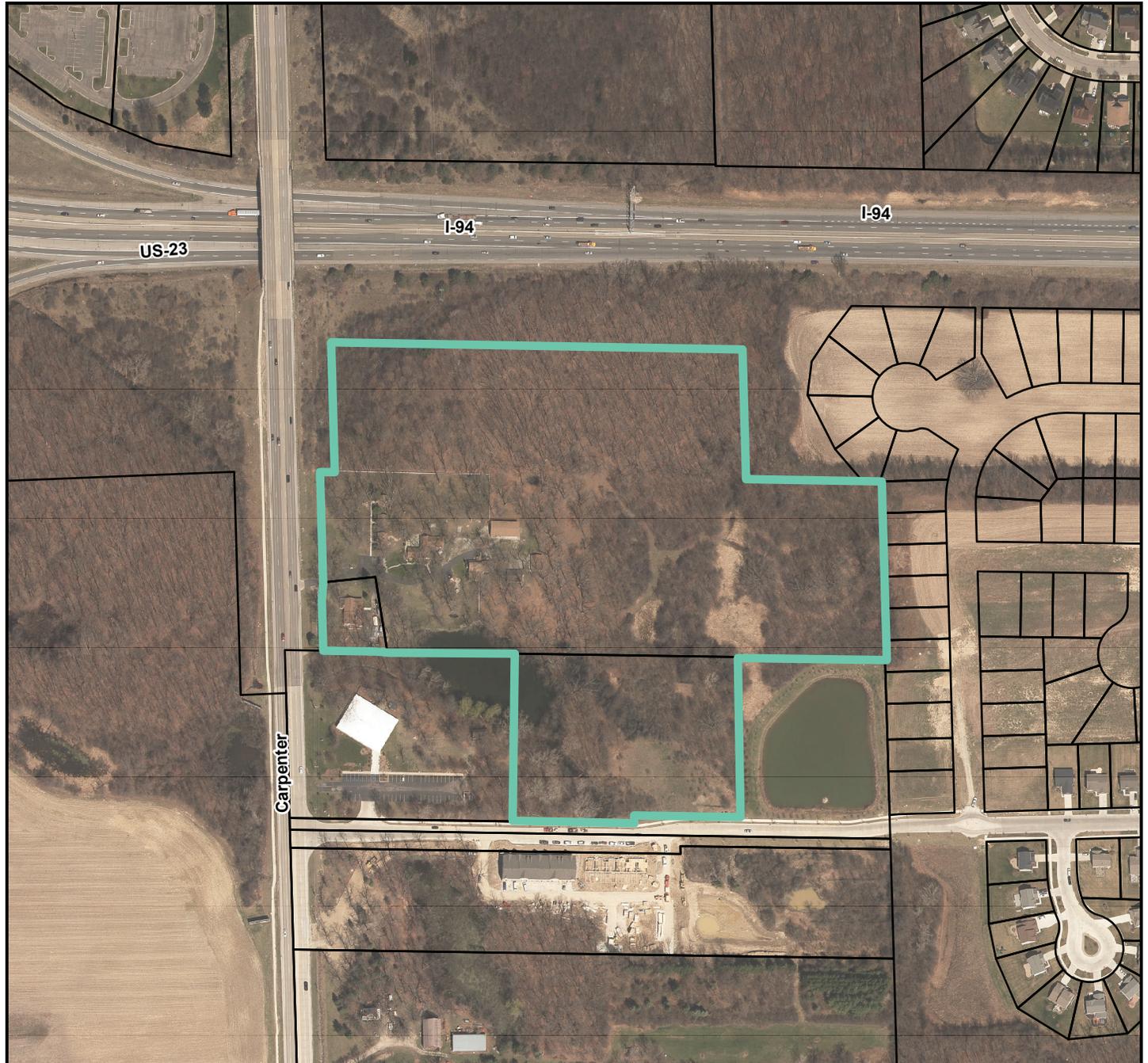
Meeting Date:  
July 9, 2020

Project:  
RZ 20-05

Applicant:  
Schafer Development LLC

Action:  
Rezoning

6	5	4	3	2	1
7	8	9	10	11	12
18	17	16	15	14	★ 13
19	20	21	22	23	24
30	29	28	27	26	25
31	32	33	34	35	36



0 400 800 Feet





**Pittsfield Charter Township**  
**Department of Utilities & Municipal Services**  
 6201 West Michigan Avenue, Ann Arbor, MI 48108  
 Phone: (734) 822-3130 Fax: (734) 944-1103  
 Website: www.pittsfield-mi.gov Email: planning@pittsfield-mi.gov

# Rezoning Application

Applicant Requirement Checklist
<input type="checkbox"/> <b>Project Fees</b> (must be paid by cash or check when application is submitted) <i>Administrative Fee is non-refundable. Application will not be processed until payment is received.</i>
<input type="checkbox"/> Completed <b>Application Form</b>
<input type="checkbox"/> Fourteen (14) sets of the proposed <b>site plan</b> . Three (3) full size plan sets, and eleven (11) reduced (11x17) plan sets
<input type="checkbox"/> A <b>CD</b> containing the entire plan set
<input type="checkbox"/> Legal description of the property

:: OFFICE USE ::	
RZ #	<u>20 - 05</u>
ZP App Fee \$	<u>1400</u>
Escrow Fee \$	<u>2000</u>
Total \$	<u>3400</u>

Submittal Information	
Name of Proposed Development:	<u>Arbor Oaks</u>
Current Zoning District:	<u>R-2B Single Family</u>
Proposed Zoning District:	<u>R-2 Low Density MF</u>

Property Information	
General Location of Site	<u>Southwest corner of Carpenter Rd + I-94</u> Or <u>4533 + 4545</u> <sup>+ 4599</sup> <u>Carpenter Rd</u>
Parcel I.D. #	12 - <u>13</u> - <u>300</u> - <u>019+08</u>
Gross Acreage of Site:	<u>20</u> Net Acreage <u>20</u>

Applicant Information	
(Please Print)	
Company Name (If Applicable)	<u>Schafer Development LLC</u>
Applicant's Name	<u>Steve + Spencer Schafer</u>
Address	<u>31400 Northwestern Hwy Sk H Farmington Hills MI 48334</u>
Contact Number	<u>(248) 914-7499 (Spencer)</u>
Fax Number	<u>( )</u>
Email Address	<u>spencer@schafer-dev.com</u> <u>steve@schafer-dev.com</u>

Applicant's Compliance Agreement	
The applicant(s) represents that they are the owner(s) of the subject property or are acting on behalf of the listed property owner, and herewith file <u>fourteen (14) copies</u> of the identified drawing of the property or site plan and all supporting material. The applicant also acknowledges that the filing of this application grants permission for Pittsfield Charter Township staff and/or officials to enter the property to determine the accuracy of the submitted information, including existing conditions. If the applicant is not the property owner, the owner must fill out the Property Owner Affidavit.	
Applicant's Signature	<u>[Signature]</u>
Applicant's Name (Please Print)	<u>Steven J. Schafer</u>
Date	<u>05/29/2020</u>

Please Complete Reverse Side →

:: Office Use ::	Time Stamp
Received By: <u>ZBC</u>	<u>06/1/20</u>
(Initials)	

Escrow Information (To be filled out if different than the applicant information)			
(Please Print)			
Company Name (If Applicable)		Contact Name	
Address	City	State	Zip
( )	( )		
Contact Number	Fax Number	Email Address	

Property Owner Information			
(Please Print)			
Linda A. Jenkins		( ) 734-434-1957	
Property Owner's Name		Contact Number	
4533 Carpenter Rd	Ypsilanti	MI	48197
Address	City	State	Zip
Email Address		( )	
		Fax Number	

Property Owner's Compliance Agreement	
I, <u>Linda A. Jenkins</u> hereby state that I am the owner of the property described on this application	
(Print Owner's name)	
and that I have authorized <u>Schafer Development LLC</u> to act as my agent for the purpose of obtaining the zoning variance, appeal, or interpretation herein requested, and I hereby acknowledge that the filing of this application grants permission for Pittsfield Charter Township staff and/or officials to enter the property to determine the accuracy of the submitted information, including existing conditions.	
<u>Linda Ann Jenkins</u>	05/29/2020
Property Owner's Signature	Date

dotloop verified  
05/29/20 11:52 AM  
EDT  
OSR-BIQE-VJF2-YG&A

Submittal by the application deadline does not guarantee placement on the agenda for the meeting date indicated on the meeting schedule.

# CONCEPTUAL PLAN FOR ALISTER PARK

## PITTSFIELD TOWNSHIP WASHTENAW COUNTY MICHIGAN

### DEVELOPER:

**SCHAFFER DEVELOPMENT LLC**  
**31400 NORTHWESTERN HIGHWAY SUITE H**  
**FARMINGTON HILLS, MICHIGAN 48334**

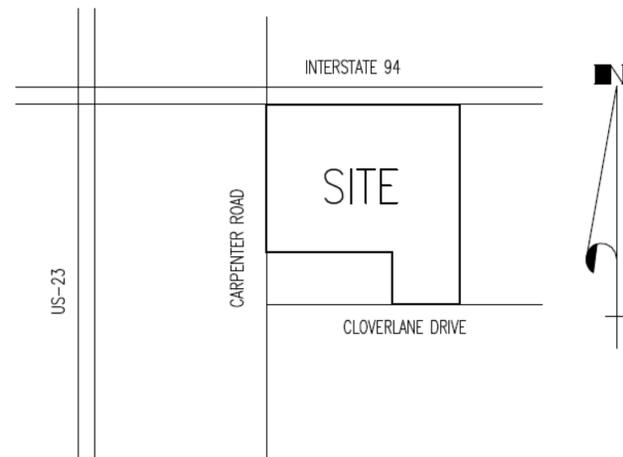
**MR. STEVEN SCHAFFER (248) 613-6262**

**E: [steve@schafer-dev.com](mailto:steve@schafer-dev.com)**

**MR. SPENCER SCHAFFER (248) 914-7499**

**E: [spencer@schafer-dev.com](mailto:spencer@schafer-dev.com)**

### LOCATION MAP



### SHEET INDEX

- 1) COVER SHEET
- 2) PRELIMINARY TOPOGRAPHIC SURVEY
- 3) WETLAND MAPPING
- 4) CONCEPT PLAN
- 5) AERIAL OVERLAY PLAN

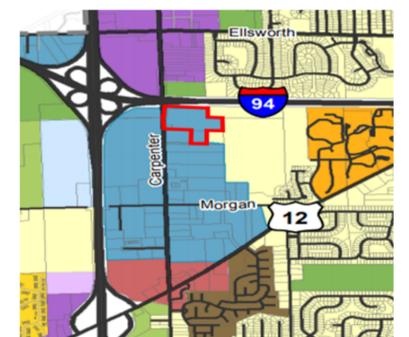


### Zoning Map



- R-1A Single Family Rural Non-Farm Residential
- R-1B Single Family Suburban Residential
- R-2 Low Density Multiple-Family
- R-3 Moderate Density Multiple-Family Residential
- MHP Mobile Home Park Residential
- C-1 Neighborhood Commercial
- C-2 Regional Commercial
- FB Form Based Mixed Use
- BD Business
- I General Industrial
- PF Public Facilities
- PUD Planned Unit Development

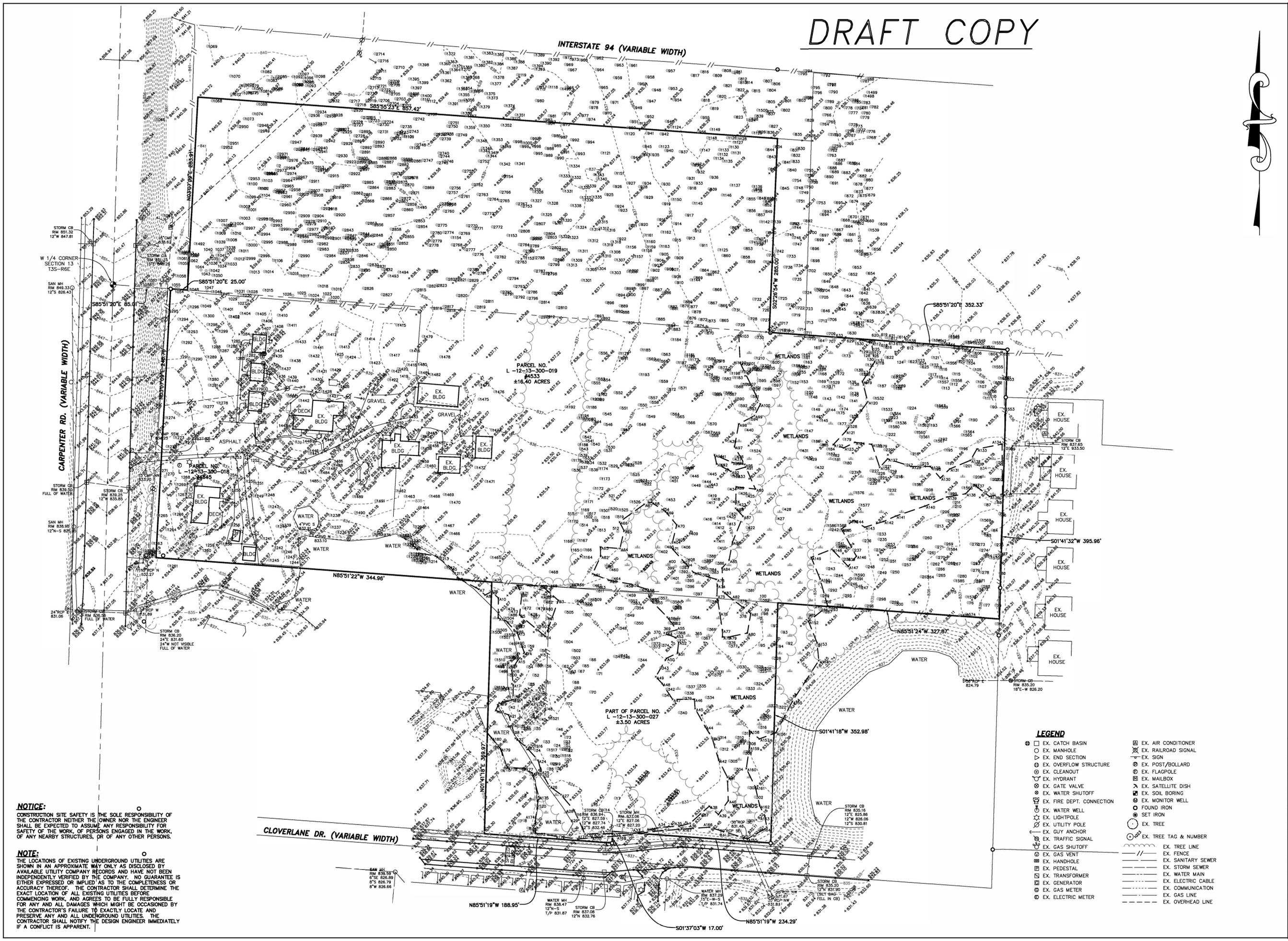
### FLU Map



- Agricultural Preservation
- Rural Residential
- Suburban Residential
- Multi-Unit I
- Multi-Unit II
- Manufactured Housing
- Neighborhood Commercial
- Regional Commercial
- Business District
- Industrial
- Mixed-Use I
- Mixed-Use II
- Park & Open Space
- Public

DRAFT COPY

INTERSTATE 94 (VARIABLE WIDTH)



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

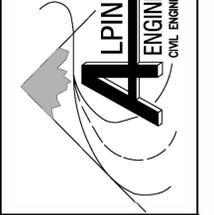
**NOTE:**  
THE LOCATIONS OF EXISTING UNDERGROUND UTILITIES ARE SHOWN IN AN APPROXIMATE WAY ONLY AS DISCLOSED BY AVAILABLE UTILITY COMPANY RECORDS AND HAVE NOT BEEN INDEPENDENTLY VERIFIED BY THE COMPANY. NO GUARANTEE IS EITHER EXPRESSED OR IMPLIED AS TO THE COMPLETENESS OR ACCURACY THEREOF. THE CONTRACTOR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

- LEGEND**
- EX. CATCH BASIN
  - EX. MANHOLE
  - ▽ EX. END SECTION
  - ⊕ EX. OVERFLOW STRUCTURE
  - ⊙ EX. CLEANOUT
  - ⊕ EX. HYDRANT
  - ⊕ EX. GATE VALVE
  - ⊕ EX. WATER SHUTOFF
  - ⊕ EX. FIRE DEPT. CONNECTION
  - ⊕ EX. WATER WELL
  - ⊕ EX. LIGHTPOLE
  - ⊕ EX. UTILITY POLE
  - ⊕ EX. GUY ANCHOR
  - ⊕ EX. TRAFFIC SIGNAL
  - ⊕ EX. GAS SHUTOFF
  - ⊕ EX. GAS VENT
  - ⊕ EX. HANDHOLE
  - ⊕ EX. PEDESTAL
  - ⊕ EX. TRANSFORMER
  - ⊕ EX. GENERATOR
  - ⊕ EX. GAS METER
  - ⊕ EX. ELECTRIC METER
  - ⊕ EX. AIR CONDITIONER
  - ⊕ EX. RAILROAD SIGNAL
  - ⊕ EX. SIGN
  - ⊕ EX. POST/BOLLARD
  - ⊕ EX. FLAGPOLE
  - ⊕ EX. MAILBOX
  - ⊕ EX. GATE VALVE
  - ⊕ EX. SATELLITE DISH
  - ⊕ EX. SOIL BORING
  - ⊕ EX. MONITOR WELL
  - ⊕ FOUND IRON
  - ⊕ SET IRON
  - ⊕ EX. TREE
  - ⊕ EX. TREE TAG & NUMBER
  - ⊕ EX. TREE LINE
  - ⊕ EX. FENCE
  - ⊕ EX. SANITARY SEWER
  - ⊕ EX. STORM SEWER
  - ⊕ EX. WATER MAIN
  - ⊕ EX. ELECTRIC CABLE
  - ⊕ EX. COMMUNICATION
  - ⊕ EX. GAS LINE
  - ⊕ EX. OVERHEAD LINE

**COMMERCIAL**  
SITE PLANNING  
SURVEYING  
INDUSTRIAL MULTI-UNIT  
LAND SURVEYING  
CONSTRUCTION LAYOUT

**SURVEYING**  
ALTA SURVEYS  
BOUNDARY SURVEYS  
TOPOGRAPHIC SURVEYS  
PARCEL SPLITS

**RESIDENTIAL**  
SUBDIVISIONS  
SITE PLANNING  
MULTI-FAMILY  
PLOT PLANS  
CONSTRUCTION LAYOUT



**811**  
Know what's below  
Call before you dig.

**BOJI DEVELOPMENT**  
**PRELIMINARY TOPOGRAPHIC SURVEY**  
I-94 & CARPENTER RD.  
TOWNSHIP 3S  
PITTSFIELD TOWNSHIP  
WASHTENAW COUNTY  
MICHIGAN  
SECTION: 13  
RANGE: 6E

