



AGENDA
CHARTER TOWNSHIP OF MERIDIAN
PLANNING COMMISSION – REGULAR MEETING
June 22, 2020 7PM

1. CALL MEETING TO ORDER
2. PUBLIC REMARKS
3. APPROVAL OF AGENDA
4. APPROVAL OF MINUTES
 - A. June 8, 2020 Regular Meeting
5. COMMUNICATIONS
 - A. Carol Chapman RE: Special Use Permit #20011 (Andev Group, LLC)
 - B. David French RE: Special Use Permit #20011 (Andev Group, LLC)
 - C. Any Simon RE: Special Use Permit #20011 (Andev Group, LLC)
 - D. Jack Baldwin RE: Special Use Permit #20011 (Andev Group, LLC)
 - E. Linda Stober RE: Special Use Permit #20011 (Andev Group, LLC)
 - F. Greg Humbert RE: Special Use Permit #20011 (Andev Group, LLC)
 - G. Tom Dietz RE: Special Use Permit #20011 (Andev Group, LLC)
 - H. Athena McLean RE: Special Use Permit #20011 (Andev Group, LLC)
 - I. David Skole RE: Special Use Permit #20011 (Andev Group, LLC)
6. PUBLIC HEARINGS
 - A. Special Use Permit #20031 (McCreary’s Healthy Homes and Cars), establish car detailing service in an existing building at 1477 Haslett Road.
 - B. Special Use Permit #19191 (Green Peak Innovations, LLC), construct new 2,700 square foot commercial medical marihuana provisioning center on an unaddressed parcel on the east side of Northwind Drive identified as Parcel #20-127-003.
 - C. Rezoning #20040 (Michigan Baptist Convention), rezone approximately 4.999 acres located at 4606 Hagadorn Road from RR (Rural Residential) to PO (Professional and Office).
7. UNFINISHED BUSINESS
 - A. Special Use Permit #20011 (Andev Group, LLC), establish an approximately 268,263 square foot senior living community comprised of 230 units on an undeveloped parcel identified as Parcel Number 20-401-005, located at the east end of Hannah Boulevard.
 - B. Special Use Permit #20021 (Andev Group, LLC), construct building greater than 25,000 square feet in size on an undeveloped parcel identified as Parcel Number 20-401-005, located at the east end of Hannah Boulevard.
 - C. Rezoning #20010 (Ho Cho), rezone approximately 4.67 acres located at 5654 Okemos Road from RR (Rural Residential) to RAA (Single Family-Low Density).
 - D. Rezoning #20030 (Planning Commission), rezone approximately 0.10 acre located at 5937 Potter Street from C-1 (Commercial) to RN (Mixed Residential).

AGENDA page 2
CHARTER TOWNSHIP OF MERIDIAN
PLANNING COMMISSION MEETING
June 22, 2020 7PM

8. OTHER BUSINESS - None
9. REPORTS AND ANNOUNCEMENTS
 - A. Township Board update.
 - B. Liaison reports.
10. PROJECT UPDATES
 - A. New Applications - None
 - B. Site Plans Received - None
 - C. Site Plans Approved - None
11. PUBLIC REMARKS
12. ADJOURNMENT

TENTATIVE PLANNING COMMISSION AGENDA
July 13, 2020

1. PUBLIC HEARINGS
 - A. Special Use Permit #20051 (1732 Hamilton Road LLC), establish motor vehicle repair shop at 1732 Hamilton Road.
2. UNFINISHED BUSINESS
 - A. Special Use Permit #20031 (McCreary's Healthy Homes and Cars), establish car detailing service in an existing building at 1477 Haslett Road.
 - B. Special Use Permit #19191 (Green Peak Innovations, LLC), construct new 2,700 square foot commercial medical marihuana provisioning center on an unaddressed parcel on the east side of Northwind Drive identified as Parcel #20-127-003.
3. OTHER BUSINESS - None

Individuals with disabilities requiring auxiliary aids or services should contact: Principal Planner Peter Menser, 5151 Marsh Road, Okemos, MI 48864 or 517.853.4576 - Ten Day Notice is Required.
Meeting Location: Zoom web conferencing application
Meeting ID: 872 0006 8286 Password: 5151

Providing a safe and welcoming, sustainable, prime community.



**CHARTER TOWNSHIP OF MERIDIAN
PLANNING COMMISSION
REGULAR MEETING MINUTES**

June 8, 2020

Meeting held virtually using the Zoom web conferencing application

7:00 P.M.

PRESENT: Commissioners Premoe, Trezise, Cordill, Richards, Shrewsbury, Clark, McConnell, Hendrickson

ABSENT: None

STAFF: Director of Community Planning & Development Mark Kieselbach, Economic Development Director Ken Lane, Information Technology Director Stephen Gebes, Multimedia Producer Samantha Diehl, Principal Planner Peter Menser

1. Call meeting to order

Chair Hendrickson called the regular meeting to order at 7:01 P.M.

2. Public Remarks

- A. Steven Bezdek, 2020 Raby Road, spoke in opposition to Rezoning #20010 (Ho Cho).
- B. Kelly Bartel, no address provided, spoke in opposition to Rezoning #20010 (Ho Cho).

3. Approval of Agenda

Commissioner Premoe moved to approve the amended agenda.
Seconded by Commissioner Trezise.

Commissioner Cordill requested to move up item 6D to be the first public hearing as the other public hearings were more involved and would take longer. The public hearing order would be 6D, followed by 6A, 6B and 6C.

The friendly amendment was added to the agenda to move up 6D as the first public hearing .
VOICE VOTE: Motion approved unanimously.

4. Approval of Minutes

- A. May 18, 2020 Regular Meeting

Commissioner Premoe asked to have the meeting notes amended to correct the Chair's name, (changed from Chair Lane to Chair Hendrickson) twice in the minutes.

Commissioner Clark moved to approve the amended meeting minutes.
Seconded by Commissioner McConnell.
VOICE VOTE: Motion approved unanimously.

5. Communications - None

6. Public Hearings

- D. Rezoning #20030 (Planning Commission), rezone approximately 0.10 acre located at 5937 Potter Street from C-1 (Commercial) to RN (Mixed Residential).

Chair Hendrickson opened the public hearing at 7:13 p.m.

Principal Planner Menser provided an overview of the proposed rezoning request for the property.

Public Comment – None

A straw poll indicated the Planning Commission would be in support of recommending approval of the request. A resolution will be provided at the next meeting on June 8, 2020.

Chair Hendrickson closed the public hearing at 7:27 p.m.

- A. Special Use Permit #20011 (Andev Group, LLC), establish an approximately 268,263 square foot senior living community comprised of 230 units on an undeveloped parcel identified as Parcel Number 20-401-005, located at the east end of Hannah Boulevard.
- B. Special Use Permit #20021 (Andev Group, LLC), construct building greater than 25,000 square feet in size on an undeveloped parcel identified as Parcel Number 20-401-005, located at the east end of Hannah Boulevard.

Chair Hendrickson noted 6A and 6B will run concurrently and opened the public hearing at 7:28 p.m.

Principal Planner Menser noted the public hearing was originally scheduled for March 16, 2020 but was cancelled due to the COVID19 pandemic.

Principal Planner Menser provided a summary of the project requests and said he would be available to answer questions. Special Use Permit #20011 addresses land use and to establish non-residential use for a senior living community and Special Use Permit #20021 addresses the building size.

Principal Planner Menser introduced the applicant's representative Mark Klouse, on behalf of the George Eyde Family LLC. There were numerous other guests in attendance, who are involved with the proposed project. Mike Samuels is with the ANDEV Group and discussed the building proposal. Dan Anbar is the Principal of the ANDEV Group and he introduced himself and shared information about their company. They are located at 680 N. Lake Shore Drive in Chicago, IL. Ben Ganther is with the design build group at Ganther Construction/Architecture. They are located at 4825 County Road A in Oshkosh, WI. Jeff Keis with Kebs Inc. was in attendance also and noted the Ingham County Road Commission and Drain Office didn't note any issues but during the Site Plan Review process all details will be reviewed.

Public Comment:

- A. David Lewis Skole, 4845 Mohican Lane, spoke with concerns regarding the Nature Features Survey and water levels in the proposed area being prone to flooding.
- B. Joe Pavona, 4726 Arapaho Trail, and is also the President of the Homeowners Association for Indian Lake Estates. He commented on the berm design at the proposed property line and expressed concern for follow through. Mr. Pavona would also like to have a copy of the executed access agreement with the adjacent property owner. He also expressed concern with the surface water management plan to protect the Indian Lake Estates Homeowners Association in the future.
- C. Kevin Roragen, Loomis Law Firm, 124 W. Allegan Street, Suite 700, Lansing, spoke on behalf of the Indian Lakes Estates Homeowners Association suggested the berm be added as a condition on the Special Use Permit. He commented on the emergency access road agreement and finally discussed the concerns regarding flooding in the area, excess water and how surface water is an issue that needs to be addressed and the importance of sharing storm water data.
- D. Joe Zimmerman, 4715 Mohican Lane, spoke in concern regarding flooding in the area, trees dying due to excess standing water and wild life concerns.

Planning Commission Discussion:

- The developer listened to concerns expressed in the past regarding heights of buildings in relation to single family dwellings.
- The storm water issues will be addressed during Site Plan Review. Perhaps the resident, Joe Zimmerman, could share video/photos he has taken of the area with flooding issues.
- A question was asked to clarify the 2008 Rezoning that tied 80 acres contingent on developing property and must use the Mixed Use M.U.P.U. D. Ordinance. Principal Planner Menser will provide the information at the next meeting.
- Transportation for residents will be provided by the complex. Significant developments often add access to public transit options for the area.
- The natural tree line will be preserved as much as possible near the area where the berm will be added.
- The Wildlife Study may need to be updated.
- There is no ordinance guidance for the Natural Features Study but this is a requirement of the Special Use Permit submittal.
- Ten acres out of a 60 acre lot should not have a significant environmental impact. The developer used a previous study since no other development has been done. A new study could also delay the project from moving forward.
- Include the berm as a condition in the approval of the Special Use Permit.

A straw poll indicated the Planning Commission would be in support of recommending approval of the Special Use Permit for the senior living community however the Special Use Permit for construction of the building will go to the Township Board for a final decision.

Chair Hendrickson closed the public hearing at 9:08 p.m.

- C. Rezoning #20010 (Ho Cho), rezone approximately 4.67 acres located at 5654 Okemos Road from RR (Rural Residential) to RAA (Single Family-Low Density).

Chair Hendrickson opened the public hearing at 9:09 p.m.

Principal Planner Menser provided an overview of the request and was available to answer questions.

The applicant, Young Ho Cho, 5053 Okemos Road introduced himself and was available for questions.

Public Comment:

- A. Sam Smith, 2091 Raby Road, spoke in opposition to Rezoning #20030.
B. Jeff Cole, 2090 Raby Road, spoke in opposition to Rezoning #20030.
C. Richard Klingensmith, 2030 Raby Road, spoke in opposition to Rezoning #20030.

Planning Commission Discussion:

- The property is unique and the owner is looking at possible options.
- The surrounding properties are zoned RR.
- The answers noted in the application did not provide reasoning or plans for additional consideration by the Planning Commission.

A straw poll indicated the Planning Commission would not be in support of recommending approval of the rezoning proposal. A resolution will be provided at a later meeting.

7. **UNFINISHED BUSINESS** – None

8. **OTHER BUSINESS** – None

9. **REPORTS AND ANNOUNCEMENTS**

- A. Township Board update.

Principal Planner Menser provided a summary of the June 2, 2020 Zoom Township Board meeting and provided a preview of what is on the agenda for the June 16, 2020 Zoom Township Board meeting.

10. **PROJECT UPDATES**

A. New Applications

1. Special Use Permit #20-19-99021 (Williams Volkswagen, Inc.), amend special use permit for minor adjustment to size of building addition to automobile dealership at 2186 Jolly Road.

B. Site Plans Received

1. Site Plan Review #20-00-09 (Williams Volkswagen, Inc.), construct 15,120 square foot addition to existing 30,420 Square foot automobile dealership at 2186 Jolly Road.
2. Site Plan Review #20-02 (Meridian Investment Group, LLC), construct new 73,050 square foot mixed use building with 78 dwelling units and 2,830 square feet of commercial space at 2875 Northwind Drive.
3. Site Plan Review #20-09-08 (East Lansing 1 LLC), add covered patio, sand volleyball court, and dog park to The Lodges apartment complex at 2700 Hannah Boulevard.

C. Site Plans Approved - None

11. PUBLIC REMARKS

- A. Sam Smith, 2091 Raby Road, wanted to apologize for the environment comment made earlier to the Planning Commission.
- B. Joe Pavona, 4726 Arapaho Trail, wanted to thank the Planning Commission and also wanted to note how important the water issues and berm are for the Indian Lake Estates Home Association regarding the Special Use Permit #20011 and Special Use Permit #20021 discussed earlier.

12. ADJOURNMENT

Commissioner McConnell moved to adjourn the meeting.

Supported by Commissioner Richards.

VOICE VOTE: Motion carried unanimously.

Chair Hendrickson adjourned the regular meeting at 9:45 p.m.

Respectfully Submitted,
Debbie Budzynski, Recording Secretary

Special Use Permit/Andev Development

Carol Chapman <cchapman@tomieraines.com>

Wed 6/17/2020 1:44 PM

RECEIVED
JUN 17 2020

Dear Planning Commission,

I have been a resident of Indian Lakes for 45 years and have thoroughly enjoyed living in this quiet subdivision with no street lights or sidewalks. This area is very attractive to people because of the privacy, wooded setting and location. We sincerely hope our area will continue to be special to forthcoming homeowners.

I have attended Township Meetings over the years with deep concern over water run-off issues resulting from the construction of the Michigan Athletic Club, Shopping Strip and Ice Arena plus Hotel & The Lodges. All of this development has increased our water table dramatically with tree roots being undermined, dying & falling down throughout the subdivision. The foregoing developers have assured us they would take care of water run off with retention ponds, etc. This has not happened & the result has been increased water resulting in flooded basements and undermining structural walls in our homes. A 3,000 s.f. home on Mohican Lane - 2 story brick home was condemned & removed that was the result of an underground stream. The lot that was left is now Mohican Park.

I live at the corner of Mohican Lane & Tonapah Trail and have the flood bank for the Red Cedar River-- Tonapah Trail is located in a flood throughway! Flood Insurance is required at many of the houses situated in a lower elevation from the proposed Andev Development. Our property has always had a backyard with grass to cut, up until the last 2 years of dramatic increase of the water table - both underground and increased level of the Red Cedar River. Our yard is nothing but mud and felled trees.

Please stop by this corner and take a look!

We sincerely beg of you to turn down this development. Please listen to our Homeowners requests!

Truly yours, Carol & Bud Chapman

Sincerely,

Carol Chapman
REALTOR®, QSC Platinum, Luxury Home Specialist
 Berkshire Hathaway HomeServices
 Tomie Raines REALTORS®
 1400 Abbot Road, Suite 200
 East Lansing, MI 48823
 Cell-Phone: 517-202-2240
 Office Phone: 517-853-6305
 cchapman@tomieraines.com


*Chapman
 4825 Mohican Ln
 Okemos Michigan
 1-517-202-2240*

RECEIVED
JUN 17 2020

PLANING COMISSION MERIDIAN TWP ----- WED JUNE 17,2020

IT IS MY UNDERSTANDING THAT YOU ARE IN THE PROCESS OF DETERMINING TO ALLOW A LARGE(268,263 FOOD SENIOR LIVING STRUCTURE) ONE OF TWO SUCH STRUCTURES TO BE BUILT ON WHAT IS A FLOOD PLANE AND A FLOOD FLOW AREA.

I LIVE AT 4865 MOHICAN LANE, RIGHT ON THE RIVER,I HAVE BEEN THERE FOR SOME 40 YEARS, AND SEEN A DRASTIC CHANGE IN THE AMT OF WATER THAT REMAINS IN MY BACK YARD AFTER A HEAVY RAIN, AND ALSO WITH THE FLOODING. I HAVE ENCLOSED A RECENT PHOTO OF MY BACK YARD TAKEN IN DECEMBER WHEN A TREE FELL ON MY HOUSE. THERE IS A 5 FOOT CYCLONE FENCE THAT SURROUNDS THE BACK YARD.

AS YOU ARE AWARE EYDE COMPANY HAS CONTINUED TO SELL THE LAND TO DEVELOPERS THRU THE YEARS, IN DOING SO HAS BROUGHT IN FILL IN SOME AREAS, ELIMINATING THE AREAS WHERE WATER CAN BE ABSORBED INTO THE LAND AFTER A HEAVY RAIN OR THE SPRING FLOODS. AS THEY HAVE CONTINUED TO ENCROACH AND FILL THE FLOOD PLANE, WE HAVE SEEN MANY CHANGES IN THE WATER IN AND AROUND OUR HOUSE, DUE TO THE DECREASED AREA DUE TO FILL THAT THE EYDE'S HAVE ALLOWED.

1-40 YEARS AGO THE RIVER WAS SMALLER, THE TREES ON THE BANKS OF THE RIVER HAVE SLOWLY FALLEN INTO THE RIVER AS IT HAS ENLARGED DUE TO THE FACT NOT AS MUCH WATER CAN BE ABSORBED, DUE TO FILL AND THE CONSTRUCTION,OF THE MAC,MANY STUDENT APARTMENTS,ICE ARENA, AND NOW YOU WANT TO TAKE AWAY MORE LAND, AND REPLACE IT WITH TWO LARGE BUILDINGS, AND A LOT OF ASPHALT.

2-30 YEARS AGO, WE NOTICED A LITTLE MORE FLOODING IN THE BACK YARD,THE WATER WOULD STAY LONGER, THAN BEFOR,AND WE NOTICED MAYBE 2 OR 3 FEET OF WATER IN THE BACK YARD

3-20 YEARS AGO, THE WATER WAS AS HIGH AS THE 5 FOOT CYCLONE FENCE, AND WOULD STAY FOR MAYBE 4 TO 6 DAYS BEFOR RECEEDING.

4-WITHIN THE LAST 5 YEARS WE HAVE SEEN A DRAUMATIC CHANGE IN WATER RETENTION IN OUR BACK YARD, LAST YEAR IT WAS OVER 12 FEET OF WATER IN OUR BACK YARD, UP TO THE AREA MARKED ON THE PHOTO, ABOUT 4 FEET BELOW OUR HOUSE.

5-IF YOU ALLOW THIS PROJECT TO GO THRU, AND TAKE AWAY MORE LAND THAT IS IN THE FLOOD FLOW OR PLANE AREA DUE TO BUILDING AND ASPHALT

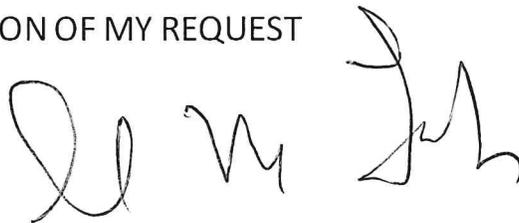
COVERING THE GROUND, THERE IS A VERY STRONG CHANCE THAT THE WATER WILL COME INTO MY HOUSE.

I UNDERSTAND THAT MR EYDE HAS A RIGHT TO SELL HIS LAND, AND YOU CERTAINLY HAVE THE RIGHT TO APPROVE THE CONSTRUCTION, EVEN THOUGH IT IS ON A FLOOD FLOW AREA, AND THERE IS ONLY SO MANY PLACES FOR THE WATER TO GO. MR EYDE WILL SELL THE LAND, THE FOLKS THAT DEVELOP IT WILL SELL IT EVENTUALLY, LEAVING ONLY THE TOWNSHIP TO SUE IF MY HOUSE FLOODS DUE TO THE FACT THAT THEY ALLOWED CONTINUED CONSTRUCTION DECREASING THE LAND AVAILABLE TO LET THE WATER DRAIN. CAUSING MY PROPERTY TO SUSTAIN DAMAGE DUE TO WATER FLOWING INTO MY HOUSE FROM A RIVER THAT CONTINUES TO RISE.

I DO NOT THINK IT IS JUST CLIMATE CHANGE THAT HAS CAUSED WHAT SEEMS LIKE A VERY LARGE INCREASE IN RAIN FALL, AND THE FLOODING THAT RESULTS, I STRONGLY FEEL THAT WITH THE CONTINUED BUILDING THAT THE TWP HAS ALLOWED, REDUCING THE AREAS FOR THE WATER TO FLOW ONTO LAND, BECAUSE THERE IS NOW ASPHALT PARKING LOTS AND LARGE BUILDINGS, IS THE REASON THAT I NOW HAVE 12 FEET OF WATER AT SOME TIMES IN MY BACK YARD. JUST A HEAVY RAIN NOW WILL OFTEN LEAVE OVER A FOOT OF WATER IN MY BACK YARD IN ONE DAY, WHICH HAS NEVER HAPPENED, UNTIL RECENTLY.

SO I AM ASKING YOU TO NOT ALLOW THE CONSTRUCTION OF THIS LARGE PROJECT THAT IS PROPOSED, AS THERE IS AT THE PRESENT NO PLACE FOR THE WATER TO DRAIN TO, AND THIS WOULD ONLY INCREASE THE PROBLEMS I AM SEEING OCCUR IN MY BACK YARD

THANK YOU FOR YOUR CONSIDERATION OF MY REQUEST
DAVID W. FRENCH –HOME OWNER
4865 MOHICAN LANE
OKEMOS, MICH 48864
517 337 2101

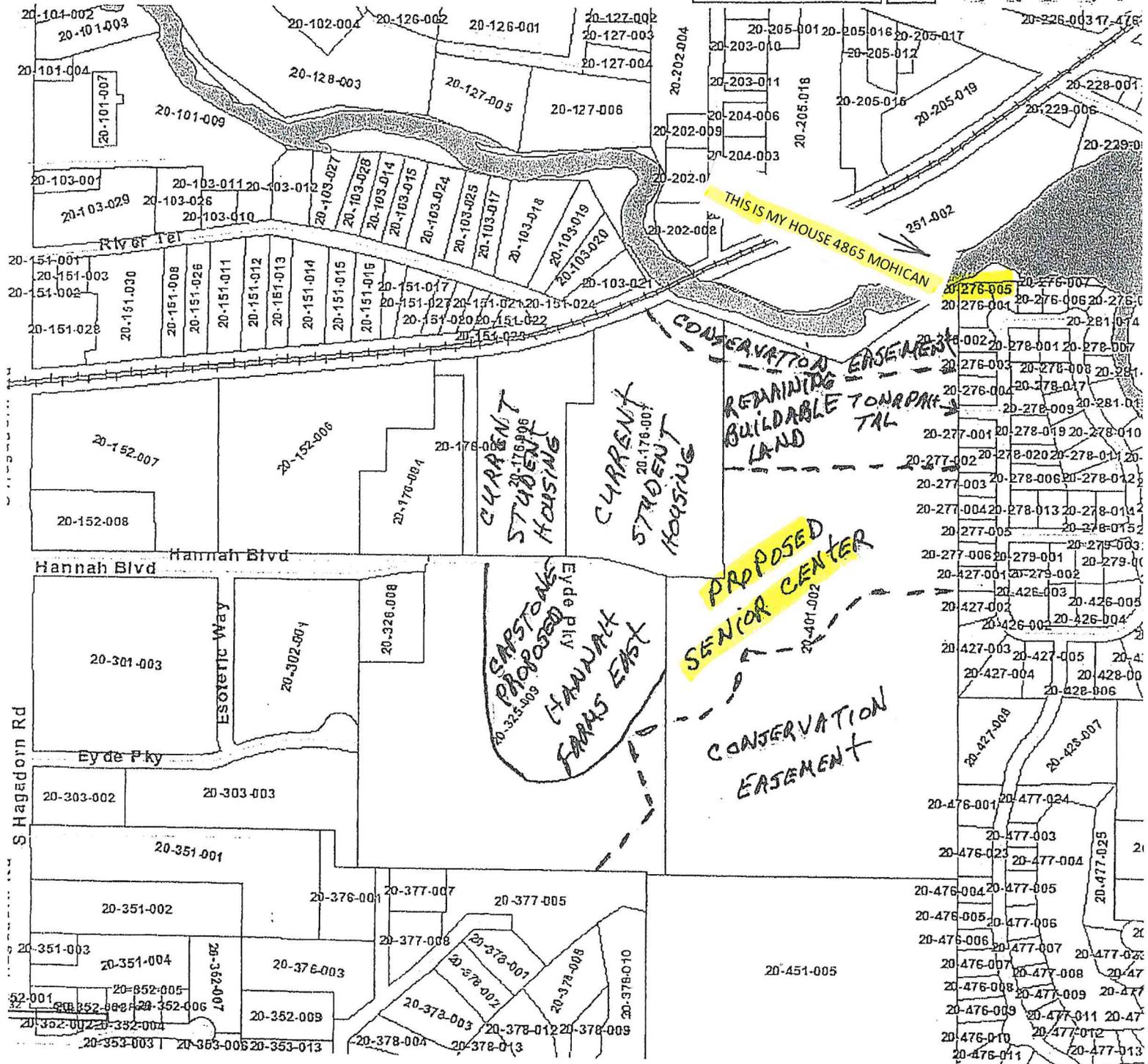
A handwritten signature in black ink, appearing to read 'D W French', written in a cursive style.

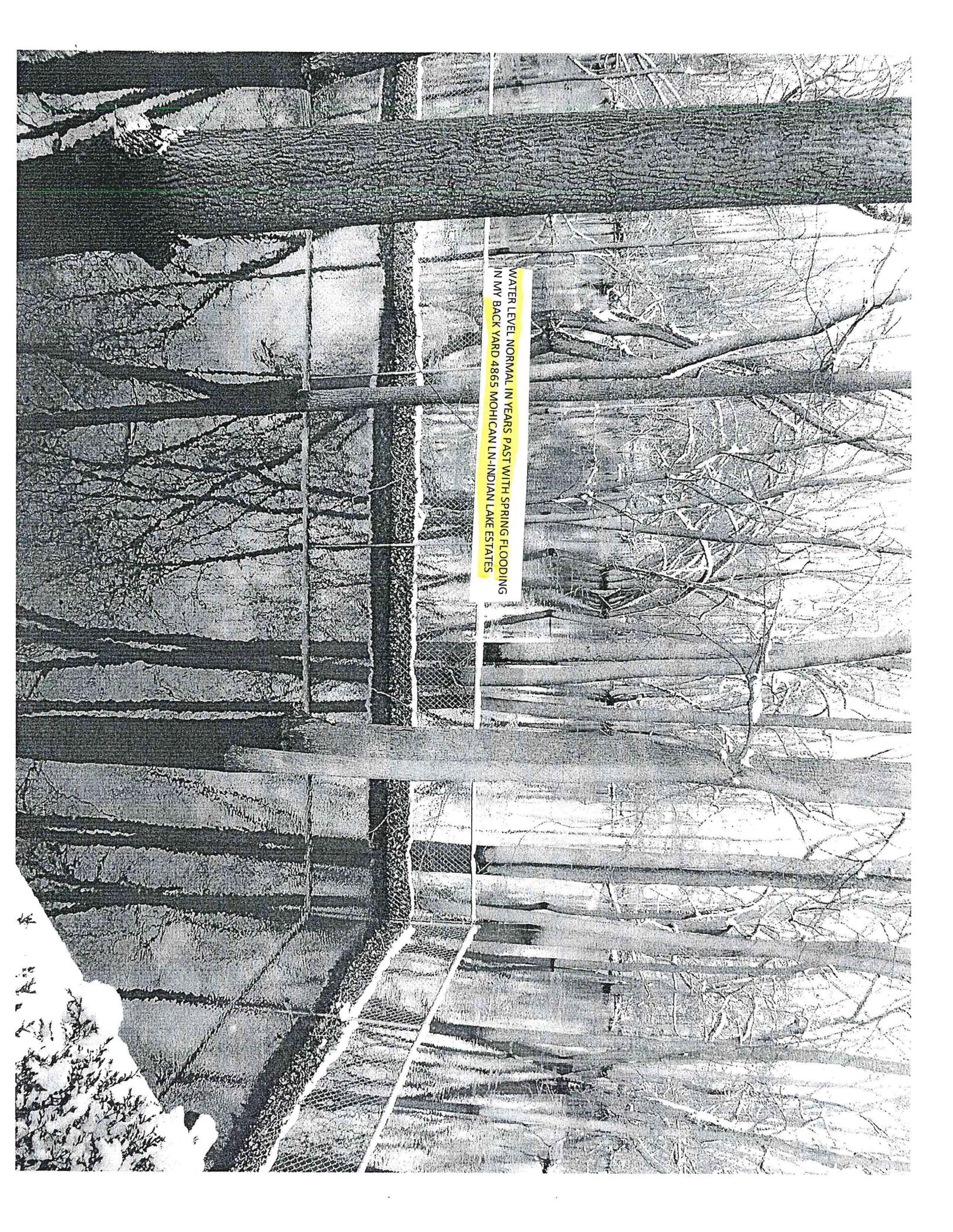
Charter Township Parcel Viewer

Attributes

1:6,445

Go



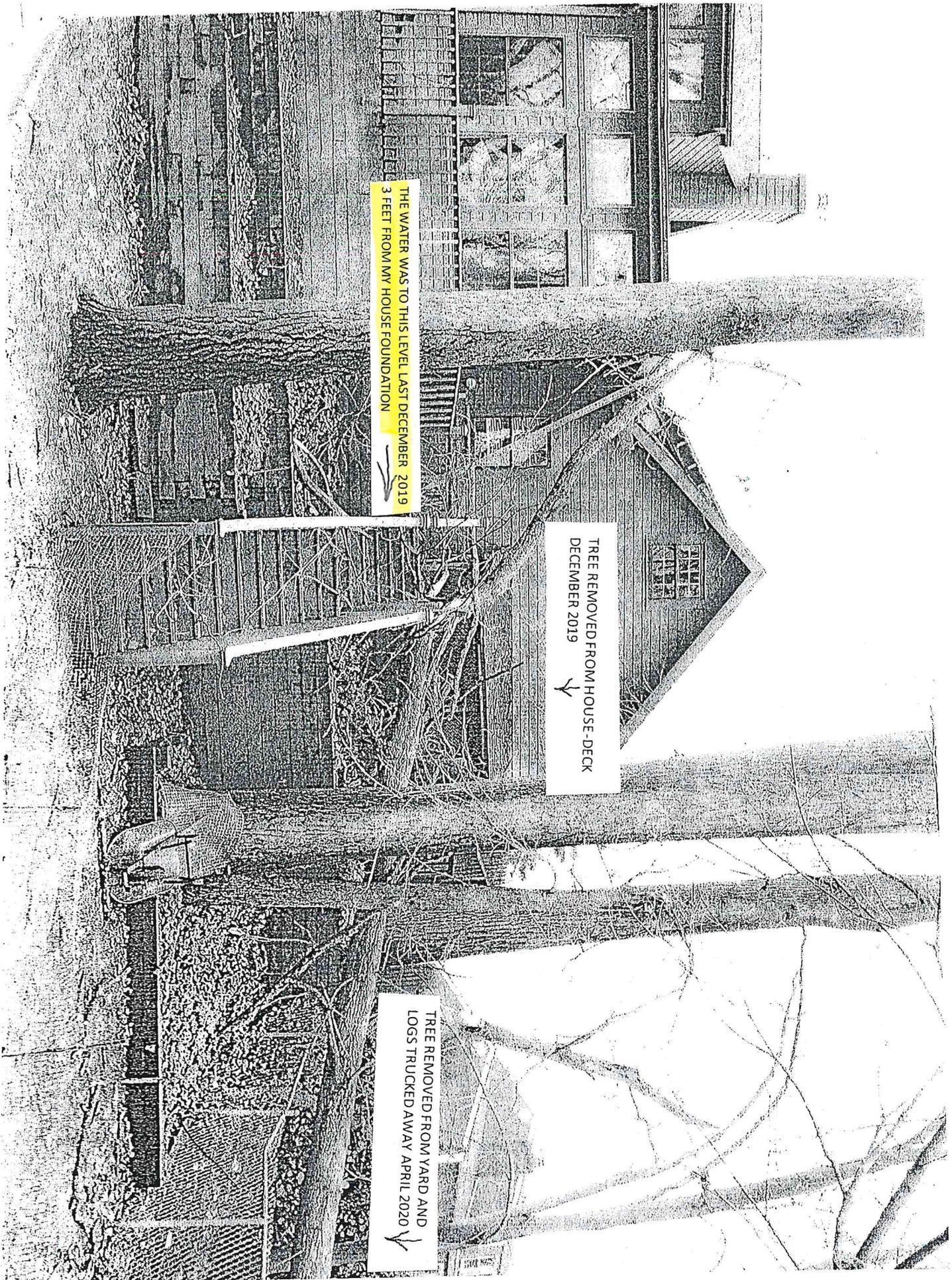


WATER LEVEL NORMAL IN YEARS PAST WITH SPRING FLOODING
IN MY BACK YARD 4865 MOHICAN LN INDIAN LAKE ESTATES

THE WATER WAS TO THIS LEVEL LAST DECEMBER 2019
3 FEET FROM MY HOUSE FOUNDATION

TREE REMOVED FROM HOUSE - DECK
DECEMBER 2019

TREE REMOVED FROM YARD AND
LOGS TRUCKED AWAY APRIL 2020



Peter Menser

From: Simon, Amy <simonamy@msu.edu>
Sent: Wednesday, June 17, 2020 9:01 PM
To: Planning Commision (DG)
Subject: Proposed Hannah Farms senior center development
Attachments: IMG_9064.JPG

Hello,

My name is Amy Simon, and I live at 4763 Mohican Lane, Okemos, MI 48864. My home is one of the few that will be immediately adjacent to the proposed Hannah Farms senior center development, SUP #20011. I have read through previous materials as well as the packet for the June 8 planning commission meeting. I have also watched that meeting. My sense from these is that the concerns from the Indian Lakes Estates homeowner's association have been taken seriously and some measures have been adopted based on our concerns. I also understand that the biggest question about water management has not yet been resolved, as much of that work will come during the next stage of development. It seems to me that there is a general consensus among the committee that this development should move forward, as it meets or exceeds all legal requirements. I am therefore not writing to provide environmental or legal reasons why it should not move forward. Instead, I am writing to express my personal perspective as someone who will be directly impacted by this development.

I have attached here a picture of my backyard from this weekend. I bought my husband a hammock for Father's Day, and he, along with my twin four-year-olds, were enjoying the peace and quiet of nature in our backyard. The wind rustled the leaves of the enormous trees overhead, and all we could hear were birds chirping. It was idyllic. Later that day, from inside our screened porch, we watched as a fox played near the kids' swing set. Yesterday, when I went out to put away toys, I found myself face-to-face with a deer just past our property line. We shared a glance for a moment before I went back inside. I cannot count the number of times I have sat in our living room, which includes large picture windows with a view to the backyard, and felt a welling of peace and tranquility because of the beautiful scenery that I am fortunate to see. In this world of struggle, I have found sanctuary in my home and its environs.

This development will impinge on, if not destroy those environs. I have not seen anything in the plans that demonstrates that natural features will completely shield my home from this development. Based on those plans, it looks like, instead of a beautiful field and trees, I will have a parking lot 90 feet from my backyard. It seems that even a 4-6 foot berm will not be able to provide complete protection from this building. Allowing these facts, I have two specific questions I would like to address:

1. Assuming this project moves forward, when will the construction begin? How long will it last? How will the developers compensate myself and others directly abutting the development for the noise and disruption of our lives (how can someone digging around for a prolonged period just behind our yard not disrupt our lives?)
2. How will the developers take responsibility for the strong potential that our property values will significantly decrease? It is well-known that one of the most attractive aspects of living in Indian Lakes Estates is the natural beauty. In fact, I would not have bought this house had there been a huge senior center just behind it. I am concerned that it will become increasingly difficult for me to sell my house, especially for a reasonable price.

These questions may make it sound like I am interested in financial compensation. In fact, I would rather just be able to sit with my family in our hammock in the backyard. This is the first home I have ever bought, and I have raised my children here from the time they were six months old. I have made major investments in the home, hoping to stay for a long time. I would like more than anything to continue to live here and to enjoy my home the way I purchased it. However, if that becomes impossible to do because of this construction and development, I would like to know that I am in a financial situation to be able to move to a home more comfortable for myself and my family.

Thank you for your time. I hope to hear a response, if only an acknowledgement of receipt.

Best,
Amy

Amy Simon, PhD
Assistant Professor
William and Audrey Farber Family Endowed Chair in Holocaust Studies and European Jewish History
Michigan State University, James Madison College, 842 Chestnut Rd. Rm. S310, East Lansing, MI 48825
Tel: 517-884-1270



Peter Menser

From: Meridian Township, MI <meridian-mi@enotify.visioninternet.com>
Sent: Wednesday, June 17, 2020 9:44 PM
To: Planning Commision (DG)
Subject: Special use Permits #20011 and #20021 (Andev Group)

Message submitted from the <Meridian Township, MI> website.

Site Visitor Name: Jack Baldwin
Site Visitor Email: baldwi80@msu.edu

Dear Commissioner,

I am a resident of the Indian Hills subdivision in Okemos, and I want to express my appreciation for the support that the planning commission has given to maintaining the quality of life in our neighborhood. However, I also want to convey my concern about the effects of the continuing development of the Hannah Farm property, which is directly adjacent to our residential neighborhood.

One obvious and growing problem that I believe is a direct effect of that development is the ever-increasing water levels in our area. I live at 4716 Arapaho Trail. The back of my house looks southward out onto the wetland that surrounds Herron Creek as it flows down towards the Red Cedar River. Every year, the area behind my house floods more and more. An obvious sign that this is a growing problem is that large trees are steadily dying and then breaking off several feet above the ground and falling over. I hear and see them falling down every few weeks, and one just has to walk out into the wetland and look around to see that this is part of a steady change for the worse.

Other houses in the neighborhood already have wet basements that they did not experience in earlier years. And backyards that nowadays are frequently flooded. In our particular case, we have a finished walk-out basement, so a catastrophe for us will be when the water surface reaches a level where it will flow straight in through the basement door. The water is not there yet, but it certainly appears to be headed in that direction.

Having allowed significant areas of Hannah Farm to be paved over must be a significant contributor to this problem. The Planning Commission needs to make very sure that future development will not make things worse yet. And I am sure that you know better than me that developers do not always do what they say they will do.

Please continue to stick up for the long-term residents of the township. We need your help.

Yours sincerely,
Jack Baldwin

Telephone
242-0816



Ms Linda M Stober
4835 Mohican Ln.
Okemos, MI 48864

Dear Planning Commission,

We bought this house 20 years ago when it was on a wooded lot with shade trees. Today there is not one tree left. Every tree either drowned and fell over or had to be cut down because it became a danger to the house.

The photo depicts my husband with a saw trying to curtail some cost from a tree that fell. He is standing on the property line we share with the Eydies.



We don't have trees now, but every year entails a huge clean up because the increasingly large floods bring in more and more lumber floating in from the river. The back of our house is impassable now, the water table is so high our yard is wet all the time and we can't keep up with the dead wood.

The river water, which increasingly smells like sewage, is now creeping up our hill into my flower beds, so as of this year I have stopped gardening in back.

We have a loss of property, isn't that illegal? !?
The previous developers promised us we would not be impacted! That was and is a lie.

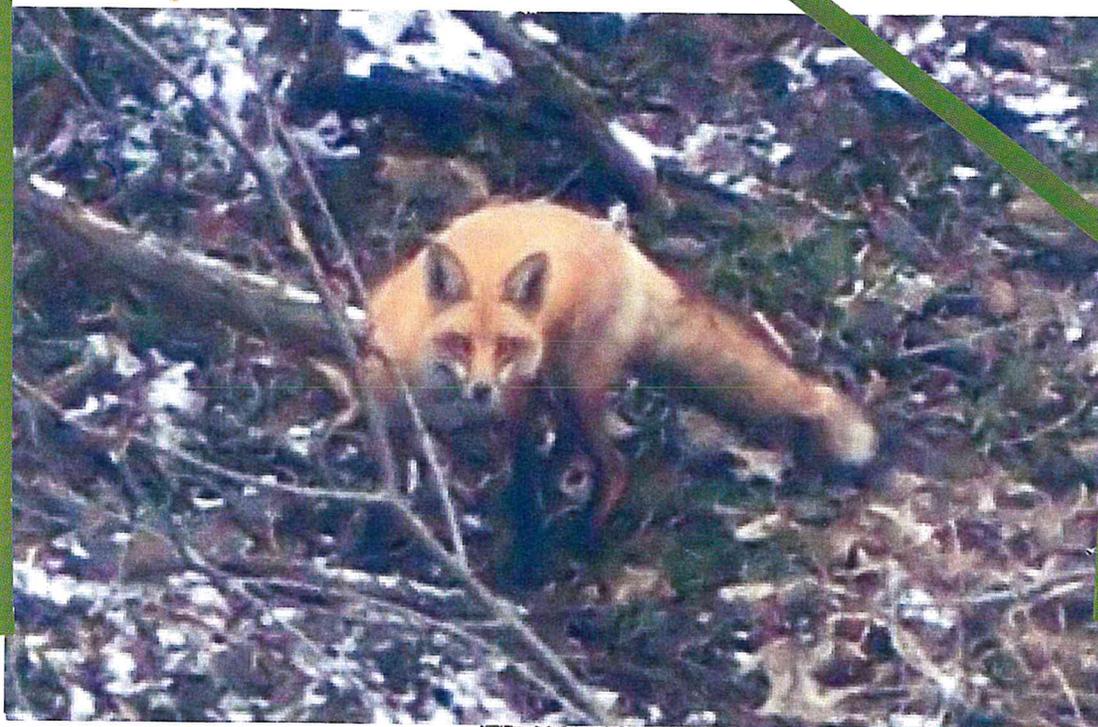
RECEIVED
JUN 18 2020

I watched the meeting when Eyde/Ander asked you to rush. I am appalled at their request that you ignore your job! Please don't rush! The residents of ILEHA have had their due process rights compromised because of COVID 19. The federal gov. said that was not suppose to happen.