CLIENT: \_\_\_\_\_  
REVISED: \_\_\_\_\_  
DATE: \_\_\_\_\_  
DRAWN BY: JRJ  
CHECKED BY: GLM  
FBK: 329  
CHF: RDF  
SCALE: HOR 1"=50 FT.  
VER 1"=5 FT.  
1/2  
17-124

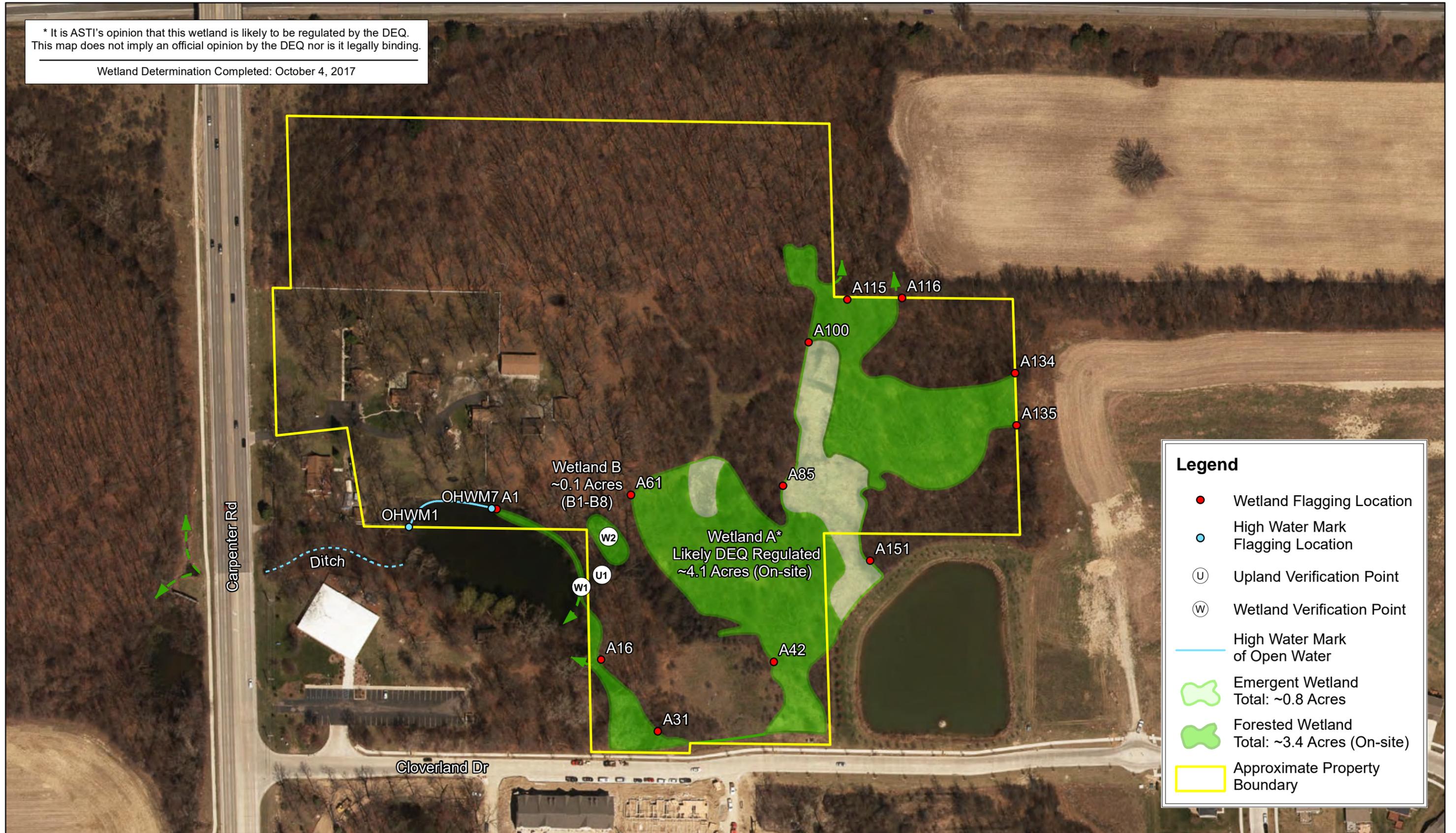
(248) 928-3701 (BUS)  
(248) 928-3765 (FAX)  
WWW.ALPINE-INC.NET

46892 WEST ROAD  
SUITE 108  
NOVI, MICHIGAN 48377

CIVIL ENGINEERS & LAND SURVEYORS

\* It is ASTI's opinion that this wetland is likely to be regulated by the DEQ.  
This map does not imply an official opinion by the DEQ nor is it legally binding.

Wetland Determination Completed: October 4, 2017



Pittsfield Township Property

4533 Carpenter Rd  
Pittsfield Township, MI

0 75 150 300 Feet



Figure 1 - Approximate Wetland Boundaries

SCALE 1" = 60'

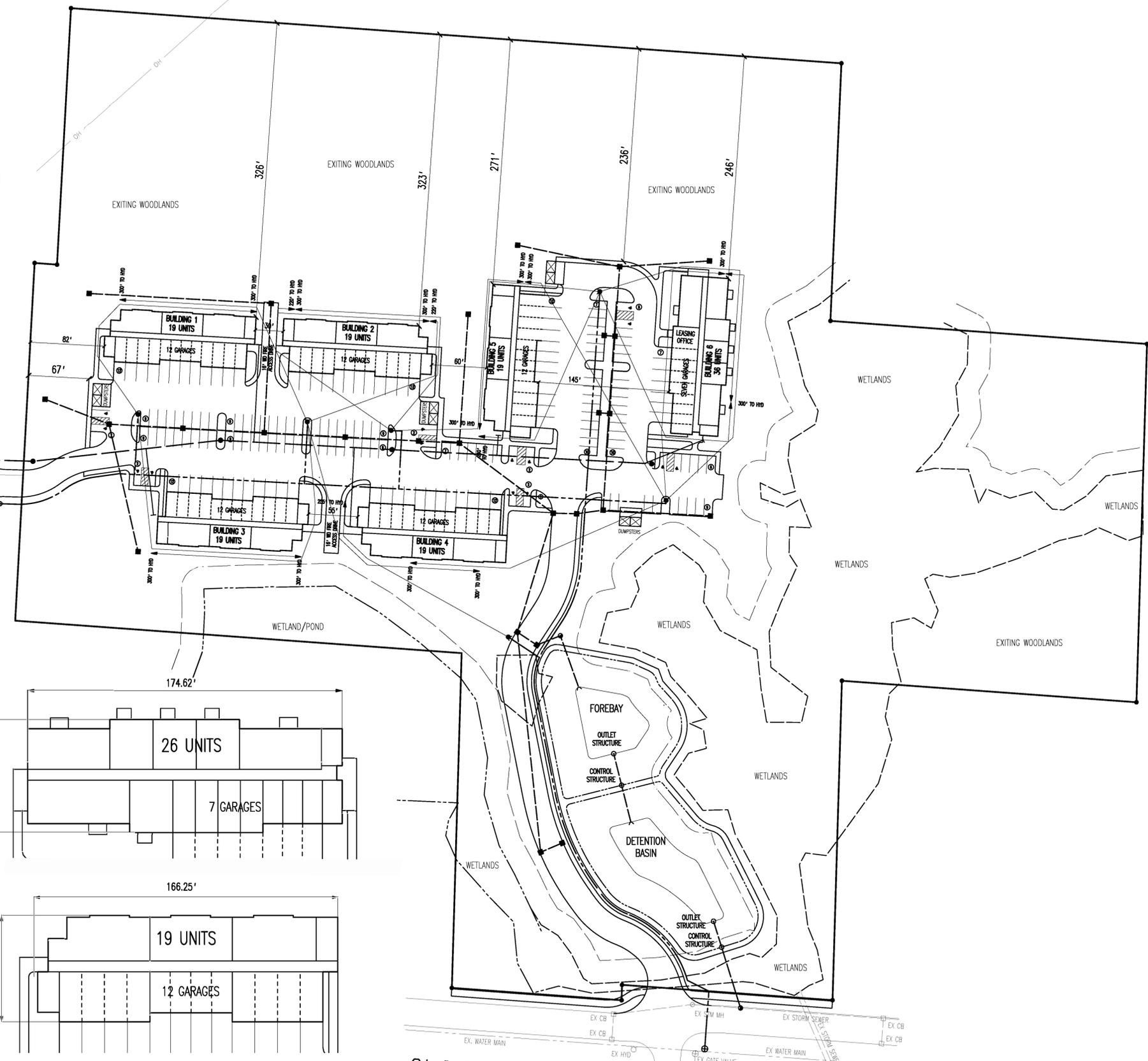
INTERSTATE 94

# CONCEPT PLAN PITTSFIELD TOWNSHIP WASHTENAW COUNTY MICHIGAN



CARPENTER ROAD

CLOVERLANE DRIVE



## SITE DATA

EXISTING ZONING - R-1B SINGLE FAMILY SUBURBAN RESIDENTIAL  
FUTURE LAND USE DESIGNATION - INDUSTRIAL

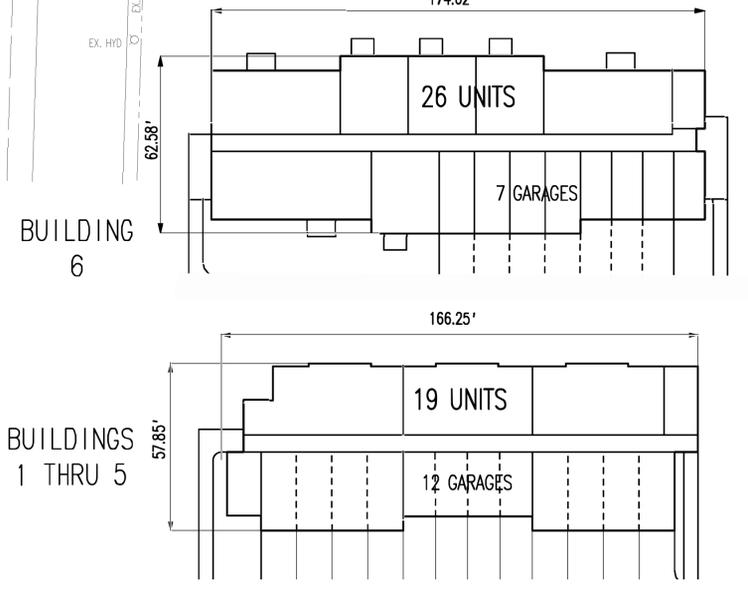
SITE AREA - 20.33 ACRES+/-  
ALLOWABLE DENSITY UNDER R-2 - 1 UNIT/7,300 SF OF SITE AREA  
20.33 AC X (43,560 SF/AC X 1/7,300 SF) = 121 .31 (121 UNITS)  
PROPOSED NUMBER OF UNITS - 121 APARTMENT UNITS  
(3-STORY - FIVE 19-UNIT BUILDINGS & ONE 26-UNIT BUILDING)  
BUILDING HEIGHT - 39.08 FEET

PROPOSED OPEN SPACE - 12.2 ACRES OR 60% OF TOTAL SITE AREA  
EXISTING WETLANDS - 4.2 ACRES

PARKING REQUIRED - TWO SPACES/ UNIT OR 242 SPACES  
PARKING PROVIDED - 67 GARAGE SPACES, 197 SURFACE SPACES  
- INCLUDING 12 HANDICAP SPACES  
- 255 TOTAL SPACES

## LEGEND

EXISTING		PROPOSED
---	STORM SEWER	---
---	SANITARY SEWER	---
---	WATERMAIN	---
---	GAS MAIN	---
---	ELEC. TELE. CABLE	---
⊙	STORM MANHOLE	⊙
□	CATCH BASIN	□
⊙	INLET	⊙
⊙	REARYARD CATCH BASIN	⊙
>	END SECTION	>
⊙	SANITARY MANHOLE	⊙
⊙	GATE VALVE AND WELL	⊙
⊙	HYDRANT	⊙

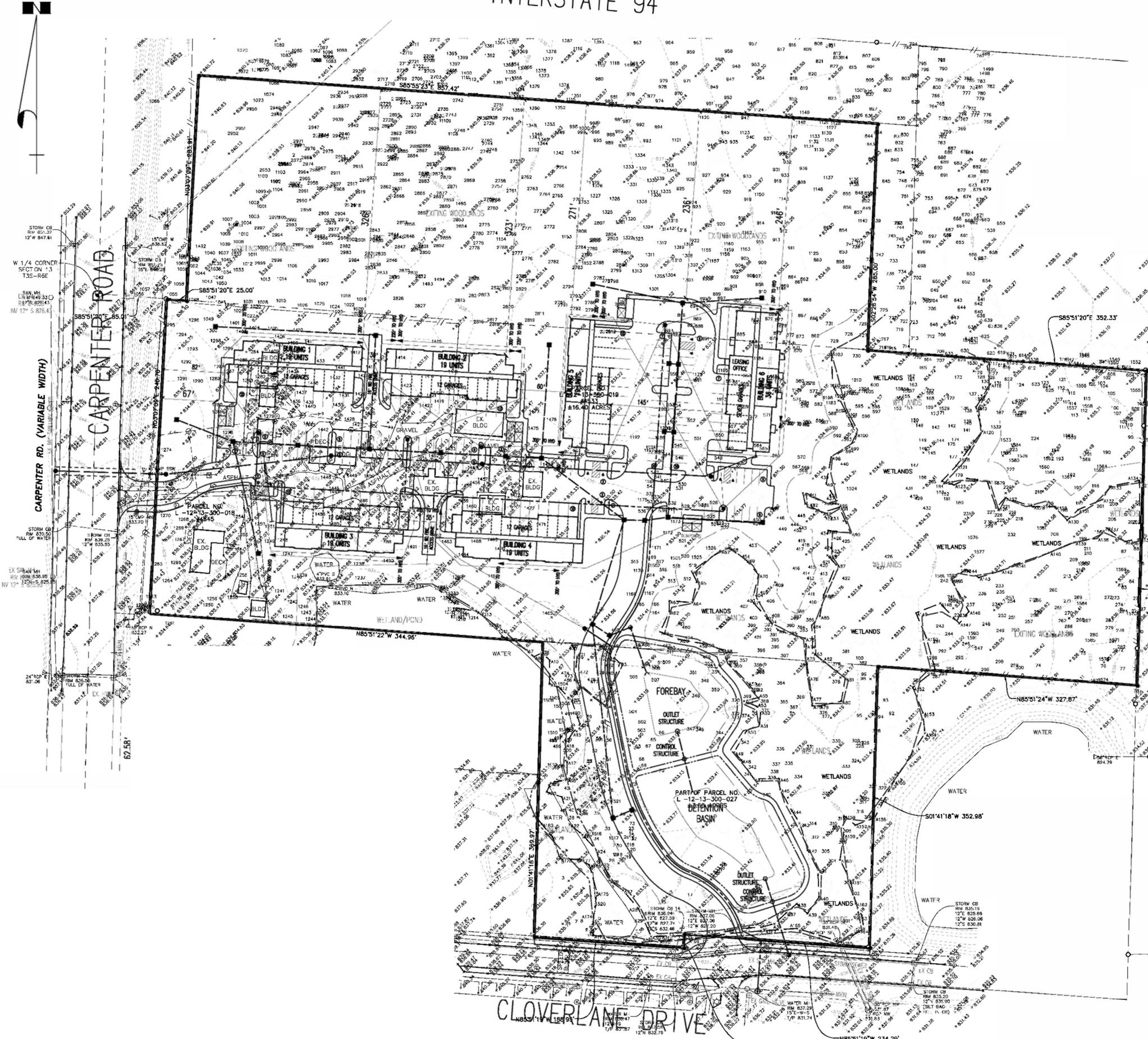


BUIDING FOOTPRINTS

SCALE 1" = 60'

INTERSTATE 94

# AERIAL OVERLAY PLAN PITTSFIELD TOWNSHIP WASHTENAW COUNTY MICHIGAN





**Pittsfield Charter Township**  
*Department of Utilities & Municipal Services*

6201 West Michigan Avenue, Ann Arbor, MI 48108  
Phone: (734) 822-3101 • Fax: (734) 944-1103  
Website: [www.pittsfield-mi.gov](http://www.pittsfield-mi.gov)

**Mandy Grewal, Supervisor**

**MEMORANDUM**

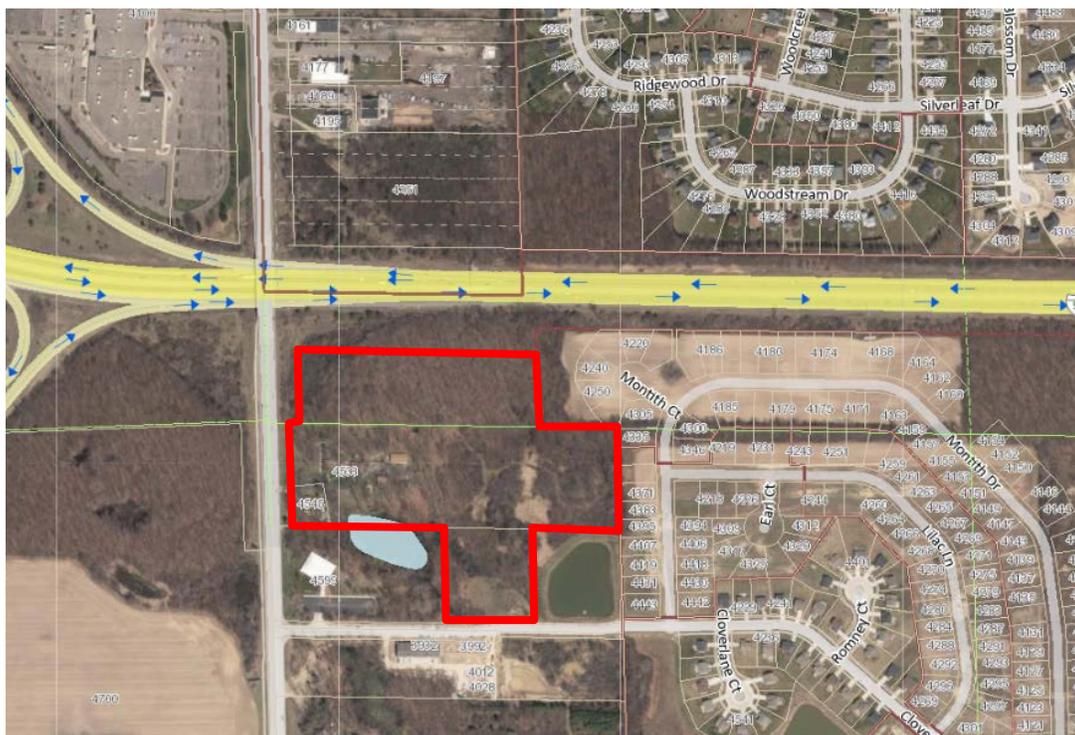
**TO:** Pittsfield Township Planning Commissioners

**FROM:** Ben Carlisle, AICP  
Laura Kreps, AICP

**DATE:** June 30, 2020

**SUBJECT:** Alister Park – Conceptual Development Plan

A Conceptual Development Plan has been submitted by Schafer Development regarding a potential multiple-family development for a property on Carpenter Road just south of I-94. The applicant is proposing to develop two parcels adjacent to Carpenter Road, and in addition is purchasing the back portion of the church site that is at the northeast corner of Carpenter and Cloverdale. See aerial photo below:



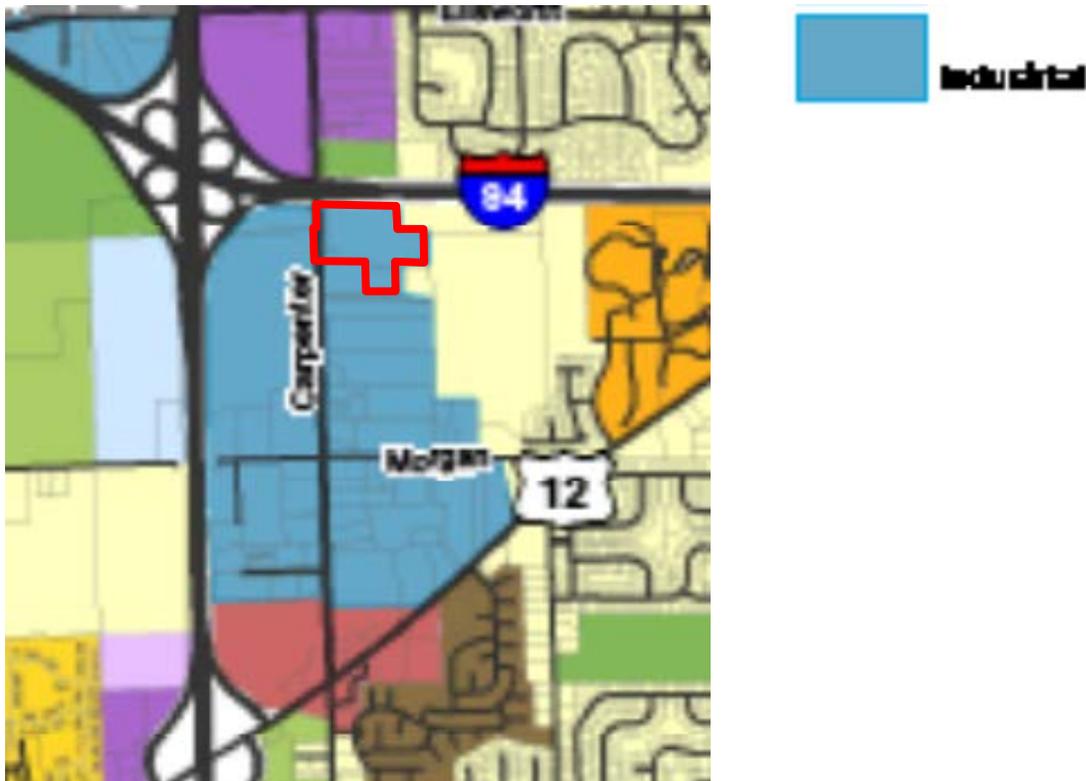
The +/- 20 acre subject site is currently partially developed with a few small cabin-like structures. The remainder of the site is wetland and woodlands. The current zoning of the parcel is R-1B, Single-Family Residential. The Master Plan identifies this site as future land use of Industrial. The applicant desires to conditionally rezone the site to R-2, Low Density Multiple Family Residential, in order to develop 121 total units in six (6) buildings.

Under the existing R-1B zoning the applicant would be eligible for up to 87 single family lots. This number in actuality would be much lower due to the need to install infrastructure such as roads and stormwater detention, and account for woodland and wetland protection.

Please note that this is not a complete review but the applicant is requesting feedback from the Planning Commission before proceeding with filing a complete rezoning and site plan application.

**Master Plan – Should it be amended?**

The site is future land use planned as Industrial:



This site is bounded by I-94 to the north, institutional and multiple family to the south, single-family residential to the east, and vacant woodlands to the west. In order to rezone the property to accommodate for the proposed development, the Township would have to consider amending the Master Plan. As you are aware, the Master Plan is the primary policy document which guides development in the Township, and all land use decisions that come before the Planning Commission

and Township Board should be in general compliance with the Master Plan. As noted above, the proposed development is not consistent with the intended future use outlined in the Master Plan.

As part of the consideration of this site, the Planning Commission should consider if Industrial use, as future land use planned, is appropriate for this site.

**Conditional Rezoning:**

In earlier conversations with the applicant they indicated that they wish to rezone this property as a Conditional Rezoning. The applicant has not clarified what the conditions they are voluntarily offering as part of the rezoning. If this project moves forward the applicant should identify those voluntary conditions in writing.

**Site Plan:**

The applicant proposes to develop 121 total units in six (6) buildings. Five (5) of the buildings are 19 units each, and one (1) building is 36 units. As noted, under the existing R-1B zoning the applicant would be eligible for up to 87 single family lots. This number in actuality would be much lower due to the need to install infrastructure such as roads and stormwater detention, and account for woodland and wetland protection.

The applicant has provided conceptual floor plans and elevations. Materials are not indicated. Each building is 3-stories, and 39-feet. The maximum height for the R-2 district is 35-feet. The applicant would be required to obtain a variance from the ZBA. Does the Planning Commission think a 39-foot tall building is appropriate?

As part of the development the applicant proposes to maintain +/- 12 acres of open space. The open space includes regulated wetlands and a number of protected trees. The applicant will be required to provide a wetland delineation and complete tree survey. The applicant should clarify the amount of wetland and woodland preserved.

Access to the site off of Carpenter Road is limited due to grade changes of the I-94 bridge and proximity to the intersection of Cloverlane and Carpenter Road. It is unclear if the access off Carpenter Road is a full-access, right-in / right-out, or emergency only. If access is limited to Carpenter Road, the applicant should consider traffic impacts on Cloverlane, and cut through traffic.

**Questions for Planning Commission Consideration:**

1. Is Industrial use, as future land use planned, appropriate for this site?
2. Would the Planning Commission consider a Master Plan amendment?
3. Is the density appropriate for the site?
4. Does the Planning Commission think a 39-foot tall building is appropriate?
5. Has the applicant done enough to preserve and mitigate onsite wetlands and woodlands?
6. Are there other site amenities that should be considered?

7. Any additional direction that the Planning Commission would provide the applicant?

This item has been placed on the agenda for conceptual presentation and discussion purposes prior to formal submittal of a rezoning application.

We look forward to discussing this item with the Planning Commission on July 9, 2020.

Sincerely,



CARLISLE/WORTMAN ASSOC., INC.  
Benjamin R. Carlisle, AICP, LEED AP  
Principal



CARLISLE/WORTMAN ASSOC., INC.  
Laura K. Kreps, AICP  
Associate



**Pittsfield Charter Township**  
*Department of Utilities & Municipal Services*

6201 West Michigan Avenue, Ann Arbor, MI 48108  
Phone: (734) 822-3101 • Fax: (734) 944-1103  
Website: [www.pittsfield-mi.gov](http://www.pittsfield-mi.gov)

**Mandy Grewal, Supervisor**

**MEMORANDUM**

**TO:** Pittsfield Township Planning Commissioners

**FROM:** Ben Carlisle, AICP  
Laura Kreps, AICP

**DATE:** June 30, 2020

**SUBJECT:** Revised Open Space Preservation Development Option (OSPDO) Ordinance

---

The Planning Commission considered changes to the Open Space Preservation Development Option (OSPDO) at the June 4<sup>th</sup> meeting and the June 18<sup>th</sup>. During those meetings there was great discussion and questions.

Since that meeting, I have amended the language based on Planning Commission input to include environmental features and affordable housing as one of five benefits that may be provided by applicant to receive discretionary 20% density bonus. Other benefits include preservation of significant natural features, provision of recreation facilities; and preservation of agricultural land.

We look forward to discussing this item with the Planning Commission on July 9, 2020.

Sincerely,

CARLISLE/WORTMAN ASSOC., INC.

Benjamin R. Carlisle, AICP, LEED AP

Principal

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ARTICLE 7.02

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**SECTION 7.02 OPEN SPACE PRESERVATION DEVELOPMENT OPTION (OSPDO)**

A. **Purpose.** This section is intended to carry out the provisions of Act 177, PA 2001, as amended (now MCL 125.286h) to include an open space preservation development option in the Pittsfield Township Zoning Ordinance. This Section proposes to accomplish this purpose by allowing the owner of certain parcels of land the option to develop that land in a manner that groups dwelling units on portions of the land that are most suitable for residential development while requiring the remaining portions of land most suitable for open space use to be perpetually preserved as undeveloped open space. The regulations in this Section are also intended to accomplish the following non-exclusive list of purposes.

1. Preserve natural drainage systems, open space, farmlands, rural character, woodlands and wetlands, natural topography, and environmentally sensitive areas.
2. Achieve a higher quality of residential development than could otherwise be achieved under conventional zoning.
3. Permit development that is consistent with the Township's adopted Master Plan and any other applicable adopted plans.
4. Preserve natural vegetation to the extent feasible.
5. Preserve open space.

6. Facilitate the construction and maintenance of streets, utilities, and public services in a more economical and efficient manner to ~~R~~reduce capital costs of development.

Commented [BC1]: Added a few additional purpose statement to clarify purpose of the ordinance

7. Limit soil erosion potential by reducing the amount of clearing and grading needed for development.

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8. Encourage a less sprawling form of development, thus preserving open space as undeveloped land.

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~~7-9.~~ Allow for design innovation to provide flexibility for land development where the normal development approach would otherwise be unnecessarily restrictive or contrary to other Township goals.

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B. **Review Authority.** The Pittsfield Township Planning Commission shall have authority to approve or deny applications for an OSPDO that is to be developed as a site condominium or a metes and bounds land division. The Township Board shall have authority to approve or deny an application for an OSPDO that is to be developed as a subdivision, after recommendation by the Planning Commission. The Township Board shall have final

authority to approve or reject the conservation easement and master deed or restrictive covenants for a development under this Section.

C. **Eligible Property.**

1. A parcel of land, which parcel shall be the parent lot for the purposes of this Section, is eligible for an OSPDO if all the following requirements are met.

- a. The parent lot is zoned AG, R-1A, ~~or R-1B, R-2, or R-3~~
- b. The parent lot has an area of at least ~~five-three (35)~~ acres of contiguous land, not divided by a road.
- c. The parent lot is under single ownership control such that a single person or entity has proprietary responsibility for completing and maintaining the development. An applicant applying for an OSPDO under this Section shall provide documentation of such ownership or control in the form of agreements, contracts, deeds, or other such evidence as is acceptable by the approving authority to assure that the applicant has sufficient ownership interest in the parcel to bind the land and assure that the development will be completed in its entirety as approved and that the land will continue to be in compliance and maintained in accordance with the final site plan, preliminary plat as finally approved, and the approved maintenance plan under this Section.

**Commented [BC2]:** Currently the ordinance doesn't permit cluster developments for multiple family (R-2, and R-3) districts. There may be opportunities to require/encourage cluster developments for multiple family developments

~~d. Neither the parent lot nor any individual parcel or condominium unit within a proposed OSPDO is dependent upon the extension of public water or sanitary sewer services.~~

**Commented [BC3]:** Currently cluster developments are only permitted in the rural, non-utility portions of the township. By removing this requirement, clusters can be developed in all portions of the township.

2. A OSPDO development shall maintain a minimum of thirty percent (30%) of the gross area of the site as dedicated open space held in common ownership.

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~~2.3.~~ Open space preservation developments achieving at least fifty percent (50%) dedicated open space and meeting the provisions of Section 7.02. ~~1-K~~ shall be treated as a permitted land use. Open space preservation developments with between thirty percent (30%) and less than fifty percent (50%) dedicated open space but otherwise meeting the provisions of Section 7.02. ~~1-K~~ shall be treated as a conditional land use.

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D. **Permitted Uses.** The following uses are permitted within an OSPDO:

1. **AG District.** In an AG Zoning District, the land may be used for single family detached dwelling units and accessory buildings or structures on an approved lot or condominium unit. All other uses listed in Section 4.20 shall be permitted in the dedicated open space, except that intensive livestock or poultry raising operations, such as poultry houses, hog hotels, etc., shall not be permitted.

2. ~~R-1A, or R-1B, R-2, or R-3~~ District. All residential uses and types uses permitted in Section 4.20 in a R-1A, ~~or R-1B, R-2, and R-3~~ ~~Zoning~~ Districts, are permitted in an OSPDO under this Section.

**Commented [BC4]:** Added R-2 and R-3 districts

**E. Density Regulations.** The number of lots or site condominium units permitted on a parcel of land under an OSPDO shall be calculated as follows:

~~3.~~ For sites not served by public utilities, the number of units shall not exceed the area of the parent lot, in acres, multiplied by:

**Commented [BC5]:** Density shall be based upon sites with utilities and those without. The biggest restriction to lot size and density in the non-utility is the county requirement for ¼ or 1 acre for well and septic.

1.

a. Thirty-five one-hundredths (0.35) for land zoned AG.

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a.

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b. ~~Eighty one~~Eighty ~~one~~-hundredths (0.80) for land zoned AG that is designated for rural residential, low density use in the Township's adopted Comprehensive Plan.

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b.

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c. ~~Eighty one hundredths~~One (1.0)~~0.80~~ for land zoned R-1A ~~or R-1B~~.

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d. One point two-five (1.25) for land zoned R-1B.

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e. The minimum area of each lot or site condominium unit in an OSPDO shall not be less than the minimum area required by Washtenaw County for well and septic tank/drainfield permits

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~~4.2.~~ For lots served by public utilities, the number of dwelling units permitted shall not exceed the number of dwelling units customarily developable in the zoning district in which the proposed development is located, developed with a conventional layout and all applicable ordinances and laws observed. In order to calculate density with a conventional subdivision or site condominium layout, the applicant shall submit a concept site plan of the property with a conventional layout. The plan shall indicate the topography of the site at two (2) foot contour intervals and the limits of all floodplains, water bodies, wetlands, easements, and other areas which would be set aside and preserved due to impracticality, economic unfeasibility, contractual prohibition, or based upon applicable law or ordinance. In addition, the concept plan with the conventional layout shall include the general street pattern and lot configurations. In general, the plan shall be drawn with sufficient detail to permit the Planning Commission to determine the density that would be achieved by conventional development.

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**Commented [BC6]:** R-1A requires 1 acre per unit. Multiplying the total area by 0.8 is actually penalizing clusters by requiring a density that is only 4/5 of what the development could achieve by not doing a cluster.

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**Commented [BC7]:** Same comment as above. R-1B requires 10,000 sq/ft lots. Multiplying by 1.5 is more in line with R-1B requirements.

Again the overall density and minimum lot areas will be dictated by the county's minimum lot size.

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~~5.3.~~ Maximum lot coverage shall be twenty percent (20%). Maximum impervious surface coverage shall be twenty five percent (25%). Maximum floor area ratio shall be twenty percent (20%). The area of the parent lot shall be as defined in the definition of lot area in Article 2, herein. Fractions shall be rounded down to the nearest whole number.

**Commented [BC8]:** The intent of this section is to provide a "parallel" plan which sets the base density for the project

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4. To encourage the use of the OSPDO, if all standards set forth in Section 7.02.I are met, the underlying density established by 7.04.E.1 and 2 may be increased by up to twenty percent (20%) at the discretion of the Planning Commission. Density bonuses shall be based upon a demonstration by the applicant of one of the following:

a. Preservation of Significant Natural Features. Preservation of significant natural features contained on the site, as long as it is in the best interest of the Township to preserve the natural features that might be negatively impacted by conventional residential development. The determination of whether the site has significant natural features shall be made by the Planning Commission, after review of a Natural Features Analysis, prepared by the applicant, that inventories these features; or

b. Provision of Recreation Facilities. If the site lacks significant natural features, it can qualify with the provision of usable recreation facilities to which residents and non-residents of the development shall have reasonable access. Such recreation facilities include areas such as a neighborhood park, passive recreational facilities, soccer fields, ball fields, bike paths, or similar facilities that provide a feature of community-wide significance and enhance residential development; or

c. Preservation of Agricultural Land. Preservation of existing agricultural land. The determination of whether the site has significant agricultural features shall be made by the Planning Commission after review of a Site Plan, prepared by the applicant, which inventories these features.

d. Provision of Affordable Housing. To provide affordable housing opportunities in situations where such opportunities might not otherwise be provided. Designated units shall remain affordable for the life of the development. Provisions to implement the affordable housing premium option shall meet requirements for Affordable Housing as determined by the Township.

e. Inclusion of Environmental Features. To advance the goals of the Township regarding environmental sustainability and stewardship. Environmental features may include:

1. Sustainable building construction including but not limited to LEED certification or practices, "solar ready" construction standards, "EV Ready" parking locations (this could be for each unit or at the community level); or

2. Development level or "Community" green features including but not limited to community compost facilities, community solar and/or geothermal energy harvesting capabilities (there may be some opportunity for this in the open greenspace), green infrastructure, rainwater management for irrigation of greenspaces, and "smart lighting" of sidewalks/community spaces.



F.G. **Minimum Lot Width.** Each lot or site condominium unit in an OSPDO shall have the following minimum widths, provided that the length to width ratio of any lot or unit shall not exceed 4:1:

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1. AG District and R1-A District: ~~one hundred (100) feet; seventy five (75) feet.~~

2. ~~R-1A or R-1B District: one fifty hundred (5100) feet.~~

3. ~~R-2 and R-3 District: no minimum lot width.~~

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H. **Regulatory Flexibility.** ~~The Planning Commission, may waive the lot coverage; impervious surface percentage; floor area ratio; front, side, rear, perimeter setback; and minimum lot width requirements provided that the applicant has demonstrated innovative and creative site and building designs and solutions, which would otherwise be unfeasible or unlikely to be achieved absent this provision.~~

Commented [BC10]: Grant Planning Commission flexibility to review and grant deviations.