The residents of ILEHA have already engaged a Hydrologist to get CURRENT figures. Please do not put another development in back of us until the water problems are solved from the last 2 developments approved by this Township.

Thank you,
Linda Stober

Providing a safe and welcoming, sustainable, prime community.



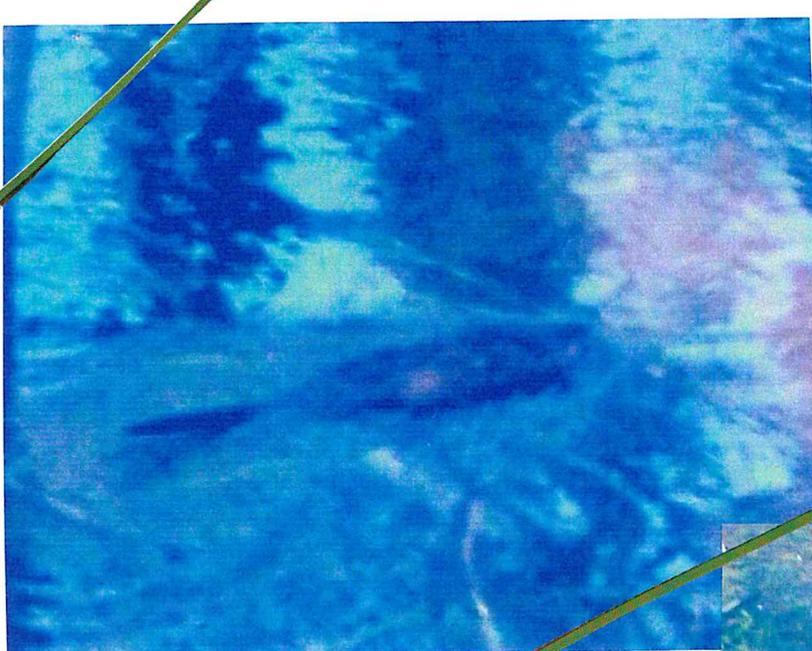
We are not trespassing,
We live here.

Red Fox is behind
our house



tree is approximate
property line.

When planning a new development, isn't it best to combine it with the Wonders of the old one...?



↑ Beaver
→
our deck
→

Beaver Home Depot



Still there...

..On river bank, within Public Domain

Peter Menser

From: greg humbert <gregagrumpbert@gmail.com>
Sent: Thursday, June 18, 2020 11:37 AM
To: Planning Commision (DG)
Subject: andev senior living project

from: greg humbert
4835 Mohican Ln, Okemos, MI 48864

I have resided at this location in Indian Lakes Estates for approximately 20 years. The land behind my home is labelled as a conservation easement and wetland adjoining the red cedar river on maps. In fact, the red cedar river floods into my back yard regularly. Twenty years ago my backyard would flood once per year, at snow melt. Twenty years ago I could not see the river from my windows due to thick forest. A few years later, during one of the annual backyard floods, trees began falling toward my house. I have had many of the trees in my backyard removed and many of the forest trees behind my house have died and fallen. I am aware that the emerald ash borer is at work here, but not all of these trees are ash trees. Also, I recall that drain commissioner lindemann examined a fallen ash tree across the street from my house and declared that it was not killed by the ash borer. In one year, all the cottonwood trees in the area behind my house that had double trunks became cottonwood trees with single trunks (these are very large trees). I believe that the water table is also responsible for the stress to the trees. I now have a mostly clear view of the red cedar river from my windows.

In recent years the flooding has evolved into several episodes each year and has been causing water in neighborhood basements.

In my backyard, I am quite certain that the red cedar river level and the water table are synonymous.

I am concerned that the water table in the area of the Andev senior living project maps labelled 'wetland c' has strong correlation to water table levels throughout Indian Lakes Estates. Drainage to and from 'wetland c' runs through and around Indian Lakes Estates. The Herron Creek, the Herron Creek drain, the Hannah Farms drain, an 8" overflow pipe and spillway all converge at 'wetland c'. The Andev stormwater treatment ponds are proposed to exist 50 feet from 'wetland c'. The stormwater ponds appear to drain into the Hannah Farms drain. (The Hannah Farms drain system overflows into 'wetland c').
Is the Andev ponds system proposed to be a detention system?
Will the stormwater system have an effect on Indian Lakes Estates water table?
I would like to hear the opinion of a professional hydrologist.

thank you

Peter Menser

From: Meridian Township, MI <meridian-mi@enotify.visioninternet.com>
Sent: Thursday, June 18, 2020 1:29 PM
To: Planning Commision (DG)
Subject: Hannah Farms

Message submitted from the <Meridian Township, MI> website.

Site Visitor Name: Tom Dietz
Site Visitor Email: tdietzvt@gmail.com

I am concerned about the surface water management plan. We are already experiencing serious problems and the surface water management systems needs to be planned to avoid exacerbating those problems. And it has to be designed to handle the increase in intense precipitation that is already occurring in our region and that is projected to get worse. That is, a plan that might be adequate to handle what we have seen even over the last decade or so will almost certainly be inadequate in the future.

The US National Climate Assessment prepared by the federal Global Change Research Program notes:

“Climate change poses several challenges to transportation and storm water systems in the Midwest. Annual precipitation in the Midwest has increased by 5% to 15% from the first half of the last century (1901–1960) compared to present day (1986–2015). Winter and spring precipitation are important to flood risk in the Midwest and are projected to increase by up to 30% by the end of this century. Heavy precipitation events in the Midwest have increased in frequency and intensity since 1901 and are projected to increase through this century.

There has been an increase in extreme precipitation events that overwhelm storm water sewage systems, disrupt transportation networks, and cause damage to infrastructure and property. Runoff from extreme precipitation events can exceed the capacity of storm water systems, resulting in property damage, including basement backups.”

National Climate Assessment Midwest Chapter
<https://nca2018.globalchange.gov/chapter/21/>

4738 Arapaho Trail
Okemos, MI 48864
June 17, 2020

RE: Special Use Permit #20011 and #20021 (Andev Group LLC)/ Parcel #20-401-005

Dear Members of the Meridian Township Planning Commission:

I am a resident of Indian Lakes Estates, taking the opportunity to comment on the proposed project of the Andev Group LLC. I had not received the May 21st notification for the public hearing scheduled on June 8, 2020, or I would have attended. I did, however, go back and carefully listen to the recorded meeting and examined the accompanying materials. Because of my professional obligations and caretaking responsibilities, I also had not kept abreast of the changes in zoning of RAA (single family low density development) that Meridian Township had pushed forward during the last couple years, which has enabled consideration of this project.

Professionally, I have spent the largest part of my career studying long term care facilities, particularly those designed for persons with dementia. In 2009 I won the national New Millennial Book Award from the Society for Medical Anthropology for *The Person in Dementia: a study of nursing home care in the U.S.* I have written extensively on this subject, spent a year as part of a 60 person, 4-University research team in Ireland studying home care, and have been invited to speak on this subject and conferences globally. I now offer to bring my expertise to my community and this proposal.

For my book, I spent two years conducting intensive observational research comparing two cutting edge 40- bed memory care units on the east coast. I spent long hours daily at the units, often staying overnight and weekends to get a sense of what life was like for residents, staff, and visitors. The memory care units housed up to 42 residents, mostly in large shared double rooms. What haunts me most was the immense loneliness of the residents, and their unanswered pleas. "I want to go home." I was also struck by the rapidity by which infections spread in such congregate settings, for example, a scabies outbreak that affected staff and residents alike. Most important was the care philosophy that governed the way staff interacted with residents. The memory units I compared were structurally identical, but their different care philosophies led to starkly different outcomes for residents in quality of life and longevity.

Most people think that dementia progressively worsens. My own research led me to question this, as I found improvements in some cases, whenever residents' behavioral expressions (e.g., agitation) were taken seriously; I also witnessed precipitous unexpected decline in cases where they were not. The philosophy that shapes memory care is **absolutely fundamental** to sustaining elders. But the physical structure of the facility also matters, and much has been learned about that in the years following my own research. The evidence consistently suggests that small homey houses (for 8-12 residents) in private rooms make all the difference in sustaining a person's memory and happiness. It also matters to families.

Most families who shop for a residential care facility for their elder compare ratings for facilities in their area, and then visit to see the quality and condition of the facility and grounds. They typically want to be within visiting distance and so are restricted by local offerings. Very few have investigated philosophy of care that may have shaped design; they rely on the provider to have done that. Yet the majority of even the most luxurious (and expensive) assisted living and memory care facilities maintain a traditional winged unit design with long corridors, often with double rooms, similar to nursing homes. If Covid 19 taught the long term care industry anything, it is that such designs can be **deadly** in an outbreak; this was true in our own community, even in one of the most luxurious facilities. **Covid 19 is a game changer** and an opportunity for communities like ours to act proactively, with innovative providers, to prevent needless deaths. In light of the Covid outbreak, David Grabowski, Professor of Health Care Policy at

Harvard, is advocating promoting "smaller home environments where we value the caregivers and residents... houses with just eight to 12 residents living together." One provider, Daniel Ruth, agrees that "Limiting occupancy can also help control the spread of infection" and that "all rooms should be single rooms." <https://www.npr.org/2020/05/21/855821083/ideal-nursing-homes-individual-rooms-better-staffing-more-accountability> Indeed, as of June 16, while over 250,000 cases of Covid-19 and **50,000 deaths** have been reported in long term care facilities, only 9 cases (and **6 deaths**) had occurred by late May among the 2653 residents living in 245 small houses called GreenHouses (<https://www.nytimes.com/2020/05/22/health/coronavirus-nursing-homes.html>). About 45% of all covid deaths have occurred in long term care facilities according to The Kaiser Family Foundation. States are inconsistent in including assisted living facilities in their numbers; Michigan does not. However, because they are less regulated, assisted living facilities may pose an even greater threat, according to some writers. <https://www.statnews.com/2020/03/25/assisted-living-covid-19-kirkland-nursing-home/>

I share all this, because as responsible citizens and planners of a wonderful community, we owe it to our elders to promote our best for them. I wish to bring my knowledge to bear to work with all stakeholders to help maximize the success of this project and make it a welcome addition to our community. That said, my review of the June 8, 2020 meeting and materials lead me to make three points. **First**, I am excited at the **PHASE II** project, which will bring a senior independent living residence close to the university and the Lodges. Many similar projects have begun, including one by the U of Michigan and seniors find them a valuable way to stay active, engaged in university classes and activities, and interact intergenerationally. In fact, one such senior housing project in Ohio reserved several apartments for students (See <https://www.aarp.org/livable-communities/housing/info-2019/student-housing-retirees.html>).

Second, I do worry, though, that relying on 4 ½ yr natural feature study may be misleading given the ecological changes so many of us have witnessed in our locality the last several years. Even though the most recent rains were not as severe as many from previous years, they have resulted in high levels of still and dirty water that harbors potentially disease infested mosquitos; I have never seen anything like this in the 23 years I have resided here. I am also saddened by the growing number of downed and rotting trees. I would hope that there would be an updated natural feature study and/ or other measures taken before launching this project to avoid exacerbating an already worsening flood problem for nearby residents.

Third, as I stated above, this community lacks access to innovative long term care residences. Those that exist are outdated, and in the post Covid era being called to task to redesign their physical structures and care approaches. The proposed plan of the Andev Group is an opportunity to correct that. However, its proposal adopts a pre-Covid large facility design embodying long corridors and a "secure" (locked) memory unit. This approach has been challenged in the long term care literature about its contribution to agitation and injury, its needlessly upsetting residents, and its ethical concerns. For the assisted living proposal, the 67 residents would occupy individual studio or double bedroom suites. The memory care portion would house 42 residents in single or double studio suites. This design is no longer supportable in a post – Covid 19 era which calls for single rooms and smaller houses both to stem infection.

Over the last 20 years, considerable research has been conducted in designing the very type of smaller houses (<https://www.iadvanceseniorcare.com/from-nursing-home-to-home-the-small-house-movement/>) researchers, policy makers and long term care providers are promoting in this post-Covid age. The GreenHouse Project is just one example of a highly successful small house, adopted in Michigan, including Grand Rapids and Holland, is <https://www.thegreenhouseproject.org/about/visionmission>. It was developed to create warmer, greener, and smarter places in which **to live, not die**, according to its creator, Dr. William Thomas, who initially developed the Eden Alternative for existing facilities. He

determined that they could not be rescued without a complete overturn in design, hence his smaller house approach which has won favor with families, residents, and staff. But this is only one of many existing models. I have attached a resource page with citations to articles, including a small house design guide https://www.fgiguilines.org/wpcontent/uploads/2018/03/MMP_DesignGuideLongTermCareHomes_2018.01.pdf. I also have attached in hard copy two of my articles (one on GreenHouses) and several other pages from articles of relevance to my discussion. In my email version of this letter, I will also attach a power point presentation I delivered in Ireland ten years ago on new approaches to dementia care.

I invite the community, the planning commission and the Andev Group to take the time to get this project right and re-imagine the continuing care community in light of the issues Covid has exposed. Instead of a large 3-story assisted living facility and 2-story memory care unit, why not envision instead 8-10 strategically placed small houses in the area being developed? They could utilize the built-in vista, offer a measure of freedom for residents, and keep them connected to nature through large windows. The staff in such facilities often assume many responsibilities, more like housekeeper/ family members than medicalized specialists and previous projects have proven economically successful, and highly desirable by private payers. In addition, the lower lighting and parking requirements could also reduce environmental impact, and perhaps retain more features of the existing environment, instead of necessitating a berm tended to minimize such impacts (and possibly introduce new ones).

I have many contacts with individual and organizations that have elected to develop small houses designs for their community. There are better, smaller, warmer, more homey designs out there that would more optimally serve the client basis the Andev Group is targeting. It is incumbent upon us to provide state of the art quality designs for elder living; Covid,19 necessitates that. I appeal to you to work together so we can realize a safe and promising future for the elders in our community, and our own futures.

I understand that representatives for the Andev Group had planned to meet with residents potentially impacted by the project to discuss concerns before bringing it to the Planning Commission. The Covid crisis interfered with that good intention. Nevertheless, given the potential impacts of the project, I request that further decisions by the Planning Commission be halted until that due diligence be fulfilled and Indian Lakes Estate residents have an opportunity to talk firsthand with members of the Andev Group, especially given the urgent post-Covid design considerations which I have discussed here.

I am including a resource page, a 1-page c.v., and the email presentation, as well as the hard copies of selected portions of articles and 2 of my publications. I will reach out to the Andev group and include Mr. Styka, Mr. Dreyfus, and Mr. Menser in my emails to Planning Commission. I hope to talk with you soon.

Sincerely,

Athena H. McLean

Athena H. McLean, Ph.D.,
Professor, Sociology, Anthropology and Social Work,
Central Michigan University, Mount Pleasant, MI 48859

Enclosures:

1-p. Curriculum vitae, June 2020, **Athena McLean**
4738 Arapaho trail, Okemos MI 48864 USA;
mclealah@cmich.edu +1.517.8626206

Education

Ph.D.	Temple University (Anthropology)	May 1990
M.A.	University of Pittsburgh (Anthropology)	August 1980
B.A.	University of Chicago (3 yrs), Temple University (Anthropology)	May 1977

Research/Professional Positions

2005 -	Professor (Sociology, Anthropology & Social Work) Central Michigan University
2007 – 2008 (<i>on leave</i>)	Sr Research Fellow, Irish Ctr for Social Geontology, National U of Ireland, Galway
2000 - 2005	Associate Professor, Central Michigan University, Mount Pleasant, Michigan
1997 - 2000	Assistant Professor, Central Michigan University
1995 - 1996	Adjunct Research Associate of Anthropology, Temple University Philadelphia, PA
1992 - 1994	Research Anthropologist, The Philadelphia Geriatric Center
1990 - 1992	Postdoc Fellow, Inst for Health, Health Care Policy & Aging, New Brunswick, NJ

Books

2007 *The Person in Dementia: A Study of Nursing Home Care in the US*. UT Press, Toronto CA.
Awarded the 2009 Millennium Book Award, Society for Medical Anthropology, AAA.
2007 *The Shadow Side of Field Work: Exploring the Blurred Borders between Ethnography and Life*, edited with Annette Leibing. Blackwell Pub, Malden, MA.

Selected Articles, Chapters, Book Reviews

2006. From Commodity to Community: An Impossibility? *Forum. Ageing and Society*. 26:925-937.
2006. Coherence Without Facticity in Dementia: the curious case of Mrs. Fine. In *Thinking About Dementia: Culture, Loss & the Anthropology of Senility*:157-179. A Leibing & L Cohen, eds. Rutgers UP.
2007. Dementia Care as a Moral Enterprise: A Call for a Return to the Sanctity of Lived Time. *Alzheimer's Care Quarterly (Now, Alzheimer's Care Today)* 8(4):360-372.
2007. The Therapeutic Landscape of Dementia Care: Intersubjective Aspects in the Sustenance of the Person. In *Therapeutic Landscapes: Advances and Application*: 315-332. Allison Williams, ed. Ashgate.
2009. Beyond the Institution: Dementia Care and the Promise of the Greenhouse Project. In *The Cultural of Aging: Worldwide Perspectives*:589-605, 3rd ed. Jay Sokolovsky, ed, Westport, CN: Praeger Press.
2010. Beyond impediments to caring: Toward a morality of late-life care. *Medische Antropologie* 22(1): 13-30.(with Deanna Trakas).
2011. Ethical Frontiers of ICT and Older Users: Cultural, Pragmatic & Ethical Issues. *ETI* 13(4):313-26.
2014. Supporting the Person with Dementia: Do monitoring technologies provide care or merely Surveillance? Pp207-49. In *The Body Under Surveillance*: A George, A Chatjoui & T Manolis, eds. Pedio
2015. Book review *The Alzheimer Conundrum* by Margaret Lock. *American Anthropologist* 117(1):194-5.
2019. Deanna Jeanne Trakas (1943–2016). *American Anthropologist* 121(4):969-971

Recent sabbatical research

Summer 2017 *Negotiating Care of Co-Residing Greek & German Elders in a Nursing Home*, Athens, Gr

Working Group

2020 - Collaborator, *Smart Homes, Older Adults, And Caregiver*, Tenzin Wagno, U of Basel, Switzerland

Society for Medical Anthropology (SMA) Committee work

SMA Annual AAA Program Committee Chair or Co-chair (2014,15,16); SMA New Millennium Book Award Committee Co-Chair (2015); SMA Career Achievement Award Committee (2016).

Resources:

1. Small house design guide:

https://www.fgiguilines.org/wp-content/uploads/2018/03/MMP_DesignGuideLongTermCareHomes_2018.01.pdf

2. Dementia friendly envs take root:

<https://www.statnews.com/2015/10/18/efforts-spread-to-aid-dementia-sufferers/>

3. Small design, low lights, non-institutional design help patients thrive

<https://www.buckner.org/blog/small-home-concept-helps-seniors-with-alzheimers-and-dementia-thrive-and-flourish/>

4. Assisted living like a small town from the 40s

<https://www.countryliving.com/life/a39630/nursing-home-tiny-houses/>

5. College students living in retirement communities

<https://www.aarp.org/livable-communities/housing/info-2019/student-housing-retirees.html>

and high demand by retirees: <https://www.insidehighered.com/news/2019/01/09/high-demand-retirees-live-campus-arizona-state-university>

6. Covid deaths in MI by

facility <https://www.detroitnews.com/story/news/local/michigan/2020/06/15/new-michigan-numbers-34-covid-19-deaths-linked-nursing-homes/3193407001/>

7. Nursing homes & Veteran Homes as epicenters for covid

19 <https://www.statnews.com/2020/05/08/nursing-homes-veterans-homes-national-epicenters-covid-19/>

8. Why Assisted Living facilities are especially vulnerable under covid 19

<https://www.statnews.com/2020/03/25/assisted-living-covid-19-kirkland-nursing-home/>

<https://www.wsj.com/articles/assisted-living-facilities-are-vulnerable-to-coronavirus-11586084400>
apartments: <https://www.craigslist.com/coronavirus/detroit-findings-so-far-87-percent-senior-apartment-facilities-have-covid-19-cases>

nursing homes: <https://www.detroitnews.com/story/news/local/michigan/2020/06/15/new-michigan-numbers-34-covid-19-deaths-linked-nursing-homes/3193407001/>

9. GH and Covid

<https://skillednursingnews.com/2020/05/born-before-covid-19-30m-green-house-nursing-home-development-takes-on-greater-significance/>

<https://www.nytimes.com/2020/05/22/health/coronavirus-nursing-homes.html>

10. Claude Pepper Center – excellent website with many resources on COVID's impact on long term care <https://claudpeppercenter.fsu.edu/coronavirus-covid-19-and-you/covid-19s-impact-on-long-term-care/>

11. why we should not be surprised at covid deaths at long term care homes

<https://www.forbes.com/sites/howardgleckman/2020/04/27/why-are-we-so-shocked-by-covid-19-nursing-home-deaths-we-have-been-failing-our-frail-older-adults-for-decades/#3e534bfc4aad>

Selected Articles (by Athena McLean):

Dementia Care as a Moral Enterprise: A Call for a Return to the Sanctity of Lived Time. *Alzheimer's Care Today* (formerly, *Alzheimer's Care Quarterly*) 8(4): 360-372. 2007.

The Therapeutic Landscape of Dementia Care: Intersubjective Aspects in the Sustenance of the Person. In *Therapeutic Landscapes: Advances and Application*, edited by Allison Williams, pp. 315-332. Ashgate Press, Hampshire, England. 2007

Beyond the Institution: Dementia Care and the Promise of the Green House Project. In *The Cultural Context of Aging: Worldwide Perspectives, 3rd edition*. Edited by Jay Sokolovsky, pp. 589-605. Westport, CN: Praeger Press. 2009 (*also forthcoming in 2020, 4th ed*).

Beyond impediments to caring: Toward a morality of late-life care. *Medische Antropologie* 22(1):13-30.(with Deanna Trakas). 2010.

Ethical Frontiers of ICT and Older Users: Cultural, Pragmatic and Ethical Issues. *Ethics and Information Technology*.13 (4):313-326. 2011.

Supporting the Person with Dementia: Do monitoring technologies provide care or merely Surveillance? In *The Body Under Surveillance: Mora and political dimensions of medical technologies and social care*. Edited by Alexia George, Chatjouli Aglaia, and Tzanakis Manolis. Pp. 207-249. Athens: Pedio Press.(translated into Greek by Aglaia Chatjouli).



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Dementia Care as a Moral Enterprise

A Call for a Return to the Sanctity of Lived Time

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By ATHENA MCLEAN, PHD

Nursing home care continues to fall short of the vision of the 1987 Omnibus Reconciliation Act's to promote quality care, in spite of expenditures to develop finer assessments and regulations. This shortcoming is partly the legacy of a hospital model never designed to support long-term residents and of a cult of "task and time" that promotes *instrumental* care over intersubjective *person* care. This article calls for a return to the sanctity of unregulated time as lived and a blurring of the distinction between "life" and "care." This shift will transform the concept of dementia care from a *commoditized industry* to a *moral enterprise* designed to support the person with dementia.

Key words: caregiving, lived time, OBRA, personhood, commoditization

This December marks the 20th anniversary of the enactment into US law of the Nursing Home Reform Act, part of the 1987 Omnibus Reconciliation Act (OBRA 87). Building on years of research by the Institute of Medicine and input from advocacy groups, this historic law promised to address serious issues of neglect and abuse in nursing homes, but also to set in place standards of care and compliance. Significantly, OBRA 87 obligated nursing homes to provide care that would not only meet baseline standards, but would promote "the highest practicable physical, mental, and psychosocial well-being" of residents.^{1,2} Thus, of utmost importance for those who would spend their remaining years in a nursing home, OBRA 87 attempted to address quality-of-life issues.¹ Indeed, it led to drastic reduction in restraint usage, but its bold vision has not been realized. In recent years, there has been extensive noncompliance with existing standards,

combined with chronic understaffing in many facilities.²⁻⁵ Moreover, pending laws threaten to further compromise accountability of violators.⁶

To address violations, the Centers for Medicare and Medicaid Services (CMS) have been spending over \$400 million annually to regulate the nursing home industry.⁷ Further, CMS has continued to support research to develop finer "measures" of quality care standards [eg, the current minimum data set (MDS) 3.0], to improve quality across nursing facilities,⁸ and to fund contracts with quality improvement organizations to help nursing homes improve quality of care in key areas. Research groups have also worked to translate standards for consumers to assist them in comparing "quality" among different nursing homes, and

Alzheimer's Care Today 2007; 8(4):360-372

to further stimulate competition⁹ and improvement in the homes. The CMS has also spent over a decade trying to determine how to collect, audit, and publicly report accurate nurse staffing data,⁵ and has extended contracts to researchers to recommend quality nurse staffing standards.⁴ While all this effort is laudable, it is puzzling that 20 years after the enactment of OBRA 87, so much funding must continue to be expended to establish baselines for quality care and to encourage its provision. It is also curious that the quality of care remains problematic in many nursing homes.^{5,6} Moreover, the CMS has not yet implemented recommended changes, despite considerable research recommending increases in nursing staff standards.¹

These problems, I believe, are related to the way the caregiving enterprise has been conceptualized and executed. Our enduring problems derive from the early fashioning of long-term care after a medically oriented hospital model that was never intended to sustain life over the long run. This model has misguided the development of long-term care, particularly of dementia, in several ways: (1) by defining the institutional locus in which caregiving would occur and the medicalized shape of that care, (2) by defining its regimented mode of delivery, (3) by influencing the selection of standardized criteria used to measure and monitor quality, and (4) by inadvertently promoting for-profit conglomerates over the smaller single-owner homes¹⁰ that provide the greater flexibility and environment that are often better suited to addressing residents' needs.^{11†} As a result of these developments, our understanding of the nature of "care" and "caregiving" and its relation to quality of life has become distorted, particularly with regard to persons with dementia. Even more significantly, the practice of caregiving itself has become compromised, with serious consequences for both care receivers and caregivers.

This article will examine these developments with particular regard to persons with dementia and their care needs. Taking into account both the unique care needs of those with dementia and the actual nature of "care" and

⁹ Competition for Medicaid nursing home recipients will result in higher quality only in more competitive markets. The nursing home market is generally not competitive because the federal government passed Certificate of Need (CON) legislation to limit Medicaid expenditures and set moratoria on new construction, effectively eliminating competition. See Mukamel and Spector 2003.⁹

[†] This is because the for-profit conglomerates were in a position to spread the cost of regulation across their businesses and were able to develop expertise in compliance^{7(p132)}—what Harrington^{5(p8)} calls a kind of "gaming."

"caregiving," it will consider some of the challenges and contradictions for dementia care posed by nursing home practices fashioned after an institutional model that conceptualizes caregiving as a *commoditized industry*. This situation, I suggest, is related to the naturalistic, mechanistic view of the universe and of the self that dominates the particular concepts and approaches to life and caring we have unconsciously adopted in our society. The consequence has been a dominant view of caregiving as an *instrumental* pragmatic enterprise, rather than an intersubjective *moral* one that recognizes the ultimately shared vulnerability both of the cognitively frail and the rest of us.

THE HOSPITAL MODEL FOR LONG-TERM CARE: A CULT OF "TASK AND TIME"

One of the aims of the Social Security Act of 1932 was to provide payment mechanisms that shifted care for the indigent elderly from horrific almshouses, where they were subject to abuse and neglect, to the community. Funding became available for private boarding homes that were the precursor to nursing homes. Since too few of these boarding homes were willing to support indigent elders with dementia, these elders were committed to psychiatric facilities, where they accounted for 40% of the population.¹² Laws passed in the 1950s encouraged the funding for nursing homes that utilized a medicalized, hospital-based model that did not address the chronic care needs of persons with dementia. Forty per cent of these new homes housed persons with dementia, but the inadequate number of required facilities led to the continued warehousing of these individuals in psychiatric hospitals, which reformers challenged as inappropriate.

With the passage of Medicare and Medicaid legislation in 1965, considerable new funding became available for elder care and others with disabilities. However, political pressure by physicians and the nursing home industry assured that this funding would be channeled into nursing homes, under medically trained staff, rather than to community settings, where people might receive nonmedical support better suited to their needs.¹³ This new public funding led to an explosion of new, privately built nursing homes during the 1960s and 1970s. Despite the public support made available to this new industry, poor conditions and inadequate monitoring led to the passage of OBRA 87. Thus, from the earliest days of public investment in elder care, institutions provided the chief locus of care for those with dementia, despite the fact that most placements resulted from unavailable community resources, not the need for ongoing medical care.¹⁴ Nursing homes have remained the primary

site for long-term care in the United States, although assisted living facilities that have slowly emerged as major competitors, mostly in the private pay market.

Nursing homes were designed on an acute care hospital model that allowed for examination of the body (its functioning, evidence of disease and symptoms, and general maintenance) during cyclical daily "rounds." Although fashioned after physicians' rounds, most of the work was carried out by nurses and nursing assistants who operated within what Neil Henderson calls an institutional "cult of time and task,"^{12(p13)} (or more precisely, "clock time and task"). This framework has governed the lives of residents and the nursing assistants responsible for the majority of the work.¹⁵ Within that culture, time is a precious commodity¹⁴ to be carefully and judiciously¹⁶ allocated, dividing the work among specific "care" tasks to be completed per resident.

Within this institutional culture, the focus has been on "bed and body tasks"¹⁵—basic hygiene, protection, body maintenance, and medical protocols. The quality of care is monitored by surveyors who examine care plans and scores of requisite resident assessments (versions of the MDS) aiming to measure each resident's functional abilities, behavior, physical, and mental health. A *low* score, which is supposed to reflect the *absence* of disease or disability, is expected to provide evidence of health, well-being, and good care. Inferring a condition of health and well-being from discrete measures is, however, limiting; what is missed is the elusive state of experiential wholeness that defies quantification and measurement, and yet is so important, especially in dementia.³ In addition, in emphasizing medical and physical *care outcomes* at single points in time, these assessments sacrifice the possibility of accessing a more holistic understanding of dynamic *life processes*,^{10,17} subject to continual change.

The focus on physical well-being and care has occurred much to the neglect of *psychosocial well-being*, which was also mandated by OBRA as part of quality care.² Psychosocial well-being—"person work"—however, is less readily achievable than concrete "bed and body" work,¹⁵ since there are no precise directions and it requires an ongoing sustenance of the person through a caregiving relationship.¹⁶ Such a relationship takes time, lacks definitive specifications, and may be difficult to establish under typical institutional working conditions and constraints. Because of the need to carefully parcel out task and time, very little remains for strictly nonmedical concerns, which typically take priority in a medical model, in spite of

OBRA's broader mandate.¹⁴ Efficient dispensing of physical care tasks thus has overshadowed relational care interactions, *even when they overlap*; the latter are not compatible with clock time parameters, and often go unrewarded (or even punished as avoidance of "real work") by supervisors¹⁶ and surveyors.¹⁴

Many nursing assistants are simply not able to do all the tasks required by regulations, given the enormous time pressures under which they work and the understaffing of most nursing homes. As Alice Hedt noted, "there simply is a limit on how much care a single person can provide."¹⁸ This has left nursing assistants feeling as if they are "routinely in violation" and "always coming up short."^{3(p57)} Thus, the medical model and the cult of time and task under which it has been applied in nursing homes has dominated the ways in which caregivers have regarded both bodies and persons, has shaped institutional priorities, and has affected the lives of both residents and their caregivers.

OBRA'S INFLUENCE ON NURSING HOME PRACTICES

This regimented approach to nursing home care, which dictates and controls the flow of life of residents and their caregivers, contradicts OBRA's vision to promote quality of life by enhancing dignity and self-determination.¹⁹ However, in an attempt to monitor the quality of care across CMS-certified facilities, the regulations have themselves placed emphasis on completion of mechanical tasks on itemized checklists. OBRA has mandated nursing homes to complete the resident assessment instrument of the MDS for all residents in order to be able to identify and address changes in functional and health status and to allow statistical comparison of assessments across facilities. The extensive documentation of a resident's condition into numerous *functions* within sections of the MDS is consistent with a nursing home economy that divides caregiving into specific activities or tasks divided into units of time with a dollar value.

Consistent with regulations, nursing home inspectors evaluate "quality of care" overwhelmingly on the basis of timely charting of care plans and medical records rather than on evidence of caregiver-resident interactions.¹⁴ Thus, paper compliance substitutes "caring to the regulatory standards" for "caring to the preferences or perspectives of the resident."[†] The old adage applies: "If it's not documented, it didn't happen." The documentation is what counts and yet documentation offers no guarantee that the

[†] Of course, what one determines to be judicious is itself a judgment call based on that which one values.

[†] In all fairness, the MDS 3.0 is designed to seriously try to address resident preferences.

staff members have actually completed care routines.⁵ By unintentionally diverting nurses' attention from residents to the paperwork, regulations have ironically further reduced the contact hours that boost the quality of care. The heavy demands on documenting changes in residents' conditions and potentially harmful incidents occupy much of a nurse's day. Regulatory pressures have thus encouraged practices that protect the nursing home, perhaps to the disadvantage of residents.

The MDS assesses the changes in various disease conditions, mood, function, and behavior of residents to identify and address problems. The MDS is also used as the basis of consumer-oriented tools as evidence of quality care among facilities. Having this information offers some residents assurance that their basic physical care needs are being provided, particularly those with serious medical conditions. The most recent version of the MDS (3.0), in particular, takes into account the views of residents directly—even those with dementia—about important concerns like pain, of which they are the most reliable judge.⁴ To those with dementia, however, who may not have significant medical needs, the items may hold little relevance to their problems or daily concerns about living and learning how to negotiate their lives in a nursing home.⁵

CARING FOR PERSONS WITH DEMENTIA

Quantitative measures have provided the principal means for estimating the quality of nursing home care. These offer useful standardized tools for providing baseline measures and comparative data for tracking an individual's physical and functional status, and presumably for comparing nursing home quality nationwide. They have been limited, however, in assessing psychosocial well-being and the more ambiguous,²⁰ yet relevant question of a resident's life quality.²¹ Changes in mood, behavior, and functional status are only superficial indicators of well-being or of good care. To interpret them that way is to misconstrue both the specific needs of persons with dementia and the nature of care and caregiving.

To begin to understand both quality of care and quality of life of persons with dementia residing in long-term care set-

tings, it is important to understand the unique personal needs of each resident.²² For those with dementia, that means understanding the particular kinds of challenges and related-care needs that dementia poses to them and their caregivers. It also requires understanding the fundamental nature of care and caregiving.

UNIQUE PROBLEMS AND NEEDS OF DEMENTIA

Dementia affects people in varying ways and the symptoms, rate of decline, and length of illness also vary widely.²³ Impairments that occur in cognition (thinking, perception, and organization), language, and behavior are common. These impairments can be frightening, particularly earlier in the illness when people have the greatest awareness of their difficulties and what might follow; this creates a need for considerable emotional support. The recognition of failing abilities may lead to loss of self-confidence and self-esteem, especially as others become aware of them too. Incontinence may bring shame and loss of self-esteem, and efforts to hide accidents may make the person appear even more impaired. Someone in this situation may need his or her caregiver to protect him or her from public embarrassment.²⁴

Impairments impede one's ability to perform both basic and complex activities of daily living (ADLs and IADLs), resulting in dependency on others for assistance. Persons vary in their wishes to retain their independence, and this may become an issue in their willingness to accept help from a caregiver. Knowledge about each person's preferences about receiving help⁸ and adequate time to establish a relationship with him or her enable the caregiver to assist optimally.

Memory impairments, particularly when accompanied by distortions in the sequence of events, can shatter a person's confidence about his or her history and achievements and produce a disturbing, fragmented sense of self.⁴ Moving to an unfamiliar setting is further disorienting and disruptive to old routines and the flow of life, and may exacerbate confusion and fragmentation, promoting even further decline. Given the severity of fragmentation and multiple losses of memory, place, and familiar people, the most critical aspect of dementia care may be enduring attention from an attentive caregiver.²⁵

⁵ The MDS Version 3.0, which is currently in draft form (see the next footnote)² and being tested, has explicitly attempted to incorporate quality of life by its very administration, attuned to respect the resident through efforts to capture resident voice directly. <http://www.cms.hhs.gov/NursingHomeQuality/tnits/downloads/MDS30Draft.pdf>. Accessed June 6, 2007.

⁴ Draft version of Minimum Data Version 3.0 (MDS 3.0). For Nursing Home Resident Assessment and Care Screening, July 31, 2006. Centers for Medicare and Medicaid Services, Washington, DC.

⁸ The new MDS Version 3.0 has been restructured to gain information from each resident herself about her preferences in daily routines and desire for independence.

²⁵ For clarification among the terms self, person and identity, see McLean.^{166pp(9-56)}

A sensitive nursing assistant can ease the transition for the resident and encourage social engagement in the new setting.²⁶ As the person with the most contact with the resident, the nursing assistant is in the position to reinforce the sense of self in the face of confusion, uncertainty, fragmentation, and loss. This can be accomplished by taking the time to acknowledge both the person's past accomplishments and her continuing social roles (eg, helper, mother, and grandmother). As suggested by Sabat and Harré, "the self does not depend on memory for its preservation, but on the way in which others treat the person."²⁷ Over time, persons with dementia may develop problems recognizing persons who had been close to them, fracturing relational ties to loved ones. The nursing assistant can help mend those losses by establishing a supportive tie that opens up new relational possibilities.

Confusion from symptoms may lead a resident to behave in ways that appear disturbed—for example, constantly repeating questions, displaying agitation, or "wandering" away toward a familiar place like "home" to prepare her husband dinner, or toward the bus stop, to meet her children—forgetting that her husband is deceased and the children are now grown. Behaviors that appear disturbed in today's context, however, may have been reasonable in that of yesterday.²⁸ It is as if the resident found herself in a time warp.* The behavior must thus be understood beyond its current context of apparently distorted expression, and regarded in relation to former contexts that hold personal and emotional significance to the person. To understand this, the caregiver must become familiar with person's biographical history.²⁹

Extreme reactions (crying, pacing, and aggression) to seemingly mild stressors may suggest *that something is amiss*, for example, pain, the urge to urinate, or an overly stimulating environment.³⁰ Such reactions may also be stimulated by the speed of a caregiver's pace, or abruptness of her entry, which may frighten the resident. How caregivers understand and respond to an aberrant behavior may affect both the condition and the resident's sense of well-being. If a caregiver regards the behavior as evidence of decline without addressing the problem that triggered it,²⁷ the resident may feel distrustful and withdraw. If the caregiver ignores the message (eg, disturbing pain) associated with the problematic behavior, and regards the behavior strictly as a *symptom* to be controlled, his or her actions may pose serious clinical risks for the resident and be *ethically contestable* as well. This is because medication may be used to suppress a disruptive behavior such as screaming that signaled a genuine

problem such as pain. The disruptive behavior may stop, but not the suffering, leaving the person without the ability to communicate it.³¹

The use of body (body praxis) by nursing home residents may, in addition, signal protest or resistance (a subversive reaction) against their conditions of living or perceived relations of power with caregivers and others.³² This can be a sign of vitality in the person's continued attempts to communicate, however negative the message. An astute caregiver, in coming to know the person, becomes highly attuned to such communication, and attempts to sensitively respond directly to the need.¹⁶ When the caregiver instead medicalizes the person's *communications* as individual pathology, the communication loses its potency.

A resident's awareness of her debilities may lead him or her to leave situations (eg, group activities) in which these may be exposed. Caregivers who interpret such behavior as further evidence of pathology (eg, labeling it "social withdrawal") without adequate evidence or understanding, dishonor the deliberateness of his or her action,²⁷ and may frustrate her agency and future communication. As dementia advances, the abilities to speak, walk, and swallow may also become compromised, necessitating additional care from the caregiver. However, the person's need to communicate remains strong very late in the course. This can be seen through deliberate gestures that clearly register will and intention,^{27,29} often to the surprise of witnesses.³³

Researchers and practitioners, propelled by the pioneering efforts of Thomas Kitwood^{34,35} and colleagues,³⁶ have made great strides in looking at disturbed behaviors as more than random symptoms of disease.³⁷ Behaviors previously seen as pathological, meaningless, or ill-willed²⁸ are now regarded as plausible efforts to deliberately communicate needs, maintain a sense of self, or revive personal stories.²⁷ Despite these strides in how to understand the *meaning* of residents' responses, working conditions at many nursing homes, where staff ratios are low, make it very unlikely that such a perspective will be adopted there.