G.I. **Dedicated Open Space Requirements.**

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1. ~~An OSPDO development shall maintain a minimum of thirty percent (30%) of the gross area of the site as dedicated open space held in common ownership.~~

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2. ~~Open space preservation developments achieving at least fifty percent (50%) dedicated open space and meeting the provisions of Section 7.02.I shall be treated as a permitted land use. Open space preservation developments with between thirty percent (30%) and less than fifty percent (50%) dedicated open space but otherwise meeting the provisions of Section 7.02.I. shall be treated as a conditional land use. At least fifty percent (50%) of the parent lot area shall be in dedicated open space, except where an applicant is seeking approval for an OSPDO as a conditional land use. The definition of lot area shall be as defined in Article 2 herein.~~

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3. ~~The open space area within a proposed OSPDO shall be located so that it preserves significant natural resources and/or connects open spaces throughout the development and with adjacent open space.~~

4. ~~The open space shall be connected with existing or potential open space and/or adjacent public land where feasible.~~

5. ~~An accessory structure(s) for permitted uses may be erected in the open space in accordance with the approved site plan or plat.~~

6. ~~Except in a case where the applicant proposes agricultural use in the open space area that is independent from the proposed residential uses in the development, all owners of lots or site condominium units in an OSPDO shall be permitted access to the dedicated open space. Use of dedicated open space may be restricted to property owners in the development.~~

~~6.7.~~ The applicant shall submit an open space management plan for maintaining the dedicated open space with the application for the OSPDO.

~~7.8.~~ An owner's association shall be created for a development under this section which shall own and be responsible for maintaining the dedicated open space. Each property owner shall be a member of the association.

~~8.9.~~ Where a development under this Section is proposed in phases, the Township may require that all land to be dedicated as open space shall be included in the first phase of the development.

~~H.J.~~ *Guarantee of Dedicated Open Space.*

1. The applicant for an OSPDO shall set aside the dedicated open space through an irrevocable conveyance that guarantees the dedicated open space will remain perpetually open and will be maintained in the manner approved by the Township Board. This conveyance shall be in the form of a permanent conservation easement.
2. The purpose of the conservation easement shall be to ensure that dedicated open space will be:
  - a. Protected from all forms of development and limited to the uses and structures as approved;
  - b. Shown on an approved site plan or plat; and
  - c. Never changed to another use.
3. The conservation easement shall contain, at a minimum, the following provisions that:
  - a. Describe the permitted use(s) within the dedicated open space.
  - b. Prohibit the storing and/or dumping of refuse and any hazardous materials or refuse on the dedicated open space.
  - c. Prohibit any activity that might cause risk of soil erosion on the dedicated open space except for accepted agricultural practices.
  - d. Prohibit the use of motorized vehicles and or motorized watercraft on the dedicated open space.
  - e. Prohibit all cutting, filling, or removal of vegetation from wetland or wooded areas in dedicated open space, except for invasive species and as otherwise needed for acceptable resource management practices.

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- f. Prohibit the use of pesticides, herbicides, or fertilizers within or adjacent to wetlands in a dedicated open space.
  - g. Require that the owner's association maintain the dedicated open space in accordance with the approved management plan.
  - h. Provide for maintenance of the dedicated open space to be undertaken by the Township Board, and the costs thereof assessed against the person or entities responsible for maintaining the dedicated open space, if:
    - i. There is a failure to adequately maintain the open space in accordance with the approved maintenance plan; or
    - ii. The Township Board determines that the dedicated open space is a public nuisance.
  - i. Require that the conservation easement runs with and is binding upon the land and shall be recorded with the deeds to all parcels created and proposed as part of a development under this Section.
  - j. Provide that, if the owners association, or any land trust or conservancy holding the conservation easement, ceases to exist, the easement shall revert to Pittsfield Township.
4. At the option of the applicant, the conservation easement may be dedicated to and held by the Township or a recognized land trust or conservancy approved by the Township Board. The easement shall be in a form acceptable to the Township and shall be duly recorded in the Washtenaw County Register of Deeds office. This provision does not prohibit a transfer of ownership or control, provided such transfer or control has prior approval of the Township Board and the property in the OSPDO continues in compliance with the Township's original approval.

I-K. **Review Procedures.** An application for an OSPDO shall be reviewed as follows:

1. **Subdivisions.** If an OSPDO is for a subdivision, review of the preliminary and final plats shall proceed as provided in the Pittsfield Township Subdivision Ordinance and the Township's adopted Land Development Standards.
2. **Site Condominiums.** If an OSPDO is for a site condominium, review shall proceed as provided in Section 7.01 and Article 9.0 of the Zoning Ordinance and the Township's adopted Land Development Standards.

~~3. **Metes and Bounds Divisions.** If an OSPDO is for land division by metes and bounds descriptions, the review shall proceed as provided for preliminary and final~~

~~site plans in Article 9.0 of the Zoning Ordinance and the Township's adopted Engineering Standards.~~

6.L. **Review Standards.** A proposed OSPDO shall meet all the following standards for approval. The Planning Commission shall make the necessary findings for compliance with this Section upon its review of the final site plans for site condominiums and metes and bounds land divisions under this Section. It shall be the responsibility of the Township Board to make such findings for subdivisions developed under this Section after review and recommendation by the Planning Commission. All findings shall be in writing and shall be recorded in the minutes of the meeting at which the decision is made.

1. The proposed OSPDO must be consistent with the Township's adopted Master Plan and any other applicable adopted plan.
2. The proposed OSPDO must not adversely affect existing or future uses or the value of adjacent properties.
3. A site plan shall meet all requirements and standards for preliminary and final site plans as provided in Article 9.0 of the Zoning Ordinance and all requirements and standards of the Township's Land Development Standards. A subdivision plat shall meet all requirements and standards for preliminary and final plats in the Township's Subdivision Control Ordinance and the Township's Land Development Standards.
4. The proposed OSPDO must meet all requirements and standards in this Section and all other applicable provisions of the Zoning Ordinance.
5. The proposed OSPDO must comply with all applicable Federal, State, and local rules and regulations.

6.M. **Design Standards.**

7.1. The OSPDO shall be designed to promote preservation of natural features. Lots or site condominium units, roads, storm water management facilities, and other improvements shall be designed and situated to minimize alteration of or intrusion into the natural environment.

8.2. Lots or site condominium units shall be located on soils that are most suitable for drainfields.

9.3. Dwelling units shall be located away from environmentally sensitive areas. They shall not be located in areas most suitable for open space. Dwelling units shall be located as far as possible from agricultural areas.

10.4. Placement of wells, septic tanks, and drainfields shall comply with all requirements of Washtenaw County.

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~~11.5.~~ Each lot or site condominium unit shall have access to and frontage on an approved street.

~~12.6.~~ Pedestrian access shall be provided within a development between lots or site condominium units and non-agricultural open space, between open space areas, and to appropriate on and off-site uses.

~~13.7.~~ The Planning Commission or Township Board, whichever applies, may require that structures of historic, cultural, or architectural significance on the site of an OSPDO be retained, if suitable for rehabilitation. Adaptive reuse for a permitted use may be permitted.

~~K.N.~~ ***Conditions of Approval.*** The Planning Commission or Township Board, whichever applies, may impose reasonable conditions for approval of an OSPDO that will assure that the development and all elements of the proposed OSPDO will be consistent with the intent and purpose of requirements in this Section, the Zoning Ordinance, Subdivision Control Ordinance and the Township's Land Development Standards.

~~L.O.~~ ***Recording of Action.***

1. Upon approval of a final site plan by the Planning Commission, or final approval of a preliminary plat by the Township Board, the applicant shall record an affidavit with the Washtenaw County Register of Deeds that contains the full legal description of the property in the OSPDO, specifies the date of Township approval, states the conditions the Planning Commission or Township Board imposed, and declares that all improvements will be carried out pursuant to the approved OSPDO plan or plat, unless an amendment is endorsed by the Planning Commission or Township Board, whichever applies. The deed restrictions and conservation easement shall be duly filed with the Washtenaw County Register of Deeds. The applicant shall promptly submit copies of the recorded documents to the Township Clerk.
2. Upon approval of a final site plan by the Planning Commission, or final approval of preliminary plat by the Township Board, the Township Zoning Administrator shall promptly record the approval of the OSPDO on the Township's official zoning map, which entry shall be signed by the Township Supervisor and attested to by the Township Clerk.

~~M.P.~~ ***Time Limits.***

1. An approved OSPDO shall expire and be of no effect if construction does not commence within twelve (12) months after approval unless the Planning Commission or Township Board, whichever gave the approval, approves an extension. If the applicant does not comply with the conditions specified in the approval, the approving authority or Township Zoning Administrator shall issue a

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stop work order and no further work shall be done until such time as the conditions are met to the satisfaction of the approving authority.

2. Each phase of a development shall be commenced within twelve (12) months of the schedule set forth in the approval. If construction of any phase is not timely commenced as provided herein, the approval of the OSPDO shall become null and void and no further work may be conducted on the site until such time as adequate assurances to the satisfaction of the approving authority are made that the development will be completed as approved by a date certain as determined by the approving authority.
3. The applicant may apply in writing to the approving body for an extension of time in which to commence and/or complete construction. The application for extension must include an explanation of reasons justifying the requested extension. The body granting the original approval may grant a requested extension not exceeding twelve (12) months for good cause. Not more than one extension may be approved.

N.Q. *Continuing Compliance.*

1. An applicant who fails to comply with the approved final site plan or the preliminary plat as finally approved, whichever applies, shall be deemed in violation of the Zoning Ordinance, and subject to enforcement and penalties as provided in Section 3.07 of the Zoning Ordinance.
2. A development agreement and performance guarantee shall be required as a condition of final site plan and preliminary plat approval. The guarantee and agreement shall be in a form approved by the Township Board and shall ensure completion of a proposed OSPDO as approved.

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**Pittsfield Charter Township**  
**Department of Utilities & Municipal Services**

6201 West Michigan Avenue, Ann Arbor, MI 48108  
Phone: (734) 822-3101 • Fax: (734) 944-1103  
Website: [www.pittsfield-mi.gov](http://www.pittsfield-mi.gov)

**Mandy Grewal, Supervisor**

**MEMORANDUM**

**TO:** Pittsfield Township Planning Commissioners

**FROM:** Ben Carlisle, AICP  
Laura Kreps, AICP

**DATE:** July 1, 2020

**SUBJECT:** Carbon Emission Study

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As part of the Townships Board's review of the State Street Crossing development, the Board commissioned Stantec Engineering to conduct a Carbon Emission Study to review the impacts of various options for development.

The study was unique as the Township has never required this type of study for any development in Pittsfield. As far, as I can tell the study was unique to any development in Michigan. In their review, Stantec has looked at four (4) aspects of the respective site plans: 1.) Carbon Sequestration of Trees, 2.) Area of Open Space, 3.) Area of Conservation Easement and, 4.) Modality.

Site Plan A kept the conservation easement in place. Site Plan B relocated and expanded the conservation easement. Stantec concluded that the carbon footprint of Site Plan B is less than A based on 4 criteria. Over time, the carbon sequestration of the trees on Site Plan B will increase while Site Plan A decreases. The area of open space on Site Plan B is less than Site Plan A. The conservation easement area on Site Plan B is greater than Site Plan A. The ease of nonmotorized mobility on Site Plan B is greater than Site Plan A both within the site and adjacent movement. I've attached a copy of the study for your review.

Summary of Findings:

	Site Plan A	Site Plan B
Carbon Sequestration of Trees	Short Term	<b>Long Term</b>
Area of Open Space	<b>74,500 s.f.</b>	61,470 s.f.
Area of Conservation Easement	11,493 s.f.	<b>13,370 s.f.</b>
Modality		

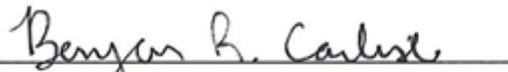
1. Ease of movement within site	Limited	<b>Greater</b>
2. Ease of adjacent movement	Limited	<b>Greater</b>

As I noted this is the first Carbon Emission Study undertaken. We are asking the Planning Commission to review the study, and have a discussion on:

1. Initial overall thoughts on the study?
2. Require similar study for certain types of developments?
3. Any additional items to be included or removed as part of the study?

We look forward to discussing this item with the Planning Commission on July 1, 2020.

Sincerely,



CARLISLE/WORTMAN ASSOC., INC.

Benjamin R. Carlisle, AICP, LEED AP  
Principal



Stantec Consulting Michigan Inc.  
3754 Rancho Drive, Ann Arbor MI 48108-2771

March 31, 2020  
File: 2075001316

Attention: Ms. Mandy Grewal, Township Supervisor  
Pittsfield Charter Township  
201 West Michigan Avenue  
Ann Arbor, Michigan 48108

Dear Supervisor Grewal,

**Reference: Carbon Footprint Review, State Street Crossing Units 4, 5, & 6**

Stantec has evaluated the carbon footprint of two (2) alternative site layouts for State Street Crossing Units 4, 5, & 6. The Township has received an application to develop the three (3) units as a multiple tenant commercial space. Unit 4 is encumbered with a conservation easement for protection of existing trees. The conservation easement was placed on this parcel as part of the State Street Crossings Final Site Plan approved in 2003. Originally, the applicant had submitted two (2) site plans with two independent building sites, one (1) located on Unit 4 and one (1) on Units 5 & 6 with associated parking. This configuration works around the existing easement. This development of the units is referred to as Site Plan A. Working with the Township Planning Consultant to address planning concerns, the applicant prepared and submitted for approval an alternative layout to combine and develop all three (3) outlots as a cohesive development. This combined layout is referred to as Site Plan B. This configuration reduces the size of the existing "on-site" conservation easement and mitigates trees both "on-site" and "off-site" and relocates the easement "off-site" to Unit 1. Site Plan B has been reviewed and approved by the Township Planning Commission.

The Preliminary Site Plan, CSPA 18-26 State Street Crossing Lots 4-5-6, (Site Plan B) was presented to the Planning Commission on October 17, 2019 under New Business. The Planning Commission voted 7:0 to postpone action on the plan for the following conditions:

1. Provide additional tree protection measures as directed by ECT.
2. Provide Heritage Tree mitigation as required by Section 14.08.F. Provide additional replacement trees or provide payment to the Township Tree Fund.
3. Update parking calculations based on Section 12.05 as noted above.
4. Planning Commission to consider waiver from loading space requirement.
5. Provide two (2) additional drive-through stacking spaces.
6. Review of site access and circulation by the Township Engineer and Fire Department.
7. Revise Landscape Plan.
8. Provide dumpster enclosure detail.
9. Address Planning Commission comments, regarding flexibility of Conservation Easement and preserving Heritage Trees.

A Revised Preliminary Site Plan was presented to the Planning Commission on November 7, 2019 under Old Business. The revised plan was approved by the Township Planning Commission on November 7, 2019. The motion was approved 6:1 with the following conditions:

1. Township Board to approve the relocation of the conservation easement.
2. Provide dumpster enclosure detail.

Reference: Carbon Footprint Review, State Street Crossing Units 4, 5, & 6

Stantec has looked at four (4) aspects of the respective site plans: 1.) Carbon Sequestration of Trees, 2.) Area of Open Space, 3.) Area of Conservation Easement and, 4.) Modality. We find that the carbon footprint of Site Plan B is less than A based on these 4 criteria. Over time, the carbon sequestration of the trees on Site Plan B will increase while Site Plan A decreases. The area of open space on Site Plan B is less than Site Plan A. The conservation easement area on Site Plan B is greater than Site Plan A. The ease of non-motorized mobility on Site Plan B is greater than Site Plan A both within the site and adjacent movement.

- 1. Carbon Sequestration of Trees:** Biological carbon sequestration (BCS) is the assimilation and storage of atmospheric carbon (in the form of carbon dioxide, CO<sub>2</sub>) into vegetation, soils, woody products, and aquatic environments as defined by the United States Geological Survey. We compared the biological sequestration of the existing trees within the easement saved on Site Plan A versus that of the saved and mitigated trees on Site Plan B.

	Year 1 Total CO <sub>2</sub> Stored (pounds/year)	Year 15 Total CO <sub>2</sub> Stored (pounds/year)	Year 20 Total CO <sub>2</sub> Stored (pounds/year)
Site Plan A	1,226	1,313	1,330
Site Plan B	1,037	1,269	1,456
Difference	-189	-44	126

**Table A: Carbon Sequestration of Trees**

To determine the carbon sequestration, we utilized the on-line i-Tree tool. Since 2006, i-Tree has been a cooperative effort between the USDA Forest Service, Davey Tree Expert Company, The Arbor Day Foundation, Society of Municipal Arborists, International Society of Arboriculture, Casey Trees, and SUNY College of Environmental Science and Forestry. The i-Tree tool is based on the CURF Tree Carbon Calculator (CTCC) Excel spreadsheet, developed by the USDA Forest Service. The i-Tree tool is site specific and adjusts the CURF average CO<sub>2</sub> emissions factors to the Midwest climate zone. As the mitigated trees are specified in either caliper (which is typically smaller than dbh for the same tree) or height, a conversion factor to dbh was utilized. The tree location, species and dbh of the existing trees to be saved on Site Plan A was inputted into the i-Tree tool to calculate CO<sub>2</sub> stored per year (pounds/year). The location, species and dbh of the existing trees to remain and the proposed mitigation trees were inputted to calculate CO<sub>2</sub> stored for Site Plan B. From there, the years were increased until the total CO<sub>2</sub> stored reached value of Site Plan A. This happens between year 15 and 20. We did not discount the sequestration of the existing trees over time due to decline. The applicant has noted the existing trees are in “fair” to “poor” condition which was confirmed by the Township’s woodland consultant.

There are 14 existing trees within the conservation easement with a total DBH of 275”. These trees will be saved on Site Plan A. Site Plan B will save 8 of these trees for a total DBH of 147”. The trees to be removed will be mitigated with fifty-seven (57) additional trees (18 “on-site” and 39 in the “off-site” easement), with a total of 182” caliper (equivalent of 130” dbh). The mitigated trees are in addition to the required landscape trees. We would recommend alternative species to the proposed Hemlock as they do not thrive in heavy soils or exposed conditions. Likewise, native species as opposed to cultivars should be used per Township Standards.

Reference: Carbon Footprint Review, State Street Crossing Units 4, 5, & 6

	Existing Trees No. Total DBH	Trees Preserved No. Total DBH	Tree Mitigation No. Total DBH*
Site Plan A	14 275"	14 275"	0 N/A
Site Plan B	14 275"	8 147"	57 130"

\*A caliper to DBH conversion factor has been applied

**Table B: Conservation Area Trees & Mitigated Trees**

- Area of Open Space:** As biological sequestration is not limited to trees, the area of open space which allows for storage in vegetative biomass (including lawn and mulch areas) and soils was compared.

	Open Space (Square feet)
Site Plan A	74,500
Site Plan B	61,470

**Table C: Area of Open Space**

Site Plan A provides more open space. Comparing the “on-site” open space, there is an additional 26,400 square feet of open space on Site Plan A. Considering the open space in the new “off-site” conservation easement for Site Plan B, the difference is reduced to 13,030 square feet.

- Area of Conservation Easement:** The areas in conservation easements were compared.

On Site Plan A, the area of existing conservation easement on Unit 4 will remain; this is divided into two (2) areas which will be separated by a drive isle. On Site Plan B, an “off-site” conservation easement is proposed on Unit 1 of State Street Crossing. The “off-site” conservation easement is separated by an existing storm sewer easement for Unit 1. We recommend the area within the storm sewer easement not be considered as mitigation for the conservation easement. Disturbance of this area may be necessary to develop Unit 1 and for maintenance.

	Conservation Easement (Square Feet)
Site Plan A	11,493
Site Plan B	13,370

**Table D: Area of Conservation Easement**

We would suggest for Site Plan B that an “on-site” easement be preserved in the area of the trees to remain, and that the proposed storm sewer be re-routed outside of the preserved tree area. The building and sidewalk should be moved away from the trees. This will be reviewed at final site plan to verify construction is outside of the dripline of the existing trees proposed to remain.

Reference: Carbon Footprint Review, State Street Crossing Units 4, 5, & 6

- 4. Modality:** Pursuant to EPA 2015 Green House Gas Inventory, the movement of personal vehicles through the built environment contributes more than 20% of CO<sub>2</sub> nationally. We evaluated the two (2) site plans on non-motorized movement. We looked at pedestrian and bicycle features or barriers within the site area and for ingress and egress to the adjacent area.

**A. Ease of movement within the site:** How walkable is the site, i.e. how likely is someone to walk between the buildings? Site Plan A has more barriers to non-motorized movement and therefore encourages additional vehicular movement if someone planned to patronize both buildings. As illustrated below, to walk from one building to the other, patrons would either need to walk along the parking drive in front of the loading and dumpster areas and cross the drive-thru exit (Pedestrian Route 1) or along the entrance to the public sidewalk and cross the que of the drive-thru (Pedestrian Route 2).



**Pedestrian Route Site Plan A**

Reference: Carbon Footprint Review, State Street Crossing Units 4, 5, & 6

A continuous sidewalk is provided on Site Plan B as illustrated below (Pedestrian Route 3).



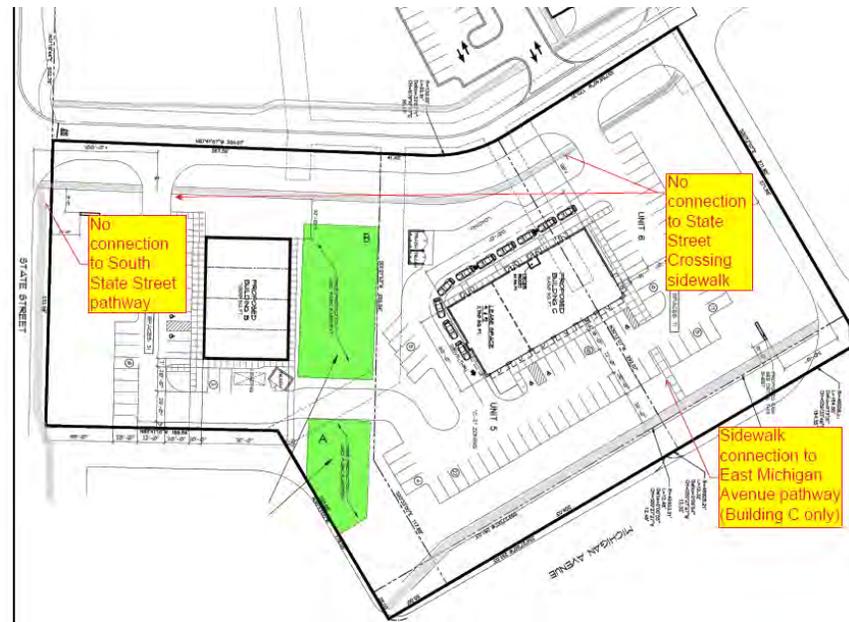
**Pedestrian Route Site Plan B**

	Sidewalk Between Buildings	Drive Isles Crossed	Distance Walked (Feet)
Site Plan A	No	2	350
Site Plan B	Yes	0	480

**Table E: Ease of Movement within Site**

**B. Ease of adjacent movement:** Does the site encourage walking or biking, i.e. how likely is someone to walk/bike to or from the site from the nearby neighborhoods or adjacent commercial uses? There are existing pathways/sidewalks along East Michigan Avenue, South State Street and the interior State Street Crossing drive to the north. We looked at the access to these walks. As illustrated below, Site Plan A provides connection to the pathway along East Michigan Avenue for one of the two buildings. There is no sidewalk connection to the State Street Crossing sidewalk or the State Street pathway.

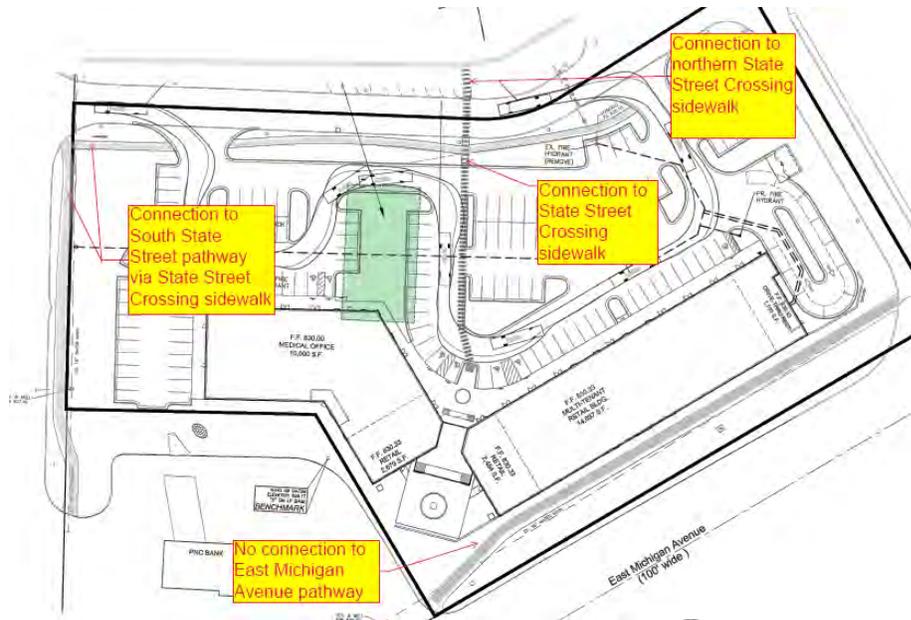
Reference: Carbon Footprint Review, State Street Crossing Units 4, 5, & 6



**Adjacent Connections Site Plan A**

Site Plan B provides sidewalk connections to both buildings as illustrated below. This connects to the State Street Crossing sidewalk. A connection is provided to the South State Street pathway following this sidewalk to the west. There will also be sidewalk connection to the north State Street Crossing sidewalk which connects to the existing buildings on Unit 2. The southern State Street Crossing sidewalk is to be re-rebuilt to allow for raingardens/green infrastructure between the road and parking lot. Furthermore, the plaza on Site Plan B is less than 30 feet from the walk along East Michigan Avenue, so a direct sidewalk connection could be incorporated. With this additional sidewalk, Site Plan B would be more encouraging of adjacent non-motorized movement.

Reference: Carbon Footprint Review, State Street Crossing Units 4, 5, & 6



**Adjacent Connections Site Plan B**

	South State Street Pathway	State Street Crossing Sidewalk	East Michigan Avenue Pathway
Site Plan A	No	No	Yes*
Site Plan B	Yes	Yes	No

\* Connection to one building

**Table F: Ease of Adjacent Movement**

In summary, we have evaluated the carbon footprint of two (2) alternative site layouts for State Street Crossing Units 4, 5, & 6. These alternatives are: Site Plan A which preserves the existing easement with two independent building sites (i.e. one on Unit 4 and one on Units 5 & 6 with associated parking), and Site Plan B which combines and develops all three (3) outlots as a cohesive development. Looking at four (4) aspects of the respective site plans – Carbon Sequestration of Trees, Area of Open Space, Area of Conservation Easement and Modality – we have compared the two alternatives. We find that the carbon footprint of Site Plan B is less than A based on these 4 criteria. Over time, the carbon sequestration of the trees on Site Plan B will increase while Site Plan A decreases. The area of open space on Site Plan B is less than Site Plan A. The conservation easement area on Site Plan B is greater than Site Plan A. The ease of non-motorized mobility on Site Plan B is greater than Site Plan A both within the site and adjacent movement.

Reference: Carbon Footprint Review, State Street Crossing Units 4, 5, & 6

	Site Plan A	Site Plan B
Carbon Sequestration of Trees	Short Term	<b>Long Term</b>
Area of Open Space	<b>74,500 s.f.</b>	61,470 s.f.
Area of Conservation Easement	11,493 s.f.	<b>13,370 s.f.</b>
Modality		
A. East of movement within the site	Limited	<b>Greater</b>
B. East of adjacent movement	Limited	<b>Greater</b>

**Table G: Summary of Findings**

If you have any questions regarding our findings, please contact us.

Regards,

**Stantec Consulting Michigan Inc.**



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Attachment: Site Plan A and Site Plan B Comparison

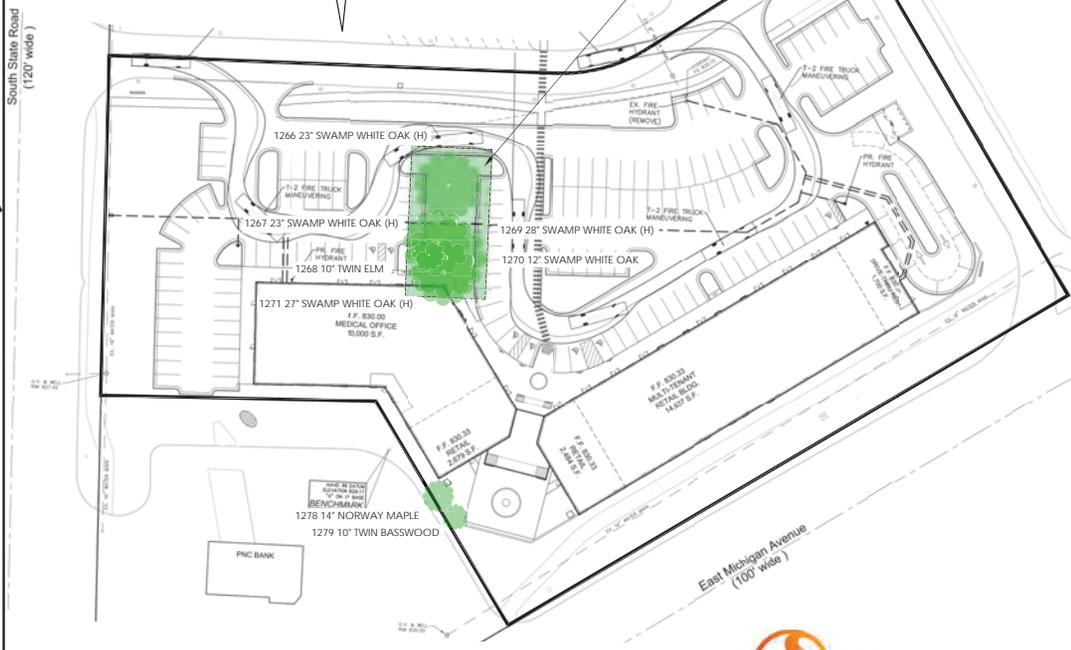
ws v:\2075\active\2075001316\state street crossing (trees)\report\_state\_street\_crossing\_20200331.docx



NEW ADDED  
PROPOSED EASEMENT AREA:  
13,370.58 S.F. OR 0.31 ACRES

TREE PRESERVATION AREA:  
5,644.32 S.F. OR 0.13 ACRES

TREES (DBH)	EXIST.	275"	14 EACH
	PROP.	277"	8 EACH EX + 57 EACH NEW



**SITE PLAN B**  
**(REVISED LAYOUT AND EASEMENTS)**



3754 Ranchero Drive  
Ann Arbor, MI  
48106-2711  
(734) 761-1010

STATE STREET CROSSING  
MARCH, 2020  
PROJECT #2075001316



- 1266 23' SWAMP WHITE OAK (H)
- 1267 23' SWAMP WHITE OAK (H)
- 1268 10' TWIN ELM
- 1269 28' SWAMP WHITE OAK (H)
- 1270 12' SWAMP WHITE OAK (H)
- 1271 27' SWAMP WHITE OAK (H)
- 1272 11' SWAMP WHITE OAK (H)
- 1273 30' SWAMP WHITE OAK (H)
- 1274 27' SWAMP WHITE OAK (H)

- 1275 23' SWAMP WHITE OAK (H)
- 1276 25' SWAMP WHITE OAK (H)
- 1277 12' SHAGBARK HICKORY
- 1278 14' NORWAY MAPLE
- 1279 10' TWIN BASSWOOD

EASEMENT A AREA:  
3,925.30 S.F. OR 0.19 ACRES

EASEMENT B AREA:  
7,567.98 OR 0.17 ACRES

TOTAL EXISTING EASEMENT AREA:  
11,493.28 S.F. OR 0.26 ACRES

TREES (DBH)	EXIST.	275"	14 EACH
	PROP.	275"	14 EACH

**SITE PLAN A**  
**(ORIGINAL - PRESERVE EXISTING EASEMENT)**

# ANALYSIS OF MICHIGAN MARIHUANA ORDINANCES



Sources: Deposit Photos

PLANNING & ZONING NEWS

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# MI SUPREME COURT ALLOWS CAREGIVER MARIJUANA GROWING TO BE REGULATED AS A HOME OCCUPATION

By Mark A. Wyckoff, FAICP, Editor

## Medical Marijuana/Home Occupation

In a unanimous opinion, the Michigan Supreme Court over-turned Court of Appeals and circuit court rulings that said that the Byron Township zoning ordinance directly conflicted with, and was therefore preempted by, the MMMA. The Court quoted longstanding common law: "The mere fact that the State, in the exercise of the police power, has made certain regulations does not prohibit a municipality from exacting additional requirements. So long as there is no conflict between the two, and the requirements of the municipal bylaw are not in themselves pernicious, as being unreasonable or discriminatory, both will stand." **DeRuiter v Byron Township**, Michigan Supreme Court, No. 158311. Decided April 27, 2020. For Publication.

The Byron Township zoning ordinance in Sec 3.2.H.1, permits the growing of medical marijuana by primary caregivers under the Michigan Medical Marijuana Act (MMMA), but only as a home occupation, which is defined in the ordinance as follows:

"An occupation or profession that is customarily incidental and secondary to the use of a dwelling. It is customarily conducted within a dwelling, carried out by its occupants utilizing equipment customarily found in a home and, except for a sign allowed by this Ordinance, is generally not distinguishable from the outside." Sec. 2.5.

Other related ordinance requirements include:

"Under this home-occupation requirement, the ordinance mandates that the 'medical use' of marijuana by a primary caregiver be 'conducted entirely within a dwelling or attached garage, except that a registered primary caregiver may keep and cultivate [medical marijuana], in an enclosed, locked facility. . . . The ordinance also requires that [the medical use of marijuana shall comply at all times with the MMMA and the MMMA General Rules, as amended.'" [Footnotes and ordinance citations omitted.]

"Furthermore, Byron Township requires that primary caregivers obtain a permit to grow medical marijuana. If a primary caregiver who holds a permit departs from the requirements of either the ordinance or the MMMA, their permit can be revoked. Byron Township's zoning ordinance clarifies that a permit is not required for a qualifying patient's cultivation of marijuana for personal use and that a permit is not required for a qualifying patient's possession or use of marijuana in their dwelling." [Ordinance citations omitted.]

From footnote 15 of the opinion is further relevant information:

"To obtain a permit from the township, a caregiver must demonstrate that their grow operation is located in a full-time residence and provide state identification, their MMMA registry identification card, information about the equipment used to cultivate marijuana, and a description of the location being used to grow medical marijuana. . . . A permit shall be granted if the application demonstrates compliance with [the] Ordinance, the MMMA and the MMMA General Rules."

Christine DeRuiter is a licensed qualifying patient as well as a registered primary caregiver under the MMMA. DeRuiter

"began growing marijuana on rented commercially zoned property because she did not want to grow marijuana at her residence." \*\*\* "DeRuiter did not obtain a permit from Byron Township before cultivating medical marijuana as a primary caregiver."

"Implied preemption can occur when the state has occupied the entire field of regulation in a certain area (field preemption) or when a local regulation directly conflicts with state law (conflict preemption)."

"In the context of conflict preemption, a direct conflict exists when 'the ordinance permits what the statute prohibits or the ordinance prohibits what the statute permits.'"

What makes this case so interesting and significant is that in reaching their decision the trial court and Court of Appeals did their best to apply the standard set forth in two prior Michigan Supreme Court opinions. The MSC realized that a nuance was missed that resulted in a conclusion by the lower courts that was not warranted under the circumstances. The MSC said

"Both lower courts held that the zoning ordinance here directly conflicts with the MMMA because the ordinance allows Byron Township to sanction a registered primary caregiver's 'medical use of marijuana' when that use occurs in a commercially zoned location. In affirming the trial court's holding, the Court of Appeals relied on our decision in **Ter Beek II**. Like the case before us, **Ter Beek II** involved a challenge to a local zoning ordinance on the basis that the ordinance was preempted by the MMMA. In that case, we were tasked with deciding whether the city of Wyoming's zoning ordinance conflicted with, and was thus preempted by, the immunity provisions of the MMMA, MCL 333.26424(a) and (b). **Ter Beek II**, 495 Mich at 19.

"We said yes. The zoning ordinance in **Ter Beek II** prohibited land uses that were contrary to federal law and subjected such land uses to civil sanctions. Because the manufacture and possession of marijuana is prohibited under federal law, the Wyoming ordinance at issue in **Ter Beek II** had the effect of banning outright the medical use of marijuana in the city. As a result, there was no way that patients and caregivers could engage in the medical use of marijuana under the MMMA without subjecting themselves to a civil penalty."