Dementia's most profound and enduring impact is in shattering the affected person's sense of self, history, and relationship—the defining elements of personhood. For this reason, it has been called a *disease of the person*. Thus in dementia, the most pressing care needs are for *person work*¹⁵ to help promote psychosocial well-being. These sadly are the very care needs which have been marginalized in favor of standard physical and custodial care. Diverting attention from these person-sustaining needs, however, inhibits improvements in psychosocial well-being, quality of life, and even course and outcome.¹⁶ As long as care is conceptualized as a commodity in a caregiving

*I thank Deanna Trakas for suggesting this metaphor.

industry where body work overshadows person work, and caregivers must fight the clock even to complete that, otherwise healthy person's with dementia will not have their unique needs met and committed caregivers will be denied the opportunity to make a difference.

ON THE NATURE OF "CARE" GIVING

Dementia "care" giving is concerned with giving "care" to those who need it. As simple as this may sound, how this occurs depends on how "care" is understood and rendered, how care "needs" are defined, and who is defining them. Although care is a purchasable commodity in an industry where caregivers are themselves commodities, the very nature of care and caregiving distinguishes it from other "products." Giving care to another person is fundamentally different from giving or delivering an object or a product to someone. Unlike objects, care is not a thing that can be readily given to another person. Nor is care something that is done *to* a person, like a goal-directed task; *such a task would be an instrumental procedure*, done for the sake of something else, not necessarily having to do with the person,^{16,20} but it is not *care*. Care involves a *relational transaction* between the caregiver and the care receiver that inevitably transforms the *nature* of the "service" or product being rendered beyond anything instrumental. It depends on the consent,³⁸ will, and sometimes sacrifice³⁹ of the caregiver, not control or contract from the service provider.

Care is necessarily intersubjective; it is "opening the self to another's inner life."^{3(p186)} It is a mutual relationship and ongoing negotiation involving both caregiver and care receiver. When this relational dimension is missing, there can be no genuine *care transaction*, only action mislabeled as "care." In such cases, the very absence of a relational dimension affects both the "care" giving and receiving experience. This is particularly true with dementia, where the person requires ongoing acknowledgment and support to counteract the subjective unraveling of self the illness entails. Here there is *no possibility of curing*, only of *validating* the person, thereby allowing *healing* to take place. The nursing assistant, as the main caregiver, is the crucial person to enable this to happen. When he or she is diverted to different priorities, this healing process is disabled.

Richard Martin and Stephen Post call *caring* one of the highest human values because it involves the sustenance of one human being by another—a practice fundamental to the perpetuation of all societies.⁴⁰ In genuine dementia care, the caregiver helps sustain not only bodies but also persons. Caring for the person is necessary to offset the fragmentation of his or her identity.^{36,41} Unlike bodies, which are attached to

individuals, persons are *produced* out of human relationship, and in dementia, where the personal fragility is so extreme, they must be replenished continually.⁵⁰ *Dignity* is the defining characteristic of personhood, according to Kitwood, because it is rooted in human relationship and the social acknowledgment and respect of one person by the other.

Dignity inheres in all human beings as "ends in themselves," independent of any instrumental value⁴²; thus, it is accessible to all persons, with or without dementia. Both humanistic and religion-based approaches to personhood emphasize the dignity and intrinsic worth of all persons, for which there can be no monetary value. As Immanuel Kant stated, "What has a price can equally be replaced by something else of an equivalent value. What is superior to any price, however, and what, therefore, has no equivalent is what has dignity."^{43(p58)}

How care needs are defined also affects the quality of caregiving. If one considers care needs to include correctable organic conditions or physical abnormalities or injuries, then service providers can use treatment procedures, medications, and rehabilitative therapy to *cure* the patient or help recover lost functioning. Such procedures or techniques, however, are also likely to include a subjective dimension when the service provider extends interpersonal support, encouragement, and/or hope to the patient; this is the relational provenance of care and healing. It can be part of any care transaction whether it involves cure or not.

In dementia, although cure is not possible, care and healing can be effected. Dementia care can include medical treatments and rehabilitation for other disabilities, as well as preservative services, such as hygienic maintenance and protective care. The "care" giver can perform individual care tasks (such as ADLs) strictly as *instrumental procedures* for the institutional employer in exchange for a salary. In such cases, the recipient of these procedures can be seen as marginal to the process since his or her body becomes the instrumental vehicle for purposes outside of relational care. With instrumental caregiving, *completing the task, not rendering care*, becomes the goal. Thus, the person becomes the *means* for accomplishing the task, rather than the reason for doing it. This may be why the person who receives instrumental "care" may be seen as actually "getting in the way" of the task. Instrumental caregiving regards medications and other technologies mainly as tools to *manage* the person so that the caregiver can complete the tasks, rather than as aids to help the resident himself or herself. In such cases, the caregiver exercises control over those who are unable to resist—a practice some bioethicists consider to be potentially immoral.^{40,42}

Alternatively, the caregiver can treat these procedures as intersubjective rituals of care in which the resident actively participates and through which he or she receives recognition and dignity. In these cases, the *care procedures*, by the quality of the intersubjective engagement, can be *preservative of the person* with dementia. Such encounters can help *heal* the individual who is undergoing personal fragmentation due to the dementia. Both care receiver and caregiver mutually gain from such encounters well beyond accomplishing the institutionally prescribed task or receiving the paycheck. Intersubjective care is above all person sustaining, serving to reinforce the subjectivity of the person by engaging with him or her interpersonally throughout the caregiving process. Because the emphasis is on preserving the person, such care approaches attempt to respect wishes and personal preferences and are attuned to his or her history and identity. It embodies an ethics of intimacy and love and is seen by some as a spiritual practice, meaningful in itself, without any expectation for improvement.⁴⁴

Giving care to someone with dementia imposes an immense moral and personal responsibility to prevent "the loss of the patient to the disease."^{40(p57)} As Richard Martin and Stephen Post observe, caring is "a way of being in the world," a source of meaning in life, a type of faith.^{40(p58)} They poignantly add that its only alternative is "the destruction of the radically infirm."^{40(p58)}

Who defines care needs and *how* also affects caregiving because it concerns the exercise of power, of particular concern when the dementia renders the care receiver vulnerable and frail. When external *institutionally* defined care needs are imposed on the resident without equally considering his or her *personally* defined needs, the care receiver may be more resistant to receiving "care" and may display more behavioral upsets as a way of communicating his or her own unmet needs. That is why, "aggressive" behaviors occur most often during personal care activities. Whenever instrumental care, directed at body maintenance *tasks*, occurs without regard to the *person*, an act of violence occurs. The exercises of strength over defenseless failing persons damage both bodies and spirits and raise the specter of immorality to which bioethicists have alerted us.^{40,41,45}

At its most basic, dementia care is a moral enterprise because it addresses fundamental human needs and vulnerabilities, both of frail care receivers and their more powerful, but equally vulnerable caregivers. This recognition of shared human frailty lends an ethical dimension of *intersubjectivity* to caregiving as the relational "act of honoring the vulnerability of the other ... by righting the imbalance created in that vulnerability."^{46(p.530)} This relational dimension constitutes the very essence of dementia "care." Yet it is one that is not

compatible with institutional practices under the cult of task and clock time.

THE MECHANISTIC APPROACH TO LIFE AND CARE

The medicalization and regimented institutional approach to nursing home care and the efforts of regulatory agencies to measure and monitor the quality of care contradict the natural flow of life and the intersubjective character of the caregiving relationship, which are not amenable to measurement and control.⁴⁷ This contradiction creates a tension that, I believe, is the source of the widespread dissatisfaction of nursing home care by residents, their families, and those who work there. It helps explain why the CMS has been dissatisfied with its standardized criteria for measuring quality care and quality of life. It is most palpably apparent in our practice of commoditizing *care*, and our artificially distinguishing it from *life*.⁴⁸

These practices and the problems they produce are tied to the mechanistic assumptions of a naturalistic, materialist philosophy that dominates the western view of the world. These assumptions are *culturally specific* to a modernistic, scientific worldview that divides and frames the world in specific ways. These shape the ways in which we regard time, work, persons, and life. This worldview has also affected the way we conceptualize dementia, care, and both caregivers and care receivers. It frames our cultural view of the universe and the self, leading us to artificially disrupt and divide life as lived. Within caregiving, the mechanistic view leads us to divide life into discrete functions and tasks that divert attention from more meaningful personal relationships and intersubjective dimensions of care.

A prime example of the impact of the mechanistic view of the world on western thinking can be seen by its conceptualization of clock time, which deeply penetrates our understanding of the universe and the self, and on the way we have regarded care and caregiving. This approach to time affects the way in which we conduct business and value (or devalue) the uneven flow of life as lived, dividing it into tasks and functions in various arenas. The following discussion will examine the impact of clock time on life as lived, considering its particular consequences on life and care in the nursing home.

THE IMPACT OF CLOCK TIME ON LIFE AS LIVED

In a recent article, philosopher Teresa Reed observes the immense impact that clock time has had in the way science in particular, and western cultures more generally,

conceptualize the world and the persons who inhabit it.⁴⁹ It does so by imposing a mechanistic and uniform view of the universe and of the self, which clashes with the natural flow of life. Modern science, like modern thought, she observes, privileges abstractions, uniformity, and *objectivity* while detaching itself from concrete individuals, the unevenness of life as lived, and subjectivity—"the messy personal stuff"^{49(p168)}—moral values, preferences, intentions, and personal goals. In biomedical settings, like nursing homes, this encourages a *neutral stance* on the part of the person who is examining the body. Personal or emotional attachment is seen as only interfering with this evaluative process. This encourages detachment or *disengagement* by the caregiver from the resident, which counteracts the personal reinforcement and attention often required by someone with dementia.

Clock time imposes a uniformity and management over natural lived time by dividing it into standard measurable units. This had been beneficial in promoting scientific discoveries, synchronizing human activities, and expanding communication networks. It has also promoted a profit-driven model that divides work into uniform shifts and ties wages to hours. This is compatible with an industrial model that conceptualizes labor (and laborers) as line item among the productive forces that help produce profit. It has also been applied to the nursing home industry, managing the hourly work of caregivers whose approach to caring for bodies during rounds could resemble the work of a piecemeal assembly line worker.

In her elaboration about the impact of regulated clock time on our lives, Reed discusses how abstract schedules "force" uniform structures over irregularly experienced "lived time" in human events.^{49(p169)} In the nursing home, this occurs through daily forced interactions.¹⁶ These demands impose a kind of structural violence⁵⁰ by rupturing the self and intersubjective relations with other persons, the environment, and objects in it.⁵¹ Clock time transforms the self as lived into a compartmentalized collection of functions, similar to the items on the MDS assessments or the ADL task lists that NAs check off as they proceed on their timely rounds. Thus, it fragments the naturally lived time both of caregivers and care receivers, fracturing the inclination for intimacy that this relation brings.³ Under this regimented system, time is allotted to particular functions, even sleeping.⁴⁹ Under these conditions, Reed observes, the person loses a sense of wholeness, or, citing Gabriel Marcel, experiences a "fragmentation of personality."⁵² This

³Intersubjective relations also refer, as Reed makes clear, to spiritual relations between a person and God.

is particularly detrimental to those with dementia whose illness has already fractured their sense of personal wholeness and integration.

The world of clock time, Reed continues, enables a world of "total work."^{49(p171)} This is the world inhabited by nursing home residents, whose lived time has been taken over by their caregivers' sense of time constituted into shifts and hours. This is a world where efficiency reigns, where life is translated into full-time "care," caregiving into an "industry," dining into a "function," daily routines into "services," and time into dollars. In this world, life as lived is transformed into around-the-clock "care," and caregiving, as a relation between persons is reduced to a vulgar commodity—fetishized as a thing with a market value. However, as Charles Phillips so poignantly states, to reduce the variety of intersubjective interactions that occur in nursing homes simply to "care," "devalues both the actions of those identified as caregivers and strips those who would be seen as care recipients of much of their individuality and humanity."^{48(p164)}

One head nurse in a 2-year study I conducted of nursing home care was very aware of the importance of efficiency when she refused to accommodate a family member's request to use a special bathing bonnet with her aunt during baths.¹⁶ The elderly resident would scream whenever she got water in her ears, and the screaming was becoming increasingly prolonged; using the bonnet, her niece had hoped to check the problem at its source. The nurse refused to use it, however, because of the additional time it would take the bathing assistant, a part-time employee, to go to the elder's room to get the bonnet. The bathing assistant was allotted less than 4 hours each day to bathe 8 residents. During that time, she was required to bathe, wash the hair, check the skin, dress, and take vital signs of all 8 residents, documenting everything in the charts. She had to accomplish this within the allotted time or she would receive a poor evaluation and risk losing her job. In addition, if she went over her time, the facility would have to pay her benefits. It just did not make *economic sense* to exceed her allotted time, even though it would have made good clinical sense, because the elder's condition quickly deteriorated.

The same naturalistic mechanical worldview, which reduces lived time to clock time also reduces creatures of the living world to inert machines. Thus, the "purely subjective self is reduced to an objective mechanism."^{49(p174)} In nursing home care, this is manifested in the prioritization of body maintenance and function, backed up by checklists and itemized assessments. The biomedical model is itself a naturalistic mechanical

model in which natural phenomena are expected to conform to the laws of nature.¹⁶ Disease, as evidenced in the body or behavior gone astray, must be corrected, managed, or controlled to enable conformation to natural law once again. It operates instrumentally to impose a particular order—presumably natural order—even where this order may not naturally occur. In this scheme of things, physical dimensions, like the body, which can be objectively measured, take priority over subjective impressions, such as a person's emotions and cognitions, which are less likely to conform to natural law and to restore some semblance of *normality*. This helps explain why psychosocial well-being has received so little attention in many nursing homes. In addition, since all phenomena are expected to conform to natural laws and causation, they are generalizable to everyone; this leads as well to universal applications. However, in caregiving, as Gass cautions, universal directives impede nursing assistants from being "truly decent" because standardized caregiving discourages unique individualized attention to personal care needs.³

To establish causal links, the mechanical view of the universe reduces complex phenomena to their component parts, disconnected from each other.⁵³ This isolates the subjective self by disconnecting it from other persons and the relational world.⁴⁹ Disease is located foremost in the *individual* and his or her body, which is further broken down into its ever-reducible parts. In this view, the cause or causes of dementia lie strictly within the body, most likely the brain, which is reduced still further to neuronal cells, molecules, and ultimately, to genes. This model directs its attention to these finite processes, and *away from the person who is experiencing them*. Thus, the subjective self is reduced to a mechanical object—the brain.^{16,49} In dementia in particular, when the brain as object does not properly function, it becomes devalued. On this basis in fact, influential western views of the self, based on individual attributions like reason, deny personhood to those with dementia. What is thus extracted from this artificial construction of the universe is *the person* and the sanctity of a life lived through intersubjective relationships in a "multidimensional world."⁴⁹

In this scheme of things, the interiority of the experiential, biographical, relational person, is dismissed; social phenomena are beyond its purview. Only body, object, and concrete fact are relevant to its concerns. As Gass reminds us, "We truly forget that the boundaries of our nature far exceed the limits of our skin. We ... maintain the body while leaving the person to languish..."^{3(p184)}

Complex behavioral phenomena must also be reduced to organic principles to be understood, or must be ignored. This disregards holistic views that illness affects *the whole person* and can never be seen apart from the person's *agency* and meaningful interpretation of the illness.⁵⁴ For dementia, this means that deviant behaviors are seen as simply artifacts of *objective* disease processes while ignoring *subjective* concerns of the possibility that the disordered behaviors may be intentional acts in response to other conditions (psychological, social, physical, or environmental).³ Changes in mood and behavior similarly are seen as stemming strictly from the disease; social and environmental conditions, which may affect the person's condition, are ignored. Reed argues, however, that the very distinction subject/object on which the mechanical view depends is itself an artificial construction. It ignores the intersubjective relational world in which the person lives and may be meaningfully involved through other persons, things, and the spiritual world. The functionalized consuming world of the clock leaves little room, for any relational experience, especially contemplation of the spiritual.⁴⁹

DISCUSSION

In controlled and formal settings like nursing homes, life is dominated by clock time and mechanical models of the person. These settings cannot adequately handle the dilemmas of the human condition. Only in settings where lived time is permitted can fallibility, lamentation, and the tragedy of life be fully embraced.³⁸ This may be why smaller, more casually operated homes, with 25 or fewer residents, which may perform less well than larger homes on objective measures of the structural environment, perform better on subjective assessment of both residents and their caregivers, where both share the importance of interpersonal relationship as a value.¹¹ More importantly, in these small settings, occupants view themselves not in the segregated roles of caregiver and care receiver, but rather as "living together"—that is, within lived time. This may also be why models built on culture change⁵⁵ principles are similarly seeking to transform the uniform clock time into "person-centered" models congenial with residents' and caregivers' lived time.⁵⁶ But, as a recent study showed, if a facility trains its workers in culture change principles, but does not invest adequate funds to fulfill its promise, the effort may backfire.⁵⁷

⁴⁹The subjective, Reed argues, was created as a counterpart to the objective (reference 49, p169, fn5). This distinction, however, is a misconstrual of the distinction, interiority versus exteriority. Drawing from Josef Pieper, she describes how to have interiority (an inside) means to be able to enter into an entire field of intersubjective relations with the external world.

Nursing homes are a business. Even nonprofit homes, especially when large, typically follow an efficiency model of time and task management, where caregivers lose their personhood as they are transformed into instruments of care. The largest for-profit chains that operate on the keenest efficiency models, ironically have survived over smaller operations because these have been marginally profitable.¹¹ Because of economy of scale, larger operations can spread the cost of regulation across their businesses and develop expertise in compliance or “gaming” of the regulations. This mechanized approach to caregiving effectively transforms the *subjective ethically based relation* between people (caregivers and care receivers) into an objective, amoral “thing”—a fetishization of the potentially sacred caregiving relation that shifts care into the realm of the profane. Furthermore, the commodification of caregiving into a service imposes an abstraction onto “care” as a thing that is “delivered.” This works to detach the caregiver from the resident, destroying the possibility of developing a committed relationship so vital for supporting the fragile person with dementia. Such fracturing of life into institutionally defined “care” work, by alienating the caregiver from the resident, may leave both dissatisfied. This may also explain why those who continue to provide intersubjective care exhaust themselves in trying to engage with residents in life as lived while meeting the demands of clock time. The dissatisfaction, beyond the typically low pay, must also contribute to the high rate of turnover in a field to which many were initially drawn out of commitment to an ideal of caring. Furthermore, the regimentation of the world of “care” work under clock time promotes instrumental goals that may attract dominating persons who disrespect those under their care. Even caregivers who are not predisposed to such dark practices may become instruments of control in mechanized care settings that are directed by instrumental goals.

Despite this pressure to conform to clock time, there are those who somehow manage to overcome the pressures of clock time to continue to engage intersubjectively with residents. The most dedicated caregiver I ever met was able to overcome the constraints of clock time as she rendered life and nurturance through intersubjective engagement with those residents she served. She adopted an *ethic of intimacy*⁴⁰ and love as she involved herself with residents strictly as a way of being, not with any expectation of cure or any other instrumental goal. As a spiritual person and masterful caregiver, caring was a *moral and spiritual act* to her, meaningful in and of itself. Motivated by a faith in the divinity of the person and the conviction to preserve the thread of person that remained, she often missed meals to fulfill

required tasks. She regularly came to visit residents on her days off. Care to her was not compartmentalized within the precept of commoditized work; it was part and parcel of the sanctity of life as lived. It derived from a sense of identity and belonging with the resident, and with something greater.

CONCLUSION: DEMENTIA CARE AS A MORAL ENTERPRISE

Dementia care is a *moral enterprise* because it addresses fundamental human vulnerabilities, both of care receivers and their caregivers. The survival and quality of life of vulnerable, fragile persons at the end stage of their lives depend on decent dementia care. When this care is poor, they suffer immeasurably. Thus dementia caregiving *cannot be treated as merely another commodity*. High-quality person-preserving care begins with caring relationship and labor-intensive person work. But as a moral enterprise, responsibility for dementia care extends to all stakeholders involved in formulating, advocating for, and implementing dementia care policy. As long as nursing assistant/resident contact is severely restricted because of restricted government support, warehousing and instrumental care will continue to dominate the caregiving of those with dementia, and concerns for their agency and personhood will be put aside.

If we advance more “cost-saving” instrumental practices, at the expense of a person’s well-being, we will subject the person to continued structural violence. If we are to nurture those with dementia, however, we must also be sure to nurture their caregivers by creating optimal conditions to foster attentive body care and relational care. That means a genuine investment to support both of them. When the Supreme Court upholds a decision that refuses to pay elderly home caregivers their overtime due because Medicaid and Medicare cannot afford it,⁵⁸ we dishonor our caregivers. When we try to increase quality of care by conducting criminal checks on caregivers without also transforming their working conditions and wages, we are dishonoring them. When a for-profit industry manages to increase profits by trimming staff, both persons with dementia and their caregivers are dishonored. When CMS ignores major studies⁵⁹⁻⁶¹ that urge raising of the minimal standard of contact hours for nurses to improve resident safety and well-being, they are dishonoring both care receivers and their caregivers. Quality care is not a product, even though it is treated that way. It is a mutual relationship that requires time and proper conditions to nurture. When a caregiving relation is fractured such that those with dementia do not adequately have their unique care needs met, we are evading our commitment to them. As a

moral enterprise, we must aspire to a higher standard and support conditions that will nurture their personhood and foster intersubjectivity in appropriate environments.

OBRA 1987 mandated a person-supportive care for those with dementia. The mechanistic models by which the nursing home system has run has made it impossible to actualize that mandate. This article has argued for a radical rethinking of the nature of dementia care from one driven by a uniform model based on clock time and efficiency to a moral enterprise that honors the dignity of both caregiver and care receiver. Such an enterprise, however, must encompass responsibility and participation by a broader group of stakeholders. Doing so will force us to reconsider our responsibility to support a long-term care industry that has fallen short of OBRA's mandate to promote "the highest practicable physical, mental, and psychosocial well-being" of residents. It will force us to consider ways to maximize the quality of life for residents with dementia by honoring the sanctity of lived time and the need for nurturance and respect. Only when dementia care is appreciated as a fundamentally moral enterprise, dedicated to supporting persons, as the culture change movement is urging, might OBRA's original vision bring genuine quality into the lives of nursing home residents with dementia. ■

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Medicaid Services, DHHS, Part 43 (Requirements for States and Long term care Facilities), Subpart B, Section 25 (Quality of Care). <http://www.access.gpo.gov/nara/cfr/fr-retrieve.html?page1>, Accessed June 6, 2007.

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New Approaches to Nursing Home/ Dementia Care in the US: a contextual review

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IRELAND

Context

- Historical background
- OBRA (Nursing Home Reform Act), 1987
- Needs of the person with dementia
- Pioneer Movement (“culture change”)
- The Green House[®] Project

Historical background to nursing home care in the U.S.

Early history of Elder Care in U.S.

- 1700s-1850 – families and communities
- 1850- 1900 – almshouses (indigent, chronically ill)
- 1900-1930 – charitable homes, almshouses, psychiatric hospitals
- 1932 – Social Security Act
 - private boarding homes (precursor to nursing homes)
 - state mental hospitals (overflow)

1950s – Warehousing in state institutions (dementia)



More recent history, Elder Care, U.S.

- 1950s – new laws for hospital based nursing homes
- 1965- Medicare and Medicaid legislation
 - New funding sources for nursing home care
 - Encouraged private investment to build more nursing homes
- ❖ 1960s & 70s – deinstitutionalization from psychiatric institutions to nursing homes
- ❖ 1970s – explosive growth of private nursing homes thru public funding
 - Minimal regulation, Scandalous *abuse, neglect*
- 1987 – Nursing Home Reform Act, in OBRA (Omnibus Reconciliation Act)
 - Standards and regulations

More than abuse and neglect....

- Jules Henry, *Culture against Man*, 1963
 - greed, demoralization, orderliness

“the mind of the patients gets in the way of the real business....medical care, feeding, asepsis”

.....More than abuse, neglect

- Jaber Gubrium, *Living and Dying in Murray Manor*, 1975
 - Efficiency of “**bed and body work**” at cost of “**person work**”
- Jennie Kayser-Jones, *Old, Alone, Neglected*, 1981
 - **Depersonalization** in US compared to Scotland
- Karen Lyman, *Day in and Day out with Alzheimer’s*, 1993
 - Limitations of the **biomedical** approach

.....“Homelessness” *within* the nursing home

- Judith Carboni, “Homelessness among the Elderly, ” 1990

*“The elderly individual wandering the streets is easily identified as homeless, yet there is an entire population of elders who suffer silently, enduring the **painful state of homelessness within** the confines of the total institution of the **nursing home.**”¹*

1. Carboni, J. Journal of Gerontological Nursing, Volume 16, Number 7, 1990.

**OBRA, 1987 (the Nursing
Home Reform Act),**

Reasons for OBRA

- Widespread neglect, abuse, poor care
- Need for
 - Federal oversight
 - Better staff training
 - Better assessment of needs
 - Standards and inspections
 - Stronger regulations

What OBRA did

- Set minimal **standards** to improve care
- Established tools/ **language** for residents' rights
 - a resident council
 - Ombudsman
 - freedom from “unnecessary” restraints (chemical or physical)
- Set **regulations** & remedies for violating homes

OBRA's promise

- the “highest practicable¹ physical, mental and psychosocial well-being”
- rights to dignity, respect, freedom
- privacy and confidentiality
- full disclosure
- participation in their care.

1. “Practicable”: capability *regardless* of circumstances.

Frank, Barbara. “From Institutional to Individualized Care” Part I of the CMS satellite broadcast four part series. November 3, 2006. www.cms.internetstreaming.com

Nursing homes after OBRA: *the positives*

- Drastic reduction in restraint use
- Reduction of abuse and neglect in the worst settings
 - Economic and licensure sanctions
- More training
- MDS (minimum data set) in all facilities
- Regular case reviews

Nursing homes in spite of OBRA: *the negatives*

- Chronic Non-compliance w. standards
 - 90% in 2008, mostly in for-profit facilities¹
- Basic disabilities (e.g., hearing)² ignored
- Understaffing in >1/2 nursing homes³ → poor care
 - ❖ **No min. federal requirements** for CNAs
 - ↑ incontinence, dehydration, restraint use
 - Needless deaths
- Staff demoralization, turnover (100%+)²

1. McKinney, R. "Most homes violate federal standards." InjuryBoard.com. Oct. 01, 2008.

2. Winzelberg, Gary. (2003). The quest for nursing home quality. *Archives of Internal Medicine*, 163, 2552-6

3. Zhang, Xinzi, and David Grabowski. (2004). Nursing home staffing and quality under the nursing home reform act. *The Gerontologist*, 44, 13-23.

OBRA's *Unintended* Consequences

- attention to *task*, away from person
- *from* care work *to* paperwork
 - “*If it did not get documented, it did not happen*”
- discouraged innovation in best facilities
- Protection overshadowed freedom
- efficiency eroded homeliness
- hygiene without happiness

The Person with Dementia

Persons w. dementia in the U.S. nursing homes

- ~ 40 Million people over 65 in US¹
- ~5 million have dementia ²
- ***Most nursing home residents have dementia***
 - > 1 million live in nursing homes (68% of all residents)
 - ~ 500,000 live in assisted living (55% residents)
- 2/3 persons with dementia die in nursing homes³

1. US Census as of 2009. <http://quickfacts.census.gov/qfd/states/00000..html>.

2. 2010 AD Facts and Figures. Alzheimer's Association.
http://www.alz.org/documents_custom/report_alzfactsfigures2010.pdf

3. Mitchell SL. et al. 2005. A national study of the location of death for older persons with dementia. *J Am Geriatr Soc.* 53(2):299-305.

Impairments associated with dementia

- Impairments
 - Cognitive – memory, reasoning
 - Linguistic
 - Mood
 - Depth perception
- ADLs decline
- Motor control loss
- “Disturbed” Behaviors (BDs)
 - repetitiveness, wandering, combativeness, confusion

Challenges of dementia for the person

- Impaired memory
 - Distorts events and their sequence
- Disorientation to place and time
 - *Feels like “living in a time warp”*
- Confusion, trouble communicating
 - being discounted by others
 - shame
- ❖ Fragmentation of self (one’s very being)

Consequences of fragmentation: *appearance of BDs*

Due to:

- Frustration w. self and others
- Anger, embarrassment, confusion
- Worry, fear for future
- Feeling “exposed”
- Inability to be understood

Conventional NH approach to dementia care and BDs

- Instrumental
 - Efficient, follows “clock time”,
 - Task-oriented, rigid
 - Custodial, body care, safety
 - BDs – medical model (“symptoms”)
 - controlled or managed
 - meds, restraint, behavioral therapy
- ❖ Outcome
 - Resistance, exacerbation of BDs

What is needed

- Person-oriented approach (Kitwood, Sabat, Hughes)
 - Relational, spiritual
 - Affirming the person
 - “lived time” - following person’s own rhythm
 - Waking up, meals, ADLs
 - BD seen as meaningful expressions of needs that must be addressed
- ❖ Ultimately, preventing the loss of the person to the disease (Gadow)

How might it be achieved?

- Small, quieter, more relaxed environment
- Homeliness
 - stimulate sensuous comfort
 - Familiarity, predictability,
 - Safe, but “free”
- Relational support
 - To nurture the person
 - Ease sense of fragmentation
- ❖ “Culture Change”

Pioneer Movement and “Culture Change” in the United States

Early Initiatives: *environments matter*:

- M. Powell Lawton
 - 1965 - Environments may assist or obstruct functioning
 - 1970 – privacy vital
 - 1973 - Docility H °: “the lower the level of functioning, the greater the environmental impact”¹
 - 1974 – 1st special care units -Sley Units

1. Lawton, M.P. and L. Nahemow. 1973. Ecology and the aging process In: Eisdorfer C. Lawton M.P., eds. Psychology of Adult Development and Aging. Washington, D.C.: APA, pp. 619-674.

Pioneer (“culture change”) movement

- 1975, NCCNHR – humanize nursing homes
 - for residents, families, staff
- OBRA 1987 – impetus to rethink practices
- 1997 – Pioneer Network - nursing home innovators meet
 - Deinstitutionalize
 - Humanize
 - Deep system change
 - “Person before task”
 - Create “homelike” environments

Culture change is slow¹

- Only 5% NH achieved by 2007
 - 10% initiated significant change
 - 1/3 some change
 - 1/3 planning in future
-
- 1. Mary Jane Koren, 2007 National Survey, Commonwealth Fund.

Culture Change: 3 generations

- 1. Eden Alternative
- 2. Households and Neighborhoods
- 3. Small House Movement

Generation 1: Eden Alternative

William Thomas



Eden Alternative¹: *bringing “home” to the nursing home, 1991*

- Plagues: loneliness, helplessness, boredom
- Medicine should serve, not dictate care
- habitats “where life is worth living”
 - living things (“green”)
 - children, pets, plants, “growth”
- Widespread – US, Canada, Europe, Australia
 - 17,000 + associates; 300 registered homes

1. <http://www.edenalt.org>

Generation 2: Households & neighborhoods

- Goal
 - Breaking down the institution
 - Community, household and private spaces
- *Variations on a theme*
 1. Evergreen Community, 1987, new building designs
 2. The “Mount” - 1990 -transform existing structures:
 3. Meadowlark , 2001, Household as Sanctuary:

1. The Evergreen Household: *designing new structures*¹

- small-scaled design resembling large family
- Skilled nursing home
- 11 rooms (7 private)
- Kitchen with steam table
 - Food brought in
- Part of larger nursing unit (neighborhood)



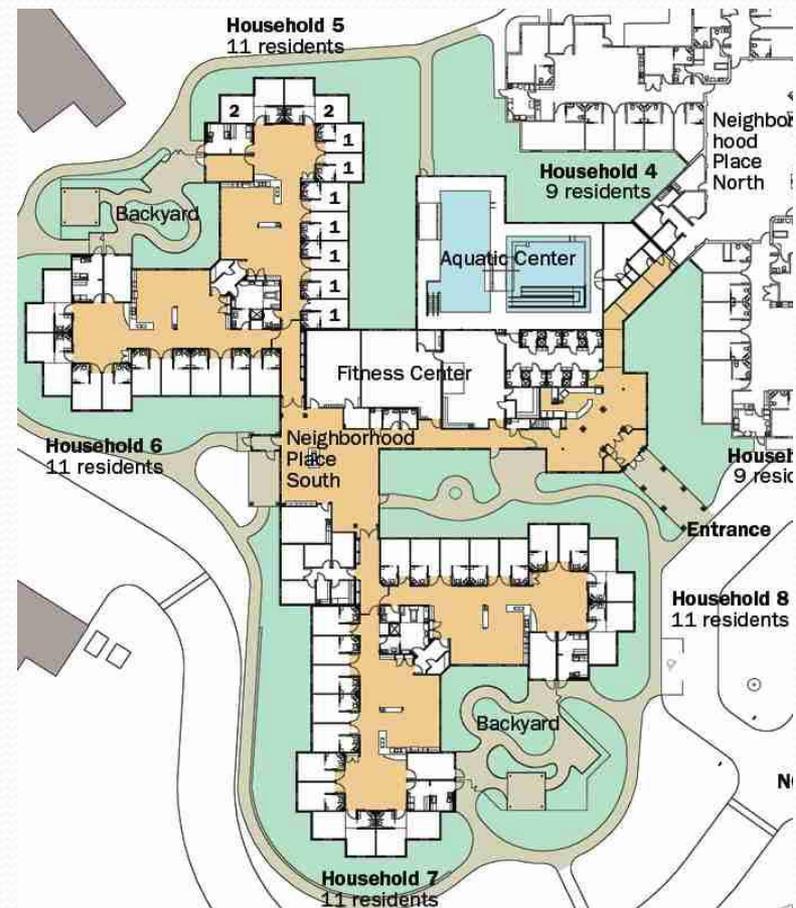
Household Plan

1. In Evergreen Retirement Community, Oshkosh, Wisconsin, 1997

The Evergreen neighborhood¹

- 4 households in nursing unit (neighborhood)
- Each household shares kitchen, living & dining
- Nbhd shares fitness and aquatic center

1. Gaius G. Nelson. 2008. Household Models for Nursing Home Environments.
<http://www.pioneernetwork.net/Data/Documents/NelsonHousehold-ResidentialPaper.pdf>.



2. The “Mount”: *Culture change in existing nursing homes*

- all nursing homes can't all start from scratch¹
- 5-story building
 - divided the nursing home into eight 20- to 23-bed “neighborhoods” – skilled nursing
- Integrated residents with dementia throughout
- Stable care team for each nbhd
- Turnover dropped to 10-15% (fr 70-100%)

1. Charlene Boyd and Bruce Johansen. 2008. A Cultural Shift. Resident Directed Care at Providence Mount St. Vincent in Seattle. *Health Progress*. Jan-Feb. 2008:37-42.

3. Meadowlark¹:

- Porch reminiscent of home
- front entrance defines the household
- Commands respect for privacy
- Must knock and be admitted



1. Shields, Steve and Norton, LaVrene. 2006. *"In Pursuit of the Sunbeam": A Practical Guide to Transformation from Institution to Household*. Action Pact Press.

Generation 3: Small House Movement¹ *for radical transformation*

- Philosophical reframing of person as driver of care
- Changed architecture – beyond neighborhoods and households to *self-contained “homes”*
- Re-engineer the organizational structure
 - Challenges staff hierarchy

1. Rabig, Judith and Rabig, Donald. 2008. From ‘nursing home’ to ‘home’: The small house movement. *Long-Term Living* 57(3): 12-16.

Paths to Small Houses

- Consultant led implementations within organizations
 - Lavrene Norton, e.g., of Action Pact
- Self-implemented visions
- Trademarked, versions, e.g., Green House[®]
 - More tightly defined

The Green House[®] Project

A successful small house model

The Green House[®] Project: *beyond the Eden Alternative*

- By 1999 William Thomas: radical redesign needed
 - Culture Change in Eden facilities slow
- A nursing home “abolitionist”
 - 1000s NH from 1960s & 70s decaying, outmoded
 - Replace 16,000 nh with 100,000 Green Houses
- Green House
 - Intentional communities in free-standing house/ (s)
 - ❖ a skilled nursing home

Jump starting Green Houses

- 2002 Robert Wood Johnson Foundation
 - Demonstration grant
 - Business plan
- 2005 RWJ
 - \$10 M for five years
 - To subsidize first 50
 - Goal – to build 100+

Current Status of GHP

- 91 Green Houses
- Over 24 states
- Over 120 more planned or in process
- RWJ Foundation – extended funding, July 2010
 - \$4.8 Million – 3 more years
 - Expanding to new communities
 - policy work, and resource development, GH peer network

GreenHouse design



Driving force of architecture: *Culture replacement, not change*

“This is culture replacement. *Culture change* is taking an existing structure and trying to change what’s going on. *Culture replacement* is smashing what’s there and replacing it.” ¹

(Steve McAlilly, 1st Green House administrator, Tupelo, Mississippi)

1. Baker, Beth. 2007. *Old Age in a New Age: The Promise of Transformative Nursing Homes*. Vanderbilt University Press: Nashville Tennessee.

Location of Green House/(s)[®]

- In residential neighborhood
- Possibly paired together →
- May be part of large continuing care campus



Warm, Smart, Green

- **Warm**
 - Pleasant cooking smells
 - *Hearth* - central focus
- **Smart**
 - Technology fosters homeliness (vibrating pagers, no intercom)
- **Green**
 - living world
 - Continued growth



The Green House philosophy

- Communication key
- Conflict resolution
 - Admit, solve, don't erase differences
- Mutual Respect, Autonomy, Choice
- Growth even in old age
- Eldertopia – generational interdependence

Vision for GH: *an innovation that can change how we age*

- Privacy, dignity, autonomy
- life and relationships
- a social *and* a care model”
- “lived time”
 - Elder controls when to wake up, when to eat
 - no frenetic race of staff to beat the clock
 - “*Is your housework ever done?*”

“Where love matters....”

- Protect
 - by support, not restrain
- Sustain
 - “convivium” – sharing good food
 - All meals prepared in the kitchen
- Nurture
 - mutual relationships



Available to all: the *policy piece*

- Ability to pay should not matter
- Green House qualifies for Medicaid grants (public payment)
 - Negotiating with CMS¹ a more reasonable public pay amount
- ❖ *Single most important reason GH are becoming widely adopted*

❖ 1. CMS (Center for Medicare and Medicaid Services)

Still, economic constraints of GH model

- \$85,000/ year vs. \$65,000 for standard NH
- Restricted interest to faith-based foundations
 - Even they must limit # of public recipients (as government pays less than private payers)
- 1st for-profits adopting model – hoping to recoup costs over time

Eliminate signs of institution¹

Nurses station



Medicine cart



1. Cutler, L. and Kane, R. Transforming Nursing Homes. *Implications*. 5(9):1-8. Informedesign.umn.edu, .

Maintain semblance of home

Cooking in kitchen

Visitors (even employees)(
must be admitted



Staffing

- Direct Care Staff (shabazzim) + “Guide”
 - 2 for day and evening shifts
 - 1 for night shift
- Clinical Support team:
 - Nurses (1 for every 2 houses all shifts)
 - social workers,
 - physical/occupational/speech therapists
 - Activity /recreation therapists
 - dieticians
 - a medical director

Direct care team: *the Shabazim*

- Works with “Guide” to coordinate all functions
 - Direct care
 - Housekeeping
 - Cleaning, laundry
 - Cooking, food choices
 - With elders
 - Self-scheduling
 - Team coordination



Training of Shabazzim

- CNA
- 120 more hours, including
 - 42 hours Green House[®] core values & philosophy
 - CPR and emergency response
 - first aid
 - safe food handling
 - culinary skills
 - basic maintenance

The Shabazim:

- “I never worry about talking with someone and looking over my shoulder to see if the boss is watching; that *is* working.”¹
- Shabaz: *“I would love to come here to live when I get old.”*
- me: *and how about the nursing home?*
- Shabaz: *“Never!”*

1. *Where Love Matters*. Dvd. The Green House[®] Project.

Research: *initial findings*¹....

- Higher satisfaction - residents, family and staff
- The Residents
 - Less decline in late-loss ADLs
(bed mobility, transfer, eating and toileting)
 - Less depression
 - Increased sense of privacy, dignity, individuality
 - more meaningful activity, relationships and food enjoyment

1. Kane, R., Lum, T., Cutler, L., Degenholtz, H., and Yu, T.-C. 2007. Resident Outcomes in Small-House Nursing Homes: A Longitudinal Evaluation of the Initial Green House Program. *Journal of the American Geriatrics Society* 55:832-839.