But here is the crux of the issue in **DeRuiter**

"The Byron Township ordinance is different than the ordinance we considered in **Ter Beek II**. It allows for the medical use of marijuana by a registered primary caregiver but places limitations on where the caregiver may cultivate marijuana within the township (i.e., in the caregiver's 'dwelling or attached garage' as part of a regulated 'home occupation'). See **Byron Township Zoning Ordinance**, § 3.2.H.1 and § 3.2.H.2.d. But despite the differences, **DeRuiter** argues that the Byron Township ordinance is in direct conflict with the MMMA because the act protects a registered caregiver from 'penalty in any manner' for 'assisting a qualifying patient . . . with the medical use of marijuana' so long as the caregiver abides by the MMMA's volume limitations and restricts the cultivation to an 'enclosed, locked facility.' See MCL 333.26424(b). The Court of Appeals agreed."

The MSC went on to point out that both courts missed the expectation that it identified in **Ter Beek II** and appreciated the opportunity to clarify **Ter Beek II**.

"Admittedly, our preemption analysis in **Ter Beek II** considered the MMMA's prohibition on the imposition of a 'penalty in any manner.' **Ter Beek II**, 495 Mich at 24. But while we sided with the plaintiff in **Ter Beek II**, we cautioned that '**Ter Beek II** does not argue, and we do not hold, that the MMMA forecloses all local regulation of marijuana.' Id. at 24 n 9."

Were we to accept **DeRuiter's** argument, the only allowable restriction on where medical marijuana could be cultivated would be an 'enclosed, locked facility' as that term is defined by the MMMA, MCL 333.26423(d). Because the MMMA does not otherwise limit cultivation, the argument goes, any other limitation or restriction on cultivation imposed by a local unit of government would be in conflict with the state law. We disagree. The 'enclosed, locked facility' requirement in the MMMA concerns what type of structure marijuana plants must be kept and grown in for a patient or caregiver to be entitled to the pro-

tections offered by MCL 333.26424(a) and (b); the requirement does not speak to where marijuana may be grown. In other words, because an enclosed, locked facility could be found in various locations on various types of property, regardless of zoning, this requirement is not in conflict with a local regulation that limits where medical marijuana must be cultivated." [Footnote omitted.]

"This result is not at odds with **Ter Beek II**, which involved an ordinance that resulted in a complete prohibition of the medical use of marijuana, despite the MMMA's authorization of such use, see MCL 333.26427(a). A local ordinance is preempted when it bans an activity that is authorized and regulated by state law." \*\*\*

"**DeRuiter** nevertheless emphasizes our statement that 'the [Wyoming] Ordinance directly conflicts with the MMMA by permitting what the MMMA expressly prohibits—the imposition of a 'penalty in any manner' on a registered qualifying patient whose medical use of marijuana falls within the scope of § 4(a)'s immunity.' Id. at 20. We appreciate the apparent contradiction and take this opportunity to clarify. Our analysis in **Ter Beek II**—in particular, our focus on whether the MMMA permitted the city to impose a sanction for violating the Wyoming ordinance—suggested that the MMMA's immunity language was the source of the conflict. That was true in **Ter Beek II** because the ordinance left no room whatsoever for the medical use of marijuana.

In **Ter Beek II**, the conflict giving rise to that preemption can be viewed as whether the city of Wyoming had completely prohibited the medical use of marijuana that the electors intended to permit when they approved the MMMA."

The MSC went on to quote the following paragraph (for the third time in cases dating back to 1962):

"The mere fact that the State, in the exercise of the police power, has made certain regulations does not prohibit a municipality from exacting additional requirements. So long as there is no conflict between the two, and the requirements of the municipal bylaw are not in themselves pernicious, as being unreasonable or discriminatory, both will stand. The fact that an ordinance enlarges upon the provisions of a statute by requiring more than the statute requires creates no conflict therewith, unless the statute limits the requirement for all cases to its own prescription. Thus, where both an ordinance and a statute are prohibitory and the only difference between them is that the ordinance goes further in its prohibition, but not counter to the prohibition under the statute, and the municipality does not attempt to authorize by the ordinance what the legislature has forbidden or forbid what the legislature has expressly licensed, authorized, or required, there is nothing contradictory between the provisions of the statute and the ordinance because of which they cannot coexist and be effective. Unless legislative provisions are contradictory in the sense that they cannot co-exist, they are not deemed inconsistent because of mere lack of uniformity in detail. [Miller, 366 Mich at 256-257, quoting 37 Am Jur, **Municipal Corporations**, § 165, p 790. See also **Qualls**, 434 Mich at 362, quoting 56 Am Jur 2d, **Municipal Corporations**, § 374, pp 408-409.]"

"Under this rule, an ordinance is not conflict preempted as long as its additional requirements do not contradict the requirements set forth in the statute." [Footnote omitted.]\*\*\*The geographical restriction imposed by Byron Township's zoning ordinance adds to and complements the limitations imposed by the MMMA; we therefore do not believe there is a contradiction between the state law and the local ordinance. As in **Qualls** and **Miller**, the local ordinance goes further in its regulation but not in a way that is counter to the MMMA's conditional allowance on the medical use of marijuana. We therefore hold that the MMMA does not nullify a municipality's inherent authority to regulate land use under the Michigan Zoning Enabling Act (MZEA), MCL 125.3101 et seq., so long as the municipality does not prohibit or penalize all medical marijuana cultivation,

like the city of Wyoming's zoning ordinance did in **Ter Beek II**, and so long as the municipality does not impose regulations that are 'unreasonable and inconsistent with regulations established by state law.' **Qualls**, 434 Mich at 363. In this case, **Byron Township** appropriately used its authority under the **MZEA** to craft a zoning ordinance that does not directly conflict with the **MMMA's** provision requiring that marijuana be cultivated in an enclosed, locked facility." [Footnotes omitted.]

The MSC also disagreed that the Bryon Township permit requirement infringed with **DeRuiter's** medical use of marijuana. But the Court noted "We express no opinion on whether the requirements for obtaining a permit from the township are so unreasonable as to create a conflict with the **MMMA** because that argument has not been presented to us."

The Michigan Supreme Court reversed the Court of Appeals and remanded to the trial court for further proceedings consistent with this opinion.

**[Editor's Note:** The Michigan Municipal League and the Michigan Townships Association both deserve special thanks and praise for the amicus briefs they submitted in this case in support of Byron Township's authority to zone in a manner not in conflict with the **MMMA**. The MSC opinion was not only bolstered by the arguments in their amicus briefs, but the opinion was unanimous, which is not common in zoning cases. The MSC opinion in **DeRuiter** should give local governments' greater confidence and clearer direction when drafting future zoning standards that go beyond regulations already embodied in state law around a particular land use. But, local governments must remember, they have to regulate in a manner that is **NOT IN CONFLICT** with the state regulations.]

The implications of the **DeRuiter** case also extend beyond the approval the MSC gave to the approach used by Byron Township as relates to caregiver medical marijuana growing operations as a registered home occupation in single family homes. On April 30, 2019, the MSC ordered the Court of Appeals decision on **Charter Township of Ypsilanti v Pontius** (No. 158816, decided Oct. 30, 2018) be held in abeyance until the MSC decided the **DeRuiter** case. Ypsilanti Township took a different approach to regulating caregiver growing of medical marijuana by not allowing it to be grown as a home occupation in single family districts and instead

permitting it to be grown in light industrial districts. A summary of the Court of Appeals decision in this case appeared in the November 2019 issue of **PZN**. At press time, the MSC had not issued any follow-up decision on the Ypsilanti Township case.

In addition, a Court of Appeals case involving the **City of Warren v Bezy** (No. 341639, decided May 16, 2019) was decided after the Ypsilanti Township case (but before this **MSC DeRuiter** opinion) and held that Warren's medical marijuana regulations were in conflict with the **MMMA**. Warren's regulations permitted registered caregivers to grow medical marijuana in residential districts if in conformance with a number of more restrictive standards than those of Byron Township (requiring inspections for electrical, water, sewer, and ventilation adequacy, among other requirements). There was a request to shift this opinion to a published opinion that was denied on June 28, 2019. No further appeals on this case were filed and it was not held in abeyance by the MSC for reconsideration in light of **DeRuiter**. A summary of the Warren case appeared in the February 2020 issue of **PZN**.

In light of **DeRuiter**, and as soon as the **Ypsilanti Township v Pontius** case is reconsidered, with an eye given to the **Warren v Bezy** case, it is likely that municipal attorneys will be busy for the next few months reviewing existing medical marijuana ordinances. Their focus will be on whether such ordinances are in conflict with the **MMMA** and the subsequent Medical Marijuana Facilities Licensing Act. Provisions in conflict will need to be removed, or revised to no longer be in conflict. The same review, for the same reasons and in light of the same considerations should occur with regard to any local recreational marijuana regulations under the Michigan Regulation and Taxation of Marijuana Act. Going forward, in order for future marijuana regulations to be at lowest risk for invalidation, such regulations should be carefully drafted by the municipal attorney in close cooperation with the local planning director, planning commission and zoning administrator who will be charged with their application and whose practical experience is necessary to get implementable regulations.

The feature article on page 5 may provide some guidance in drafting future regulations by illustrating what is included in such regulations. However, each provision should be scrutinized by one or more attorneys to ensure it is not in conflict with the relevant state laws as laid out the MSC in the **DeRuiter** opinion.] □

## UPDATE ON MARIHUANA REGULATION

By Mark A. Wyckoff, FAICP, Editor

### Notes on the Accompanying Feature

Beginning on page 5 is a feature article comparing medical and recreational marihuana regulatory ordinances currently adopted in seven Michigan communities. Following are notes with regard to that article:

- These ordinances were adopted pursuant to the regulatory structure for medical and recreational marihuana in Michigan and ignore the fact that marihuana remains illegal under federal law. Michigan laws include: Michigan Medical Marijuana Act (MMMA), adopted by citizen initiative and Legislature re-fined), the Michigan Medical Facilities Licensing Act (MMFLA, Legislature enacted), and the Michigan Regulation and Taxation of Marijuana Act (MRTMA, adopted by citizen initiative).
- The feature article presumes the reader is familiar with the terms used in the MMMA, MMFLA and MRTMA, and of the various facility/establishment types as reviewed in prior issues of **PZN**.
- The cautionary Editor's Note from the **DeRuiter** case (above) is very important. The Michigan Supreme Court has ruled that municipalities cannot regulate in a manner that conflicts with the **MMMA**. This holding may also apply to regulation un-

Marihuana Regulatory Agency Data	As of Dec. 8, 2019	Most recent MRA Data in 2020
MMFLA (medical) opt-in communities	133	142 (6-7-20)
MRTMA (recreational/adult-use) opt-in communities	28	54 (6-7-20)
MRTMA (recreational/adult-use) opt-out communities	1,417	1,422 (1-25-20)
Qualified medical marijuana operators (all types)	389	512 (4-30-20)
Qualified recreational marijuana operators (all types)	26	197 (4-30-20)
Qualifying medical marijuana patients	271,332	255,821 (4-30-20)
Qualifying medical marijuana caregivers	36,757	34,530 (4-30-20)

Sources: reports by MI Marijuana Regulatory Agency, MI Dept. of Licensing & Regulatory Affairs

The total medical and recreational marihuana revenues to

# ANALYSIS OF MICHIGAN MARIHUANA ORDINANCES

By Zach Vega, Land Information Access Association, Traverse City

to observe how these places are interpreting and adapting regulations under the MMFLA and MRTMA.

This article is an analysis of seven Michigan jurisdictions' police power and zoning ordinances as they relate to medical and recreational marihuana regulation. A "police power" ordinance is one adopted under the general ordinance authority of a municipality to protect the public health, safety and general welfare. With regard to marihuana regulation, these are in addition to zoning regulations. While it is not known if any of these seven municipalities are regulating based on model ordinances, they each represent variations in regulatory approaches that differ in response to local context and interpretation of state legislation. They also represent municipalities of differing population sizes and geographic locations. This analysis evaluates ordinances from Ann Arbor, Grand Rapids, Lansing, Muskegon, Mount Pleasant, Reading and Acme Township. This analysis breaks down each of the required components of the MMFLA and MRTMA into groups of three elements, represented in tables with a subsequent description of the laws and how they have been implemented by each of the selected municipalities. It is hoped that this analysis will identify differences in approaches that are useful for local consideration when existing marihuana ordinances are refined, and new ones are developed.

The author prepared eight additional tables identifying the sections in each ordinance where certain provisions are found, as well as briefly summarizing in more detail some of the land use regulations in each ordinance. These tables were instrumental in making the observations in the balance of this article and are listed below. Interested readers can find these supplementary tables posted at: [www.liaa.org/](http://www.liaa.org/). Any corrections that may subsequently be identified by readers will also be posted here.

### Overview of the Ordinances

Theoretically there would only be two ordinances in a community to address either or both *medical* and *recreational* marihuana. One would be a police power ordinance and one would be a zoning ordinance. If both medical and recreational marihuana were regulated in the community, there would be common sections in each ordinance that apply to both, and separate sections addressing unique aspects of each. However, the seven communities examined for this article do not appear to always organize their regulations this way. Some have one police power ordinance for medical marihuana and a separate one for recreational marihuana, plus both are covered in the zoning ordinance. This feature article does not separate observations related to police power regulations and while the implication may be that they are found in a single ordinance in a particular community, they may actually be found in several separate ordinances. Since communities have only one

in Ann Arbor it is called a unified development code, and not a zoning ordinance). Tables 1-3 on the next page present an overview of the ordinances examined in this article. Table 1 reviews the overall regulatory structure in each of the seven communities. Six of the seven communities have both police power and zoning ordinances, while Lansing has only a zoning ordinance. All but Grand Rapids and Acme Township regulate both medical and recreational marihuana, whereas these two only regulate medical marihuana (at this time). The county and population of each of these communities is also listed in the first column. Table 2 summarizes the caps on medical marihuana facilities in each of the communities, while Table 3 presents the caps on recreational marihuana facilities in each of the communities. Even a cursory look at these tables reveals variation in regulatory approaches and a wide variation in the number of some permitted facility/establishment types – especially with regard to provisioning centers/retailers.

Table 4 on page 8 presents an outline of the common framework that emerges from examination of the police power ordinances used by these communities, along with common language and some variation in regulatory approaches and a wide variation in the number of some permitted facility/establishment types – especially with regard to provisioning centers/retailers.

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### About the Author

Zach Vega graduated from Michigan State University in 2019 with a master's degree in Urban & Regional Planning. He has worked for the Land Information Access Association in Traverse City since June of 2019 where he is responsible for leading an array of local, regional and state planning projects. These include master plans, parks and recreation plans, non-motorized trail plans, coastal resilience outreach and community sustainability assessments. Zach hosts the "Welcome To" podcast, featuring researchers, educators and practitioners from around the state of Michigan. To learn more about the Land Information Access Association, visit [www.liaa.org/](http://www.liaa.org/)

Since communities have only one

Table 1: Overall Regulatory Structure

Municipality, County, Population	Ordinance Type(s)	Marlhuana Ordinance(s) (rec = recreational med = medical)	Police Power Ordinance(s), Numbers(s) & Date Adopted	Zoning Ordinance(s), Numbers & Date Adopted	Local Zoning Procedure	Lottery System
Ann Arbor, Washtenaw 121,890	Police Power & Zoning	1 police power ordinance for rec and med; 1 zoning ordinance for both in city's Uniform Development Code	Ord. No. 17-19, § 2, 11-9-17 amended by Ord. No. 19-31, § 1, 10-7-19	Chpt. 55 of Code of Ordinances 11-17-19; 4th edition	Special Exception or Permitted depending on use and zoning district	
Grand Rapids, Kent 200,217	Police Power & Zoning	1 police power ordinance for rec and med; 1 zoning ordinance but only applies to med	Ord. No. 2019-66, § 1, 10-8-19	Ord. No. 2018-45, § 8, 7-24-18; Ord. No. 2018-70, § 4, 12-18-18	Special Land Use; Director Review	
Lansing, Ingham 118,427	Zoning	1 zoning ordinance for rec and med		Ord. No. 1217, § 1, 9-7-17 (med); Ord. No. 1257, § 1, 9-30-19 (amended to include rec)	Permitted by right if applicant has a city license and is operating in a designated zoning district	If 2 applicants receive the same score for their applications; managed by city clerk
Mount Pleasant, Isabella 26,016	Police Power & Zoning	2 police power ordinances for rec and med; 1 zoning ordinance for rec and med	Med - Ord. 1038, 6-11-18 Rec - Ord. 1046, 9-9-19	Article IV of Chapter 154 of the city's code of ordinances (date unclear)	Special Use Permit	
Muskegon, Muskegon 38,401	Police Power & Zoning (Overlay)	2 police power ordinances for rec and med; 1 zoning ordinance for rec and med	Med - Ord. No. 2383, 5-8-18 Rec - Ord. No. 2421, 10-8-19	Sec. 2331 of city code, Ordinance no. and date of adoption not specified	Overlay district	
Reading, Hillsdale 1,078	Police Power & Zoning	1 police power ordinance for rec and med; 1 zoning ordinance for rec and med	Med - Ord. No. 2017-02, 12-12-17 amended by Rec - Ord. No. 2019-02, 5-14-19	Med - Ord. 2018-01, 1-9-18 Rec - Ord. 2019-03, 5-14-19	Special Use Permit	
Acme Township, Grand Traverse 4,375	Police Power & Zoning	1 police power ordinance; 1 zoning ordinance but only applies to med	Ord. 2017-02, 10-3-17 amended 2019-04, 9-3-19	Secs. 6.11 and 6.12 of the Zoning Code, 12-1-17	Permitted by right if applicant has a township license and is operating in a designated zoning district	Qualified applicants drawn in a lottery for initial license. Renewals under separate procedure.

Table 2: Caps on Medical Marlhuana Facilities under the MMFLA

Municipality	Grower Class A	Grower Class B	Grower Class C	Processor	Provisioning Center	Safety Compliance	Secure Transporter
Ann Arbor	no cap	no cap	no cap	no cap	28	no cap	no cap
Grand Rapids				No cap - zoning dependent			
Lansing	no cap	no cap	no cap	no cap	25	no cap	no cap
Mount Pleasant	5	Total of 3 between B and C		no cap	3	no cap	no cap
Muskegon	no cap	no cap	no cap	no cap	no cap	no cap	no cap
Reading	3	3	no cap	9	3	9	9
Acme Twp.	Total of 5 between A, B, C			5	4	3	3

Table 3: Caps on Recreational (Adult-Use) Marlhuana Establishments under the MRTMA

Municipality	Grower Class A	Grower Class B	Grower Class C	Processor	Retailer	Safety Compliance	Secure Transporter	Micro-business	Event Organizers	Temporary Events	Designated Consumption Establishments
Ann Arbor	no cap	no cap	no cap	no cap	28	no cap	no cap	28	subject to zoning	subject to zoning	28
Grand Rapids				zoning not yet adopted							
Lansing	75		no cap	no cap	28	no cap	no cap	1 per ward	opt-out	opt-out	1 per ward
Mount Pleasant	5	3	no cap	no cap	3	no cap	no cap	2	opt-out	opt-out	opt-out
Muskegon			limit subject to municipal discretion								
Reading	no cap	no cap	no cap	5	3	5	5	1	opt-out	opt-out	opt-out
Acme Twp.											opt-out

related to marihuana establishments. Importantly, all of these municipalities detail that any term specified in their respective ordinances should be viewed as null if and when they conflict with the definitions found in the MRTMA and the MMFLA. This detail is beneficial in the definition section so that municipalities do not unintentionally create legislative terminology that conflicts with state law. Municipalities can use the definitions for the MRTMA found in MCL 333.27953 and the MMFLA, MCL 333.27102. Definitions should appear at the beginning of the ordinance, typically after the legislative intent.

The general provisions section for each of the seven analyzed communities is where they begin to diverge in their regulatory approaches, though the language used for each of these seven municipalities serves similar purposes. In general, this section's purpose is to establish that marihuana establishments must have a license with the state and the local government in order to operate. They also mention that licenses must be visible in the establishment and that the licensee understands the state and local government's right to inspect the premises during normal hours of operation. Pursuant to MMFLA and MRTMA administrative rules, these communities predominantly note that licenses are non-transferable and that the municipality reserves the right to revoke the license, which is a privilege not a right, should the licensee violate the local police power or zoning codes, or if the licensee is in violation of any state regulations. Lansing is one exception to this rule, stating that licenses may be transferred through written consent by the city clerk.

The general provisions section should also be used to clarify the amount of time for which licenses are valid at the local level. Because state licenses must be renewed annually, each of these seven communities has followed suit by requiring licensees to renew annually at the local level as well. Some of the municipalities reserve the right to change the number of licenses permitted in their respective jurisdiction. For example, the City of Muskegon regulations say, "The city may limit the number of permits issued under this section, and may revise this limit from time to time." It is unclear what specific reason a municipality would need for changing the license limit, but including language like this in the general provisions may provide important flexibility. In addition, none of the municipalities with a cap for certain license types specify why this number was chosen.

Finally, this section can also include the applicability of the permit itself. The City of Ann Arbor regulations say, "A permit issued under this chapter is valid only for the location of the facility and type of facility that is listed on the permit application and is valid only for the operation of the facility at that location by the permit applicant."

Ultimately, the general provisions purpose is to delineate the limitations of the local license, as well as the baseline responsibilities of the licensee.

### Local Licensing Procedure, Fees & Additions to Local Licensing Requirements

While a state license is the prerequisite for operating a marihuana establishment in a community, municipalities should also have in place a local licensing procedure in order to ensure that marihuana establishments do not have a negative impact on local land use, public health and safety. Each of the analyzed ordinances requires the same licensing procedure for new and annually renewed licenses. First, municipalities designate that they will only accept applications if the applicant has successfully completed the prequalification step with the state. The City of Reading regulations say for example: "In order for the application to be eligible for review under this ordinance, the applicant must submit with the application proof that the applicant has applied for and received prequalification from the state for a state operating license." This prequalification step allows the municipality to use the state's application process as a buffer from invalid applicants, as the state will have already completed background checks on the applicant and all supplemental applicants. Requiring prequalification with the state allows the municipality to avoid consuming staff time and resources needed to review license applications that could eventually be found to not be allowable under state regulations.

The licensing procedure is also an opportunity for the local government to acquire all of the information necessary to determine: 1) if the applicant's proposal will likely be successfully implemented, and 2) that the applicant's proposed business will contribute to the general well-being of the community. This is an important place to note the contents of MCL 333.27956 of the MRTMA, as this part of the act is where jurisdictions have interpreted the ability to create additional application and ordinance requirements to ensure that marihuana establishments maintain or better the quality of the built environment. In section 6, the MRTMA states,

"2. A municipality may adopt other ordinances that are not unreasonably impracticable and do not conflict with this act or with any rule promulgated pursuant to this act and that: (a) establish reasonable restrictions on public signs related to marihuana establishments; (b) regulate the time, place, and manner of operation of marihuana establishments and of the production, manufacture, sale, or display of marihuana accessories[.]"

Grand Rapids and Reading require the most proof of concept in applications to

show how the establishment will look and operate if developed. Grand Rapids does so in its zoning ordinance, while Reading details required plans in its police power ordinance. This is an important distinction. Each of the seven municipalities varies in how it is regulating the land use of marijuana establishments. Using the aforementioned examples, Grand Rapids lists the requirement to have complete an application for a marijuana establishment license in its Licensing and Regulation section of the code (Title VII), but requires additional land use standards and application components in its zoning code. It appears that Grand Rapids requires the applicant to acquire a license to operate a marijuana establishment in addition to a Special Land Use permit, which includes greater review

standards. For instance, while marijuana licensing in the zoning and regulation section mentions an environmental sustainability plan and a universal design plan attached to the application, the Special Land Use process calls for a site plan, a sign and lighting plan, a Crime Prevention Through Environmental Design (CPTED) plan, an operations and management plan and a Good Neighbor Plan (only needed if the facility type requires Director review). This framework may be confusing for applicants who only think they are subject to the requirements listed in the licensing and regulation section of the code. The City of Reading has made the relationship between the zoning and police power regulations simpler by subjecting marijuana establishments to the same

zoning standards as any other land use in their allowed districts. For applicants, Reading asks for additional planning documents such as a chemical and pesticide storage plan, a security plan and a sanitation plan, among others. Because the supplemental documents requested by Grand Rapids and Reading contribute to ensuring public health, safety and welfare, and do not appear to be "unreasonably impractical" they would seem to be within the permitted scope of MRTMA (or perhaps similar MMFLA) standards, as long as they do not conflict with the act. However, this is the kind of judgement that only an attorney can make, and communities are urged to carefully and consistently include the municipal attorney in the drafting, application and amending of marijuana ordinances.

**Table 4: Common Police Power Ordinance Framework in Sample Communities**

Ordinance Framework	Common Language	Commentary
Legislative Intent – purpose of the ordinance	It is necessary for health, safety, and welfare to adopt this ordinance regulating the location and operation of marijuana businesses....	This section intent is often used to highlight unique local conditions, preservation of neighborhood character, social equity. It may also reaffirm the Michigan laws under which the ordinance is adopted while acknowledging marijuana's continued illegal status at the federal level.
Definitions, Interpretations	Definitions for each license type (medical or adult-use), stakeholders, stacking, buffering, license, licensee, church, school. Some communities use regulatory ordinance to define most of the terms (Lansing) while others rely defer the Acts (Ann Arbor).	Where both medical and recreational (adult-use) marijuana are allowed, it is common to indicate that similar terms for medical and adult-use marijuana mean the same thing such as a "provisioning center" and "retail" for the purposes of the ordinance (Ann Arbor).
Authorization for Types of Facilities	The municipality authorizes, subject by issuance of a license issued by the clerk, these specific types of establishments (MRTMA) or facilities (MMFLA).	Many communities start with separate regulatory ordinances for medical and adult-use. Ann Arbor combined the medical with recreation to create one unified ordinance. The MRTMA states "a municipality may not adopt an ordinance that restricts... operating at a location started with a marijuana facility operating under the MMFLA (MCL 333.27956 (5)).
Applications	The requirements for taking an application and sequence of the process for approval are described here. The first day applications will be accepted, who takes the application (typically the clerk) what makes a complete application (site plan, completed forms, floorplan). The process to be placed on a waitlist or be called up from a waitlist are here also, where applicable.	Several policy decisions are required here. Is state pre-qualification or an actual license required as a condition of making application at the municipal level. A common requirement is also evidence of "control of the property" such as a lease or ownership. Waitlists, date-stamping, review process. Mount Pleasant uses a Committee to review and apply a unique scoring system to rank applications for approval.
General Provisions	License transfer to a new location, transfer of license to different individual, expansion of grow operations, stacking, no consumption on the premises (unless a consumption establishment is also approved) no vested rights. licensure does not create immunity or a defense from other State or Federal criminal prosecution, and more.	These regulations include detailed processes and local policy that should be carefully crafted with an experienced municipal attorney. Municipalities should avoid regulation that duplicates the requirements for state licensure, such as a safety plans, financial information, or background checks. State license requirements are found in the Adult-Use Marijuana Establishment Emergency Rules, effective through July 3, 2020; and in the rules under the MMFLA before that.
Terms of Permit, Amendment, Renewal, Revocation	The permit is valid for 1 year from date of issuance, terms or renewal defined (when, how, to whom the application is made), showing of clean record (no fraud, taxes paid, in good standing, state license renewed, etc.). Failure to show X, Y, and Z will result in revocation of the permit.	Process for temporary or permanent revocation of license, including hearing and decision process. Ann Arbor starts the annual renewal process 90 days in advance of the 1-year mark. Additional time may be needed to support the State's annual renewal process as well, especially as a condition of approval at the local level.
Fees	The MRTMA allows for up to a \$5,000 annual fee (MCL 333.27956 (4)) "to defray application, administrative and enforcement costs associated with the operation of the marijuana establishment."	The majority of communities are charging \$5,000 fees for application and renewal (the maximum allowed) and some are charging a lower fee such as \$4,000 for the initial application and \$3,600 for a renewal (Reading). Fees must be based on the service provided. Stacked licenses are typically assessed individually per license, although they are housed under one roof.
Fines, Penalties	See MCL 333.27965 (15) MRTMA for the listing of fines for violations of the act (including for violators under 18 years old, for example). Common ordinance language is used here such as, "violations are a civil infraction and punishable with a fine not to exceed \$500..." Each day of violation shall be considered a separate violation.	Mount Pleasant uses a progressive scale for fines: \$500 (first violation), \$2,500 (second violation), \$5,000 (third violation). Reading uses a different scale of not less than \$100 and not more than \$500 (first violation), and not less than \$250 or more than \$500 (second violation).
Vested Rights, # of Licenses	A license is a revocable privilege and not a vested right.(Grand Rapids, Lansing, Reading). The municipality reserves the right to amend or repeal this ordinance, including the elimination or reduction of type or number of authorized establishments.	Communities should work closely with their municipal attorney to reduce risk around future ordinance amendments, such as to reduce or eliminate the number or type of licenses. The concern here is license revocation for an established land use with a zoning permit and a possible vested rights/nonconforming use defense.

Note: Regulatory ordinances contain significantly more detail and nuance than what is shown here. Municipalities must work with an experienced municipal attorney to frame the ordinance to local policy.

Furthermore, the application process is when communities would determine the financial feasibility of its applicants' business plans. Others accomplish it by having applicants submit proof of financials. Reading asks for, "Verification, with copies of actual bank statements, showing that the applicant has liquid funds in the applicant's name in the amount needed to complete the marijuana establishment, but in no event less than the amount required by the State of Michigan for the issuance of a state marijuana establishment license." Not all communities ask for proof of financing as the state already conducts a variety of background financial checks. Mount Pleasant merely requires applicants to submit an advance for the annual licensing fee. However, capital investment is one of the measures the City of Mount Pleasant uses in its selection process, discussed later. The City of Lansing asks for a performance guarantee by means of proof of a surety bond in the amount of \$50,000.00 with the city listed as the obligee, or as an alternative, the creation of an escrow account in the amount of \$20,000. Also in regard to finances, Grand Rapids, Lansing and Reading require the applicant to show proof of insurance and demonstrate the ability to hold insurance as long as the establishment is in operation.

Ultimately, the licensing procedure regulatory sections by laying out the information that must be provided to the municipality for use in determining whether or not to issue a license or land use permit for a marijuana establishment and what conditions if any to impose. This is the key opportunity to ensure that whoever is applying for a license has the ability to carry out a successful operation and that the community has the ability to ask for additional proof that the establishment will not be detrimental to a quality sense of place.

Applicants should have a clear understanding of the local process, including who is responsible for approving certain aspects of the application, timelines for approval and all information that a business owner would reasonably want to know prior to placing a marijuana establishment in a given place. It is also a good idea to make sure that application requirements not mentioned in the MRTMA and MMFLA are consistent with the ordinance's legislative intent. One example of this is that Lansing lists economic development as one reason for allowing marijuana establishments in its jurisdiction and then later states that applicants must list, "An estimate of the number and type of full-time equivalent jobs that the marijuana operation expects to create and the amount and type of compensation for each position, including but not limited to healthcare, retirement, and paid time off." This information may be especially important when examining multiple applications at the same time, since the ordinance will

initially be applied as part of a competitive process among potentially highly profitable enterprises.

In terms of fees, each of the municipalities analyzed here charge the maximum fee permitted under the MRTMA, which is \$5,000. "4. A municipality may charge an annual fee of not more than \$5,000 to defray application, administrative, and enforcement costs associated with the operation of the marijuana establishment in the municipality" (MCL 333.27956). Each of the municipalities requires this fee annually for renewed permits as well. Acme Township does not regulate recreational marijuana establishments and their fee for medical marijuana establishments is less than this as described in more detail later. [Editor's Note: several recent appellate court opinions covered in PZN (notably the recent Troy case by the Michigan Supreme Court) have reiterated the importance of charging fees that are related to the actual documented costs of administration. Presumably, communities with marijuana regulations are keeping track of such costs in the event they get challenged as to the basis for the amount of the fee they are charging.]

**Selection Process, Issuance of Permit & Minimum Operational Standards**

Only half of the municipalities in this ordinance review have a clearly defined selection, or ranking, process defined in their code. It should be noted, however, that Grand Rapids used a lottery system for medical marijuana establishment permits in 2019. Though this language does not appear in the municipal code. Reading, Lansing and Mount Pleasant have clearly defined scoring mechanisms that their respective clerks use when determining who will or will not receive a particular license. The other three municipalities presumably operate under a first come first served process. At this time it is unclear which approach is preferable, although the three municipalities that have outlined their process in their codes are more transparent in how they determine eligibility for a permit.

For example, the City of Lansing uses a scoring system from 1 to 100. According to the ordinance, "The clerk retains the right to award fewer licenses than the number available if the remaining license application scores fall below 75/100, however, no license shall be awarded to an applicant whose score falls below 60/100." The scoring criteria are based on factors that include content and sufficiency, consistency with surrounding land use and resident safety, demonstration of sufficient financial resources and promotion of local business. These scoring categories are fairly vague as written in the ordinance and applicants in Lansing may need further clarification on how their business is being evaluated. In the event of a tie, the

clerk will conduct a lottery-type drawing for licenses. It is unclear how exactly this lottery works, though needless to say, any community considering a lottery system as Grand Rapids has used and Lansing is willing to use, should consult a municipal attorney prior to implementing this regulation. Additionally, the ordinance states that the clerk is allowed to give preferential scoring to applicant establishments that "improve access to medical marijuana patients, are consistent with surrounding and nearby land use, and limit potential exposure or disturbance of neighborhoods." The combination of subjective analysis and unclear scoring may expose the city to lawsuits, though its application in practice may function well if there are not a lot of applicants. We will have to wait and see.

Mount Pleasant has the clearest scoring categories, also rated 0 to 100. Applicants receive 10 points if they already hold a medical marijuana license and have a history of state and local regulatory compliance. The applicant can receive an additional 10 points based on past business ownership experience and residency in the city or county. Similar to the application procedure for the other municipalities, Mount Pleasant awards points when the applicant provides human resources information and how many full-time employees will work at the establishment. This information has implications for economic development, parking, transportation demand and the intensity of the land use. Interestingly, Mount Pleasant awards up to 20 points for the amount of investment the applicant is personally making in the property. This may be important for a couple of reasons. First, a larger personal investment from the applicant may reasonably indicate a higher likelihood that the applicant will successfully complete the project. Second, a higher ownership stake ensures that the city is working directly with the person or persons directly responsible for the day-to-day operations of the establishment. Both factors presumably lead to a more proactive relationship between the city and the licensee.

The remaining scoring categories deal with the establishment's supposed impact on the adjacent area and the community as a whole. Many of these factors are consistent with the other municipalities' criteria, including factors such as controlling nuisances, deterring marijuana use by minors, implementing Crime Prevention Through Environmental Design (CPTED) principles, and having a reduced impact on the built environment.

Reading is the third municipality in this analysis with a defined scoring mechanism. The city has 13 factors that it evaluates and while many of these relate to the business experience, past criminal activity and financial ability of the applicant to successfully operate a marijuana establishment, some of its criteria are ambiguous.



to submit energy performance data on a confidential basis and at no cost to the licensee using Energy Star Portfolio Manager. This reporting must begin within 16 months of the operation's start. Additionally, growers and microbusinesses have to develop an environmental sustainability plan, described in Sec. 7.367 of the city's code:

"(2) A grower of any class and micro-businesses shall be required to meet the following environmental sustainability requirements:

(a) Create and submit an environmental sustainability plan to the City's Office of Sustainability as well as all energy utilities serving the applicant, including electricity, natural gas, and steam, within six (6) months after operations commence, that includes the following items:

i. Analysis of predictive energy load, including design energy use intensity (EUI);

ii. Estimated greenhouse gas (GHG) emissions for the coming year and reporting on the past year's GHG emissions;

iii. Identification of water efficiency measures planned or implemented;

iv. A list of wastewater pollutant loadings and toxics; and

v. A solid waste management plan detailing disposal plans for plants, soils and other wastes generated as well as reporting on the annual tons of each type of waste generated and disposed.

(b) At least fifty (50) percent of plant canopy area that is partially or fully illuminated by electric lighting shall be illuminated by fixtures with photosynthetic photon efficacy of at least 1.9 µmol/J at the time operations commence.

(c) Submit a whole building energy audit meeting ASHRAE Level II guidelines or better to the City's Office of Sustainability within sixteen (16) months after operations.

(d) All applications for renewal of any license shall include the environmental sustainability plan submission required by this section and proof of compliance with the annual reporting requirements under this section." (Ord. No. 2019-66, § 1, 10-8-19)

A question may be raised about whether these provisions are "unreasonably impracticable." They certainly relate to the public health, safety and general welfare, and are highly laudable. If applicants are unhappy with these requirements, litigation may determine whether they are within the municipality's right to implement under the MMFLA (which does not

include the "unreasonably impracticable" standard).

Local governments may also consider requiring deliverables similar to what is often sought in Community Benefit Agreements. These may involve infrastructure improvements, voluntarily dedicating a portion of the parcel to public use or green space, beautification such as artwork or façade requirements or additional security measures around the premises. These requirements would have to be balanced, and should not be burdensome to the point that no applicant would reasonably be able to meet all of them. However, the presumed high profit margin for marijuana establishments and the high demand for licenses offers municipalities the opportunity to leverage these conditions towards projects that better the surrounding area and the community as a whole – provided the requirements are not "unreasonably impracticable."