Research: *Nursing Home Workflow Study/ 2008-2009* ²

- 14 GH vs 13 traditional nursing units
 - 25 minutes (vs 5) direct engagement beyond ADLs
 - 1.5 hours more nursing staff time
 - 30 minutes more in direct care activities
 - 45 minutes less simply transporting residents

2. Conducted by Institute for Clinical Outcomes Research (ICOR) and Health Management Strategies (HMS).

Research: *The Role of the Nurse* *Research Study / 2008-2009*¹

- Greater familiarity with residents
- Enhanced communication
- closer scrutiny

*“Things don't get overlooked at a Green House, as they might be in a nursing home, where caregivers don't work so closely with each other. If an elder stumbles at a Green House, every caregiver knows it and starts watching that person”*³

1. Dr. Barbara Bowers, University of Wisconsin. RWJ funded.

Lessons learned...*the residents.*

GH model is not for every elder,¹ such as:

- People who like constant activity and buzz
- Those “we managed to be successfully institutionalized”
 - Two women whose “home” was at the nurses’ station
 - *“We miss the gossip.”*

1. Interview with Bill Keane, GH Project Guide, Sept. 7, 2010

Lessons learned....*the nurse/shabazzim relationship.*

Breaking down staff hierarchy should not irresponsibly empower CNAs (the Shabazim) and disempower nurse¹

- Need “integrated” model
 - Nurse and shabazzim “hand in hand”
 - Teamwork, w. specialized roles
 - Pitching in when needed, where needed

1. Interview with Bill Keane, GH Project Guide, Sept. 7, 2010

Early Lessons learned...*the model*, at three different sites

The success of the model will depend on

- The Guide's embrace of Culture Change
- The administration's commitment to the model
- The selection of staff who are enthusiastic about the model
- Staff who respect, and can engage w. elders
- Staff who are not afraid to exercise judgment
- A balanced relationship between Guide & Shabazzim
 - To coach but not take charge

Conclusions

- Culture Change is vital for dementia care
- The Green House[®] design is a promising CC model
 - Person-centered philosophy supports elders w dementia
 - Small house design creates relaxed pace that reduces stress
 - The organizational makes for happy staff who can support elders
 - But it all depends on the people

Ultimately, what matters more: People or the structure?

“Real care does not reside in the building or its facilities, but rather in the spirit of the people within.”

(Alan Gilsean,¹ *Irish Times*, Sept. 28, 2010)

1. Creator of documentary series, *“The Home,”*

Limitations *beyond* the GH model

- Model constrained by govt regulations
 - skilled care as defined by state
- Regulations impose costs
 - rigid training requirements costly
 - \$200,000 + for basic training GH model
 - Food safety, first aid – additional training costs
- Abbeyfield – more promising?
 - Community needs, not government regulations

Wherefore Ireland?

Bill Kean, Project Guide, the Green House® Project

Ruta Kadonoff, the Green House® Project

Karl Schillinger, Redford Village, MI

Nancy Burkitt, Restaven Care Community, Holland, MI

Cheryl Van Bemden, Porter Hills, Grand Rapids, MI

Websites:

www.thegreenhouseproject.org/

www.ncbcapitalimpact.org/thegreenhouse

<http://www.rwjf.org>

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CHAPTER 44

Beyond the Institution: Dementia Care and the Promise of the Green House Project

Athena McLean

Liberating dreams are those which keep you vigilant in a sometimes miserable existence.

They are the dreams you know when you lose yourself in a book, enjoy a piece of music, dream about falling in love. Liberating dreams hate all those things that keep us grounded in life.... and we emerge rejuvenated from any liberating dream.

.... the non-liberating dream ... is the dream which.... advertising tries to sell you.... telling you you will achieve happiness if you buy....

The nonliberating dream is everywhere today.... Everyone is selling it

Vassilis Vassilikos 1996

The long-term care industry in the United States is facing a crisis. Not only is there increasing difficulty meeting the needs of a growing population of elders, but the very quality of existing care remains poor in many facilities in spite of two decades of efforts to correct shortcomings (see Polivka, this volume). The year 2007 marked the twenty-year anniversary of the federal Nursing Home Reform Act (as part of OBRA 87), which put in place historic regulations to address serious issues of neglect and abuse in nursing homes and to establish standards to promote both quality of care and quality of life.¹ Unfortunately, extensive noncompliance with those standards, chronic understaffing and turnover, and ongoing confusion, even among professionals, about what actually constitutes quality have impeded the realization of OBRA 87's promise, particularly in dementia care (McLean 2007a).

During these same twenty years, the visionary work of British psychologist Thomas Kitwood (1989, 1997), and others, has led to optimistic reconceptualization of the person with dementia and her care (cf. Shomaker 1987; Sabat and Harré 1992; Hughes 2001). This has placed new emphasis on the *person* with dementia, as a dignified social being with a will and ability to meaningfully

communicate even late in the illness (Killick and Allan 2001; McLean 2007b). It has also encouraged a shift from *instrumental* care, focused on custodial maintenance and medicalized *control* of the body and behaviors (as *symptoms*), to a person-centered approach to *quality of life* and understanding behaviors in the context of the person's life experience. The very locus of dementia care in a medicalized institutional setting, like a nursing home, has also been questioned since many elders with dementia lack other pressing needs for ongoing medical attention. Such settings nurture neither care receiver nor giver and may be viewed as depressing by families, who often prefer smaller homelike settings (Greene et al. 1998; Hodder 2004).

THE BIRTH OF A CULTURE CHANGE MOVEMENT

In the United States, these shifts have been promoted by advocacy organizations like the National Citizen's Coalition for Nursing Home Reform (NCCNHR) and innovative providers and other advocates of "culture change" (CC), largely through a group called the Pioneer Network.² More recently, the Centers for Medicare and Medicaid Services (CMS), which serve as both the federal regulatory body and the major funder for long term care, have also encouraged the adoption of CC reforms consonant with the goals of OBRA 87.

This changing climate has sparked consumer demand for new "person-centered" care, and many new "dreams" are being fashioned and marketed as person-centered approaches in long-term care (McLean 2007c). Some, like PACE (Program of All Inclusive Care for the Elderly), provide a full spectrum of long-term care directly in the home and the community. Others offer new caregiving models and training approaches for long-term facilities, such as "dementia care mapping" (Innes 2003),³ innovations for humanizing nursing home like the "Eden Alternative" (Thomas 1996),⁴ and new designs for creating smaller, more sociable "neighborhoods" or "households" in a larger residential unit (Shields and Norton 2006).⁵ Promoting privacy, individualized care, and respect for the dignity of each resident, many of these options have appealed to private-paying families, often seeking assisted living options developed for elders less physically and cognitively impaired than those now typically in nursing homes (Eckert and Morgan 2001; Ball et al. 2005). Others, like Green Houses (GH), developed by physician William Thomas, founder of the Eden Alternative, were intended to virtually replace⁶ nursing homes of the future, and were designed for all elders, regardless of income, as a "wonderful kind of dream idea" (Thomas 2004; Thomas this volume; Kane et al. 2007).

This chapter will consider the potential of the Green House Project (GHP) as a liberating dream for persons with dementia, who constitute a majority of people in nursing homes today. I begin by briefly describing the unique problems and care needs of people with dementia. Then, I offer conclusions from my own research comparing a dementia unit dominated by a biomedical approach to one with a more holistic, person-focused one. Pulling from my case studies and other work on person-sustaining environments, I then consider

the potential of Green Houses for long-term dementia care in the future (see Thomas this volume).

DEMENTIA AND THE CARE NEEDS OF AFFECTED PERSONS

Senile dementia is a considered a progressive disorder of older persons (sixty-five and older) that varies in symptomatology, rate of decline, and length and course of illness from three to twenty years (Richter and Richter 2002:35; see also Traphagan this volume). Most common impairments occur in cognition (thought processes and organization), language, behavior, orientation to time and place, and often, mood. The ability to recognize and use objects may also be impaired. Taken together, these changes affect people's activities of daily living as well (ADLs and IADLs).⁷ Memory (short term, and later, possibly long term) is affected, leading to distortions in the sequencing of events. This shatters the person's confidence about the past, and produces a sense of fragmentation of self. Moving to an unfamiliar institutional setting often exacerbates confusion and fragmentation, and promotes cognitive and social decline. Over time, persons with dementia may develop problems recognizing those who had been close to them, fracturing relational ties to loved ones as well. In very advanced dementia, incontinence, hallucinations, and the inability to speak, walk, and swallow often occur. This typically necessitates additional care, and may involve increasing resistance from the elder, unless effective, trusting relations are established with the caregiver.

Impairments can be frightening to elders, particularly earlier in the illness when they have the most awareness and fears of what might follow; this creates a need as well for considerable emotional support. Recognizing failing abilities may lead to loss of self-confidence and self-esteem, especially as others become aware of these. Incontinence may bring shame and further erode self-esteem, and efforts to hide accidents may make the person appear even more impaired.

Elders with dementia respond in different ways to their growing dependence on others; wishes to retain independence may affect their willingness to accept help from caregivers. Those who have been independent may be especially aggressive with caregivers who come to cleanse or toilet them. Their responses have typically been interpreted as *symptoms* of their disease, not as the understandable effort to retain some control and independence. Confusion, related to memory losses and fragmentation, often leads an elder to display behaviors that appear disturbed.

Given the multiple personal and social losses that occur in dementia, its most profound impact is in shattering the person's sense of self, history and relationships—the defining elements of personhood. This is why researchers have long urged that the most pressing needs of someone with dementia are *for person work* through an enduring relationship with a supportive caregiver (Gubrium 1975; Kuhn 2002:165–6; Eggers, Norberg and Ekman 2005:343). Yet regulations, staffing levels, and institutional prescripts have continued to place emphasis instead on standard physical and custodial *body work*.

My own observational research, summarized in the following discussion, found dramatic differences between residents on two identical, innovatively designed units with different approaches to care—a biomedicalized approach emphasizing *body work* and a *person-centered* approach where disturbed behaviors were viewed as more than just symptoms. I introduce this material for three reasons. First, I want to illustrate that physical models and structural designs alone are no guarantee of quality care; the underlying philosophy and values make greater difference in optimizing dementia care. Second, the unit that allowed for better care and resident outcomes adopted a philosophy of care consonant with that of the Green House Project. Finally, the care issues raised by the cases in both units provide serious care challenges. This offers an opportunity to consider the capacity of the Green House Project for handling them.

RESEARCH OF TWO SPECIAL CARE UNITS: THE HISTORIC SLEY UNITS

Setting of the Units: the First Special Care Units in the United States

In 1992–1994, I conducted research on the first two special care units in the United States designed with special environmental features to help people with mild dementia maintain their autonomy, and cognitive and functional capacities. The units opened in 1974 due to pioneering efforts of Powell Lawton.⁸ By the mid 1960s, Lawton and his colleagues had already envisioned an environment that challenged standard “dehumanizing” custodial care conducted “in the name of easing the effort of staff and maintaining cleanliness at all costs” (Liebowitz et al.1979:59–61).⁹ Extremely innovative for its time, this new approach was the product of a decade of research, years of planning, and considerable input from international experts in gerontology, geriatrics, and architecture, and of staff, families, and residents.

The units were designed to compensate for deficits, while offering stimulation to help residents maintain existing capacities. Special design features, such as color-coding of rooms (to enable residents to locate them) served as visual memory aids to enable the residents to negotiate the environment (Liebowitz 1976). An open floor plan allowing visibility of activities was intended to socially cue people’s memories, spark interest to engage in activities, and passively stimulate residents for possible therapeutic effect (Liebowitz et al. 1979). A kitchen for cooking activities, pleasant lighting features, bright color schemes, and a gazebo with safe plants were included to add meaning to elders’ lives and provide cognitive stimulation (Cohen and Kirsten 1992:131). Residents dined together in one section of the floor around large tables.

By the time of my study, however, the intended use of the innovative floor plan, with all its special features, had dramatically changed, together with the level of impairment of residents who occupied the units. Many of the special design features, like the color coding of rooms and the kitchen, were either

8

9

gone or in disuse. The gazebo was now used strictly by staff as a getaway, and residents were forbidden to go there. As residents became more impaired, the open design resounded with noise they produced, compounded by other institutional sounds from staff and visitors, the loudspeaker, and the floor cleaners. To avoid conflict among residents during meals, residents were now seated alone, or at the same small table with another resident. As residents became more cognitively impaired and less ambulatory, a number of demographic, fiscal, and institutional factors conspired against preserving the original ideal. The vision, energies, wisdom, and dreams of the early planners were no longer benefiting the elders, who, like their families and most of the staff, knew little of the units' illustrious beginnings. The value of special care units themselves as superior facilities to support persons with dementia also was called into question. In one of his last published articles, Powell Lawton himself concluded that special care units could not be distinguished for offering better care (2001:158).

CASE STUDIES

Background to my study

By the time I began studying the units, researchers were beginning to suggest that behavioral disturbances (BDs), such as fighting with caregivers, which were previously regarded as disease *symptoms*, might actually have some reasonable basis in the person's struggle to regain lost autonomy. Other BDs, such as repetition or agitation, might reflect the person's struggles both with cognitive impairment and the loss of social regard by others. Typically, confusion, evidenced by "wandering," had been seen only as a symptom. However, studies were beginning to suggest that a person did not wander aimlessly, but toward a familiar place, like "home," for example, to prepare her husband's dinner, or the bus stop to meet her children, forgetting that her husband had died or that the children were now grown. It was as if the resident found herself in a time warp.¹⁰ So while the behavior seemed to lack sense in the present context, it clearly had some historical relevance in past contexts. Thus behaviors that had been regarded as meaningless were beginning to gain credence as plausible efforts to *communicate* genuine needs, maintain a sense of self, or revive personal stories (Sabat and Harré 1992; Hughes 2001).

One goal of my work was to study problematic behaviors in the contexts in which they occurred—locations (the resident's room or dinner table), conditions (after pressure to wake up), persons involved (a family, nurse, NA), and time (upon waking, before dinner)—and the resolution (staff intervention, family involvement) that followed. I also tried to learn about the history of the person and more recent events that might have affected the behavior. To do so, I talked with the person (if possible), the family, and staff, and read their medical records.

The units each housed forty residents and were identical in design and admissions criteria: severe dementia and BDs (often verbal or physical

aggressiveness). Their residents were the most severely impaired in the nursing home, whose disturbed behaviors led to their admission there. The median age on Sley 1 was 86.5, and 88.5 on Sley 2. Both units had somewhat higher than usual portions of female residents, with 80 percent females on Sley 1, 85 percent on Sley 2.¹¹ Both units also enjoyed similar staffing levels: a head nurse (an R.N.) on the day shift, responsible for setting the philosophy and organizing the delivery of care; a nurse who served as care manager on all shifts and during weekends, responsible for supervising staff and dispensing medicine and treatments; five Nurse Assistants (NAs) during the morning and evening shifts, and one or two at night; a part-time bathing assistant; and professional staff (physician and physician assistant, psychiatrist, activities specialist, nutritionist, and social worker) who regularly visited the units.

However, more residents on Sley 1 were ambulatory and somewhat more behaviorally disturbed than on Sley 2, and the unit overall seemed noisier. After visiting the two units, I also discovered differences in the tenure of staff and residents, and evidence of differing philosophies of care by the head nurse, who was responsible for structuring and prioritizing care. These differences, I felt, warranted a comparative study as they might contribute to differences in the residents' behaviors. I thus decided to split my time on the two units, spending nine to ten months on Sley 1, and then the same time on Sley 2. I began by conducting general observations of the lives of the residents, their families, and the staff. After a couple of months on each unit, the staff helped me select seven residents with severe BDs to study intensively over all shifts for one month each. The following focuses on one case study from each of the Sley units as an example for comparing the two approaches to care. In addition, I offer a second particularly challenging case from Sley 2 in considering the demands on the Green House as a long-term care model.

Sley 1: Margaret—Unquieting Noise

“My greatest fear is the inability to take care of myself ever.”

“They made this lovely place for the people, but it isn't though.”

Margaret was the first person I came to know on Sley 1. During my first months there, she would regularly roll her wheelchair over to chat. Despite some confusion from her dementia, she was very pleasant and welcomed company. She was also socially sensitive with me, taking care not to interrupt me if I looked busy. The first time we met, she asked where she could find the trolley station, as it was getting late and her mother might worry. I explained I was new here and did not know. On later visits, she described her mother's lovely flower garden or the book club over which she had presided. At eighty-nine, she had survived two husbands and was childless. However, her brother and sister-in-law were very concerned for her and visited her frequently.

Margaret had lived in the nursing home complex for eight years, first in an apartment, and after her arthritis worsened, in a nursing unit. Previously independent, this move upset her. She lacked dementia at the time, but moving

symbolized loss of autonomy and led to depression. A few years later, following hip surgery, she declined cognitively as well. During her last year on her unit, she began to call out loudly to staff when she was hungry or uncomfortable. This disturbed other residents, and she was placed on a small dosage of an antipsychotic medication (20 mg. of Mellaril[®]) and transferred to Sley 1 several months before I started my research.

Except for her occasional calling out, Margaret was not seen as a difficult resident. However, during baths, she would cry out loudly, and her cries were becoming more intense and generalized to other times. Her sister-in-law, who was a social worker, asked to observe her bath to see if she could find some triggers to Margaret's screaming. She found that Margaret started screaming only if she got water in her ears. To prevent this from happening, her sister-in-law brought in a rubber sunbonnet she had purchased on a trip to a tropical island specifically for Margaret. It fit snugly around Margaret's head and blocked her ears from the water. Much to her surprise, Hazel, the head nurse, could not promise it would be used.

Hazel later explained to me that locating the bonnet and using it was just too time-consuming for Rhonda, the part-time bathing assistant who bathed eight residents a day. Rhonda had to complete the eight baths within 3.75 hours or the nursing home would have to pay her benefits, which they tried to avoid. If she exceeded her allotted time, her evaluation would suffer and she could risk losing her job. Rather than let another resident delay in getting a bath, or leave bathing to the already overworked nursing assistant, Hazel encouraged Rhonda to complete her standard bathing tasks, skin checks, vital signs, and dressing routines rather than to spend time with the sunbonnet, even if it improved Margaret's bath. Indeed, the one time that Rhonda tried it, Margaret was calmer and did not scream. Still, to Hazel, Margaret's problem was much larger than anything that could be solved by a "localized environmental accommodation," since to her, it stemmed directly from the dementia. It remains unclear whether the bonnet would have made a more lasting difference since Hazel no longer permitted Rhonda to use it.

Around this same time, a six-month psychiatric consultation, required by OBRA, led to a series of medication changes that exacerbated Margaret's symptoms. In keeping with OBRA's mandate to use milder psychiatric medications and smaller dosages, the psychiatrist switched Margaret to Buspar[®], a milder antipsychotic medication, which took six weeks to take effect. Almost immediately, Margaret complained about dizziness. She became intolerant of other residents and started yelling incessantly. With every medication change, her condition worsened. She became more confused, and could no longer converse, recognize her family, or feed herself. When other medications were added, she began to hallucinate. Her family insisted that she be returned to her original medication, and after twenty-nine changes, and a nine-fold increase from her original dosage of Mellaril[®], she temporarily improved, although not to her previous level.

Then suddenly, she declined sharply. She tightly shut her eyes and just shouted or sang loudly, shutting out the world. Her brother appreciated the

existential quality of her new behavior, which effectively separated her from an environment of which she would say, even in her deteriorated state, “I don’t like this place; it’s the *whole* thing I don’t like.” Hazel and her staff did not acknowledge the validity of Margaret’s perceptions; to them, her decline was the predictable outcome of someone with dementia. However, for Margaret, constrained as she was, her increasingly pervasive outbursts were her only available means of articulating her existential condition.¹² Outbursts of this quality were not amenable to silencing via magic bullets.

12

Sley 2: Mrs. Fine—the Wicked Witch of the West

“I have nothing—just this, while they have a very big house.”

“That is their world, and this is mine; I like it here.”

When she was first entering the nursing home three years earlier, Mrs. Fine scored only four out of thirty possible points in the mini-mental status exam (MMSE) and another cognitive test.¹³ Mrs. Fine stated that her husband had died a year before, when it was actually twenty years, and she seemed confused and hostile. At eighty-five, she had endured the loss of a second close male companion, six hospitalizations, a stroke, and a broken hip. Left with a severe speech impediment and the inability to walk, she became depressed, more cognitively impaired, and began to hallucinate. These led to brief psychiatric hospitalizations, which her daughter ended because she could not bear the artificial effects of the antidepressant on her mother: “I wanted my critical mother back!” While this endeared her to her daughter, it gained her the reputation in the nursing home as the “wicked witch of the west.”

13

Mrs. Fine had lived on two other units before Sley 2, becoming increasingly aggressive. A tranquilizer at her previous unit disturbed her gait and she was restrained in her wheelchair. She began to disrobe in public, became incontinent, and in need of total hygienic and grooming care. At that point, she was transferred to Sley 2. Jenny, the head nurse there, determined that Mrs. Fine’s anger stemmed from her loss of control and dependence on others. She secured Mrs. Fine’s cooperation for physical rehabilitation. As Mrs. Fine began walking again with the aid of a walker, her mood improved, so she was taken off the tranquilizer. An observant NA saw her remove her diaper to go to the bathroom and after additional assessment, she was deemed continent and the staff were alerted not to use diapers. They were also asked to respect Mrs. Fine’s wishes to gain help with hygienic care only in the evening, the only time she wanted it. Mrs. Fine improved so markedly that staff visiting from other units could not even recognize her.

Because she had significantly improved, her family encouraged staff to transfer her to a unit with higher-functioning residents. After moving, she declined and once again was restrained in her wheelchair. She returned once again to Sley 2, this time to a highly coveted private room. With patience from the staff, she restored some autonomy, gained confidence, and resumed walking independently. Her speech *aphasia* (difficulty in finding words)—brought

on by a stroke—had worsened, but the staff were patient and supportive of her efforts to talk. However, following hospitalization, due to a possible stroke, she became more aggressive again, and also became obsessed with photographs of family members and with fears for the safety of her daughter. She also became paranoid about others going through her belongings, and seemed more deeply depressed. The psychiatrist and unit physician disagreed about how to handle this. The physician had known Mrs. Fine since her initial admission to the home and felt her behavior was only marginally more extreme than before and that the unit staff could handle it. He did not want to risk her losing functional improvement by introducing psychotropic medications.

The psychiatrist was also aware of risks in using antipsychotic medications with elderly patients, especially when dementia is involved. Tranquilizers can lead to dizziness and falls, and even have disinhibiting effects, like disrobing. Antidepressants can also increase agitation or confusion. Still, the psychiatrist did not like to see Mrs. Fine suffer, so she convinced the unit physician to start Mrs. Fine on an antidepressant. In fact, Mrs. Fine's mood did improve, her depression lifted, and her paranoia diminished. She also viewed the nursing home more positively: "I like it here; I have two good doctors here." Her minimal status exam showed higher functioning than at any time since her admission several years earlier, and she developed a strong relationship with the psychiatrist. However, a month later, after another hospitalization for a urinary tract infection (UTI), she became irritable, so her physician withdrew the antidepressant, but her mood remained unchanged. "This," he insisted "is just Mrs. Fine."

A few weeks later, she was looking quite content, glad to be back from the hospital, but disappointed that her daughter had not yet visited her. However, this time, instead of worrying that her daughter was dead, she calmly observed that it did not really matter "as long as she's okay."

Mrs. Fine told me she had torn off a sign from her door. The sign, "Nurse in Charge," had been placed on her door because of a suspected infectious virus she might be carrying. "I just tore the 'Nurse in Charge' sign off my door," because, she confidently explained, "*I'm* in charge."

"You are protesting?" I asked.

"Yes," she firmly stated.

It appeared she was back to her old spunky self.

CONTRASTS AND IMPLICATIONS OF THE TWO APPROACHES

In contrast to the staff of Sley 1, who disregarded Margaret's complaints, those of Sley 2 not only responded to Mrs. Fine's wishes, but also were attuned to her history, personality, and preferences. This led them to design and adjust her care so as to maximize her functional capacities while supporting her as a *person*, with all her foibles, including her occasionally sour disposition. Her treatment team were even willing to revisit possibilities like physical therapy, years after other clinicians had abandoned it as an option, to help her restore

some independence, viewing this as vital for increasing her quality of life. This involved *working with* Mrs. Fine to help her attain greater well-being. The head nurse could look beyond the dementia and try to understand Mrs. Fine's anger as legitimate in light of the loss of her highly valued independence. This was in striking contrast to Mrs. Fine's experience at previous units, which like Margaret's, "treated" her existential protests as medical symptoms needing containment and restraint.

Rather than suppress Mrs. Fine's expressions of anger, her care team appreciated their legitimacy. To improve her functioning, they tried to determine, and then move to correct, what stimulated her disruptive behaviors. This approach served to preserve—not pathologize and suppress—the obdurate, cantankerous person, however difficult, who had always been that way. It also helped her function at a level unimaginable by staff from other units.

At Sley 1, residents' behaviors were attributed entirely to medical causes, and their *personal* needs were invalidated or relegated as secondary to the *instrumental* needs of the staff and institution to efficiently complete care tasks. What differentiated care on Sley 2 from Sley 1 was the willingness of the staff to see residents as *persons*, beyond their dementia, and to flexibly organize care to identify and correct not only medical problems, but excess disability¹⁴ not related to the dementia, like vision problems, to optimize their life quality (McLean 2007b:23).

In another particularly challenging case in Sley 2, the care team expended extraordinary effort in helping Mrs. Gold, a woman who had become very unsteady and whose sleep pattern had become reversed. To protect her, staff initially restrained her in bed, but after she climbed over the bedrails and injured herself, her physician gradually withdrew her medications, which he suspected had increased her unsteadiness. Meanwhile, nursing staff gave her one-on-one attention and used less invasive protection, like a floor-level bed, and naturally tired her out by walking with her while conducting their rounds. This was time consuming, and one nurse did quit, but the situation was resolved within two months. Through experimentation and devoted personal attention, the staff restored her ambulation, sleep routine, and calmness, without placing her at risk. While the demands on the staff were immense, so were the positive outcomes.

The challenge is to develop person-centered care that may be high intensity at times, but sufficiently productive that both the resident and staff are rewarded. This requires adequate staff to prevent burnout, and skilled specialists to guide an optimal outcome. Any model of residential care, like the Green House, that offers skilled nursing care must be able to address such complex challenges in promoting quality of life for residents, even during difficult periods.

THE GREEN HOUSE PROJECT (GHP)

The Green House Project is an innovative approach to long-term care that, under federal regulations, fully qualifies as skilled nursing home provision.¹⁴

Green Houses were deliberately developed to meet regulatory and reimbursement criteria to be accessible even to the indigent elderly. Green Houses, however, were designed as intentional communities that depart radically from traditional nursing homes both structurally (in physical environment and organization of care) and philosophically. Green Houses were developed by William Thomas, founder of the Eden Alternative, a previous “culture change” (CC) approach designed to humanize nursing homes by promoting relationships and life. Eden intended to eliminate loneliness, helplessness, and boredom in residents, to bring life through plants, animals, and children to the home, and to empower both residents and frontline staff to make everyday decisions. Despite the international popularity of the Eden Alternative, Thomas found progress to culture change slow, evaluations unimpressive, and by 1999 he became convinced of the need to fully redesign the nursing home from the beginning in order to effect the kinds of changes he had in mind.

What initially motivated Thomas to design these CC initiatives was his encounter with an elder at a nursing home where he worked in the early 1990s. As he prepared to leave her bedside, she grabbed his arm and uttered, “I’m so lonely” (Williams 2004:180). From that haunting moment, he has been on his own CC journey, with the mission of liberating elders from institutional existence, promoting instead a new world vision of interdependence and well-being among generations, what he calls “eldertopia.” This involves sustaining and protecting elders, who in turn impart wisdom and foresight to the community (see Thomas, this volume).

For Thomas, the GHP was one vehicle toward achieving this vision, an “opportunity ... to transform the *dream* of a warm, loving, nurturing sanctuary into a specific *innovation* that can change how we age” (Thomas 2004:222). These affect size, design, conception of residents’ needs, staffing roles, and delivery of expert services. Green Houses are designed as places where assistance with daily living and clinical care are available, but where the focus is not on care, but on life and relationships. Thus, by design, it redirects attention from the instrumental care task in the realm of timed work, to the person in the realm of life as nonprescriptively lived (cf. McLean 2007a).

To achieve this, he adopted a philosophy emphasizing residents’ strengths and freedom to choose, used the principles of *warm* (small and nonhierarchical), *smart* (technology to foster well-being), and *green* (connection to the living world) in designing the physical environment. To create a new notion of care in this setting, Thomas evoked the mythical creature of the Shahbaz, the royal falcon who stood as protector, sustainer, and nurturer of people, as the model for the *assistant* or helper of elders. He was careful, however, to distinguish *protection* (as a form of reciprocal support for those cherished) from the *restraint* and control more common in nursing home care (Thomas 2004:259–261). *Sustenance* involved friendship, homemaking, and the pleasure of sharing food (what he calls *convivium*). *Nurturance* above all was relational, holding the capacity for mutual fulfillment in carrying out even the most mundane routines. Through mutual cooperation with elders, the Shabaz is invested in the enormous charge of creating a new societal understanding of elderhood.

Structurally, the GH is deliberately small¹⁵—a self-contained house for seven to ten residents. Ideally, it is located in a neighborhood and blends in architecturally with other homes. Up to ten private bedrooms with full bathrooms surround the heart of the home—the hearth room and kitchen. Food is cooked in the kitchen, as one would expect in one’s home, and residents can participate in preparation, and delight in the sensuousness of the smells of food cooking. Because of the small distance of travel to the kitchen and other places within the home, mobility is encouraged and wheelchairs are often not needed. Safety features are built in, and there is access to an outdoor garden and patio. The appearance of medical apparatuses is deliberately avoided by eliminating medication charts (keeping residents’ medication cabinets in their own rooms instead), replacing a visible nurse’s station with a closed-off den, and using wireless call systems and silent pagers. Each bedroom has a track for a ceiling lift to assist with lifting residents from their bed to a wheel chair. The Green House may incorporate smart technology as well, to enhance communication, for example, using interactive television to connect with remote family (Rabig et al. 2006:534). But while the Green House may have the markers of a home, Thomas is clear that it is “not a family dwelling,” but a particular kind of “intentional community” (2004:232).

15

In contrast to those in nursing homes, elders in a GH retain control over such vital daily activities as when to get up, bathe, eat, and sleep, preserving the *sanctity of lived time* (McLean 2007a). Residents engage in activities whenever they want, as part of life, not as a “billable service.” Elders and Shahbazim participate together in life by eating, talking, engaging in activities, and even playing together (Rabig et al. 2006:534–5). They are supported physically, emotionally, and spiritually. Importantly, the hope was to engage the broader community as well.

The Shahbazim are housekeepers and caregivers in the broadest sense, responsible for cooking, cleaning, and laundry, as well as personal care and nurturance. Beyond CNA (certified nursing assistant) training, they receive 120 hours of training in the GH philosophy. There are two Shahbazim during the day and evening shifts, and one during the night shift, accounting for forty hours for ten residents. In a typical nursing home where CNAs conduct rounds, this would amount to four hours per resident. In a Green House, it is both less and more—less, since with her other obligations, the Shahbaz is less likely to spend four hours exclusively with one resident; more, because residents can be in the presence of a Shahbaz a full twenty-four-hour period if they wish. The Shahbazim¹⁶ are supervised by an administrator (“guide”), rather than by nurses, to avoid the traditional hierarchy in nursing relations. To break down existing professional hierarchies and organizational rigidity, Williams made Shahbazim central to life in Green Houses, and removed professionals from any nonclinical decision-making. The clinical support team (nurses, a medical director, social worker, activities specialist, dietician, and other therapists) visit on a schedule dictated by regulatory mandates and needs for assessment and treatment, but are expected to “behave as guests.” This further identifies the Green House as a home, not a clinical space.

16

PROMISES (AND CAVEATS)

Because the Green House Project (GHP) is young and little research is yet available on it, my observations will be largely speculative. Early findings from the study in Tupelo, Mississippi, of the first Green Houses, however, are promising. Self-reported quality of life measures of residents in GHs were superior to those at the two nursing homes with which they were compared.¹⁷ On quality of care, GH residents equaled those of nursing homes, and showed less decline in late-loss ADL functioning. Surprisingly, though, they showed more incontinence. Although Green Houses do not emphasize structured activities, in seven areas they equaled the comparison group (Kane et al. 2007). Anecdotal evidence is even more telling. One woman, who was viewed as too impaired and unresponsive to actually benefit from a Green House environment, was transferred there from her 140-bed nursing home at her family's request. Upon arriving at the Green House, she perked up immediately and continued to improve, talking and singing again, going from being fed pureed foods to feeding herself whole foods, and gaining a spark of life (Baker 2007:88–89). Still, the original study showed that one resident was asked to leave and another returned to the nursing home (Kane et al. 2007:833). It would be worth exploring why these removals occurred in order to gain insight as to what the issues were that led the residents to leave, and how well the model might be able to better address these in the future.

17

The GHP has succeeded in removing the medical wrappings and institutional controls that have oppressed life in nursing homes for decades. By radically reconfiguring not just the physical structure, but also the power relations between the supervisory and rank nursing staff, and the pace of life within, it has enabled possibilities for elders to reconnect with their world and reinvigorate their lives. By refashioning CNAs as venerable homemakers, it has invested these women with enormous responsibility to sustain a portion of society's frail elders, to nurture relations and protect elders as those one cherishes. Yet Shahbazim begin as strangers to elders, lacking a shared history. Some will nonetheless embrace this responsibility out of sheer grace and desire for growth; others may come to this with time—or, they will not. Indeed, the success of eldertopia, as advanced within GH, relies mainly, if not entirely, on the Shahbazim. Yet while invested with immense social responsibility for *all* of us, Shahbazim—often women of color and of modest backgrounds¹⁸—continue to be paid quite poorly (Baker 2007). Thus their accepting this charge is no small feat, aspiring toward what philosopher Charles Taylor has called “a new horizon of meaning,” that they are part of a larger whole both socially and spiritually (1991). But how are the rest of us to be involved?

18

In Tupelo, GH were integrated into regular neighborhoods, providing greater opportunity for social inclusion and intergenerational relationships within a broader community beyond strictly the Shahbazim. However, some GH are being planned to be built on campuses of long-term care facilities, thus limiting broader social integration and perpetuating an association with a medicalized

and geriatric-segregated establishment. Beyond the resident-Shahbazim relation, the GHP has not developed ways of creating the intergenerational reciprocity eldertopia seeks to promote, perhaps to avoid overly prescribing it. Nonetheless, unlike small owner-operated board and care homes, Shahbazim are less likely to gain access to informal supports (family, friends, and neighbors) available to the owner-operators who live on the premises of their board and care home unless they are also part of the community (Eckert and Morgan 2001). Identifying nonprofessional staff as the core staff of the Green Houses reinforces the nonmedicalized aspects of daily life and combined resident/Shahbazim control over everyday decision-making, with help from the guide as needed. Still, some losses may result from this arrangement, such as the reduction of exposure of residents to exceptional clinicians, like Jenny, of Sley 2, whose insights helped reduce Mrs. Fine's excess disabilities, and increased her autonomy. In addition, the move away from a medical model, while vital for the everyday life of residents, may lead to false dismissal of signs of genuine medical conditions (Baker 2007:77).

Implications for Dementia

Despite these potential limitations, the GHP has worked at reversing a mindset that ignores elders' needs as secondary to institutional prescripts. For elders with dementia, whose aberrant behaviors have long been pathologized as senseless symptoms of their disease and ignored, this is no less than revolutionary. Further, in redefining itself as a genuine home, not a place of shift work and rounds, the Green House frees elders and Shabahzim alike to enjoy the tempo of life as lived. Here *relationships* reign supreme and central to life quality. For the person with dementia, such relationships perpetuate meaning-making in their lives and validate both their fragile identities and their enduring need to engage meaningfully with their world (Frank 2005:177). This is therapeutic to someone whose impaired memory disrupts their sense of a unified self. Shahbazim can effectively restore that sense by continuing to acknowledge the elder. Indeed, in dementia, quality of life depends on the sense of self-esteem and belonging that derive from meaningfully relating with others (Nolan et al. 2002:200–201).

Some elders are privileged to remain in their own homes, where a sense of personal meaning and belonging has been fostered over their entire life course (Stafford this volume). For those who lack this privilege, the Green House may provide a substitute locus for home. In fact, for some people the experience of home—or of a home yearned for—is not attached to an external place at all, but to an interior space of personal security and social connectedness (Reed-Danahay 2001:60). This may be why, in the absence of these positive conditions, an elder *already* in her home may still longingly cry out for it (Frank 2005). Thus, emotional connections to the referents of home may matter even more to the elder than the actual physical site (Brent 1999:78).

How, then, might the Green House Project succeed in fostering social connectedness? It is less likely to do so by creating a generic sense of “hominess”

in the environment than by providing ongoing opportunities for each elder to make meaningful connections to both past and present (Post 2006:226). These connections help to preserve a positive social identity and to fend off insecurity, social isolation, and depression (cf. Williams 2004:145). As a potentially healing environment, the Green House can help maintain identity in dementia by sparking cognitive, sensorial (e.g., by smelling favorite foods cooking), and emotional experiences that recall past memories. These can be compared against experiences in other settings (Williams 2002:148), or enable the construction of new meanings through new relationships and experiences. Such experiences, together with the sense of freedom and privacy, reinforce the delicate sense of being at “home” with one’s self (Frank 2005:184, 187–188), so vital to well-being in dementia (Williams 2002:145–146, 148). Finally, insofar as the Green House “shelters daydreaming” and “protects the dreamer ... to dream in peace,” it reinforces meaningful continuity with the past: “it is because our memories of former home-places are relived as daydreams that these home-places of the past remain in us for all time” (Bachelard 1993:6).¹⁹

19

CONCLUSION

As the Pioneer Network gains force, many more homes are promoting person-centered care, often through remodeling to appear more homelike and appealing. While many of these homes are run by individuals or groups that have been on the forefront of change, or welcoming of it, others may see this more as a necessary marketing scheme. What is unique about the GHP is that its vision was matched with a design to reach those whose economic situations could never afford access to this kind of model. Thus, it has the makings of a broadly liberating dream. Of course, the GH is not the first to do this; Quaker facilities predated even OBRA in working to validate and dignify all elders, no matter how impaired (McLean 2007b:241–2).²⁰

20

Dreams, though, are actualized by real people in real circumstances; they are never universally guaranteed no matter how liberating the possibilities. Thus, in the final analysis, it is people themselves (Shahbazim, guides, administrators, residents, families, policy-makers, and the public) who will determine the extent to which the GH—and other CC models—will or will not be liberating and sustainable. Some will decide whether to preserve or alter the initial model to meet the needs of those who live and work there, as they strive to make the GH financially sustainable. Already, Cedars, the nonprofit owner of the four GHs in Tupelo, has built six more GHs, but with twelve beds, not the six to ten beds Thomas had in mind. To actualize his dream-idea, Thomas stayed within CMS costs. Yet to fully deliver its dream to elders with varying skilled-care needs, the GHP may need to build in additional help in exceptional circumstances, as with Mrs. Gold on Sley 2, where intensive individual staff support for two months helped her to ride out a difficult period. The challenge is to accommodate residents like her without overburdening staff and other residents; this may demand higher funding. With its call to support the human

spirit, rather than to make profits, it is not surprising that GH and CC have been promoted mainly by nonprofit faith-based organizations (Baker 2007:3). One thing is for sure. The call for CC will not die, as CC agents are mobilizing internationally²¹ to realize a dream of better life for elders. How this will be realized in particular contexts, both locally and internationally, will be something anthropologists will surely wish to follow and help to inform for future initiatives.

21

NOTES

1. The Nursing Home Reform Act, as part of the 1987 Omnibus Reconciliation Act (OBRA 87), intended to address neglect and abuse in nursing homes, but also to establish standards of care and compliance. These standards addressed quality of life by obligating nursing homes to provide “the highest practicable physical, mental, and psychosocial well-being” of residents (Turnham 2001). While heroic in intent, even with success in several areas such as restraint reduction and continual efforts to improve regulations and compliance, it has fallen short of its goals. For further elaboration on its shortcomings, see *Faces of Neglect* by NCCNHR. See www.nccnhr.org/action_center/366_1994_12825.cfm (accessed on August 15, 2008).

2. Although reformers had long complained about conditions in institutionalized homes for the aged (e.g., Henry 1963), the “culture change” movement finally gained momentum when a group of “pioneers” of nursing home reform gathered in Rochester, New York, in 1992 and again in 1997. In 2000, the group named themselves the “Pioneer Network,” and have gained influence with consumers, care facilities, and policy makers. For more information on its history, see www.pioneernetwork.net/who-we-are/our-history.php (accessed on August 15, 2008).

3. Dementia Care Mapping is an intensive observational method used to determine quality of dementia services on the basis of specific indicators of quality of life (Capstick 2003:11–22). It was developed by Kitwood and colleagues, the Bradford Dementia Group, UK.

4. The Eden Alternative was a new concept in nursing home care and philosophy, developed by William Thomas to tackle “loneliness, helplessness and boredom” through a habitat that engaged people in the “green” noninstitutional world of plants, animals and children. It challenged the hierarchical model of institutional organization and returned control to the direct caregivers (Thomas 1996; 2004:179–90). This model has been very successful internationally with at least 300 registered “edenized” homes See www.edenalt.org (accessed on August 15, 2008).

5. *Neighborhoods* refer to structural divisions within nursing homes, which serve as smaller clusters of residents (about twelve per neighborhood). Each is further divided into two “houses,” consisting of residents’ rooms surrounding a kitchen, den, and formal living room. This innovation was developed by Charlene Boyd and the staff of Providence Mount St. Vincent, in Seattle, Washington. However, in more vulgarized commercially exploitative forms, a simple door is said to divide a wing into neighborhoods, without further structural or conceptual changes.

6. By 2025, Thomas envisioned a system of home and community care with 100,000 Green Houses and a few leftover nursing homes. In five years, fifty Green Houses have opened (Kane et al. 2007:839).

7. ADLs are Activities of Daily Living—personal care routines like combing one’s hair; IADLs are Independent Activities of Daily Living—more complex chores like balancing a checkbook.

8. Powell Lawton was probably the most influential psychologist in reconceptualizing environmental designs for optimizing cognition and dementia care in the United States. He forged efforts to understand the impact of environment on the care and quality of life of those in nursing homes, and conducted innovative research on ways to evaluate these impacts.

9. This was the type of care that Jules Henry had decried in *Culture against Man* in 1963.

10. I thank Deanna Trakas for this metaphor.

11. Most homes average around 75 percent women.

12. I thank Robert Rubinstein for this observation.

13. The difference in Mrs. Fine's performance went beyond the tests to her disposition toward being tested as well as actual differences in her cognitive status during times of testing.

14. States have ultimate jurisdiction over classification of long-term residence. In those states where skilled nursing certification is not allowed, the Green House Project allows them to be built as assisted living facilities. See CMS letter, December 21, 2006 from www.ncbcapitalimpact.org/default.aspx?id=414 (accessed on August 15, 2008).

15. Smaller facilities have been associated with less anxiety and depression in residents (Rabig et al. 2006:534), especially those with dementia.

16. The word *shahbaz* is Persian and a singular form of the assistant he calls the "midwife of elderhood." *Shahbazim* uses the Hebrew "im" ending to create the plural form, to capture a mixture of traditions in a novel blend, like the Green House itself (Thomas 2004:239, 255).

17. There were four Green Houses with ten residents each; two were dementia-specific. The comparison nursing homes were owned by the same nonprofit organization, and one of the homes shared their administration with the Green Houses (Kane et al. 2007).

18. Because Green Houses in many states qualify for Medicaid grants, many Green House residents may share backgrounds with the *Shahbazim*, in contrast to caregivers in private homes.

19. Cited in Brent (1999:72).

20. Quakers are a religious society that accepts the fundamental divinity in all things. This includes extremely frail and demented persons. Long before the CC movement began, Quakers had designed long-term care to support the dignity and respect of both care receiver and caregiver in demedicalized settings. Quaker-sponsored facilities such as Chandler Hall, in Newtown, Pennsylvania, have also pioneered in intergenerational programs with on-site child care and development facilities See www.chandlerhall.org (accessed on August 15, 2008). In addition, since 1973, Kendal, in Longwood, Pennsylvania, has promoted an "Untie the Elderly" movement to eliminate the use of both physical and chemical restraints. See <http://ute.kendaloutreach.org/learning/learning.aspx> (accessed on August 15, 2008).

21. In Ireland, on December 5–6, 2007, CC experts Steve Shields and LaVrene Norton, at workshops organized by the Health Service Executive and the National Council on Ageing and Older People, were enthusiastically received for their ideas on transforming care in the Irish context.

June 18, 2020

Dear Commissioners and Fellow Residents:

I am writing as a follow-up to my comments made at the Planning Commission public hearing on June 8, 2020. I have two areas of concern regarding the planning for a new senior center in the Hannah Farms development, relating to the request for a Special Use Permit. The areas of concern are 1) the provision of a suitable and accurate Natural Features Survey, and 2) provision of a sound water management practices and engineering.

I have organized my rather extensive comments in four sections and an Appendix: i) Introduction, ii) Natural Features and Functions, iii) Water Management and Flooding, and iv) specific conclusions and recommendations. The Appendix contains Figures and Graphics, which you can use with the written text.

Sincerely yours,



David L. Skole and Deana L. Haner
4845 Mohican Lane
Okemos, MI.

Introduction

My standing in this matter arises as a property owner that abuts the planned project property, where I reside at 4945 Mohican Lane. My standing also arises as a citizen and taxpayer in Meridian Township, where I expect sustainability-based planning and forward-looking land stewardship to guide decision making. The concerns I have, which are detailed below, follow concepts that the Township has adopted and published in several important planning documents.

The Greenspace Plan, now 16 years into its implementation, lays out broad concepts for economic development that does not come at the expense of water quality, natural systems and wildlife. The report states:

“There is a desire that growth come not at the expense of water quality, natural systems, and wildlife, rather, that new development be used as a tool to permanently protect key natural and cultural resources and enhance the Township’s sense of place. The plan outlines ways in which growth and development in the Township can continue to occur while simultaneously protecting the natural systems and community character of the Township.”

The project for which a SUP is requested is located in close proximity – abutting – of a Township Priority Conservation Corridor, as identified and mapped in the Plan. This Corridor has unusual natural characteristics which I discuss below and as such should elevate the level of care and oversight in your deliberations, including an overt effort to seek or assess alternative uses.

The 2017 Master Plan identifies as one of its important goals to “preserve open space and natural areas”. It states:

“The central planning goal for these past several decades has been to maintain and improve the quality of life for Township residents, particularly the quality of residential life, schools and other public services, and the rich and diverse natural environment.”

Throughout several Township plans and documents, there is the common aim to maintain the structure and function of the natural environment and this aim is a central principle for planning and development. Goal 2 is the explicit aim to preserve open space and natural areas. It seeks to guide development along lines that emphasize protection of greenways following the Greenspace Plan, and to identify opportunities in the planning process along the Red Cedar and its connected natural spaces for special actions including acquisition. The Future Land Use Map places the proposed project in a residential R2 zone. The zoning map is deliberate in its specification of land use zone and follows the Master Plan, with reference to the broader framework provided by the Greenspace Plan. As such it is a responsibility of the Commission to be critical and conservative when seeking to deviate in places such as this proposed project site, where Township development frameworks, concepts and plans are particularly salient and germane. Clearly we don’t find “process expediency” as a high goal or priority in the Master Plan, Greenspace Plan or any other guiding documents.

The Township produced a Climate Sustainability Plan in 2017 and adopted a resolution by its Board in 2017 supporting the Paris Climate Agreement. Prior to that, as early as 2007, the Township had signed the US Mayors Climate Protection Agreement. One key aim of the Climate Sustainability Plan was to make the Township better prepared to deal with the impacts of climate change. In doing so it identified the increasing risk of flooding as a key issue to confront in planning and managing the Township assets and resources.

Thus, the Township is heavily invested in a planning process that engages environmental sustainability directly. It is on record considering natural resource corridors, water management, and greenspace conservation as priority elements in planning because these facets lead to better outcomes from the process.

Natural Features and Function

The project applicant delivered a Natural Features Report as part of its package of documents for the Planning Commission. I reviewed the Report carefully and find it to be incomplete, inaccurate, and old. The report appears to have been prepared for another project proposal by Capstone Companies and a previous SUP application. The report is based on a cursory and non-scientific site survey and natural features inventory, which mostly focused on a sample inventory of selected major trees. The site survey was conducted in November of 2016, which seems to be an odd, if not completely wrong time of year. If there is no intention to conduct a formal survey or inventory, then instead using a walk-through visual inspection in November does not seem appropriate.

This site survey was combined with a desk study that considered other information. The survey was done 4.5 years ago. While many aspects of the report – e.g. soils and topography– are not different now, there could have been considerable changes to wildlife and wetlands. Some further growth in vegetation would also have occurred. Some of the information used was obtained through the desk study, such as FEMA maps. It is important to note that a considerable amount of ancillary information

available at the time was not used. For instance, the historical record of water stage and discharge available through the USGS was not included. There is a considerable archive of aerial photos available from several places, including MSU, which would have been a better source of land use information than from the visual site visit. Even Google Earth could have provided improved land use information.

The tree inventory is confusing. It is difficult to understand the method. The number of identified trees is significantly below the actual number in the field, and the spatial distribution of sampled trees is highly selective and without an explanation of the selection rationale. The approach seems like a timber inventory, since it sampled only large trees using dbh measurements. This approach missed an opportunity to identify younger trees as well as woody shrubs. For instance, there are fair number of young ash trees, which have escaped the emerald ash borer, an interesting aspect of this habitat as a refuge. The inventory used an arbitrary way to assign tree health status that didn't serve much purpose, and ignored the unusually high mortality that is obvious, especially in low areas.

The superficiality of the report is highlighted in its treatment of wildlife, seeming to discount the site as habitat for common suburban species. It notes *evidence* of white tailed deer rabbits, gray squirrels, opossum, paper wasps. It comments that it is *highly likely* that the site also serves as foraging ground for numerous other insects and birds, such as Monarch butterflies, honeybees, robins, mourning doves, and black capped chickadees. Language concerning evidence and likelihoods suggest none of these species were actually observed, leaving the reader the impression that this lack luster effort was merely an effort to "round up the usual suspects" and at the same time diminish any concern about habitat impact and loss.

But the reality is quite different. It would have been possible to construct a list of highly likely species of birds, for example, by consulting the Ingham County reports from eBird, especially its rare bird alerts. This database provides a data on proximity sightings of birds in our immediate area. My own inventory of bird species specifically nesting or utilizing habitat in this site is much more extensive and includes uncommon (indeed some rare) species, including: bald eagle (juveniles), pileated woodpecker, wood duck, great horned owl, barred owl, screech owl, prairie warbler, red breasted nuthatch, rose breasted grosbeak, northern oriole, red bellied woodpecker, flicker, hummingbird, Carolina wren, raven, great blue heron, cooper's hawk, osprey, kingfisher, least flycatcher, eastern bluebird, magnolia warbler, redstart, house finch, purple finch, and more.

In terms of mammals the site hosts fox, coyote, flying squirrel, beaver (but not sighted in recent years), deer, bats, racoon, muskrat, red squirrel, and others. In terms of plants, the site hosts, trillium (red and white), bloodroot, hepatica, skunk cabbage, may apple, trout lily, blue violet, marsh violet, phlox, and more.

Too often assessments of site natural features look at the specific site, without consideration of its placement and configuration in the wider landscape. This site is actually part of a larger corridor (see figures in Appendix) that extends along the Red Cedar River and connects with Herron Creek. In fact, this site is the precise connecting point of these two important natural green corridors and one additional following the Mud Lake drain (see Appendix). This is probably what makes the site so unusual and attractive to unusual wildlife. The Township has delineated the greenspace that follows the Herron Creek around and to the east of the northern part of Indian Lakes Estates as it follows a wetland area into the Red Cedar. But the project site is actually in another spur of this corridor on higher ground. This interesting if not unique landscape positioning of a low, wet connection of the two corridors adjacent to

an upland, *terra firme* connection of the corridors provides a higher diversity of habitat and wildlife users.

To this point, let me raise an issue from the June 8 hearing, when a Commissioner made the observation that all development has adverse effects on wildlife, flora and fauna, and it's a matter of weighing and balancing, but moving ahead without further delay. First, it is important to understand that this kind of response to public concern is insensitive, and somewhat simplistic. Certainly, it is not what I would see as a good working concept for planning in the context of the standards that the Township has set regarding greenspace management and conservation. The point of the Greenspace Plan, for instance is in fact to put natural areas squarely inside the deliberative planning process on equal footing as other considerations of proposals for development. This proposed SUP project will have impact on a greenspace type specifically called out as the focus of conservation management identified in the Master Plan and others: wildlife corridors that link existing natural preserves and key waterways, adjacent wetlands and upland buffers. Contrary to the impression left by the Natural Features Report, this site is an interesting, and I would argue important, place. From a naturalist perspective and in the context of the Township green planning framework, it is part of a corridor with some of the highest landscape qualities. The question of land use change here is more than just about the site per se, but how this piece of land fits into the broader landscape and how it functions in a broader landscape extending beyond the site itself (see Appendix).

I urge the Commission to think beyond an out-dated perspective that we cannot stop progress, we must move forward with haste, and that a single common, unimportant suburban site is no loss in the landscape.

Water Management.

The project site is situated on a veritable island, surrounded (on all sides) by the 100-year floodplain. All sides are designated in zone AE. (see figures in Appendix) Three sides are in the regulated floodway. The base flood elevation is set at 842 feet. From a close inspection of the site plans, as best I can tell the site will be elevated at 845 feet to 850 feet. The site is thus a very low situated impervious service, which raises two general concerns about water impact and water management.

The Hannah Farms developed area and surrounding built-up area is one of the most extensive impervious surface footprints in Meridian Township. Its surface area is approximately 600,000 m² with the new development included, compared to the Meridian Mall complex at Grand River and Marsh/Okemos which is the largest impervious surface comprising approximately 1,100,000 m². For comparison, within this expansive area the Mall itself occupies ~350,000 m², Meijer is ~145,000 m², the Target-Kroger-Home Depot conglomeration is ~245,000 m². The Wall Mart site is ~77,000 m². The large developed area at Jolly and Okemos (actually in Alaiedon Township) is ~630,000 m². Thus, as a distinct impervious surface the Hannah Farms area is the second or third most concentrated water runoff contributor in the Township. I think that warrants very careful consideration about additional large and completely hard surfaces.

The Indian Lakes Estates neighborhood residents are already concerned about increased runoff not only from the Hannah Farms area but throughout the Township. Even the most cursory look at the County drain and fluvial areas shows that the Red Cedar (See figures in Appendix) carries the brunt of most runoff. The County drain system substantially flows into the Red Cedar, and other runoff does as well. The Indian Lakes area is situated at the confluence of three major drainage routes. While total runoff

from the Township contributes substantially to flooding conditions in Indian Lakes, so does the Hannah Farms directly through the Hannah Farms Drain and the Herron Creek Drain.

At the June 8 hearing a representative of the developer made the claim that all runoff water would flow west. This statement was disingenuous at best and perhaps a deliberate mis-statement. Runoff could flow into the Hannah Farm Drain and then west to the Red Cedar River, emptying downstream from Indian Lakes (see Appendix). But with enough water it could also flow east into the Herron Creek, joining flows from the Herron Creek Drain into the large wetland at the cross over of Sequoia Trail and east behind the neighbor hood into the Red Cedar upstream from the neighborhood. At a connection at Indian Lakes close to the so-called Small Acres is the confluence of the Red Cedar, the Hannah Farms/Herron Creek Drain and the Mud Lake Drain (see Appendix). My understanding is that the Mud Lake Drain contains runoff from the Meridian Mall Complex. So, just upstream of Indian Lakes Estates the Red Cedar gets a combined contribution from drains that carry water from the two largest impervious surfaces in the Township.

There have been concerns by residents that storm water runoff and discharge/stage of the Red Cedar has been raising the water table, causing tree mortality. Water logging of trees can lead to tree mortality over a long period of time. This could be an issue, and it would not have been immediately obvious to planners. It is entirely possible that we are only now seeing the effects of decisions made a decade ago. So, I would not discount residents concerns quickly. The picture can be complex in that the ash trees are seeing high mortality due to the EAB infestation. But other species are also falling. Managing of surface water runoff needs new and novel thinking.

I realize a couple of important points here. First, there is a lot of water flowing past Indian Lakes from contributing runoff and drainage further upstream, including the Smith Drain that carries the Jolly/Okemos complex so Hannah Farms is by no means a sole contributor. Second, the use of the Herron Creek wetlands is to some degree sound environmental management; the value of wetlands to buffer flows and filter water has been known and advocated for decades.

The Township Climate Change Sustainability Plan argues that one of the more important expected impacts of climate change will be increased precipitation and flooding. Given the current configuration of the drain and flow system, and the extremely high dependence on the Red Cedar River to carry storm water surge, a concern about flooding – especially in Indian Lakes Estates -- is quite reasonable. Indeed, without engineering flood control measures and structures it seems unlikely that the Red Cedar and the current water management infrastructure will be able to avoid seeing events that closely resemble a 100-year flood with higher probability than 1% per year.

Since 1920, or the past 100 years, there have been 12 major flood events as recorded at the Red Cedar gaging station by the USGS (see figure in Appendix 1). For this example I note all floods above a discharge of 3000 cfs and a stage higher than 8 ft. Two of these occurred in the last two years, one being this past May. The flood of 2018 was the third highest stage in a century. The flood stage of 1975 was the highest and documented air photos and other evidence shows that a major part of the Indian Lakes Estates (not at the time completely constructed) was flooded, as was a portion of the proposed site. I am still reviewing information on how much land was inundated by the 2018 flood.

With climate change it is expected that more frequent floods of stage 8 ft or higher will occur. The FEMA measure of a “one hundred year flood” means that there is a 1% chance of flooding each year. To put this into perspective, over the course of a standard mortgage of 30 years, that would be a 30% chance of

flood. Flood ratings are not done on a frequent basis, and it is entirely conceivable that increased impervious surfaces will exacerbate the increased storm frequency from climate change. The climate change influence is actually rather complicated to model, but most scientists consider the highly “energized” hydrologic cycle that comes with higher surface temperatures would lead to more intense storm events (the influence on hurricanes for instance is largely in their intensity not frequency), which means more rain over a shorter period of time, which is exactly the kind of event that when combined with storm water runoff, causes river stage to rise high and rapidly.

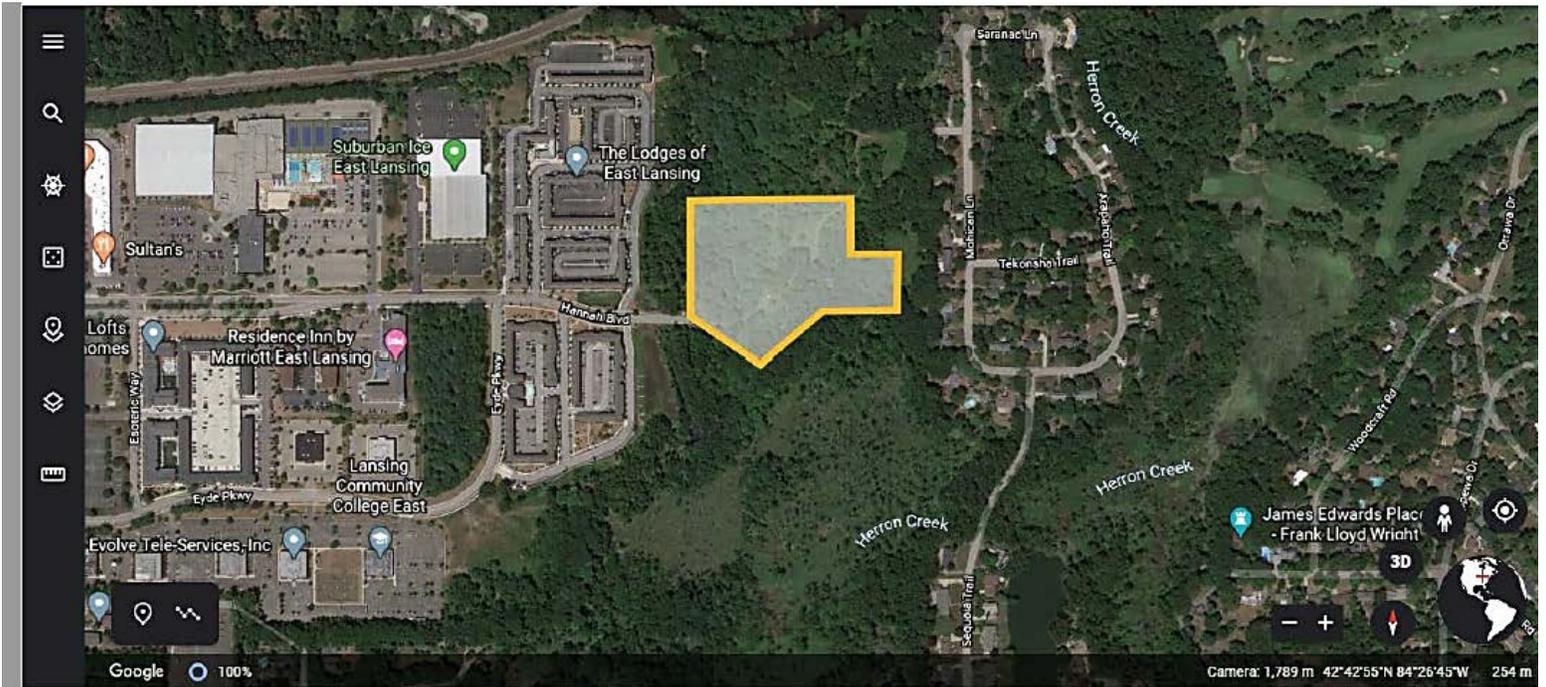
Conclusion

To simply relegate the process of planning to an adage that all development comes at a cost is today an ineffective strategy and would lead to risks that can be avoided. The Township has a long history of bold and responsible planning that considers natural greenspaces, natural resource values and sustainability directly in the planning process, on equal footing with other important factors such as economic and social. With this letter, I have tried to point out specific areas of concern, which I think require careful attention. I would weigh carefully all possible alternatives to the proposed project – even going as far as taking consideration of a purchase agreement with the current owner. I understand that our laws and ordinances have been created to guide the planning process, and all parties need to plan – or negotiate – in good faith following these rules. Let us strive for win-win solutions.

Some specific recommendations include: 1) re-initiate the Natural Features Report so you have a thorough assessment that can actually guide planning, 2) develop a suite of 4 alternatives to this proposed development, including a land preservation option, 3) develop an explicit natural areas and wildlife mitigation plan that will compensate for the loss of corridor function, 4) develop an explicit water management plan, with external independent engineering review, that eliminates storm water runoff and directs water flows downstream of the Indian Lakes Estates, 5) perhaps begin discussions, not necessarily coupled to this project proposal, with the Drain Commissioner on options for engineered flood control in the Township, to alleviate the burden of the Red Cedar and its associate drains.

I appreciate what the Commission has done so far. The set backs are much improved over alternatives. The berm has potential for creating a natural barrier to the visual impact, but I would also look at how it shall block the biological corridor. From what I know there is some willingness to think hard about water management, and new regulations will help with retention strategies. The transport plan is better than some in the past, if there is a way to connect to mass transit.

Let me close by stating that were I a Commissioner I would vote against the provision of a SUP for this project. As Commissioners I recognize that you were elected to work on behalf of residents, and that you will exercise your own judgment and conscience in this decision. Should this project move forward, I hope you will take a renewed diligence to follow it and track it and continue to provide close oversight. The developer needs to make all facets of the through the project completely transparent, especially during the site review. Past projects and developers for the Hannah Farms development have in my view a poor track record sticking to its promises and agreed conditions.



Proposed project site shown in yellow. This outlines the dimensions of the constructed parts of the project, including buildings and parking lots.

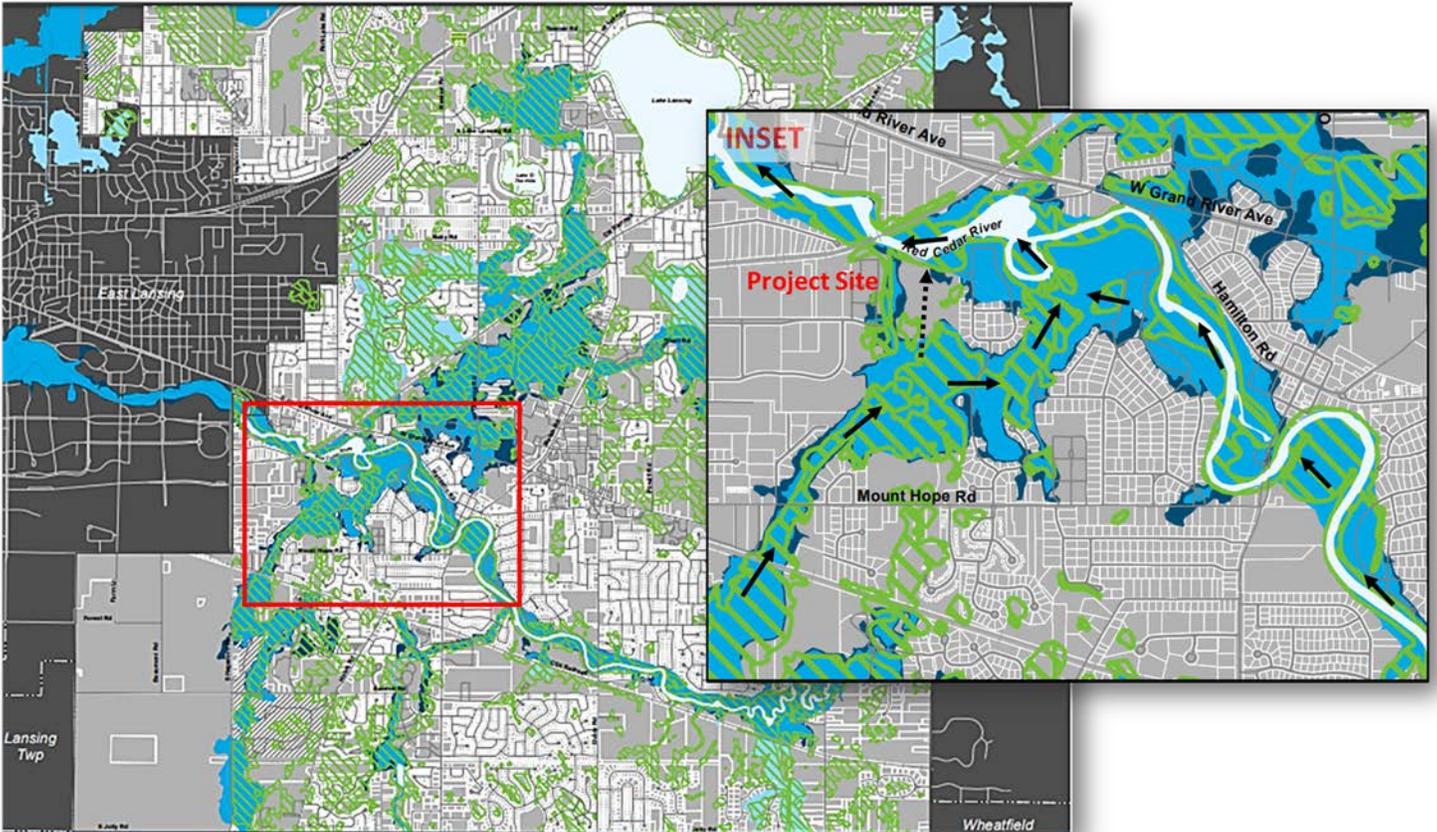
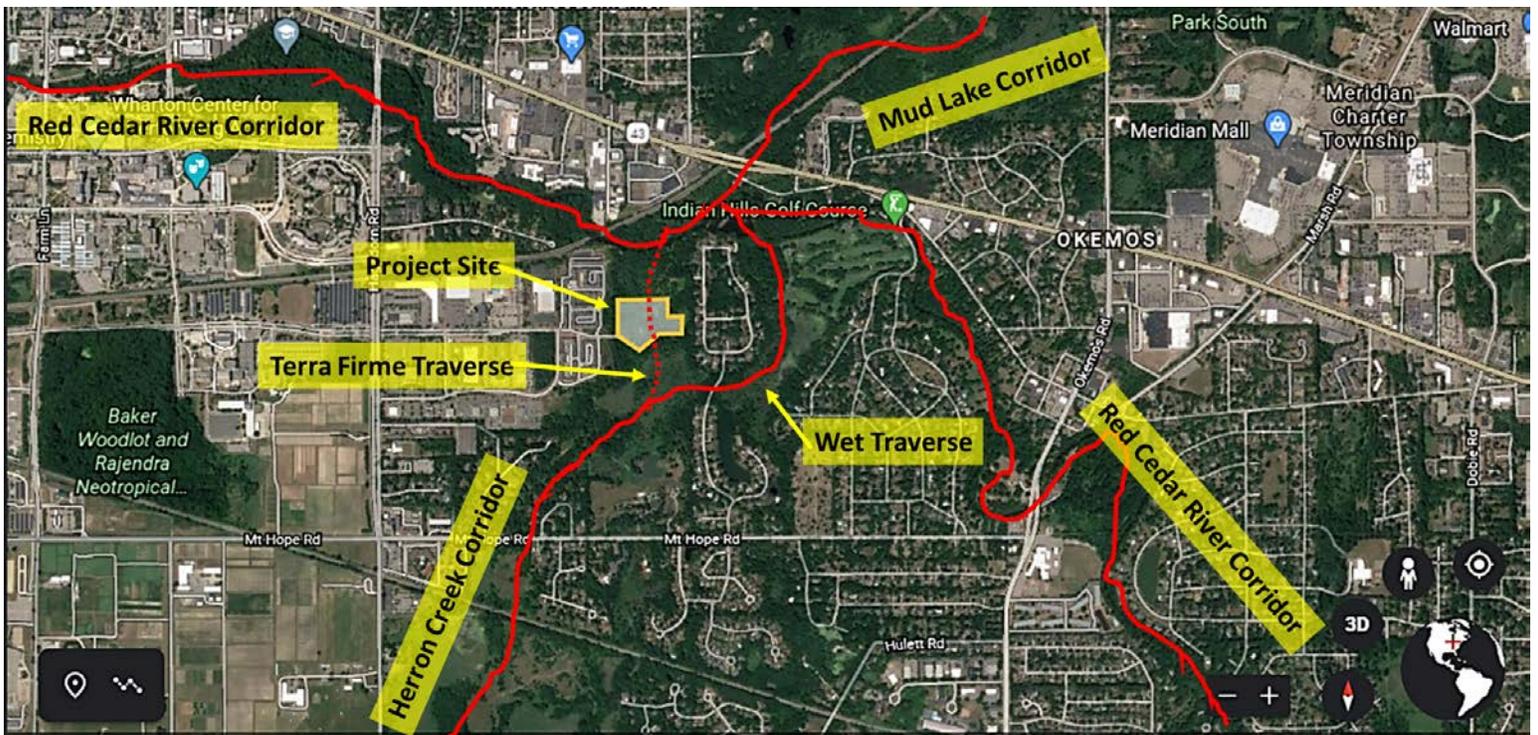
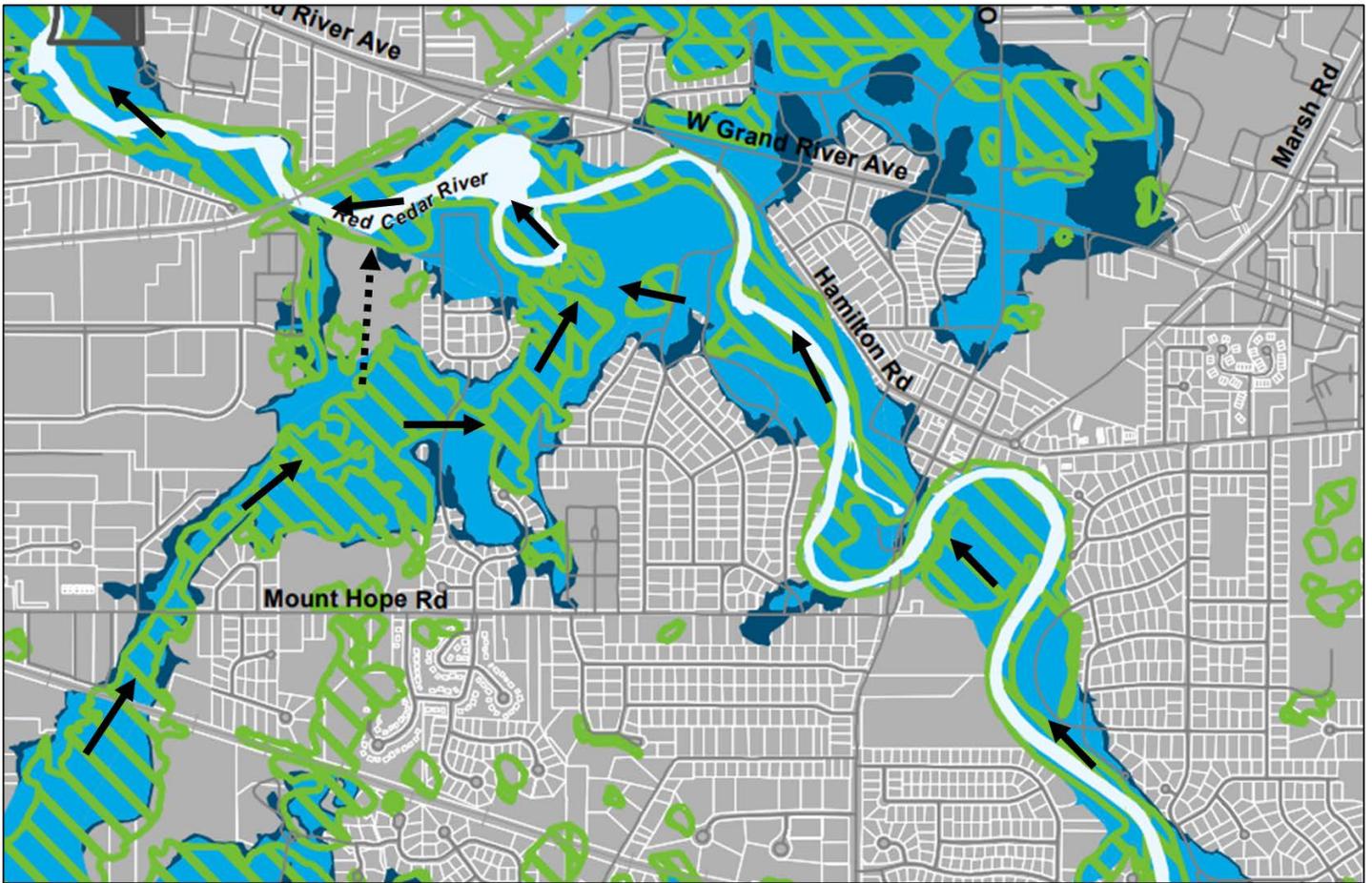
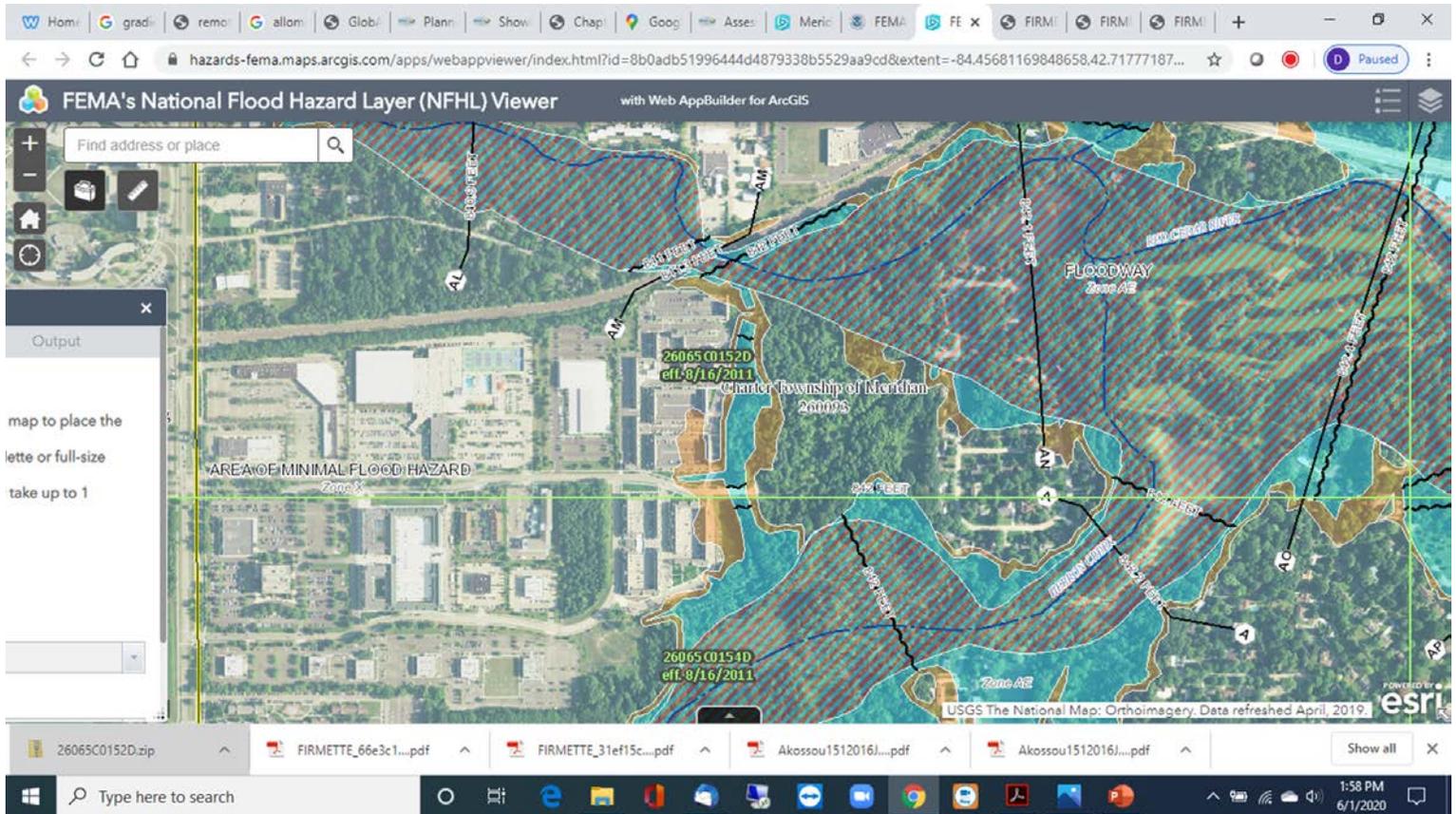


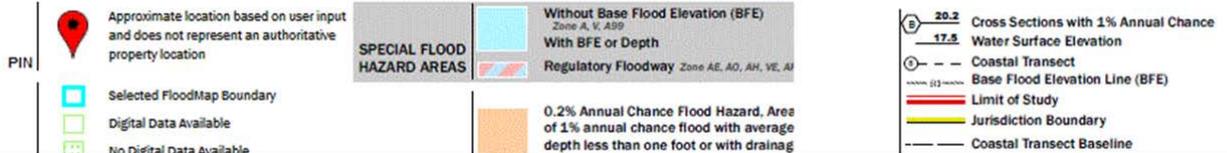
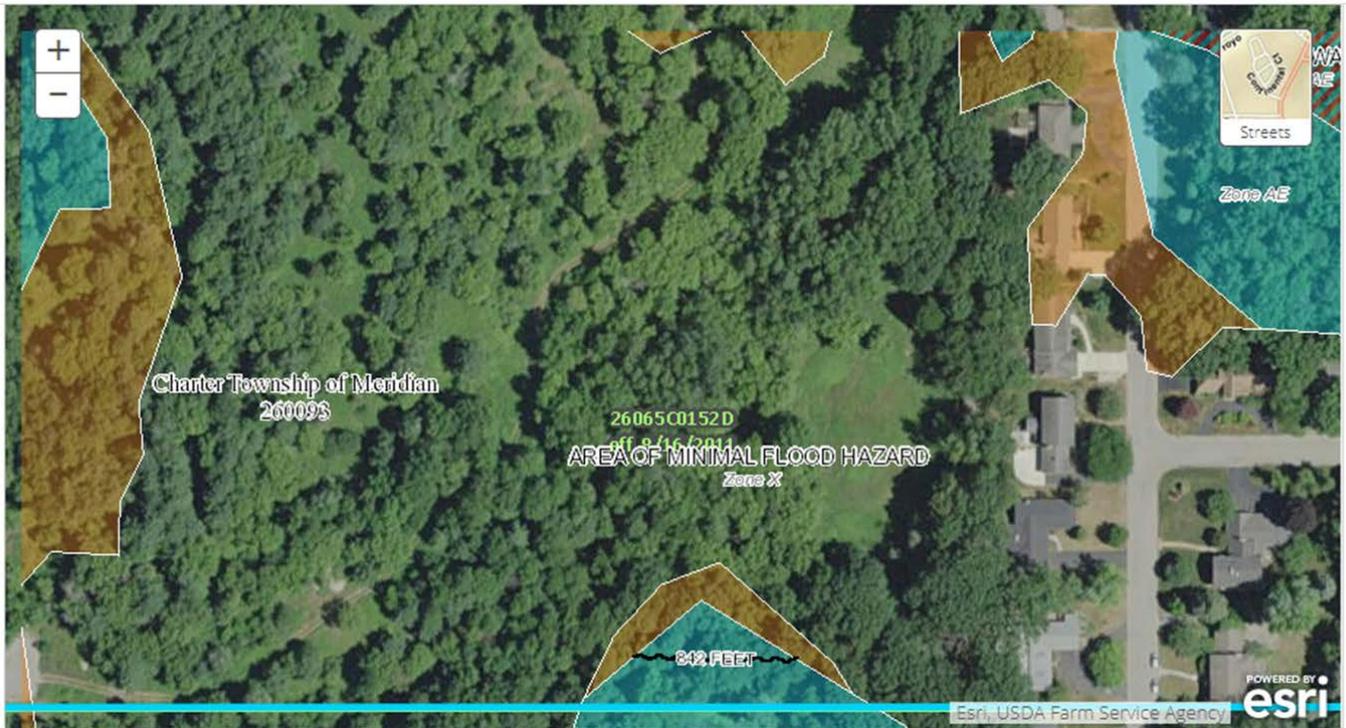
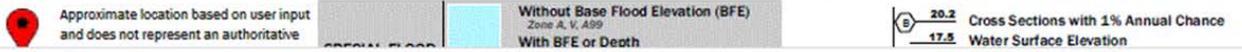
Diagram using Meridian Township Master Plan showing the convergence of three major natural greenspace corridors. The three corridors converge with a nexus of the confluence of Red Cedar River and Herron Creek at the northern part of Indian Lakes Estates and in close proximity with the proposed project. The proposed project presents as a higher ground, terra firme, traverse adjoining with a wet connection. This landscape position makes the site a high-quality natural feature in a broader landscape.