### How Communities are Zoning for Marijuana

Tables 1, 2, 3, and 5 include summaries of provisions from zoning ordinances in the seven communities examined. Ann Arbor, Reading, Mount Pleasant and Grand Rapids each consider marijuana establishments a special or conditional land use. This means that they have specified which zoning districts these land uses are allowed, along with a list of requirements that must be met in addition to all existing zoning standards for uses permitted by right in those districts. Much of these additional standards relate to environment, security and time, place and manner restrictions. It is worth noting that Acme Township allows marijuana establishments by right in its Agricultural (grower and processor) and its B-4 District Material Processing and Warehouse District (grower, processor, secure transporter, provisioning center and safety compliance facility); this means that these facilities are not subject to any additional standards outside of those mandated by the State of Michigan. Communities can list these additional standards in the police power ordinance or the zoning ordinance. For example, Lansing only discusses marijuana establishments in its zoning ordinance, with a section specially dedicated to marijuana operations. In contrast, Ann Arbor, Muskegon, Mount Pleasant, Grand Rapids, Reading and Acme Township each have separate police power ordinances and zoning ordinances to regulate these places. If separate, the police power ordinance contains nearly all of the specifications described in the previous sections (legislative intent, general provisions, licensing procedure, etc.) and the zoning ordinance contains requirements for the site itself, including parking, distances from schools and other sensitive areas and the number and type of licenses that can operate on a single

Table 5: Zoning Ordinance Elements in Sample Communities

Ordinance Framework	Common Language	Lansing	Grand Rapids*	Ann Arbor	Muskegon	Mount Pleasant	Reading	Acme Twp.**
Legislative Intent	The purpose of this chapter/ordinance is to protect public health, safety, and welfare of the residents and policy statements unique to the community, specific to marijuana regulation.	x	x	x				
Definitions and Interpretations	Definitions for each license type (medical or recreational), stacking, buffer or buffered uses (park, church, school, etc.). Many communities define terms in the zoning ordinance or the regulatory ordinance or both. If not marked with an "X" here, the definitions may be in the regulatory ordinance.	x	x	x			x	x
Zoning Districts Assigned	Zoning district(s) assigned to various license types as permitted or special land use. Muskegon uses an overlay district (Marihuana Facilities Overlay District).	x	x	x	x	x	x	x
Uses Allowed/ Approval Procedure	An outline of each license type and the approval process for new or expanding facilities (special land use, administrative approval, permitted use, etc.).	x	x	x	x	x	x	x
Licenses per lot, exceptions, combinations	No more than one type of license (use) shall be located on a lot, exceptions for more than one type of license, and/or exceptions for certain combinations on a lot (such as provisioning center and retail or retail and designated consumption establishment). Limitations on accessory uses.	x	x	x	x	x	x	
Operation of Business	All activities must be indoors, premises open for inspection, no noise, dust, fumes, glare, odors, etc., no consumption on the premises (unless otherwise allowed), hours of operation. Security presence.	x	x	x	x	x	x	
Application Requirements	Type of facility, consent of property owner, pre-qualification step completion from LARA, proof of insurance, elevations, site plan, additional studies, design requirements (doors, lighting, landscaping, street furniture).	x	x	x	x	x		
Setbacks, Buffering, Dispersion Requirements	1,000 (or other) feet from a school, including pre-schools, 500 feet (or other) from buffered uses (parks, commercial child care, church, substance use disorder treatment center or another marihuana retailer/provisioning center. Setbacks listed are an example. actual setbacks vary among communities and license types.	x	x	x		x	x	
Separation Distance Waiver	A process is outlined for how an applicant may request a waiver from the 500, 1000, 2000 foot buffering or dispersion requirement for certain uses from specified uses (such church, daycare, church or another marijuana retailer).		x					
Parking Requirements	Parking requirements specific to marijuana establishments, these may uniquely address stacked licenses or combinations (retail/consumption or grower/processor) in one building.			x		x		
Additional Plans or Information Required	Lighting Plans, CPTED Plan (Crime Prevention Through Environmental Design), Wastewater, Sustainability Plans, Good Neighbor Plan, Marihuana Industry Voluntary Equitable Development Agreement (MIVEDA), Solid Waste/Chemical Disposal, Odor Plan	x	x	x	x	x	x	
Designated Consumption Establishments	The consumption of marijuana is permitted in a designated area (serve only those 21 years and older) and requires additional state and local licenses.	x		x				
Signage	Specifies a size of sign, a regulation specific to marijuana such as "signs may not depict marihuana or marihuana related paraphernalia".	x	x		x	x		
Federal Law	Nothing in chapter, regulation, is intended to grant immunity from criminal prosecution under Federal law.	x	x					
No Vested Rights	A licensee shall have no vested rights or nonconforming use rights that would serve as a basis for failing to comply with this chapter or any amendment to this chapter.	x	x					

Note: Zoning ordinances contain more detail and nuance than what can be shown here.

If marked with an "x" it was addressed in the ordinance, although some ordinances go into greater depth than others.

Police power and zoning ordinances often complement each other, a topic area that may be missing in one regulation might be found in the other.

\*Grand Rapids zoning ordinance only addresses medical marihuana facilities. The city is in the process of adopting zoning for recreational facilities.

\*\*Acme Township treats medical marihuana uses as a use by right in various zoning districts.

eration of the Medical Marijuana Provisioning Center, a Marijuana Retailer, or combination of the two, shall comply with all conditions of the Special Exception Use approval for the Lot.

b. A Medical Marijuana Provisioning Center or Marijuana Retailer may only be located within a PUD in compliance with the standards in this Section 5.16.3G and where retail use is permitted in the PUD Supplemental Regulations.

c. No Lot containing a Medical Marijuana Provisioning Center, Marijuana Microbusiness, or Marijuana Retailer shall be located within 600 feet of any Lot on which either a Medical Marijuana Provisioning Center, Marijuana Microbusiness, or Marijuana Retailer is located.\*\*\*

f. No Lot containing a Medical Marijuana Provisioning Center, Marijuana Retailer, Marijuana Grower, Marijuana Microbusiness, Designated Marijuana Consumption Facility, Marijuana Processor, or Marijuana Infused Product Processor shall be located within 1,000 feet of a Lot on which a pre-existing Public School or Private School, but excluding dance or art schools, is located."

Grand Rapids prohibits marijuana provisioning centers, other than provisioning centers co-located in an IT-District, from locating within:

"1,000 feet of a child care center, or a school; 1,000 feet of a publicly owned park or playground; 1,000 feet of a religious institution; 1,000 feet of a Substance Use Disorder Program licensed by the State of Michigan; 1,000 feet of a Residential Zone District, as defined in this Chapter, as measured along the primary street frontage on which the use is located; 2,000 feet of another provisioning center location; and 1,000 feet of another marijuana facility location, other than a provisioning center."

Grand Rapids also has the following minimum-distancing regulations that apply to marijuana processors, marijuana growers, and marijuana provisioning centers co-located in an IT-District:

"A facility shall not be located within: 1,000 feet of a child care center, or a school; 1,000 feet of a publicly owned park or playground; 1,000 feet of a religious institution; 1,000 feet of a Substance Use Disorder Program licensed by the State of Michigan; 1,000 feet of a Residential Zone District, as defined in this Chapter, as measured along the primary street frontage on which the use is located; and 1,000 feet of another facility location."

Finally, Mount Pleasant does not allow a marijuana establishment "within 500

feet of the SD-U University Special District, unless the establishment is located to the east of the Central Michigan University main campus, east of Mission Street." Each of the communities described in this section outlines how applicants and the municipality are to measure these distances. The key approach these municipalities appear to be taking is to identify locations that could be detrimentally affected by the introduction of a marijuana establishment and its supposed activities and effects on nearby sites.

Communities that have standards different than the MRTMA 1,000 foot buffer from schools (and other land uses) should be concerned as to whether their standard is more restrictive than the MRTMA, or in conflict with it (see DeRuiter case summary on page 2). They should ensure that their restrictions when all applied together, do not prevent the introduction of a new marijuana facility at the time when licenses are available at the local level. Grand Rapids attempts to avoid this scenario in some instances by including a waiver provision that states, "Sensitive uses that may be considered eligible for a separation distance waiver are only as follows: publicly owned park or playground, religious institution, or a licensed Substance Use Disorder Program." Grand Rapids also allows property owners at defined sensitive land uses within a 1,000 foot buffer to file an objection to a waiver claim. This grants existing businesses the opportunity to voice concerns, later reviewed by the planning commission, on whether the proposed development will "impair quality of life, damage neighborhood character, discourage commercial retail viability and variety, harm the stability of industrial areas, or have any particularly detrimental effects on the sensitive land use at issue, and whether one or more of the following conditions exist which will reduce potential detrimental impacts if the waiver is granted." On this note, communities should be proactive in planning for marijuana establishment locations and work with the public to decide the time, place and manner that marijuana establishments should operate to be the most beneficial land use possible.

Each of the communities varies in its allowance of stacked licenses, or the use of multiple licensed marijuana uses at a single location. Ann Arbor allows a provisioning center and retailer to operate on the same site if the licenses are under common ownership and the operations take place at the same location. Grand Rapids allows, in its Mixed-Use Commercial District, a provisioning center and a processor of infused products to operate on the same site, subject to approval. The city also permits growers, processors and provisioning centers at the same location if each license is for a separate use and is sited within the Industrial-Transportation District. Mount Pleasant merely states

## Overlay District Option

This analysis examines a provision only found in the City of Muskegon regulations. It is an innovative overlay district where marijuana establishments are permitted. While the actual administration and implementation of marijuana establishments in Muskegon does not vary greatly from the other six municipalities, it presents an interesting alternative practice for officials around the state to consider if they are pondering how to provide for marijuana establishments in their code. Muskegon's overlay district (see Figure 1) allows marijuana establishments in a highly auto-centric, industrial area along the municipal border with Muskegon Heights. Therefore, marijuana facilities are subject to the same zoning as the I-1 and I-2 industrial districts, along with the provisions described in the overlay zoning ordinance. These provisions are very much the same as the locational standards other communities use, though Muskegon also requires certain design standards meant to improve the outdoor aesthetics of the building. For example, the ordinance requires at least one bench, bike rack, trash can or bus shelter located on the site. Marijuana establishments must also have a canopy or decorative awning over the main entrance and feature ornamental lighting on the exterior of the building at all ingress and egress doors. There must also be at least one decorative street lamp with banner brackets every 30 feet of lineal road frontage. In addition, the zoning administrator may require these lamps to be located off-site within the overlay district to create a cohesive look for the district. Finally, the applicant must submit a site plan with decorative landscaping features, irrigation and underground sprinklers for new developments. Muskegon's use of an overlay district allows the city to effectively ensure that marijuana establishment not only meet zoning requirements, but also demonstrate added value and beautification to spaces visible to the public.

The MMFLA and the MRTMA have left many communities questioning what they can and cannot regulate according to state enabling acts and the restrictions in the respective marijuana legislation. Based on the analysis of the marijuana regulations in this article, four interesting strategies are worth repeating here. First, planning commissions should include as much language as possible from the MRTMA and the MMFLA in their codes rather than simply stating that all definitions and procedures are akin to state

Figure 1 – Muskegon Marijuana Overlay District



legislation. This allows the public and interested applicants to view the definitions as they are understood by the municipality in which they are seeking a license and it also allows the community the opportunity to adjust their own procedures so that they fit the respective statutes, as well as the local administrative context, to the extent possible.

Second, communities may be in a better position to permit high quality establishments with reputable business owners when they institute a thorough application and approval process for licenses that is easily accessible to all interested parties. The Lansing regulations are perhaps the clearest example of a detailed process, in that the city attorney, the building safety office, the police department, the zoning administrator, and the city treasurer are all involved in a comprehensive review of applicants' and their estimated impact. Though a thorough process may yield a higher quality licensee, it is also worth noting that more intricate licensing procedures can be timely and costly for the municipality. Additionally, the MRTMA emergency rules require detailed background checks, financial information and security plans, for example. As a community considers more detailed requirements for local licensure, it "may not impose qualifications for licensure that conflict with this act or rules or rules promulgated by the department." (MCL 333.27956 (3))

As a community develops a license application process, they should check the Emergency Rules of the Marijuana Regulatory Agency (MRA) to avoid duplicating work or imposing "qualifications" that are in conflict with the Act. The current rules will expire, or more likely be extended with some amendments, on July 3, 2020. In addition, more extensive local "qualifications" may also have the effect of making it more difficult for local lower income

entrepreneurs to successfully license a facility. The MRTMA requires communities that are designated as "social equity cities" (there are 184 cities, villages and townships that have been so designated by the MRA, see: <https://www.michigan.gov/mra/0,9306,7-386-93535-93538-500313--00.html>) to address this issue as part of their outreach to applicants. An important part of the balancing act should include a clear and detailed licensing procedure and review and approval standards as that is not only useful for the municipality, but also for all applicants and interested citizens. Business owners in any industry want to know the exact steps they must take to be able to operate in a given location. The municipal code and website should make the licensing and enforcement process easily understandable to staff, the public and potential licensees alike.

Third, applicants and the public at large should be reminded that marijuana licenses are a privilege, not a right. This language should appear in the code along with a provision that allows the municipality to revoke licenses if the licensee fails to uphold state or local requirements, as well as other factors discussed in this analysis such as convictions for other crimes. Municipalities may also want to consider adding a public hearing process for licensees that are proposed to have their license revoked or not renewed before taking such action. That will protect due process rights and ensure prior public disclosure.

Finally, marijuana establishments do not have to be blighting and some communities are attempting to ensure that, as well as achievement of other public objectives – as they already do with many other land uses. Grand Rapids is attempting to achieve a variety of sustainability goals. As demonstrated by Muskegon, communities may want to require decorative

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## JUNE

- 8, 9 SITE PLAN REVIEW ZOOM WEBINAR.** Michigan Chapter American Planning Association (MAP). This program will demonstrate the site plan review and approval process and provide practical tools and techniques on how to read a site plan. You'll discuss site design principles, such as pedestrian and traffic considerations, lighting, utilities, ADA compliance, inspections and landscaping. Participants in this hands-on workshop receive an engineering scale, turning template, and a sample site plan to review. 11 AM to 1 PM. Member Rate: \$65 | Non Member Rate: \$90 | APA Student Member Rate: \$30 <https://www.planningmi.org/regional-workshops>
- 9, 10 ZONING ADMINISTRATION PROGRAM - in Two Parts.** MAP. This program is for zoning administrators in rural, suburban or urban settings as well as municipal officials, other staff members, or citizens interested in a more complete understanding of all facets of zoning administration. This workshop will delve into legal basics, development reviews, zoning board of appeals, good meeting practices, enforcement and public relations. 2 PM to 4 PM. 3.5 AICP CM | 3.5 Master Citizen Planner Credits. Member Rate: \$65 | Non Member Rate: \$90 | APA Student Member Rate: \$30. <https://www.planningmi.org/regional-workshops>.
- 17, 18 PLANNING AND ZONING ESSENTIALS WORKSHOP - In Two Parts.** MAP. The most requested training product we offer. This program is a robust introduction for new planning commissioners and zoning board of appeals members, but is also a great refresher for more experienced officials looking to build upon existing knowledge. This program also provides a broad overview for students and emerging planners who want to learn about planning procedures in Michigan. 2 PM to 4 PM. Member Rate: \$55 | Non Member Rate: \$80 | APA Student Member Rate: \$30. <https://www.planningmi.org/regional-workshops>
- 24 CLEAN ENERGY PLANNING.** MAP. This workshop explores why planners - especially those in rural communities - need to consider renewable energy in their planning and zoning, and provide practical tools for doing so. Local appointed and elected officials will learn how the market for renewables is changing and the opportunities that may exist in all environments (urban, suburban and rural). Communities that have large parcels of open land (250+ acres), who are considering wind and solar farms will find this workshop particularly valuable. 2 PM - 4 PM. 2 AICP CM Credits. 2 Master Citizen Planner Credits. Member Rate: \$50 | Non Member Rate: \$80 | APA Student Member Rate: \$30. <https://www.planningmi.org/regional-workshops>
- 25 MASTER CITIZEN PLANNER 2020 WEBINARS.** These webinars are part of a series designed to offer continuing education for Master Citizen Planners in a convenient online opportunity and are open to all planning and zoning officials. Webinars are offered from 6:30-7:30 PM on the dates below. Cost is \$10 per webinar for MCPs, \$20 per webinar for all others. Register for one, several, or all webinars. Register Online: <https://events.anr.msu.edu/MCPWebinar2020/>.  
**June 25 - BUILDING TRUST AND MAKING BETTER DECISIONS.** Taught by Lindsey Gardner.  
**July 16 THE LOCAL LAND DIVISION ORDINANCE: SHOULD YOUR LOCAL UNIT HAVE ONE?** Taught by David S. Rowley.  
**September 17 LAND USE PLANNING FOR ALL GENERATIONS.** Taught by Tyler Augst.

## SEPTEMBER

- 20 - 23 MICHIGAN HISTORIC PRESERVATION ANNUAL CONFERENCE.** John E. Felzer Center, Western Michigan University, Kalamazoo. Early bird registration deadline is August 10, 2020. For more information visit [www.mhpn.org](http://www.mhpn.org).

(continued from page 15)

landscaping, public seating and facades that contribute to a strong sense of place. Communities can zone to allow marijuana establishments in places overtly in the public eye to deter crime, or they can zone them into industrial zones or auto-centric corridors where they are less visible. As long as these standards do not create an "unreasonably impractical" burden on the property owner, the MRTMA appears to give municipalities latitude to regulate recreational marijuana establishments in a manner that best fits the local context. Doing so will lead to increased legal risk however, since it is not known whether such approaches will conform to potentially narrow interpretations of the MMFLA or MRTMA by Michigan's courts. Yet already as pointed out throughout this article, some communities are already taking the risk. Marijuana establishments are a new land use in Michigan, and the legal and planning approaches that municipalities can take are complex and demand thorough planning and solid legal advice throughout the development, adoption, application and enforcement of such regulations. But with care, these new establishments could become assets in the community.

As previously mentioned, the regulatory and policy choices made by each of the seven communities highlighted in this article do not necessarily represent best practices, and are only intended to serve as examples for how jurisdictions of various population sizes and geographies have decided to regulate marijuana establishments in Michigan at this time. If your community wants to permit marijuana facilities, please involve planners and the municipal attorney in future decisions about regulating marijuana establishments in your community and stay alert to future court decisions that may affect the scope of future municipal regulation of marijuana establishments.

### Special Thanks

Mary Reilly, MSU Extension Educator is extended special thanks for guidance and assistance with selection of the communities included in this analysis, and for significant contributions to some of the tables. □