This diagram shows the landscape close to the proposed project, and the three connecting green corridors. The project footprints is shown outlined in yellow. The red lines indicate the corridors, while the dashed red line shows the traverse for terra firme, and its juxtaposition with the wet corridor, providing a diverse landscape features.



Wide view from FEMA mapping of the community surrounding the project site. The project sites is an island surrounded by zoned AE, 100-year flood, with the regulated floodway shown as cross hatching. Blue shaded areas are also zone AE. The base flood elevations as cross sections are shown as wavy black lines at 842 feet. The large impervious surface of the Hannah Farms development area writ large, is shown to the west. It is the second largest impervious surface in the Township. The diagrams that follow are zoom perspectives.



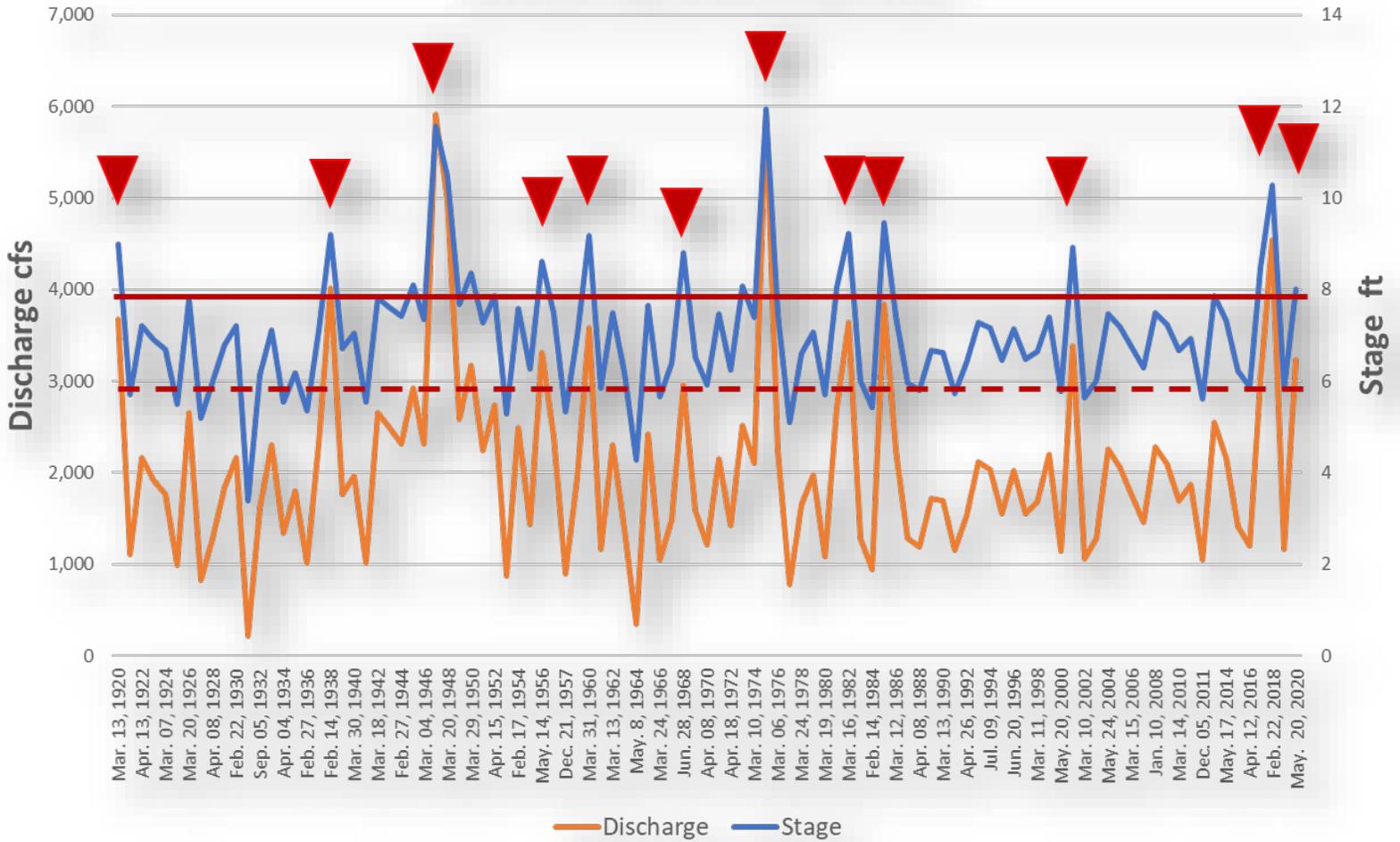


Drainage system for the area surrounding the project site and the Indian Lakes Estates. It shows three important drains, the Hannah Farms drain (A), the Herron Creek Drain (B) and the Mud Lake Drain (C). These converge at the area of “small acres”. The Hannah Farms drain can flow west to the Red Cedar downstream of Indian Lakes Estates, and east through Indian Lakes Estates, joining the Herron Creek drain at the low wetland.



The wider perspective of township drains with water from the Mall as well as other surrounding lands east and south draining into the Red Cedar at the Indian Lakes and the project site (please rotate)

Red Cedar Stage and Discharge History



I created this diagram using the USGS gaging station daily records at the Red Cedar station very close to the project site to plot the peak discharge and peak stage for the last 100 years. The Stage is the height above the regular flow shown in blue. The discharge is amount of water flow shown in orange. The red solid line is set at a discharge of 3000 cfs and the red solid line is set at a stage of 8 ft. Note that there were 12 major floods at the project site, as marked with a triangle. Two were recent, in 2018 and 2020.



To: Planning Commission

From: Peter Menser, Principal Planner

Date: June 16, 2020

Re: Special Use Permit #20031 (McCreary's Healthy Homes and Cars), establish car detailing service in an existing building at 1477 Haslett Road.

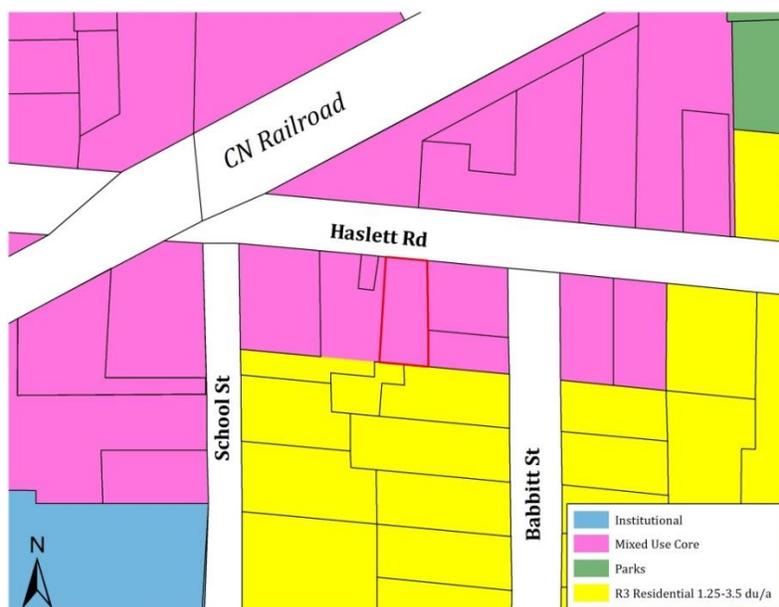
McCreary's Healthy Homes and Cars has requested special use permit (SUP) approval to establish a car detailing service in an existing 4,800 square foot building located at 1477 Haslett Road. The applicant currently operates a carpet, air duct, and upholstery cleaning service on the site but is interested in adding car detailing to the list of services provided. The 0.170 acre subject site is zoned C-2 (Commercial).

The proposed service as described in the SUP application materials would include a customer bringing a vehicle to the site, McCreary staff parking the car inside the building for detailing, then the vehicle would be picked up by the customer afterwards. The applicant has indicated no more than three cars per day will be accepted for detailing.

Master Plan

The Future Land Use Map from the 2017 Master Plan designates the subject property in the Mixed Use Core category. The proposed use is consistent with the future land use Institutional category.

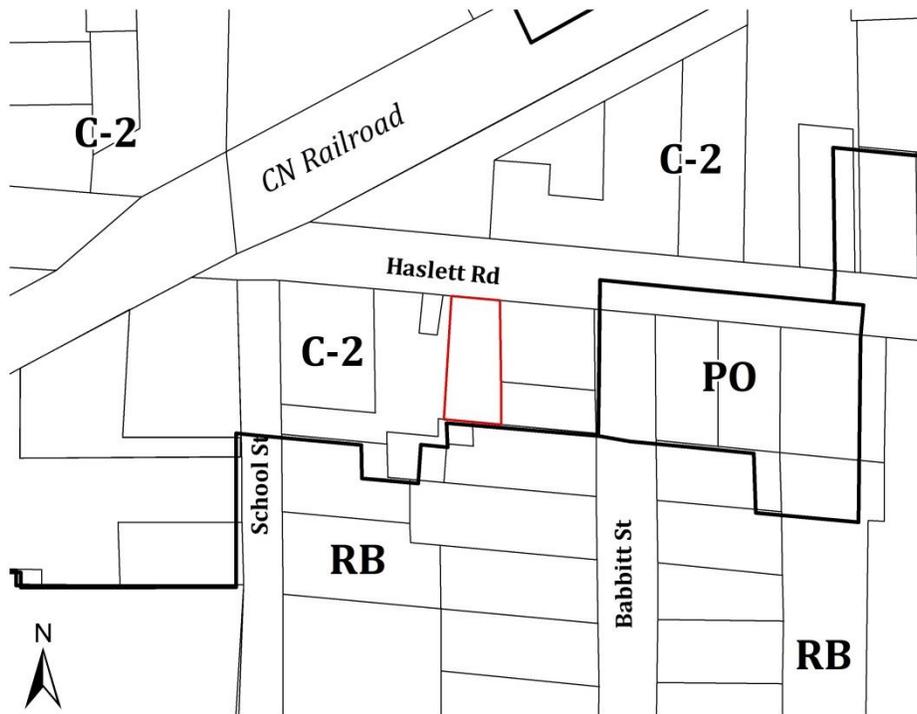
FUTURE LAND USE MAP



Zoning

Car washes are allowed by special use permit in the C-2 zoning district. The subject site is zoned C-2 (Commercial) which requires a minimum of 100 feet of lot frontage and 4,000 square feet of lot area. The subject site has 51 feet of lot frontage along Haslett Road and 7,405 square feet, or 0.170 acre, of lot area. While the lot does not conform to the minimum lot width standard of the C-2 zoning district, no building addition or rearrangement of lot lines is proposed, therefore the undersized parcel is not an issue with regards to the proposal for a SUP.

ZONING MAP



Physical Features

The approximate 0.170 acre site is located on the south side of Haslett Road, east of School Street. The site is developed with a 4,800 square foot building constructed in 1932 and renovated in 2016 when McCreary’s began leasing the building. To the immediate south of the property is a 0.084 acre parcel owned by the same property owner as 1477 Haslett Road. That parcel is developed with a 1,058 square foot accessory building constructed in 1932, which is used for storage. The site does not have any special designation on the Township Greenspace Plan and is not located in a floodplain or near any wetlands.

Streets and Traffic

The approximate 0.170 acre site is located on the south side of Haslett Road, between School Street and Babbitt Street. Access to the site is provided in two locations; a narrow alley off Haslett Road and an 18 foot easement out to School Street. A seven foot wide pathway is installed along the Haslett Road frontage. The building also has a garage door on the Haslett Road facade.

Haslett Road is two lanes wide with curb and gutter installed but no center turn lane in the area of the subject property. It is classified as a Minor Arterial Street, which requires a setback of 100 feet from the centerline of the right-of-way. Limited on-street public parking is available on both the north and south sides of Haslett Road in the immediate vicinity.

The most recent (2010) traffic count information from the Michigan Department of Transportation (MDOT) Annual Average Daily Traffic (AADT) map showed a total of 4,614 two-way vehicle trips in a 24 hour period on this segment of Haslett Road.

A traffic assessment is required for new special uses or an expansion or change of an existing special use where increase in intensity would generate between 50 to 99 directional trips during a peak hour of traffic. A peak hour of traffic is the hour of the highest volume of traffic entering and exiting the site during a.m. or p.m. hours. Based on the limited amount of traffic resulting from the addition of the car wash service to the existing business a traffic assessment is not required for this project.

Parking

The application materials indicate a total of 11 parking spaces available for the business; six in the building and five outdoor spaces located south of the building. The site plan provided by the applicant differs slightly and notes there are four spaces in the building and five spaces behind the building. A staff site visit indicated none of the outdoor parking spaces are striped. The site plan also indicates two on-street spaces along Haslett Road; however those spaces are available to the public and are not owned by the applicant and therefore cannot be reserved for exclusive use by the business. Removing the two on-street parking spaces leaves the site with nine total parking spaces.

Section 86-755 of the Township Code of Ordinances provides requirements for both automatic and self-serve car washes. For automatic car washes 15 standing (stacking) spaces for each washing bay plus one space for each two employees is required. For self-service car washes three standing spaces for each washing bay plus one space for each 2 employees is required. Due to the limited nature of the proposed new use in an existing building the Township is not requiring any additional parking for the car detailing service. The applicant will be limited to using the existing on-site parking. If the need arises the applicant could seek out arrangements with adjacent property owners to potentially share parking via a formal shared parking agreement.

Utilities

The site is served by public water and sanitary sewer.

Staff Analysis

Section 86-126 of the Code of Ordinances, the general special use permit criteria, should be used by the Planning Commission in considering the proposed request. There are specific standards for drive-in car washes, both automatic and self-service, in the C-2 zoning district noted in Section 86-404(e)(13)(c) of the Code of Ordinances, which are as follows:

1. In self-service car washes, no equipment, such as a vacuum cleaner, shall be located in the front yard.
2. Buildings shall be set back a minimum of 500 feet from an abutting residential district.
3. Storage of flammable products. Outside aboveground tanks for the storage of gasoline, oil or other flammable liquids or gases, other than liquid petroleum gas, for sale shall be prohibited.
4. Car washes, including self-service types, shall not be allowed to operate so as to adversely affect the adjacent residential properties and surrounding area.

The above standards are intended to regulate a stand-alone car wash, not one that is provided as part of another business. Application materials indicate, and site conditions dictate, that all activities be carried out inside the building. It is staff's opinion that the above standards in this case do not apply to the current SUP request. The Planning Commission does however have the ability to place conditions on the SUP to ensure there are no conflicts between the car detailing service and adjacent residences or businesses. Planning staff suggests the Planning Commission consider the following conditions for the proposed SUP:

- Limit the number of vehicles detailed per day to no more than three
- All activities shall take place only inside the building
- Any exterior doors must remain closed while vehicles are being detailed to limit noise impacts to adjacent properties
- All exterior parking spaces shall be striped
- No vehicles being detailed shall enter or exit the property via the garage door on Haslett Road

Planning Commission Options

The Planning Commission may approve, approve with conditions, or deny the special use permit. A resolution will be provided at a future meeting.

Attachments

1. Special use permit application and attachments.
2. Site plan prepared by Kebs, Inc. dated November 12, 2019 (revision date November 26, 2019) and received by the Township on February 12, 2020.
3. Floor plans prepared by RMD Architects, dated June 6, 2019 and received by the Township on June 7, 2019.

**CHARTER TOWNSHIP OF MERIDIAN
DEPARTMENT OF COMMUNITY PLANNING AND DEVELOPMENT
5151 MARSH ROAD, OKEMOS, MI 48864
PLANNING DIVISION PHONE: (517) 853-4560, FAX: (517) 853-4095**

SPECIAL USE PERMIT APPLICATION

Before submitting this application for review, an applicant may meet with the Director of Community Planning and Development to discuss the requirements for a special use permit and/or submit a conceptual plan for review to have preliminary technical deficiencies addressed prior to submittal of the application. If the property or land use is located in the following zoning districts RD, RC, RCC, RN then the applicant must meet with the Planning Director to discuss technical difficulties before filing a formal application.

Part I

- A. Applicant McCreary's Healthy Homes and Cars KURT SKINNER
 Address of Applicant 1477 Haslett Rd., Haslett, MI 48840
 Telephone - Work 517. 484. 6908 Home 517. 673 - 6224 Fax _____ Email Kurt@McCrearys
 Interest in property (circle one): Owner **Tenant** Option Other Healthy Homes. com
 (Please attach a list of all persons with an ownership interest in the property.)
- B. Site address / location / parcel number 1477 Haslett Road / Haslett / 33-02-02-11-303-00
 Legal description (please attach if necessary) See plan for legal description
 Current zoning C-2
 Use for which permit is requested / project name _____
 Corresponding ordinance number _____
- C. Developer (if different than applicant) Same
 Address _____
 Telephone - Work _____ Home _____ Fax _____
- D. Architect, Engineer Planner or Surveyor responsible for design of project if different from applicant:
 Name KEBS, Inc.
 Address 2116 Haslett Road, Haslett, MI 48840
 Telephone - Work 517. 339 - 1014 Home 517. 819. 5338 Fax 517. 339. 8047
- E. Acreage of all parcels in the project: Gross 0.25 Net 0.25 acres
- F. Explain the project and development phases: See attached description from applicant.
- G. Total number of:
 Existing: structures 2 bedrooms _____ offices _____ parking spaces 11 carports 0 garages 2
 Proposed: structures _____ bedrooms _____ offices _____ parking spaces _____ carports _____ garages _____
- H. Square footage: existing buildings 5460 + 980 = 6,440 SF proposed buildings N/A
 Usable Floor area: existing buildings _____ proposed buildings N/A
5,474 SF
- I. If employees will work on the site, state the number of full time and part time employees working per shift and hours of operation: See attached description from applicant.
- J. Existing Recreation: Type None Acreage 0
 Proposed Recreation: Type None Acreage 0
 Existing Open Space: Type Grass - 2,208 SF Acreage 0.051 Acres
 Proposed Open Space: Type Grass - 2,208 SF Acreage 0.051 Acres

M. Any other information specified by the Director of Community Planning and Development which is deemed necessary to evaluate the application.

N/A N. In addition to the above requirements, for zoning districts, **RD, RC, RCC, RN, and CV** and **Group Housing Residential Developments** the following is required:

1. Existing and proposed contours of the property at two foot intervals based on United States Geological Survey (USGS) data.
2. Preliminary engineering reports in accordance with the adopted Township water and sewer standards, together with a letter of review from the Township Engineer.
3. Ten copies of a report on the intent and scope of the project including, but not limited to: Number, size, volume, and dimensions of buildings; number and size of living units; basis of calculations of floor area and density and required parking; number, size, and type of parking spaces; architectural sketches of proposed buildings.
4. Seven copies of the project plans which the Township shall submit to local agencies for review and comments.

N/A O. In addition to the above requirements, a special use application in zoning district **RP** requires the following material as part of the site plan:

1. A description of the operations proposed in sufficient detail to indicate the effects of those operations in producing traffic congestion, noise, glare, air pollution, water pollution, fire hazards or safety hazards or the emission of any potentially harmful or obnoxious matter or radiation.
2. Engineering and architectural plans for the treatment and disposal of sewerage and industrial waste tailings, or unusable by-products.
3. Engineering and architectural plans for the handling of any excessive traffic congestion, noise, glare, air pollution, or the emission of any potentially harmful or obnoxious matter or radiation.

N/A P. In addition to the above requirements, a special use application for a use in the Floodway Fringe of zoning district **CV** requires the following:

1. A letter of approval from the State Department of Environmental Quality.
2. A location map including existing topographic data at two-foot interval contours at a scale of one inch representing 100 feet.
3. A map showing proposed grading and drainage plans including the location of all public drainage easements, the limits, extent, and elevations of the proposed fill, excavation, and occupation.
4. A statement from the County Drain Commissioner, County Health Department, and Director of Public Works and Engineering indicating that they have reviewed and approved the proposal.

N/A Q. In addition to the above requirements, a special use application for a use in the Groundwater Recharge area or zoning district **CV** requires the following:

1. A location map including existing topographic data at two-foot interval contours.
2. A map showing proposed grading and drainage plans including the location of all public drainage easements, the limits and extent of the proposed fill, excavation, and occupation.
3. A statement from the County Drain Commissioner, County Health Department, and Director of Public Works and Engineering indicating that they have reviewed and approved the proposal.

N/A R. In addition to the above requirements, the Township Code of Ordinances, Article VI, should be reviewed for the following special uses: group housing residential developments, mobile home parks, nonresidential structures and uses in residential districts, planned community and regional shopping center developments, sand or gravel pits and quarries, sod farms, junk yards, sewage treatment and disposal installations, camps and clubs for outdoor sports and buildings greater than 25,000 square feet in gross floor area.

Part II

SUP REQUEST STANDARDS
Township Code of Ordinances, Section 86-126

Applications for Special Land Uses will be reviewed with the standards stated below. An application that complies with the standards stated in the Township Ordinance, conditions imposed pursuant to the Ordinance, other applicable Ordinances, and State and Federal statutes will be approved. Your responses to the questions below will assist the Planning Commission in its review of your application.

- (1) The project is consistent with the intent and purposes of this chapter.
(2) The project is consistent with applicable land use policies contained in the Township's Master Plan of current adoption.
(3) The project is designed, constructed, operated, and maintained so as to be harmonious and appropriate in appearance with the existing or intended character of the general vicinity and that such a use will not change the essential character of the same area.
(4) The project will not adversely affect or be hazardous to existing neighboring uses.
(5) The project will not be detrimental to the economic welfare of surrounding properties or the community.
(6) The project is adequately served by public facilities, such as existing roads, schools, stormwater drainage, public safety, public transportation, and public recreation, or that the persons or agencies responsible for the establishment of the proposed use shall be able to provide any such service.
(7) The project is adequately served by public sanitation facilities if so designed. If on-site sanitation facilities for sewage disposal, potable water supply, and storm water are proposed, they shall be properly designed and capable of handling the longterm needs of the proposed project.
(8) The project will not involve uses, activities, processes, materials, and equipment and conditions of operation that will be detrimental to any persons, property, or the general welfare by reason of excessive production of traffic, noise, smoke, fumes, glare, or odors.
(9) The project will not directly or indirectly have a substantial adverse impact on the natural resources of the Township, including, but not limited to, prime agricultural soils, water recharge areas, lakes, rivers, streams, major forests, wetlands, and wildlife areas.

Part III

I (we) hereby grant permission for members of the Charter Township of Meridian's Boards and/or Commissions, Township staff member(s) and the Township's representatives or experts the right to enter onto the above described property (or as described in the attached information) in my (our) absence for the purpose of gathering information including but not limited to the taking and the use of photographs.

[] Yes [] No (Please check one)

By the signature(s) attached hereto, I (we) certify that the information provided within this application and accompanying documentation is, to the best of my (our) knowledge, true and accurate

[Handwritten Signature]
Signature of Applicant

01/29/2020
Date

Kurt Skinner
Type/Print Name

Fee: _____

Received by/Date: [Handwritten Signature] 2-13-20

**Special Use Permit Responses
McCreary's Healthy Homes and Cars**

- 1.) The project is consistent with the intent and purposes of the Township ordinance. The building is existing and there are no planned changes to the existing site. The use of the building is leased for commercial use only.
- 2.) The project is consistent with current land use policies in the Township's comprehensive development plan. The commercial use is consistent with the current land use.
- 3.) The project is to be designed, constructed, operated, and maintained so as to be harmonious and appropriate in appearance with the existing and intended character of the area and will not change the essential character of the area. The proposed project consists of a building that has been in existence for quite some time. The building front has been updated to improve the character of the building. It will maintain the wooded buffer and fence screen at the South end of the property and still provides the ability to walk along the existing sidewalk along Haslett Road.
- 4.) The project will not adversely affect or be hazardous to existing neighboring uses. The proposed project will not change the existing character of the area or provide any hazards to the existing neighbors.
- 5.) The project will not be detrimental to the economic welfare of surrounding properties. The proposed project will not reduce the values of adjacent properties. There is essentially no change to the area.
- 6.) The project is adequately served by public facilities. The existing building is serviced by public water and sanitary facilities. There are no proposed changes to utilities.
- 7.) The project is adequately served by public sanitation facilities. Public sanitary and water mains are located near the building and have sufficient capacity to support the business.
- 8.) The project will not be detrimental to persons, property, or general welfare from excessive traffic, noise, smoke, fumes, glare, or odors. The proposed project will not generate much traffic since it is by appointment only. Several cars that may be detailed may even be picked up by the owners and brought to the building, then returned. No manufacturing or construction operations are being proposed. No other activities, processes, materials, or equipment is proposed which would produce excessive glare, noise, odors, or fumes.
- 9.) The project will not directly or indirectly create adverse impacts on natural resources of the Township. The proposed project will not create impacts to the Townships' natural resources as there are no proposed changes to the site.

COMMERCIAL LEASE AGREEMENT

This Lease is made between Perla Properties, LLC "Lessor", and McCreary's Healthy Homes, Inc. "Tenant". Tenant hereby offers to lease from Lessor the real property located in the City of Haslett, State of Michigan, with an address of 1477 Haslett Road, Haslett, MI 48840, (the "Real Property"), upon the following terms and conditions. (This document shall hereafter be referred to as the "Lease").

TERMS AND CONDITIONS

- 1. Term and Rent.** Lessor leases to Lessee the above Real Property for a term of ^{1 Year} ~~5 years~~, commencing on January 1st, 2020 and terminating or renewing on December 31st, 2022, with the monthly rental amount being \$1,600.00 (sixteen-hundred dollars), payable by the fifteenth (15th) day of the months April through December for rent payment, during the term of this Lease and all renewals.
- 2. Option to Renew.** Provided that Tenant is not in default in the performance of this Lease, Tenant shall have the option to renew the Lease for additional term of twelve months commencing at the expiration of the initial Lease term. All terms and conditions of the Lease shall apply during the renewal period.
- 3. Use.** Tenant shall use and occupy the Real Property for the commercial purpose of McCreary's Healthy Homes and affiliate businesses. The Real Property shall be used for no other purpose.
- 4. Care and Maintenance of Real Property.** Tenant acknowledges that the Real Property is in good order and repair. Tenant shall, at his own expense and at all times, maintain the Real Property in good and safe condition and upon the Real Property and shall surrender the same, at termination hereof, in as good condition as received, normal wear and tear excepted.
- 5. Utilities.** All applications and connections for necessary utility services on the Real Property shall be made in the name of Tenant only, and Tenant shall be solely liable for utility charges as they become due, including those for sewer, water, gas, electricity, and telephone services.
- 6. Entire Agreement.** The foregoing constitutes the entire agreement between the parties and may be modified only by a writing signed by both parties.

LESSOR:

By: 

Tim Pearle / Agent
Printed Name and Title

1-27-2020
Date

TENANT:

By: 

Kurt Skinner / President
Printed Name and Title

1-27-2020
Date



**MCCREARY'S
HEALTHY HOMES**
ultimate carpet, upholstery & indoor air quality

February 13, 2020

Greg Petru
KEBS, Inc.
2116 Haslett Road
Haslett, MI 48840

Mr. Petru,

McCreary's Healthy Cars is an appointment only, full-service based auto spa. We would like to offer hand wash services of exterior including wax and other protective applications, full detail inside with carpet and upholstery cleaning on vehicles. All services would be by appointment only with a maximum of three vehicles per day. The inside of the business is capable of parking more than six vehicles at a time if the need arises due to parking lot congestion. The office currently has five spaces behind the building as well. There are sufficient parking spaces to accommodate the Healthy Cars portion of the business, as well as our employees and business vehicles. All customer traffic will enter/exit the building from the rear of the building for safety precautions.

I hope this summarizes the plans we have for the business and building. Please let me know if you have any further questions.

Kurt Skinner

Kurt Skinner

President

McCreary's Healthy Homes & Cars

RECEIVED
FEB 13 2020



Standard Operations
McCreary's Healthy Homes and Cars

McCreary's Healthy Cars business hours will be Monday through Friday from 9:00am to 5:00pm. Eventually we would also like to offer Saturday hours from 9:00am to 3:00pm.

All auto detailing will be by appointment only, with a maximum of three (3) vehicles per day. There will only be one vehicle cleaned at a time.

1. Client will park their vehicle in one of the spaces available behind the building.
2. Client will come into the office to check their vehicle in and provide the keys to their vehicle to our administrative staff.
3. The Detailer will be notified of the vehicle and given the keys.
4. The Detailer will drive the vehicle in our building via the rear entrance.
5. Detailing will begin and last between one (1) and six (6) hours.
6. When detailing is completed, the Detailer will leave the vehicle inside the building until the client returns to pick up their vehicles. Keys will be left with the administrative staff in the office.
7. Client will be notified that detailing has been completed and to come to the office to pick up their keys.
8. Client will collect keys from Administrative staff and leave.



Site Plan Requirements
McCreary's Healthy Homes and Cars

- A.) Boundaries of the subject property:
McCreary's Healthy Cars will be located inside the current structure housing McCreary's Healthy Homes, Inc. The property is between Haslett Law Office (West), Petite Beauty Boutique (East) and across the street from Haslett Hot Yoga (North).
- B.) Total area of the subject property:
McCreary's Healthy Homes, Inc. is 5,573 Square Feet
- C.) Location of all existing and proposed structures:
1477 Haslett Road, Haslett, MI 48840
- D.) Approximate location and distance of all structures within 100 feet of the subject property.
Haslett Hot Yoga – 1476 Haslett Road, Haslett, MI 48840 is approximate 50 feet North.
Petite Beauty Boutique – 1473 Haslett Road, Haslett, MI 48840 is approximately 10 feet East.
Haslett Law Offices – 1483 Haslett Road, Haslett, MI 48840 is approximately 10 feet West.
American Legion – 1485 Haslett Road, Haslett, MI 48840 is approximately 20 feet West.
- E.) Uses of existing and proposed buildings, on the subject site.
The current use of the proposed portion of the building is being used for parking of company vehicles, an employee exercise area, and storage for cleaning products and equipment used for McCreary's Healthy Homes.

If the permit application is accepted, we will then begin to wash and detail vehicles on the North side of the building, where the single-unit bay is located.
- F.) Proposed means of vehicular and pedestrian ingress and egress to the subject property.
Egress traffic varies based on scheduled jobs day to day. To start the day up to seven vehicles (employees and Owners) are parked in the back of the subject property. Depending on the schedule, up to three company vehicles may leave the shop to attend to jobs scheduled for McCreary's Healthy Homes. At the end of the day, all company vehicles return and park in the shop and employee and Owner vehicles vacate the premises.



Proposed means of vehicular and pedestrian ingress and egress to the subject property. – **Continued**

Ingress traffic will vary based on their being up to three auto details per day. A maximum of three vehicles may come in and may exit out of the North bay on to Haslett Road daily.

- G.) Public and private roads and streets, rights-of-way, and easements, indicating names and widths, which abut or cross the site.

McCreary's Healthy Homes, Inc. front office subject property is abut to Haslett Road.

- H.) Existing and proposed parking spaces, and vehicular and pedestrian circulation patterns.

There are five (5) available parking spaces in the rear of the building and room for at minimum six (6) vehicles inside the building. There will be no disturbance to the current vehicular and pedestrian circulation patterns, as there will only be one vehicle being serviced at a time.

- I.) The buildable area of the subject property indicating all required setbacks, yard and open space.

There would be no need for anything to be built, so there would be no inconvenience at the community.

- J.) Zoning classification of the subject and adjacent properties.

C-2

- K.) Existing and proposed fencing, screening, landscaping and buffers.

The only existing landscaping is in the rear (South) of the subject property along the back and a very small area in the front (North) of the subject property. There will be no need for any fencing, screening, landscaping or buffers.

- L.) Amount and location of all impervious surfaces

There would be no areas or boundaries with impervious surfaces.

Perla Properties, LLC
2214 University Park Dr.
Okemos, MI 48864

August 26, 2019

Meridian Township
5151 Marsh Rd
Okemos, MI 48864

To Whom it May Concern:

McCreary's Heathy Homes, Inc. is my tenant in the building located at 1477 Haslett. I am aware of their request for a special user permit to perform car detailing at that location. I support their request for the special use permit.

If you are not familiar with the history of 1477 Haslett Rd, it was formerly the home Macgillvray Chevrolet the birthplace of the Capitol City Corvette Club. The building was expanded sometime during the 1950's to include 6 auto service bays in the back section of the building.

I have included a picture of a Capital City Corvette Club gathering outside the building

Sincerely

Tim Pearl



1961 - Capital City Corvette Club

MCCRERY'S HEALTHY HOMES AND CARS

MERIDIAN TOWNSHIP, INGHAM COUNTY, MICHIGAN

APPLICANT:
MCCRERY'S HEALTHY HOMES
427 HASLETT ROAD
MERRILL, MI 49860
PH:(517) 673-6224

ENGINEER/SURVEYOR:
KEBS, INC.
216 HASLETT ROAD
MERRILL, MI 49860
PH:(517) 339-1014

LANDOWNER:
PERLA PROPERTIES, LLC
2214 UNIVERSITY PARK DR., SUITE 102
OKEMOS, MI 48864

SITE DATA

PROPOSED USE: AUTOMOTIVE AND HOME CLEANING SERVICE WITHIN THE EXISTING BUILDING. BUSINESS IS BY APPOINTMENT ONLY.

TOTAL SITE AREA = 10,944 SF = 0.25 ACRES
(PARCELS: 33-02-02-11-303-004 (& 006))
ZONED C-2 (GENERAL COMMERCIAL)

BUILDING SETBACKS (EXISTING)

FRONT - 0.4 FEET
SIDES - 2.34 FEET (TO WEST)
REAR - 1.84 FEET (TO EAST)
VARIES, SEE PLAN

BUILDING/JUNIT DATA

EXISTING FLOOR AREA = 45,460 S.F. (MAIN BLDG.)
EXISTING FLOOR AREA = 1980 S.F. (REAR BLDG.)

PARKING

PROPOSED: (2 EMPLOYEES ON SITE, 4 CARS MAXIMUM TO BE DETAILED PER DAY)
PARKING AVAILABLE: (2) PARALLEL SPACES ALONG HASLETT ROAD, (5) SPACES BEHIND THE BUILDING AND (4) SPACES AVAILABLE INSIDE THE BUILDING.
TOTAL PROVIDED = 11 SPACES

OPEN SPACE

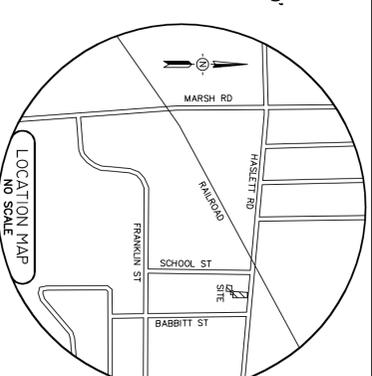
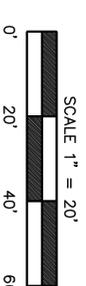
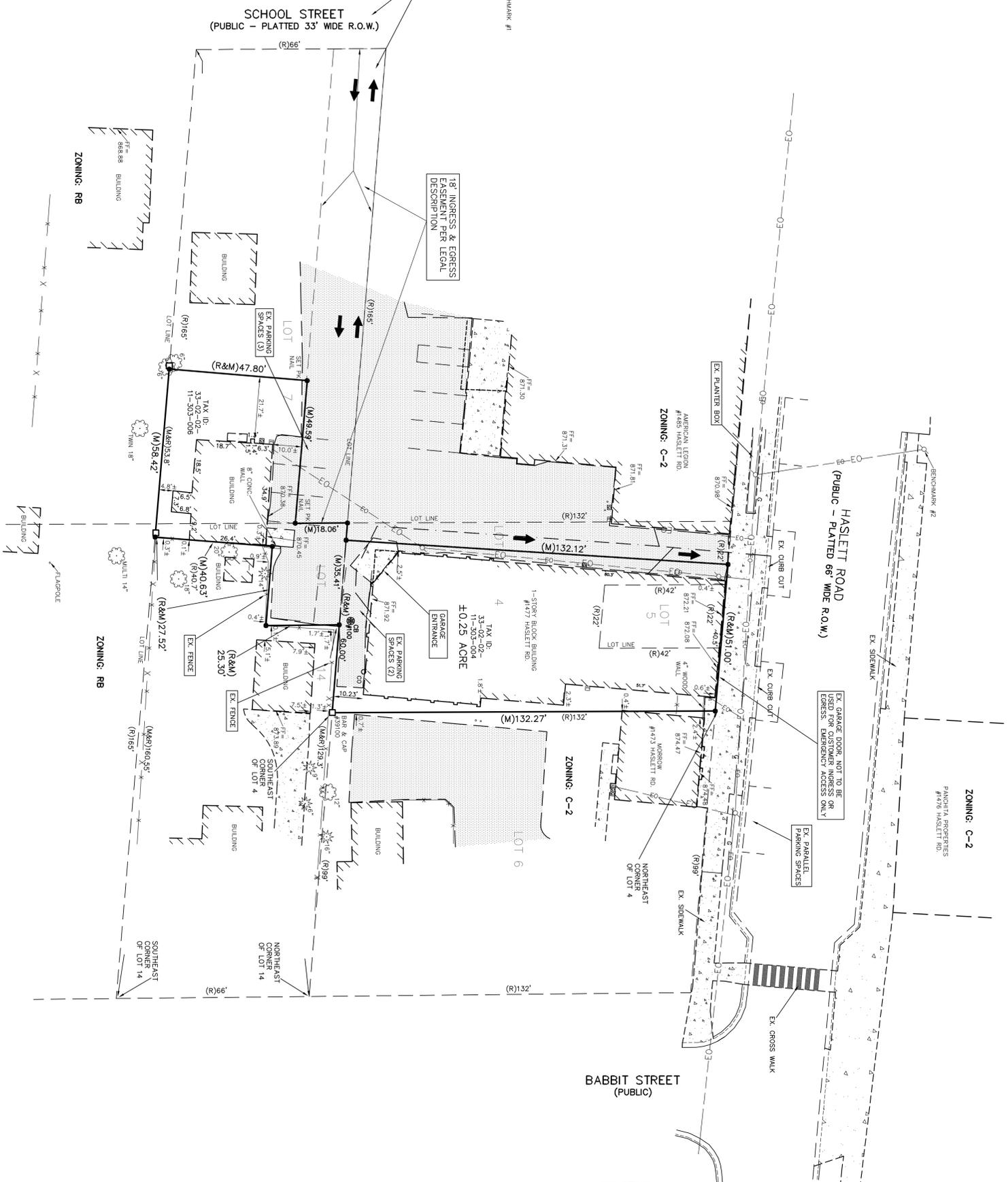
2,208 SF (PREVIOUS AREA): 20.18%
8,736 SF (IMPERVIOUS AREA): 79.82%

UTILITIES

WATER: EX. PUBLIC WATER MAIN
SANITARY: EX. PUBLIC SANITARY
STORM: EX. STORM SEWER

ALL CUSTOMER AND EMPLOYEE ACCESS TO THE BUILDING SHALL BE FROM SCHOOL STREET

18' INGRESS & EGRESS EASEMENT PER LEGAL DESCRIPTION



LEGAL DESCRIPTION:

(As provided)

Tax ID: 33-02-02-11-303-004

LOT 5 & THE FOLLOWING DESC - COM ON N LINE OF LOT 4 AT A PT 51 FT W OF NE COR THEREOF - SLY TO S LINE OF LOT 4, AT A PT 60 FT W OF SE COR OF LOT 4 - E TO SE COR OF LOT 4 - NLY TO NE COR OF LOT 4 - WLY 51 FT TO BEG. BEING A PART OF LOT 4, SUPERVISOR'S PLAT OF HASLETT

Tax ID: 33-02-02-11-303-006

S 47.8 FT OF E 53.8 FT (MEASURED ALONG & AT RT ANGLES TO S LOT LINE) OF LOT 7, SUPERVISOR'S PLAT OF HASLETT, ALSO THAT PT OF LOT 14, SUPERVISOR'S PLAT OF HASLETT DESC AS LYING W OF A LINE BEG ON N LINE OF LOT 14 AT PT 129.3 FT W OF NE COR OF SAID LOT - SLY & PLY TO E LINE OF SAID LOT 25.3 FT - WLY & PLY TO N LINE OF SAID LOT 27.52 FT - SWLY A DIST OF 40.7 FT. TO PT ON S LOT LINE 160.55 FT W OF E LINE OF LOT 14, TOGETHER WITH A NON-EXCLUSIVE EASEMENT OVER NLY 18 FT OF LOT 7, SUPERVISOR'S PLAT OF HASLETT GRANTING INGRESS FROM & EGRESS TO SCHOOL ST ON THE WEST SUPERVISOR'S PLAT OF HASLETT

SURVEYOR'S NOTES:

- This plan was made of the direction of the parties named herein and is intended solely for their immediate use. Survey prepared from fieldwork performed in June/July 2019.
- All bearings and distances on the survey are record and measured unless otherwise noted.
- All elevations are North American Vertical Datum of 1988 (NAVD88).
- All dimensions are in feet and decimals thereof.
- All dimensions are in feet and decimals thereof.
- No building the dimensions are to be used for establishing the property lines.
- There are no observable potential encroachments on the subject property from adjoining lands, or from the subject property onto adjoining lands, except as shown hereon.
- Utility information as shown was obtained from available public records and from supporting field observations, where possible, and is subject to verification in the field by the appropriate authorities prior to use for construction. MISS DIG was not contacted to mark utilities on site.
- Easements, if any, not shown.
- No wetlands were delineated at the time of this survey.
- By scaled map location and graphic plotting only, this property lies entirely within Flood Zone 'X', areas outside the 0.2% annual chance floodplain, according to the National Flood Insurance Program, Flood Insurance Rate Map for the County of Meridian, Michigan, Michigan Community Code Map No. 260093 0157, dated August 16, 2011.

EX. LEGEND

○	SET 1/2" BAR WITH CAP	○	SANITARY MANHOLE
○	FOUND IRON AS NOTED	○	DRAINAGE MANHOLE
○	DEED LINE	○	ELECTRIC MANHOLE
○	DISTANCE NOT TO SCALE	○	TELEPHONE MANHOLE
○	CONCRETE	○	CATCH-BASIN MANHOLE
○	GRAVEL	○	VALVE
○	EXISTING SPOT ELEVATION	○	UTILITY POLE
○	EXISTING CONTOUR ELEVATION	○	LIGHT POLE
○	STAINLESS STEEL	○	TRANSFORMER
○	STAINLESS STEEL	○	TRANSFORMER
○	UNDERGROUND TELEPHONE	○	HANDHOLE
○	UNDERGROUND TELEVISION	○	ELECTRIC METER
○	OVERHEAD WIRE	○	GAS METER
○	UNDERGROUND WIRE	○	WATER METER
○	CONCRETE TREE	○	POST
○	BUSH	○	AIR CONDITIONING UNIT



REVISIONS	
11-26-19 SUBMITTAL	

KEBS, INC.	
KYES ENGINEERING BRYAN LAND SURVEYS	
216 HASLETT ROAD, HASLETT, MI 49840 PH. 517-339-1014 FAX. 517-339-8047	
Merrill Office Ph. 269-791-9800	
MCCRERY'S HEALTHY HOMES AND CARS SITE, DIMENSION & UTILITY PLAN	
SCALE: 1" = 20'	DESIGNER: _____
DATE: 11-12-19	PROJECT MGR: _____
AUTHORIZED BY: _____	APPROVED BY: _____
KURT SKINNER	SHEET 1 OF 1
	JOB # E-95219



To: Planning Commission

From: Peter Menser, Principal Planner
Keith Chapman, Assistant Planner

Date: June 19, 2020

Re: Special Use Permit #19191 (Green Peak Innovations, LLC), establish a commercial medical marihuana provisioning center on a vacant parcel located south of Grand River Avenue on Northwind Drive.

Green Peak Innovations, LLC has applied for a special use permit (SUP) to establish a commercial medical marihuana provisioning center on a vacant parcel located south of Grand River Avenue on Northwind Drive. The applicant has submitted a site plan that shows a proposed 2,700 square foot building. The 1.79 acre project site is zoned C-2 (Commercial). The site is currently a community garden.

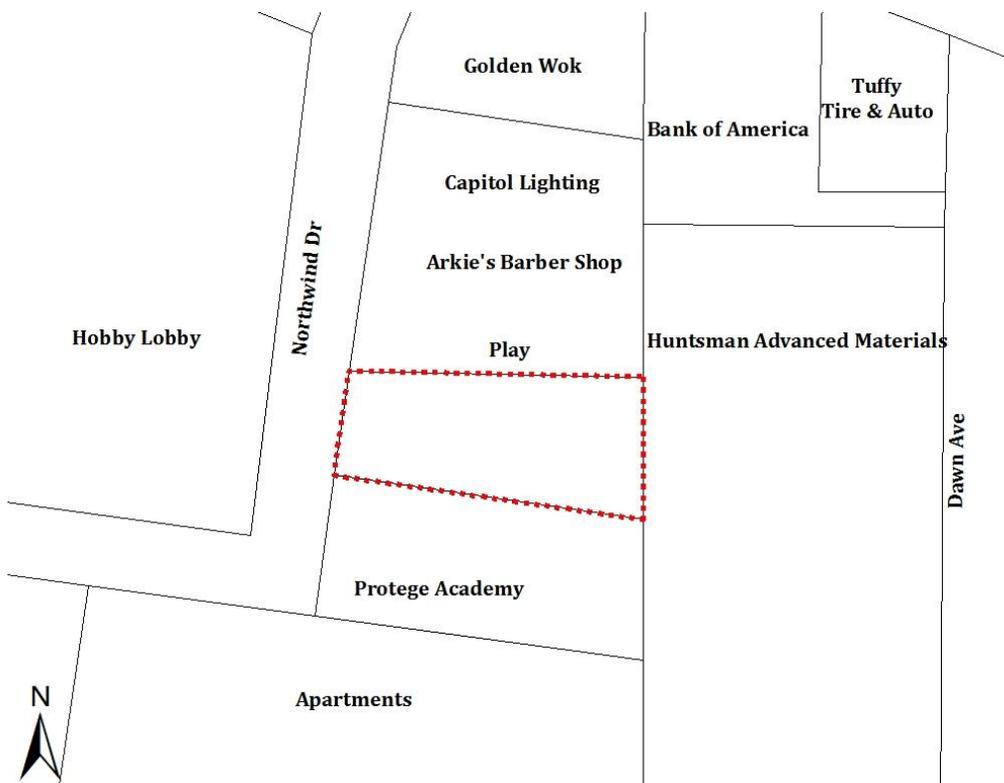
A provisioning center, also referred to a dispensary, is a facility where marihuana, or products derived from marihuana, is sold to registered medical marihuana patients or primary caregivers in accordance with the Michigan Medical Marihuana Act that was approved in 2008. A provisioning center license obtained from the State of Michigan, Department of Licensing and Regulatory Affairs (LARA), authorizes the holder to purchase or transfer marihuana only from growers and processors and to sell or transfer marihuana only to registered qualifying patients or registered primary caregivers. Under current State law consumption or use of marihuana or marihuana products at a provisioning center is prohibited. Provisioning centers are also prohibited from selling or allowing the consumption or use of alcohol or tobacco products on their premises, and from allowing a physician to conduct examinations and issue medical certifications for the purpose of obtaining a registry identification card.

Background

At its meeting on May 21, 2019 the Township Board adopted both zoning and non-zoning ordinances allowing commercial medical marihuana facilities in designated areas in the Township. The non-zoning ordinance established the application process, the facility types allowed, the number of permits, and the general operational standards for the different types of commercial facilities, which include growers, processors, secure transporters, provisioning centers, and safety compliance facilities. The zoning ordinance established seven designated areas in the Township where commercial medical marihuana facilities are permitted and identified the zoning districts in which each of the five types of commercial medical marihuana facilities can locate, as identified in the table on the following page.

<i>Facility type</i>	<i>Zoning District(s) allowed</i>	<i>Overlay Area(s) allowed</i>
Grower	I (Industrial)	1, 4, 6
Processor	I (Industrial)	1, 4, 6
Provisioning Center	I (Industrial), C-1, C-2, C-3 (Commercial), and RP (Research and Office Park)	1, 2, 3, 4, 5, 6, 7
Safety Compliance Facility	I (Industrial), C-1, C-2, C-3 (Commercial), and RP (Research and Office Park)	1, 2, 3, 5, 6, 7
Secure Transporter	I (Industrial), C-1, C-2, C-3 (Commercial), and RP (Research and Office Park)	1, 2, 3, 5, 6, 7

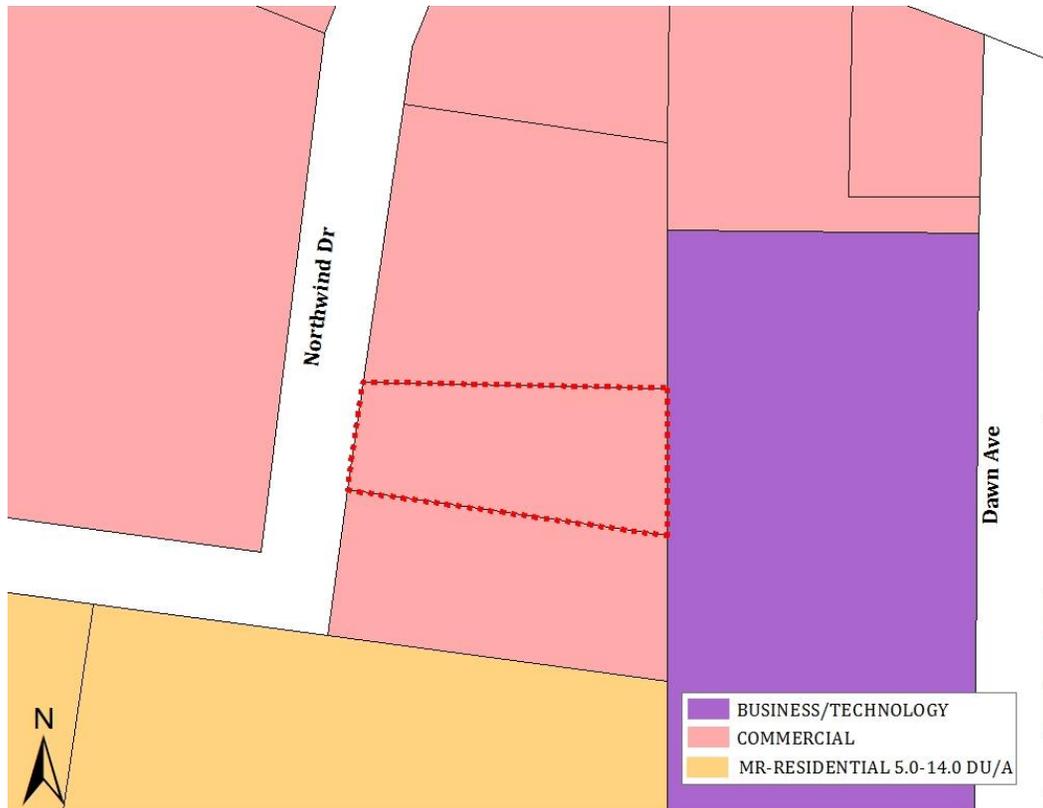
LOCATION MAP



Master Plan

The Future Land Use Map from the 2017 Master Plan designates the subject site in the Commercial category.

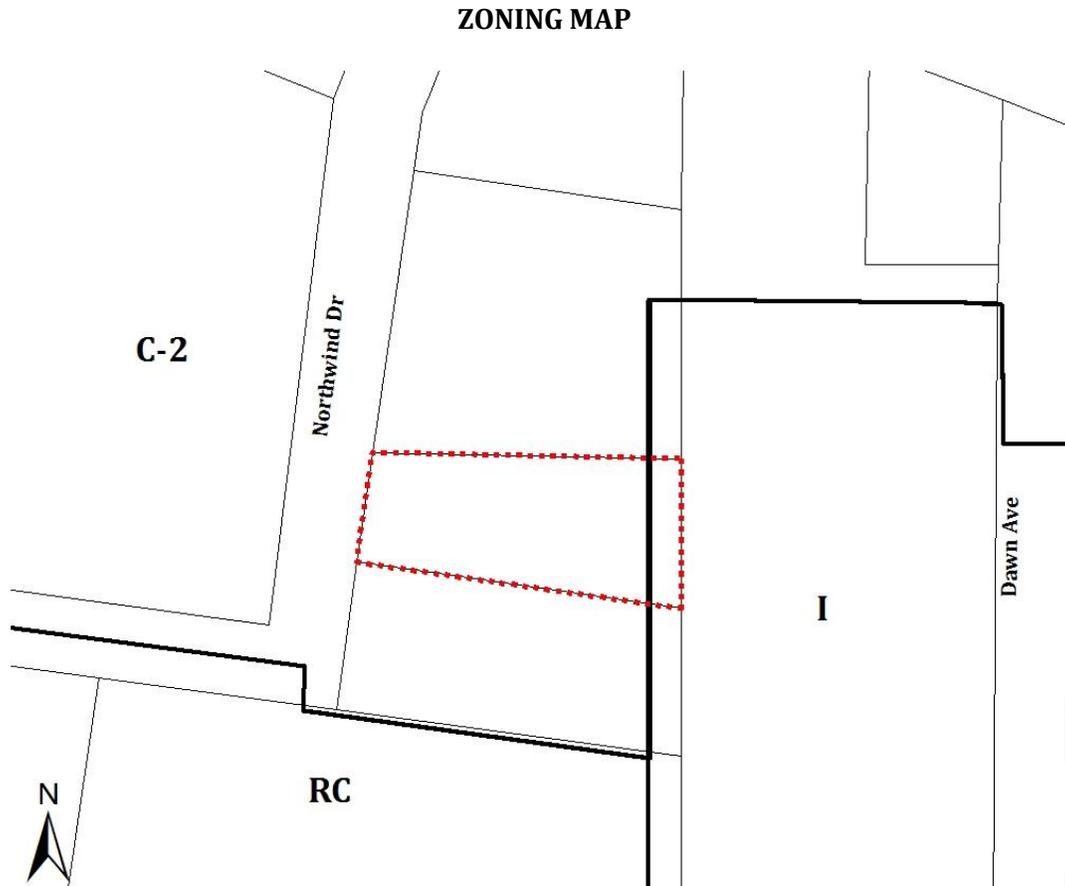
FUTURE LAND USE MAP



Zoning

The proposed project is located in the C-2 (Commercial) zoning district. A provisioning center is permitted in the C-1, C-2, C-3 (Commercial), I (Industrial), and RP (Research and Office Park) zoning districts subject to approval of a special use permit reviewed by the Planning Commission and approved by the Township Board.

The C-1 district requires a minimum of 100 feet of lot frontage and 4,000 square feet of lot area. The property is 1.79 acres in size (77,972.4 square feet) and has 90 feet of frontage along Northwind Drive. The applicant has submitted a property split/combination application to receive 15 feet from the property to the north, bringing the total lot size to 105 feet.



Physical Features

The site is undeveloped and is being utilized as a community garden.

The Flood Insurance Rate Map (FIRM) for Meridian Township indicates the property is not located in a floodplain and wetlands are not present on the site. The Township Greenspace Plan shows no special designation on the site.

Streets and Traffic

The approximate 1.92 acre site is located on the east side of Northwind Drive, south of Grand River Avenue. Access to the site is proposed to be from a driveway on Northwind Drive. Northwind Drive is a two-lane road with curb and gutter that are classified as a local street in the Street Setbacks and Service Drive map in Section 86-367 of the Code of Ordinances. The most recent (2018) traffic count information from the Michigan Department of Transportation (MDOT) showed a total of 25,147 two-way vehicle trips in a 24 hour period on Grand River Avenue. There are no traffic counts available for Northwind Drive.

A traffic assessment is required for an expansion or change of an existing special use where the increase in intensity would generate an additional 50 to 99 directional trips during morning and afternoon peak hours of traffic. The applicant submitted a traffic assessment prepared by Progressive AE dated February 13, 2020 that provides information on traffic generated by the proposed provisioning center.

The assessment looks at existing and future level of service (LOS) during the AM (7:30-8:30 a.m.) and PM (4:45-5:45 p.m.) peak hours at the intersection of Grand River Avenue and Northwind Drive. The traffic assessment notes existing traffic at the studied location operates at an acceptable LOS (LOS B or better) during the AM and PM peak hours. Under future conditions, it is projected all movements will operate at an acceptable level of service (LOS B or better).

The submitted traffic assessment contains a trip generation analysis which estimates future vehicle trips that could be generated by the proposed provisioning center. The Institute of Transportation Engineers (ITE) trip generation rates for a Marijuana Dispensary (Land Use Code 882) were selected to represent the proposed provisioning center. The following table summarizes findings from the trip generation analysis.

Description	Size	AM Peak Hour			PM Peak Hour			Weekday
		In	Out	Total	In	Out	Total	
Marijuana Dispensary, Land Use Code 882	2,700 sq. ft.	16	13	29	30	30	60	445

The findings of the traffic assessment shows traffic generated by the proposed provisioning center would not create a significant impact at the studied location.

Parking

The Township Code of Ordinances requires five (minimum) to 5.5 (maximum) parking spaces per 1,000 square feet of gross floor area retail businesses having a gross floor area less than 25,000 square feet. The 2,700 square feet shopping requires a minimum of 14 parking spaces and a maximum of 15 parking spaces. The submitted site plan shows 14 parking spaces provided.

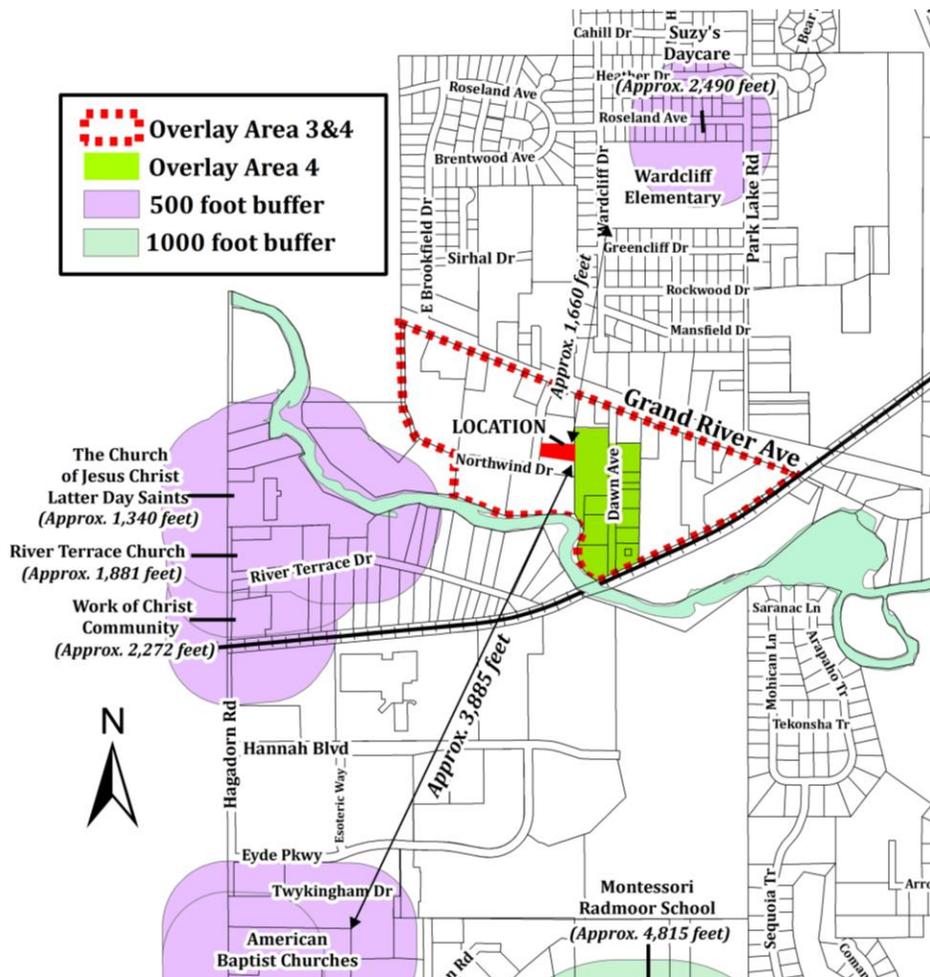
Staff Analysis

Green Peaks Innovations, LLC has requested special use permit approval to occupy a currently vacant parcel located south of Grand River Avenue on Northwind Drive to construct a commercial medical marijuana provisioning center. For commercial medical marijuana facilities the Planning Commission makes a recommendation on the request and the Township Board makes the final decision. The special use permit review criteria found in Section 86-126 of the Code of Ordinances should be used when evaluating the proposed special use permit.

Required Spacing

The non-zoning ordinance adopted by the Township Board requires commercial medical marihuana facilities to be located one-thousand (1,000) feet from any public or private K-12 school, five hundred (500) feet from any church, place of worship or other religious facility, and five hundred (500) feet from any library, preschool, or child care center. The minimum distance between uses is measured horizontally between the nearest property lines. The map on the following page shows the 500 and 1,000 foot buffers near the proposed provisioning center. The closest facility to the proposed provisioning center is The Church of Jesus Christ Latter Day Saints. The Church is located at 4910 Hagadorn Road which is approximately 1,340 feet away from the proposed provisioning center.

SETBACKS MAP



Commercial Medical Marihuana Facility Permit Application

Applicants for a commercial medical marihuana facility must go through various steps in order to establish a facility within Meridian Township, including securing local and state approval. The local process begins with the initial application for a Commercial Medical Marihuana Facility Permit. To be eligible for a permit the applicant was required to submit a non-refundable \$5,000 dollar application fee and address at least two of the following three requirements: (1) an official statement issued by the Department of Licensing and Regulatory Affairs (LARA) indicating that the applicant has completed state prequalification for a license, (2) proof that the applicant or owners of at least 75% of the applicant are current Township residents and were residents for at least twelve months prior to filing the application, (3) signing of a certification restricting the transfer of the permit for a period of not less than 30 months after issuance. The applications were reviewed internally by Township staff and the Township Attorney. Other important aspects of the permit application process included submittal of documents addressing the organizational structure of the applicant, passing background checks, submitting a security plan for the facility, addressing waste disposal, providing details on staffing, and submitting information on product vendors and transporters. Once the facility application is deemed complete, the applicant receives conditional approval from the Director of Community Planning and Development. In this initial application period the Township did received only applications for provisioning centers.

Lottery

If multiple applications are received for an overlay area a lottery is held to establish the order applicants can apply for a special use permit. If a conditionally approved applicant fails to submit a SUP application within the required 60 day period after the lottery then the applicant's conditional approval is revoked and the next applicant drawn in the lottery receives an opportunity to submit a SUP application. In the case of the current request, Green Peak Innovations, LLC was one of five conditionally approved applications in Overlay Area 3, so a lottery was required.

State Review and Next Steps

SUP approval must be granted by the Township Board before an application can move forward to the final steps of approval for a Commercial Medical Marihuana Facility Permit. Before operations may begin at the facility the applicant must be granted a permit by the Director of Community Planning and Development and receive final approval from the State of Michigan by completing the License Qualification and Final Approval steps of the state application process. Only when the facility has been inspected and the Township has confirmed all applicable State approvals will a Commercial Medical Marihuana Facility Permit be issued and the facility allowed to open. The commercial medical marihuana facility permit is issued for a period of one year.

Special Use Permit #19191 (Green Peak Innovations, LLC)

Planning Commission (June 22, 2020)

Page 8

Renewal

After one year, the applicant must submit an application to renew the Commercial Medical Marihuana Facility Permit. A \$5,000 renewal fee is required at the time of application. Each year, any pending applications for renewal or amendment of valid, unexpired permits are reviewed and granted or denied before applications for new permits are considered. If a renewal is denied or licensure is not granted the permit shall be forfeited and the Director may accept new applicants in the next application period. If the applicant maintains a valid State license and remains in good standing with both the State and Township a renewal will be granted for another one year period.

Planning Commission Options

The Planning Commission may recommend approval, approval with conditions, or denial of the proposed special use permit. A resolution will be provided at a future meeting.

Attachments

1. Special use permit application and attachments.
2. Site plan prepared by Kebs, Inc. dated December 19, 2019 and received by the Township on February 13, 2020.
3. Trip Generation Comparison prepared by Progressive AE dated February 13, 2020 and received by the Township on February 27, 2020.
4. Medical Marihuana Overlay Area Map dated May 16, 2019.

G:\Community Planning & Development\Planning\SPECIAL USE PERMITS (SUP)\2019\SUP 19191 (Green Peak Innovations, LLC)\SUP 19191.pc1.docx

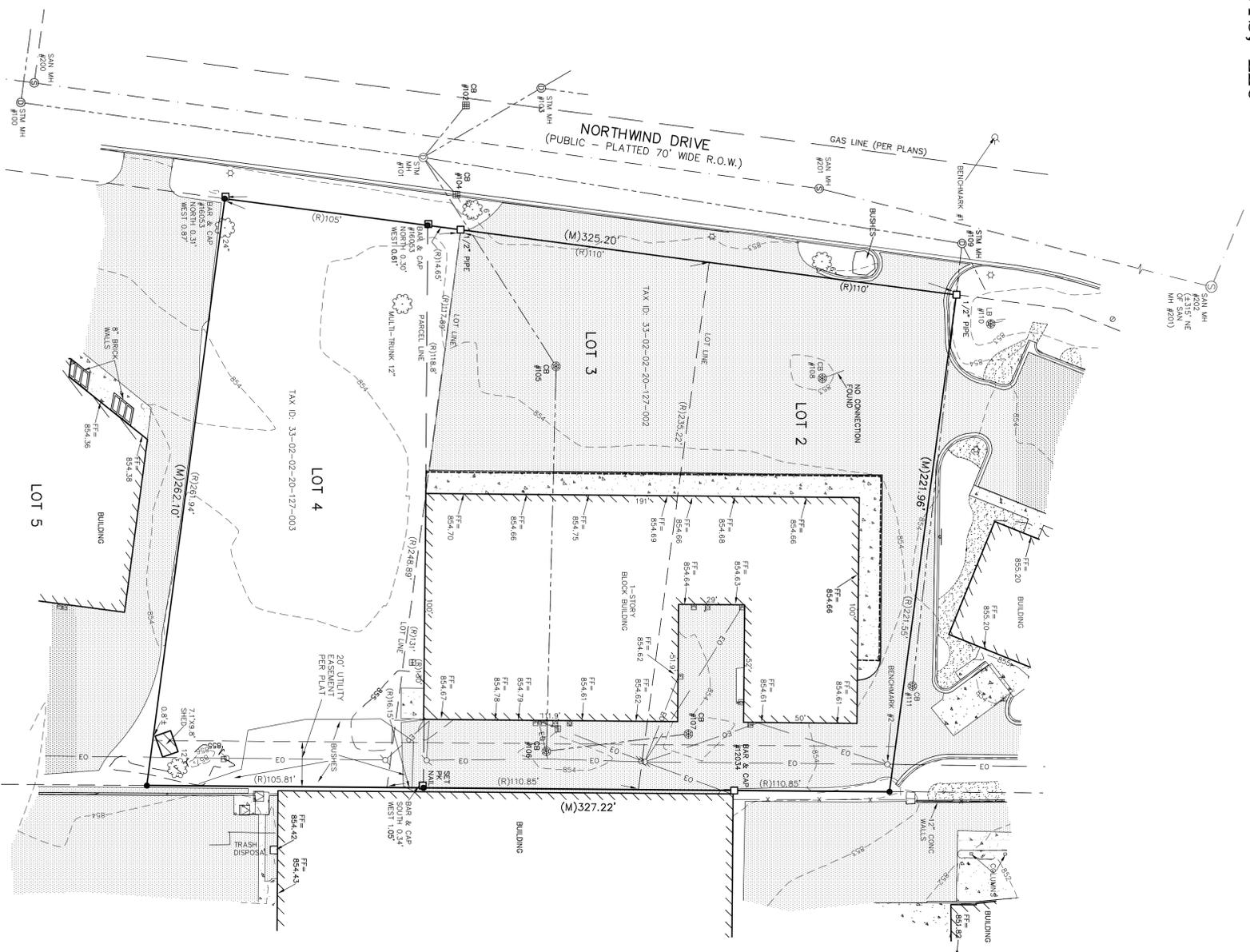
FOR: **STUDIO INTRIGUE ARCHITECTS, LLC**

LOT & TOPOGRAPHIC SURVEY

"4972 & VACANT - NORTHWIND DRIVE, OKEMOS, MI 48864"

SEWER INVENTORIES

- STORM MANHOLE #100
RIM - 853.40
24" RCP N - 845.33
24" RCP W - 845.20
- STORM MANHOLE #101
RIM - 852.67
12" RCP N - 847.16
12" VCP NE - 848.07
12" RCP NE - 846.82
24" RCP S - 843.86
16" RCP NW - 843.84
12" RCP NW - 846.54
- CATCH BASIN #102
RIM - 853.39
12" RCP SE - 848.84
- STORM MANHOLE #103
RIM - 854.98
12" RCP N - 847.70
18" RCP SE - 847.58
18" RCP NW - 847.58
- CATCH BASIN #104
RIM - 851.90
6" VCP NE - 848.92
12" RCP SW - 846.88
- CATCH BASIN #105
RIM - 853.05
10" VCP E - 848.10
12" VCP SW - 848.10
- CATCH BASIN #106
RIM - 853.62
8" VCP N - 849.54
10" VCP W - 849.27
- CATCH BASIN #107
RIM - 850.79
8" VCP S - 850.99
- CATCH BASIN #108
RIM - 852.81
6" VCP NW - 850.09
- STORM MANHOLE #109
RIM - 853.61
6" VCP NE - 848.30
6" VCP E - 848.31
12" RCP S - 848.20
- LAIN. BASIN #110
RIM - 851.89
NO STRUCTURE - UNABLE TO DETERMINE PIPE DIRECTION
- CATCH BASIN #111
RIM - 853.11
6" VCP W - 850.53
- SANITARY MANHOLE #200
RIM - 853.4
8" VCP N - 842.21
8" VCP S - 843.23
8" VCP W - 842.33
- SANITARY MANHOLE #201
RIM - 853.42
8" VCP N - 840.70
8" VCP S - 840.70
- SANITARY MANHOLE #202
RIM - 851.55
8" VCP S - 839.47
8" VCP W - 839.47

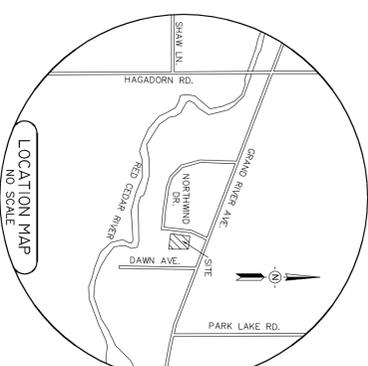


LEGAL DESCRIPTIONS:

(As Provided in Tax Assessing Records):
 33-02-02-20-127-002
 LOTS 2 & 3 PART OF LOT 4 DESC. AS BEG. AT NW COR. OF LOT 4 & RUNNING TH S 81 DEG 50' E 117.89 FT. ALONG NLY LINE OF LOT 4 TO COR. OF CONCRETE BLDG. (BRICK FACE) TH N 88 DEG 55' W 118.8 FT. TO WLY LINE OF LOT 4 & TH N 8 DEG 10' E 14.65 FT. TO PT. OF BEG. EXC. PART OF LOT 3 DESC. AS BEG. AT SE COR. OF LOT 3 TH N 1 DEG 05' E 16.15 FT. ALONG E LOT LINE TH N 88 DEG 55' W 130 FT. TO INTER-SECT SLY LOT LINE TH S 81 DEG 50' E 131 FT. TO PT. OF BEG. NORTHWIND SUBDIVISION.
 ALSO
 33-02-02-20-127-003
 LOT 4 & PART OF LOT 3 DESC. AS BEG. AT SE COR. OF LOT 3 TH N 1 DEG 05' E 16.15 FT. ALONG E LOT LINE TH N 88 DEG 55' W 130 FT. TO INTERSECT SLY LOT LINE TH S 81 DEG 50' E 131 FT. TO PT. OF BEG. EXC. BEG. AT NW COR. OF LOT 4 & RUNNING TH S 81 DEG 50' E 117.89 FT. ALONG NLY LINE OF LOT 4 TO COR. OF CONCRETE BLDG. (BRICK FACE) TH N 88 DEG 55' W 118.8 FT. TO WLY LINE OF LOT 4 & TH N 8 DEG 10' E 14.65 FT. TO PT. OF BEG. NORTHWIND SUBDIVISION.

SURVEYOR'S NOTES:

1. This plan was made at the direction of the parties named herein and is intended solely for their immediate use. Survey prepared from fieldwork performed in December 2019.
2. All bearings and distances on the survey are record and measured unless otherwise noted.
3. All elevations are North American Vertical Datum of 1988 (NAVD88).
4. All dimensions are in feet and decimals thereof.
5. No building dimensions are to be used for establishing the property lines.
6. There are no observable potential encroachments onto the subject property from adjoining lands, or from the subject property onto adjoining lands, except as shown herein.
7. Utility information as shown was obtained from available public records and from supporting field observations, where possible, and is subject to verification in the field contacted to mark utilities on site.
8. All easements may not be shown. Any easements as shown on the recorded plot of "Northwind" are shown herein.
9. No wetlands were delineated onsite, if any.
10. By staked map location and graphic plotting only, this property lies entirely within Flood Zone "X" areas outside the 0.2% annual chance floodplain, according to the National Flood Insurance Program, Flood Insurance Rate map for the Charter Township of Meridian, Ingham County, Michigan, Community Panel No. 260093 0152 D, dated August 16, 2011.



BENCHMARKS
 BENCHMARK #1 ELEV. = 855.43 (NAVD88)
 WEST FLANGE BOLT, UNDER "E" IN "CLIM" FIRE HYDRANT, WEST SIDE OF NORTHWIND DRIVE, ±300' SOUTHWEST OF CENTERLINE GRAND RIVER AVENUE.
 BENCHMARK #2 ELEV. = 855.18 (NAVD88)
 NAIL IN WEST SIDE UTILITY POLE, ±22' NORTHEAST OF NORTHEAST CORNER OF BUILDING #4972 NORTHWIND DRIVE.

LEGEND

(M)	= MEASURED DISTANCE	⊙	= SANITARY MANHOLE
(R)	= RECORD DISTANCE	⊙	= DRAINAGE MANHOLE
●	= SET 1/2" BAR WITH CAP	⊙	= ELECTRIC MANHOLE
□	= FOUND IRON AS NOTED	⊙	= TELEPHONE MANHOLE
—	= DEED LINE	⊙	= CATCHBASIN
—	= DISTANCE NOT TO SCALE	⊙	= SANITARY CLEANOUT
—	= FENCE	⊙	= FIRE HYDRANT
—	= ASPHALT	⊙	= VALVE
—	= CONCRETE	⊙	= UTILITY POLE
—	= DECK	⊙	= LIGHT POLE
—	= GRAVEL	⊙	= GUY POLE
—	= EXISTING SPOT ELEVATION	⊙	= GUY WIRE
—	= EXISTING CONTOUR ELEVATION	⊙	= UTILITY PEDESTAL
—	= BUILDING OVERHANG	⊙	= TRANSFORMER
—	= SANITARY SEWER	⊙	= HANDHOLE
—	= STORM SEWER	⊙	= ELECTRIC METER
—	= WATER LINE	⊙	= GAS METER
—	= GAS LINE	⊙	= WATER METER
—	= UNDERGROUND TELEPHONE	⊙	= SOIL BORING
—	= UNDERGROUND TELEVISION	⊙	= POST
—	= UNDERGROUND ELECTRIC	⊙	= AIR CONDITIONING UNIT
—	= EDGE OF WOODS	⊙	
—	= DECIDUOUS TREE	⊙	
—	= OVERHEAD WIRES	⊙	
—	= CONIFEROUS TREE	⊙	

REVISIONS	COMMENTS	DATE
12/19/2019	ORIGINAL	
KEBS, INC. ENGINEERING AND LAND SURVEYING 2716 HASLETT ROAD, HASLETT, MI 48840 PH: 517-359-7539 WWW.KEBS.COM Meridian Office - Ph: 269-781-9800		
DRAWN BY	SSF	SECTION 17, 14N, R1W
FIELD WORK BY	RR	JOB NUMBER
SHEET	1 OF 1	960431LOT

ERICK R. FRIESTROM
 PROFESSIONAL SURVEYOR NO. 53497

**CHARTER TOWNSHIP OF MERIDIAN
DEPARTMENT OF COMMUNITY PLANNING AND DEVELOPMENT
5151 MARSH ROAD, OKEMOS, MI 48864
PLANNING DIVISION PHONE: (517) 853-4560, FAX: (517) 853-4095**

SPECIAL USE PERMIT APPLICATION

Before submitting this application for review, an applicant may meet with the Director of Community Planning and Development to discuss the requirements for a special use permit and/or submit a conceptual plan for review to have preliminary technical deficiencies addressed prior to submittal of the application. If the property or land use is located in the following zoning districts RD, RC, RCC, RN then the applicant must meet with the Planning Director to discuss technical difficulties before filing a formal application.

Part I

- A. Applicant Green Peak Innovations, LLC
Address of Applicant 10070 Harvest Park, Dimondale, MI 48821
Telephone - Work 517-408-0172 Home _____ Fax _____ Email see below
Interest in property (circle one): Owner Tenant Option Other
(Please attach a list of all persons with an ownership interest in the property.)
Email contact: Joe Neller at, jneller@greenpeakinnovations.com
- B. Site address / location / parcel number 33-02-02-127-003 Northwind Dr. Okemos, MI 48864
Legal description (please attach if necessary) _____
Current zoning C-2 Commercial
Use for which permit is requested / project name Medical Marijuana Provisioning Center
Corresponding ordinance number 2019-01,5-21-2019 (5)
- C. Developer (if different than applicant) _____
Address _____
Telephone – Work _____ Home _____ Fax _____
- D. Architect, Engineer Planner or Surveyor responsible for design of project if different from applicant:
Name Studio [intrigue] Architects
Address 1114 S. Washington Ave. #100
Telephone – Work 517-371-8804 Home _____ Fax 517-371-8805
Email contact: Ken Jones at, kenj@studiointriguearchitects.com
- E. Acreage of all parcels in the project: Gross ± 0.629 Net _____
ACRES
- F. Explain the project and development phases: Construction of new ±2,700.4 S.F. Marijuana provisioning Center
- G. Total number of:
Existing: structures 0 bedrooms _____ offices _____ parking spaces 0 carports _____ garages _____
Proposed: structures 1 bedrooms _____ offices _____ parking spaces 14 carports _____ garages _____
- H. Square footage: existing buildings 0 proposed buildings Total Building Gross ±2,700.4 S.F.
Usable Floor area: existing buildings _____ proposed buildings Interior Gross ±2,556 S.F.
- I. If employees will work on the site, state the number of full time and part time employees working per shift and hours of operation: Owner anticipates a maximum of 13 employees per shift. Hours as dictated by local ordinance.
- J. Existing Recreation: Type _____ Acreage _____
Proposed Recreation: Type _____ Acreage _____
Existing Open Space: Type _____ Acreage _____
Proposed Open Space: Type _____ Acreage _____

- K. If Multiple Housing: n/a
- Total acres of property _____
- Acres in floodplain _____ Percent of total _____
- Acres in wetland (not in floodplain) _____ Percent of total _____
- Total dwelling units _____
- Dwelling unit mix:
- | | | |
|------------------------------------|----------------|-------------|
| Number of single family detached: | for Rent _____ | Condo _____ |
| Number of duplexes: | for Rent _____ | Condo _____ |
| Number of townhouses: | for Rent _____ | Condo _____ |
| Number of garden style apartments: | for Rent _____ | Condo _____ |
| Number of other dwellings: | for Rent _____ | Condo _____ |

L. The following support materials must be submitted with the application:

1. Nonrefundable Fee.
2. Legal Description of the property.
3. Evidence of fee or other ownership of the property.
4. Site Plan containing the information listed in the attachment to this application.
5. Architectural sketches showing all sides and elevations of the proposed buildings or structures, including the project entrance, as they will appear upon completion. The sketches should be accompanied by material samples or a display board of the proposed exterior materials and colors.
6. A Traffic Study, prepared by a qualified traffic engineer, based on the most current edition of *Evaluating Traffic Impact Studies: A Recommended Practice for Michigan Communities*, published by the State Department of Transportation.
 - a. A traffic assessment will be required for the following:
 - 1) New special uses which could, or expansion or change of an existing special use where increase in intensity would, generate between 50 to 99 directional trips during a peak hour of traffic.
 - 2) All other special uses requiring a traffic assessment as specified in the Township Code of Ordinances, Chapter 86, Article IV, Division 2.
 - b. A traffic impact study will be required for the following:
 - 1) New special uses which would, or expansion or change of an existing special use where increase in intensity would, generate over 100 directional trips or more during a peak hour of traffic, or over 750 trips on an average day.
 - 2) All other special uses requiring a traffic assessment as specified in the Township Code of Ordinances, Chapter 86, Article IV, Division 2.
7. Natural features assessment which includes a written description of the anticipated impacts on the natural features at each phase and at project completion that contains the following:
 - a. An inventory of natural features proposed to be retained, removed, or modified. Natural features shall include, but are not limited to, wetlands, significant stands of trees or individual trees greater than 12 inches dbh, floodways, floodplains, waterbodies, identified groundwater vulnerable areas, slopes greater than 20 percent, ravines, and vegetative cover types with potential to sustain significant or endangered wildlife.
 - b. Description of the impacts on natural features.
 - c. Description of any proposed efforts to mitigate any negative impacts.

The natural features assessment may be waived by the Director of Community Planning and Development in certain circumstances.

- M. Any other information specified by the Director of Community Planning and Development which is deemed necessary to evaluate the application.
- N. In addition to the above requirements, for zoning districts, **RD, RC, RCC, RN, and CV** and **Group Housing Residential Developments** the following is required:
1. Existing and proposed contours of the property at two foot intervals based on United States Geological Survey (USGS) data.
 2. Preliminary engineering reports in accordance with the adopted Township water and sewer standards, together with a letter of review from the Township Engineer.
 3. Ten copies of a report on the intent and scope of the project including, but not limited to: Number, size, volume, and dimensions of buildings; number and size of living units; basis of calculations of floor area and density and required parking; number, size, and type of parking spaces; architectural sketches of proposed buildings.
 4. Seven copies of the project plans which the Township shall submit to local agencies for review and comments.
- O. In addition to the above requirements, a special use application in zoning district **RP** requires the following material as part of the site plan:
1. A description of the operations proposed in sufficient detail to indicate the effects of those operations in producing traffic congestion, noise, glare, air pollution, water pollution, fire hazards or safety hazards or the emission of any potentially harmful or obnoxious matter or radiation.
 2. Engineering and architectural plans for the treatment and disposal of sewerage and industrial waste tailings, or unusable by-products.
 3. Engineering and architectural plans for the handling of any excessive traffic congestion, noise, glare, air pollution, or the emission of any potentially harmful or obnoxious matter or radiation.
- P. In addition to the above requirements, a special use application for a use in the Floodway Fringe of zoning district **CV** requires the following:
1. A letter of approval from the State Department of Environmental Quality.
 2. A location map including existing topographic data at two-foot interval contours at a scale of one inch representing 100 feet.
 3. A map showing proposed grading and drainage plans including the location of all public drainage easements, the limits, extent, and elevations of the proposed fill, excavation, and occupation.
 4. A statement from the County Drain Commissioner, County Health Department, and Director of Public Works and Engineering indicating that they have reviewed and approved the proposal.
- Q. In addition to the above requirements, a special use application for a use in the Groundwater Recharge area or zoning district **CV** requires the following:
1. A location map including existing topographic data at two-foot interval contours.
 2. A map showing proposed grading and drainage plans including the location of all public drainage easements, the limits and extent of the proposed fill, excavation, and occupation.
 3. A statement from the County Drain Commissioner, County Health Department, and Director of Public Works and Engineering indicating that they have reviewed and approved the proposal.
- R. In addition to the above requirements, the Township Code of Ordinances, Article VI, should be reviewed for the following special uses: group housing residential developments, mobile home parks, nonresidential structures and uses in residential districts, planned community and regional shopping center developments, sand or gravel pits and quarries, sod farms, junk yards, sewage treatment and disposal installations, camps and clubs for outdoor sports and buildings greater than 25,000 square feet in gross floor area.

Part II

SUP REQUEST STANDARDS
Township Code of Ordinances, Section 86-126

Applications for Special Land Uses will be reviewed with the standards stated below. An application that complies with the standards stated in the Township Ordinance, conditions imposed pursuant to the Ordinance, other applicable Ordinances, and State and Federal statutes will be approved. Your responses to the questions below will assist the Planning Commission in its review of your application.

- (1) The project is consistent with the intent and purposes of this chapter.
(2) The project is consistent with applicable land use policies contained in the Township's Master Plan of current adoption.
(3) The project is designed, constructed, operated, and maintained so as to be harmonious and appropriate in appearance with the existing or intended character of the general vicinity and that such a use will not change the essential character of the same area.
(4) The project will not adversely affect or be hazardous to existing neighboring uses.
(5) The project will not be detrimental to the economic welfare of surrounding properties or the community.
(6) The project is adequately served by public facilities, such as existing roads, schools, stormwater drainage, public safety, public transportation, and public recreation, or that the persons or agencies responsible for the establishment of the proposed use shall be able to provide any such service.
(7) The project is adequately served by public sanitation facilities if so designed. If on-site sanitation facilities for sewage disposal, potable water supply, and storm water are proposed, they shall be properly designed and capable of handling the longterm needs of the proposed project.
(8) The project will not involve uses, activities, processes, materials, and equipment and conditions of operation that will be detrimental to any persons, property, or the general welfare by reason of excessive production of traffic, noise, smoke, fumes, glare, or odors.
(9) The project will not directly or indirectly have a substantial adverse impact on the natural resources of the Township, including, but not limited to, prime agricultural soils, water recharge areas, lakes, rivers, streams, major forests, wetlands, and wildlife areas.

Part III

I (we) hereby grant permission for members of the Charter Township of Meridian's Boards and/or Commissions, Township staff member(s) and the Township's representatives or experts the right to enter onto the above described property (or as described in the attached information) in my (our) absence for the purpose of gathering information including but not limited to the taking and the use of photographs.

[] Yes [] No (Please check one)

By the signature(s) attached hereto, I (we) certify that the information provided within this application and accompanying documentation is, to the best of my (our) knowledge, true and accurate

[Handwritten Signature]
Signature of Applicant

02/13/2020
Date

Joe Neller
Type/Print Name

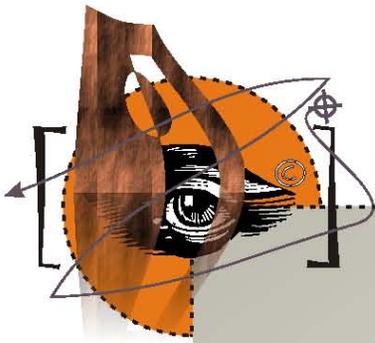
Fee: _____

Received by/Date: _____

Special Use Permit Application Attachment
Site Plan Requirements Per Section 86-124(c)(4)

A site plan, drawn to a legible scale, containing the following information where applicable:

- a. Boundaries of the subject property.
- b. Total area of the subject property.
- c. Location of all existing and proposed structures.
- d. Approximate location and distance of all structures within 100 feet of the subject property.
- e. Uses of existing and proposed buildings, on the subject site.
- f. Proposed means of vehicular and pedestrian ingress and egress to the subject property.
- g. Public and private roads and streets, rights-of-way, and easements, indicating names and widths, which abut or cross the site.
- h. Existing and proposed parking spaces, and vehicular and pedestrian circulation patterns.
- i. The buildable area of the subject property indicating all required setbacks, yards and open space.
- j. Zoning classification of the subject and adjacent properties.
- k. Existing and proposed fencing, screening, landscaping, and buffers.
- l. Location and sizes of existing utilities including power lines and towers, both above and below the ground.
- m. Amount and location of all impervious surfaces.
- n. The verified boundaries of all natural water features and required setback lines.



studio [intrigue] ARCHITECTS

David C. VanderKlok,
AIA, NCARB

Kenneth L. Jones II
AIA, NCARB

February 13th, 2020

**Skymint Medical Marijuana Provisioning Center
33-02-02-127-003 Northwind Dr. Okemos, MI 48864
Architects Job number: # 19.098**

Written Support Material to Application for Special Use Permit Application

The proposed project includes parcel 20-127-003 and a portion of parcels 20-127-002 as needed to meet the minimum lot width and frontage required. The proposed project is to construct a 2,700.4 s.f. single story Medical Marijuana Provisioning Center on the vacant parcel.

The natural features present on the primary parcel will be minimally impacted. Two of the three existing surveyed trees larger than 12" Dia. shall be retained. The parcel is not located in floodways or floodplains and there are no wetlands or waterbodies on site. Please see attached site plan for further details. The project is not expected to endanger wildlife.

In response to the standards outlined in section 86-126 of the Township Code of Ordinances, the proposed project intends to be consistent with the intent and purposes of the chapter. The project will comply with applicable land use policies contained in the Township's Master Plan of current adoption. The project is designed, constructed, operated, and maintained so as to be harmonious and appropriate in appearance with the existing or intended character of the general vicinity and that such a use will not change the essential character of the same area. The project will not adversely affect or be hazardous to existing neighboring uses. The project will not be detrimental to the economic welfare of surrounding properties or the community. The project will be adequately served by public facilities, such as existing roads, schools, stormwater drainage, public safety, public transportation, and public recreation, or that the persons or agencies responsible for the establishment of the proposed use shall be able to provide any such service. The project will adequately serve public sanitation. The project will not involve uses, activities, processes, materials, and equipment and conditions of operation that will be detrimental to any persons, property, or the general welfare by reason of excessive production of traffic, noise, smoke, fumes, glare, or odors. The project will not directly or indirectly have a substantial adverse impact on the natural resources of the Township.

Please feel free to contact Studio [intrigue] Architects at (517) 372-8804 if you have any questions.

architectural design

interiors

master planning

feasibility studies

construction
drawings

renderings

specifications

ADA studies

ordinance research

code research

logo design

graphic design

furniture design

brochure design

NCARB



1114 S. Washington Ave. ✕ SUITE 100 ✕ Lansing ✕ MICHIGAN ✕ 48910
517.372.8804 PHONE ✕ 517.372.8805 FAX ✕ WWW.STUDIOINTRIGUE.COM



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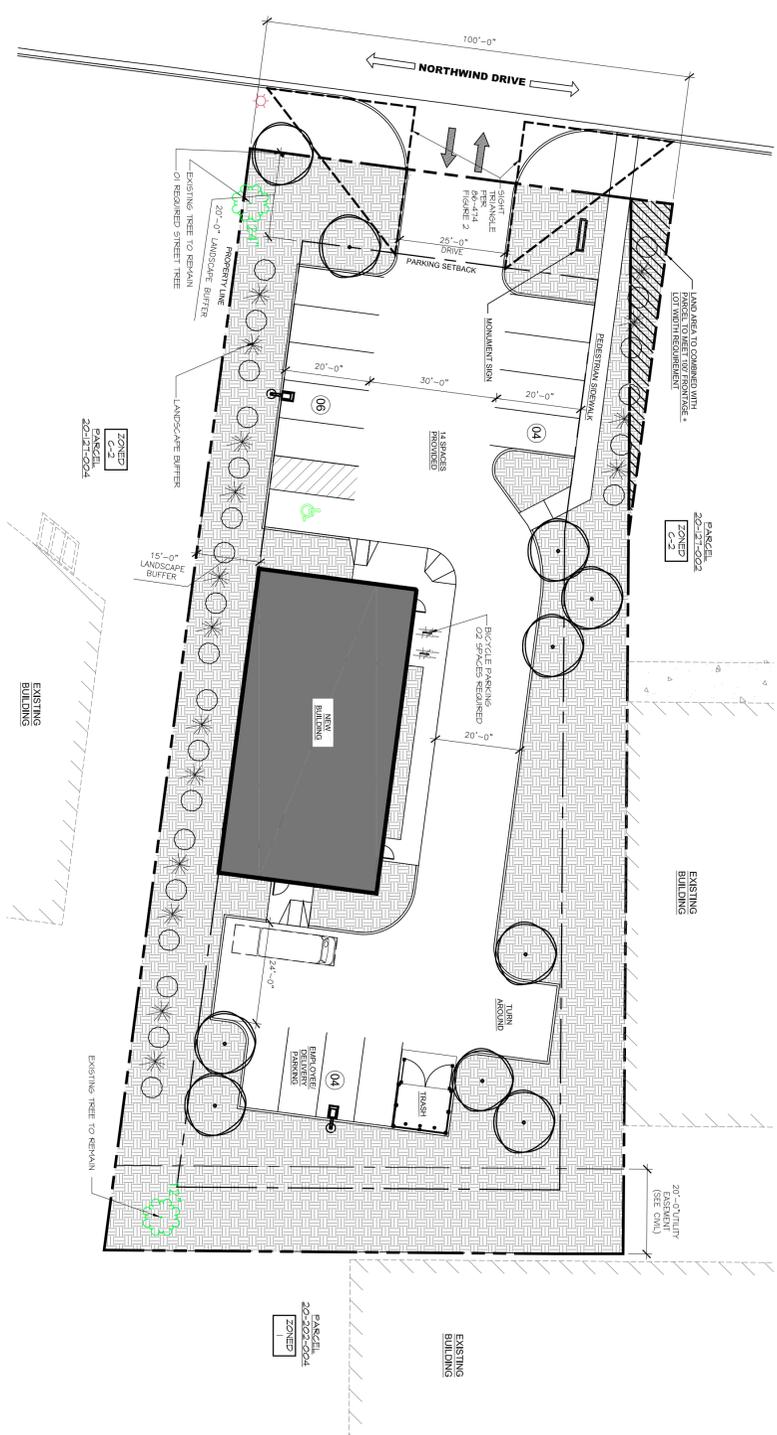


SKYMINIT





SITE LOCATION
PARCEL 20-127-003



NORTHWIND DRIVE
PARCEL 20-127-003
GRAPHIC SITE PLAN

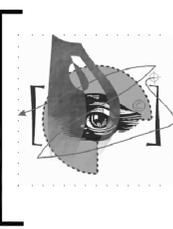


SITE DATA	
ZONING =	C-2 (COMMERCIAL)
PARCEL AREA =	± 0.629 ACRES
NEW BUILDING AREA =	± 2,700.4 SF.
IMPERVIOUS AREA =	± 13,546.25 SF (44.4% LOT AREA)
49.48% 10% MAX	
PARKING REQUIREMENTS:	
RETAIL (NON-SPECIFIC UNDER 25,000 G.F.A.)	5.5 SPACES PER 1,000 GROSS FLOOR AREA MAXIMUM.
6,805 FLOOR AREA =	± 2,556 SF.
2,556/1,000 =	2.556 X'S
14.05 SPACES PERMITTED	
SPACES PROVIDED =	14 SPACES

APPLICANT
GREEN PEAK INNOVATIONS, LLC 10070 HARVEST PARK, DIMONDALE, MI 48821 # 517-408-0172

02/13/20	SUP SUBMITTAL

Copyright 2020 Studio Intrigue Architects, LLC



FOR SUP SUBMITTAL

Project Type
NEW CONSTRUCTION

Client
SKYMINT MEDICAL MARIJUANA PROVISIONING CENTER
 NORTHWIND DR. PARCEL 20-127-003
 OKEMOS, MI 48864

Project
GREEN PEAK INNOV.
 10070 HARVEST PARK
 DIMONDALE, MI 48821

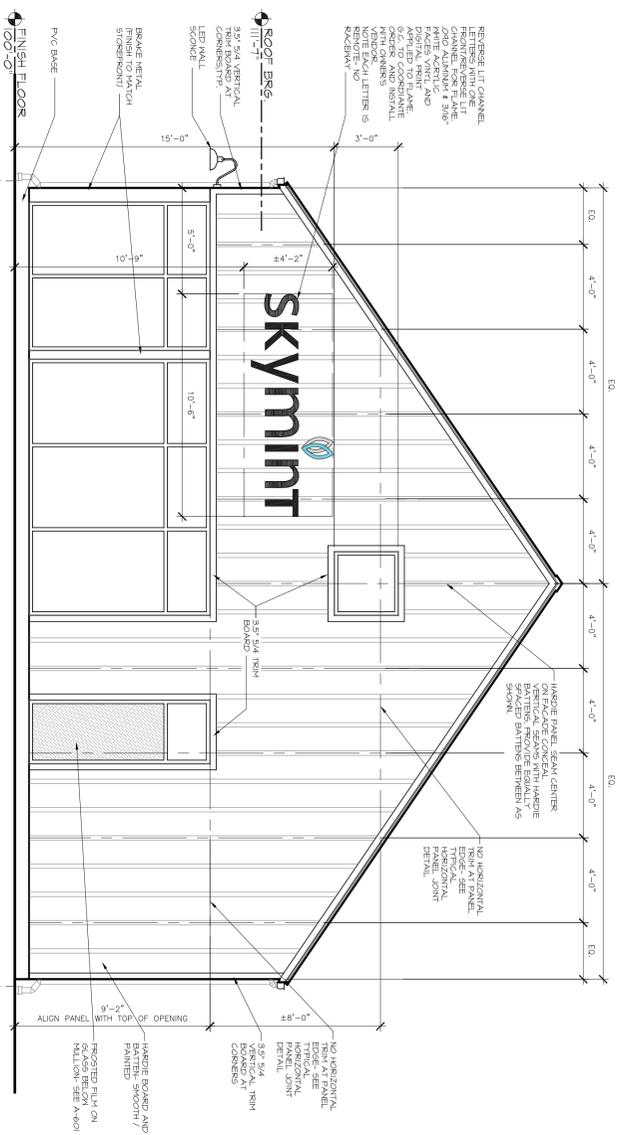
Project Number
19,098

Street
C-100

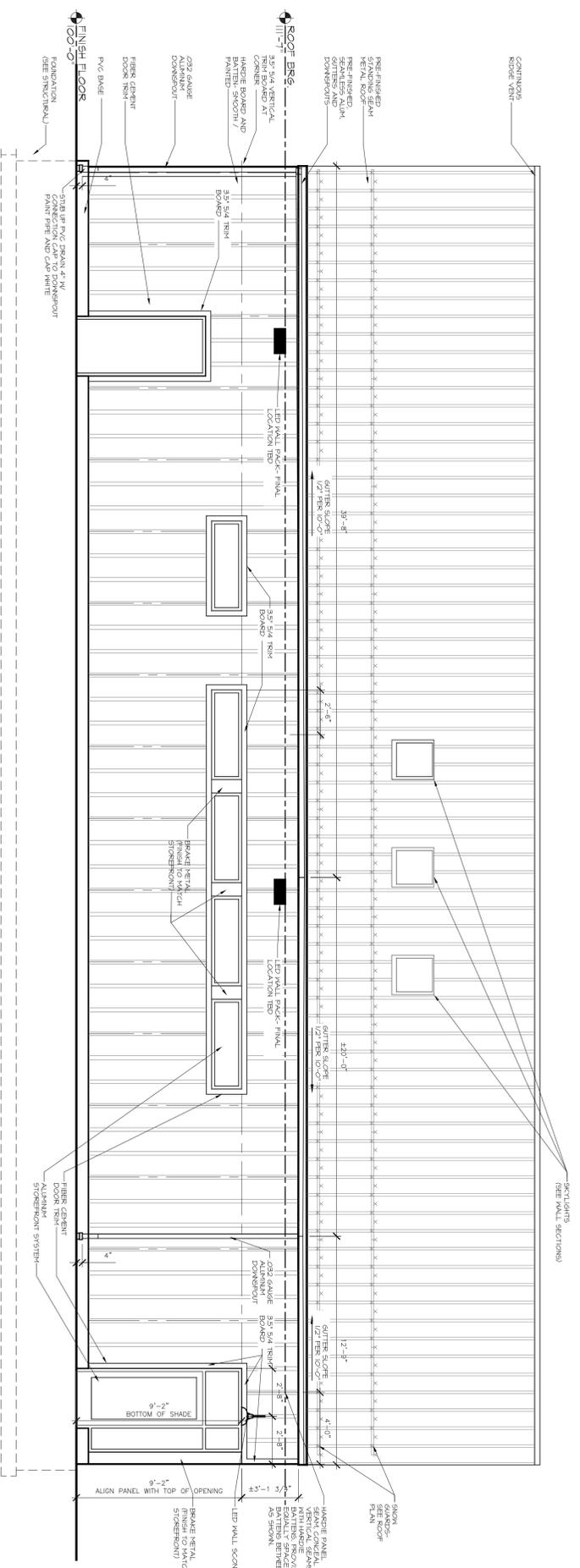
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EXTERIOR FINISH SCHEDULE					
MATERIAL	FINISH	MANUFACTURER	MODEL / TYPE / SERIES	COLOR	COMMENTS
ALUMINUM STOREFRONT BOARD AND BATTEN	PRE-FINISHED / ANODIZED	TBD	TBD	DARK BRONZE	-
STANDING SEAM METAL ROOF	PRE-FINISHED	JAMES HARDIE	TBD	ARCTIC WHITE	BRONZE BATTENS AND ROOF - COLOR ARCTIC WHITE
FIBER CEMENT CORNER TRIM	PRE-FINISHED	TBD	TBD	BLACK	SNAPLOCK SYSTEM - 1 3/4" R95 1" O.C. 24 GA.
FIBER CEMENT WINDOW DOOR TRIM	PRE-FINISHED	JAMES HARDIE	TBD	TBD	-
GUTTER AND DOWNSPOUTS	PRE-FINISHED	TBD	TBD	WHITE TO MATCH HARDIE	SUBMIT SAMPLES TO ARCHITECT FOR APPROVAL
PVC BASE TRIM	PRE-FINISHED	PVC-GBW OR APPROVED EQUAL	5/16" SMOOTH TRIM BOARD	WHITE	-
METAL FLASHING	PRE-FINISHED	CW6 (COATED METALS GROUP)	-	BRIGHT WHITE	-

1. ALL GAG FINISH SHALL BE PAINTED.
 2. ALL GAG FINISH SHALL BE PAINTED AS MATERIALS - 69.08 TO MATCH ADJACENT PRIMARY MATERIAL.
 3. ALL GAG FINISH SHALL BE PAINTED IN FIELD WITH LEAD MASONRY SEALER, PROSOCC SILICONE OR EQUAL. WHERE MASONRY IS ADJACENT TO CONCRETE FLAVOR OR ASPHALT PAINTS, THE LOWER 4'-0" OF THE MASONRY SHALL BE SEALED WITH PROSOCC SALT/BOARD OR EQUAL.



WEST ELEVATION
1/4"=1'-0"



NORTH ELEVATION
1/4"=1'-0"

SIGNAGE NOTE:
 GENERAL CONTRACTOR SHALL PROVIDE SIGNAGE IN CONTRACT. PLEASE USE OWNER'S PREFERRED VENDOR FOR SIGN FABRICATION. OWNER'S PREFERRED VENDOR:
 SHAD SFRAGUE
 HIGHER IMAGE SIGNS+ WRAPS
 PHONE: 404-864-0443
 EMAIL: SHAD@HIGHERIMAGE.NET
 NOTE: SIGN VENDOR IS RESPONSIBLE FOR SIGN PERMITS AND VERIFYING FINAL DESIGN COMPLIANCE WITH LOCAL ORDINANCE REQUIREMENTS.
 * PROVIDE SHOP DRAWINGS TO ARCHITECT AND OWNER. OWNER APPROVAL REQUIRED PRIOR TO SIGN FABRICATION.

BUILDING WALL SIGNAGE
 WALL SIGNAGE SHALL BE ALLOWED UP TO A SIZE EQUIVALENT TO ONE SQUARE FOOT FOR EACH ONE LINEAL FOOT OF BUILDING FRONTAGE OCCUPIED.
 ALLOWABLE SIGNAGE:
 WEST FACADE LENGTH:
 37'-4"
 37 FEET X 1 = 37 SF.
 EAST FACADE AREAS:
 37 SF. ALLOWABLE
 PROPOSED BUILDING SIGNAGE:
 1495 SQ. FT.
 TOTAL WALL SIGN
 1495 SQ. FT. X 37 SF.
 ALLOWED (OK)
 NOTE: THE SIGNAGE SHOWN IS FOR ILLUSTRATIVE PURPOSES ONLY. DO NOT SCALE THE ARCHITECTURAL DRAWINGS FOR FABRICATION OF SIGN DRAWINGS - THESE DRAWINGS ARE NOT SHOP DRAWINGS. THE SIGN VENDOR SHALL, PRIOR TO FABRICATING ANY SIGNS, VISIT THE PROJECT SITE TO VERIFY & OBSERVE FIELD CONDITIONS.

NOTE:
 FINAL FINISH SELECTIONS SHALL BE SUBMITTED TO ARCHITECT FOR REVIEW AND APPROVAL PRIOR TO ORDERING OR INSTALLATION.

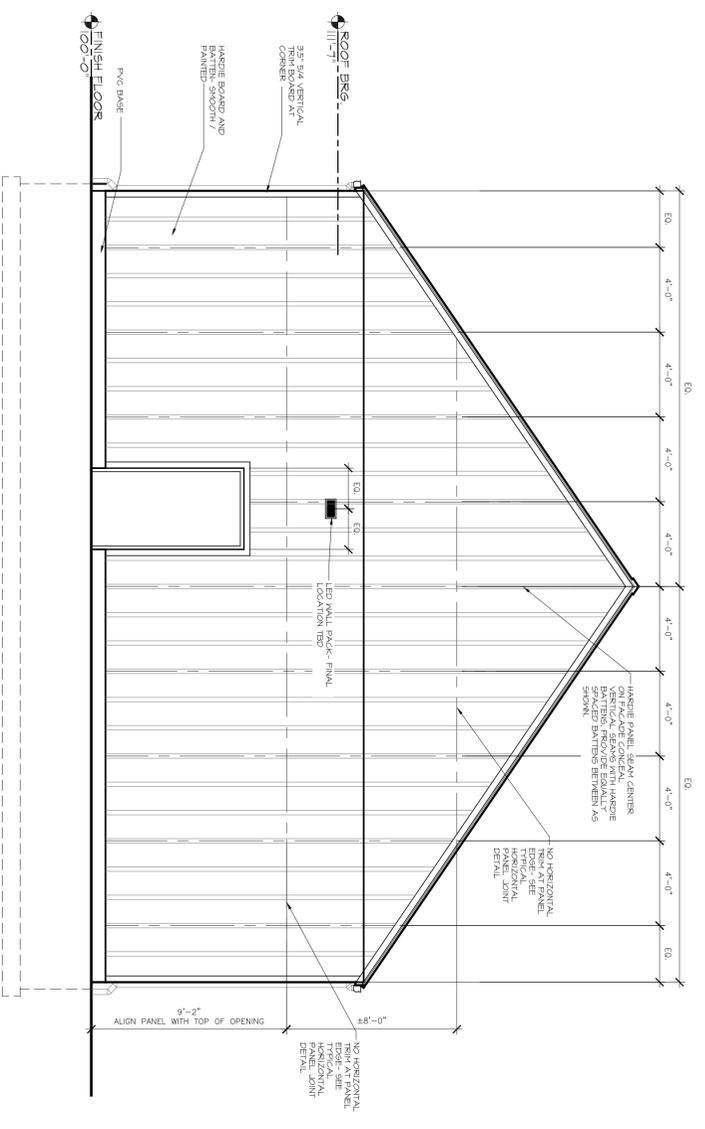
FACADE NOTES
 1. PROVIDE SEALANT AT EXTERIOR AT THE INTERSECTIONS OF ALL DISSIMILAR MATERIALS. VERIFY COLOR OF THE PRIMER/ADJACENT MATERIAL.
 2. FIELD VERIFY ALL OPENINGS FOR ALUMINUM MATERIALS OR FABRICATION.
 3. PROVIDE ISOLATION COATING BETWEEN ALL DISSIMILAR METALS (IE--ALUM TO STEEL).
 4. FABRIC CANPIES AND SIGNAGE SHALL BE DESIGNED AND PERMITTED BY OWNER'S SIGNAGE CONTRACTOR. O.C.' TO COORDINATE ORDER AND INSTALL.
 5. ANY SIGNAGE SHOWN IS FOR ILLUSTRATIVE PURPOSES ONLY. DO NOT SCALE THE ARCHITECTURAL DRAWINGS FOR FABRICATION OF SIGN DRAWINGS. THESE DRAWINGS ARE NOT SHOP DRAWINGS. THE SIGN VENDOR SHALL VISIT THE PROJECT SITE TO VERIFY AND OBSERVE FIELD CONDITIONS PRIOR TO FABRICATION.
 6. ALL MASONRY SHALL RECEIVE A REBELLENT THE LOWER 48" OF THE MASONRY, WHERE ADJACENT TO ASPHALT/CONCRETE FLATWORK SHALL BE SEALED WITH PROSOCC SALT/BOARD OR APPROVED EQUAL. ALL OTHER AREAS SHALL BE SEALED WITH PROSOCC SILOXANE OR APPROVED EQUAL.
 7. ALL EXPOSED STEEL PLATES ANGLES AND OTHER STRUCTURAL SHAPES SHALL BE PRIVED AND PAINTED IN THE FIELD.
 8. ALL WOOD IN CONTACT WITH CONCRETE OR MASONRY SHALL BE TREATED.
 9. BARRIER E.I.F.S. SYSTEMS ARE NOT AN ACCEPTABLE ALTERNATIVE. INSTALLED BARRIER SYSTEMS WILL BE REMOVED BY THE CONTRACTOR AT THE CONTRACTOR'S RISK. SYSTEMS WILL BE COMPLETED AT THE CONTRACTOR'S RISK. NO ADDITIONAL COST TO THE OWNER.

FOR SUP SUBMITTAL
 PROJECT TYPE: NEW CONSTRUCTION
 CLIENT: GREEN PEAK INNOV.
 10070 HARVEST PARK
 DIMONDVALE, MI 48821
 SKYMINT MEDICAL MARIJUANA PROVISIONING CENTER
 NORTHWIND DR. PARCEL 20-127-003
 OKEMOS, MI 48864
 ARCHITECT: STUDIO [INTRIGUE] ARCHITECTS
 114 S. WASHINGTON AVE. SUITE 100 LANSING MICHIGAN 48202
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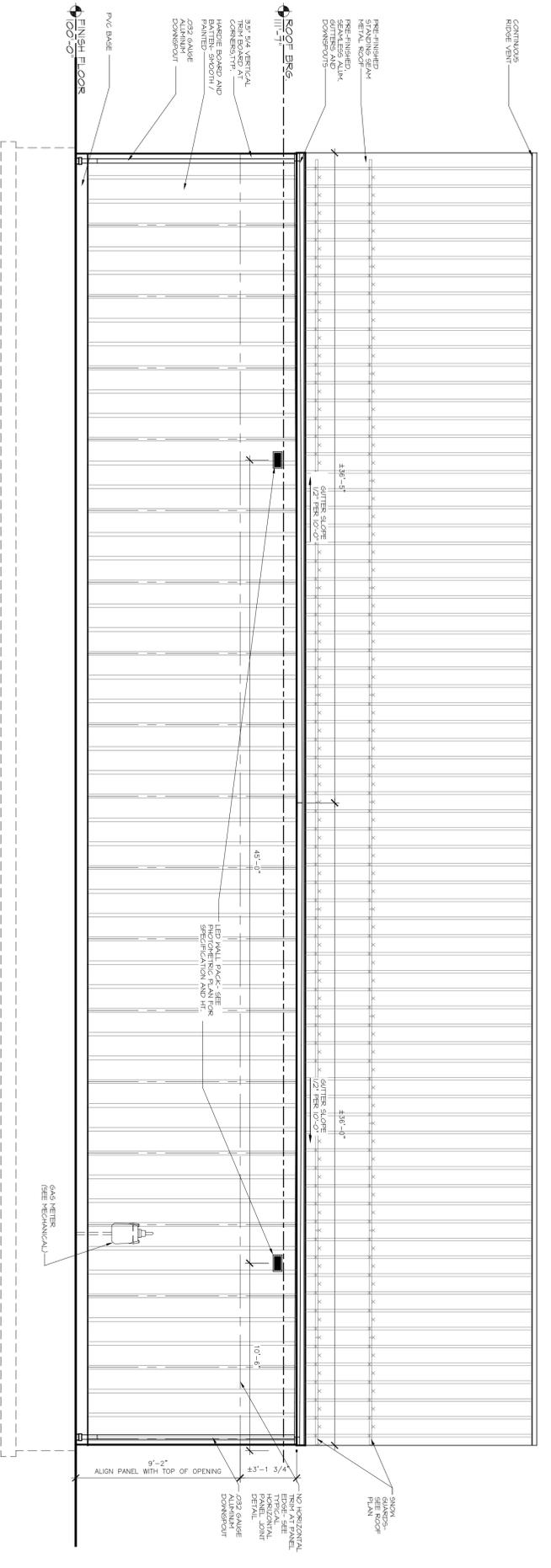
02/13/20 SUP SUBMITTAL

Copyright 2020 Studio [Intrigue] Architects, LLC
 Project Number: 19,098
 Street: A-301

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 Project Type: NEW CONSTRUCTION
 Client: GREEN PEAK INNOV.
 10070 HARVEST PARK DIMONDVALE, MI 48821
 SKYMINT MEDICAL MARIJUANA PROVISIONING CENTER
 NORTHWIND DR. PARCEL 20-127-003 OKEMOS, MI 48864
 Project: NEW CONSTRUCTION
 State of Michigan Licensed Architect Kenneth Leroy Jones No. 130105400
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EAST ELEVATION
1/4"=1'-0"



SOUTH ELEVATION
1/4"=1'-0"

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OKEMOS, MI 48864

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Project Number: **19,098**

Sheet: **A-302**

February 13, 2020

Mr. Kenneth Jones
Studio Intrigue Architects, LLC
1114 South Washington Avenue
Lansing, Michigan 48910

Re: Traffic Impact Analysis — Skymint Provisioning Center, Meridian Township, MI

Dear Mr. Jones:

Progressive AE has completed a review of the current and future traffic operations along M-43 (Grand River Avenue) at the intersection with Northwind Drive adjacent to the proposed marijuana provisioning center being proposed by Skymint. The following sections summarize our findings and recommendations regarding potential measures to address existing and future concerns.

INTRODUCTION

A marijuana provisioning center is being proposed on a vacant site on the east side of Northwind Drive, just south of M-43 (Grand River Avenue) in Meridian Township. Figure 1 shows the proposed location of the site. The provisioning center will include a 2,700-square-foot building with an access driveway to Northwind Drive. A copy of the site plan is included in the appendix to this report. The intersection of Northwind Drive with M-43 (Grand River Avenue) is currently signalized. For the purposes of this study, the provisioning center is assumed to be completed and fully operational this year (2020).

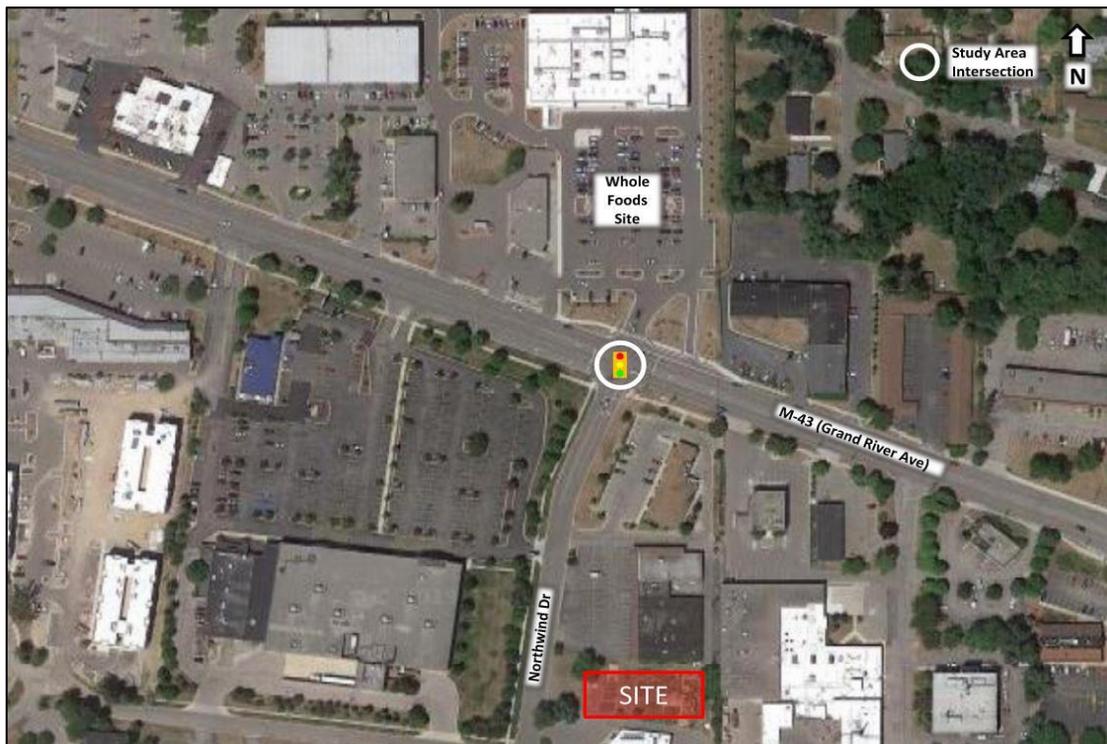


Figure 1. Location map and study area.

As part of the project approval process, the township has requested a traffic impact study be prepared to quantify the potential impacts the proposed provisioning center may have on the adjacent roadway network. The study includes analyses of the signalized M-43 (Grand River Avenue)/Northwind Drive intersection during the typical morning and afternoon peak hours.

The purpose of this traffic impact study was to analyze the potential impacts of the proposed provisioning center and to identify what physical and/or operational roadway system improvements, if any, may be necessary to mitigate existing or projected background issues, and/or impacts created by this development's traffic.

EXISTING CONDITIONS

The first step in the identification of potential traffic impacts is to determine how well the adjacent streets are operating under current conditions. The existing conditions provide a comparison to subsequent future conditions analyses. This section summarizes the data collection and existing operating conditions analysis procedures.



Northbound Northwind Drive at M-43 (Grand River Avenue)

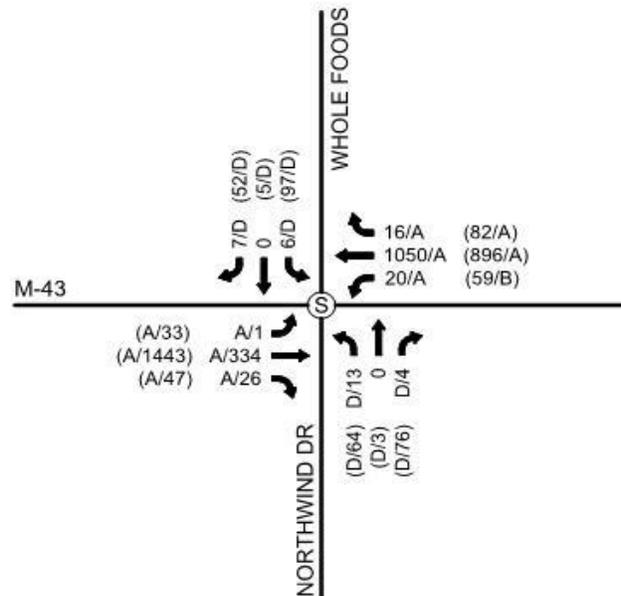
Study Area

The study area includes the signalized intersection of M-43 (Grand River Avenue) with Northwind Drive which is under the operation jurisdiction of the Michigan Department of Transportation (MDOT). The north leg of the intersection forms the driveway to the existing Whole Foods supermarket site. The existing speed limit along M-43 (Grand River Avenue) is 40 mph in the vicinity of the site. All approaches to the intersection include separate left-turn lanes. The eastbound and westbound M-43 (Grand River Avenue) approaches include separate right-turn lanes while the northbound and southbound approaches have a shared through/right-turn lane. The existing signal currently operates as a two-phase signal with a 100-second cycle length during the morning and afternoon peak-hours. Left-turn movements operate as permissive only on all approaches to the intersection.

Data Collection

Existing peak-hour turning movement counts at the M-43 (Grand River Avenue)/Northwind Drive intersection were collected on December 10, 2019. Turning movement counts were performed from 7 a.m. to 9 a.m. and from 4 p.m. to 6 p.m. Detailed printouts of the count report is included in the appendix.

These counts indicated that the weekday peak-hour generally occurs between 7:30–8:30 a.m. and 5:00–6:00 p.m. Figure 2 shows the existing peak-hour volumes at the study area intersections.



LEGEND	
XX (XX)	= AM (PM)
A	= LEVEL-OF-SERVICE
Ⓢ	= SIGNALIZED INTERSECTION
—	= STOP-CONTROLLED

Figure 2. Existing Peak-Hour Volumes and LoS

Vehicle Volumes and Capacity Calculations

Intersection "level-of-service" or capacity calculations were completed to evaluate the existing operations of the M-43 (Grand River Avenue)/Northwind Drive intersection. These calculations were completed using techniques outlined in the *2000 Highway Capacity Manual*. Synchro® traffic analysis software, based on the *Highway Capacity Manual* methodologies, was used in the analysis. Levels-of-Service (LoS) at signalized intersections relate to the delay, traffic volumes, and intersection geometry. Levels of Service (LoS) are expressed in a range from "A" to "F", with "A" denoting the best operating conditions. Generally, a LoS "D" is considered the minimum acceptable service level for signalized intersections in most areas, although a LoS "E" or LoS "F" can be deemed as acceptable at times in urban areas or during the peak-hours. Criteria for determining the LoS at signalized intersections is outlined in the appendix of this report.

Table 1. Existing Levels-of-Service and Delay

Intersection/ Movement	Existing Conditions			
	AM		PM	
	LoS	Delay (s)	LoS	Delay (s)
M-43 (Grand River Ave) / Northwind Drive				
Overall	A	3.5	B	10.2
<i>EBL</i>	A	1.4	A	4.4
<i>EBT</i>	A	1.7	A	7.3
<i>EBR</i>	A	1.5	A	3.8
<i>WBL</i>	A	1.5	B	10.4
<i>WBT</i>	A	2.5	A	5.5
<i>WBR</i>	A	1.4	A	3.9
<i>NBL</i>	D	50.0	D	40.7
<i>NBT/R</i>	D	46.3	D	38.5
<i>SBL</i>	D	47.8	D	44.7
<i>SBT/R</i>	D	46.4	D	37.3

Source: Progressive AE, December 2019

Results of the level-of-service analyses are shown in Table 1 and in Figure 2. The intersection currently operates at an overall LoS "A" during the morning peak-hour and LoS "B" during the afternoon peak-hour. All individual movements currently operate at LoS "D" or better during both peak hours. Copies of the Synchro® analyses are included in the appendix.

FUTURE (2020) CONDITIONS

The purpose of this section is to summarize the anticipated future (2020) traffic conditions within the study area with background traffic growth and the proposed development traffic in place. These analyses provide the before/after comparison of anticipated conditions and help define the timing and applicability of any potential roadway improvements necessary to mitigate the impact of the proposed development.

Background Traffic Growth

The existing peak-hour volumes within the study area were increased by 1.0 percent annually to account for background traffic growth. As the analysis year for this study is 2020 (one year), existing traffic volumes were increased by 1.0 percent.

Proposed Development and Site Access

The proposed marijuana provisioning center will occupy a 2,700-square-foot building constructed on a vacant lot on the east side of Northwind Drive, just south of M-43 (Grand River Avenue). Access to the provisioning center will be via a new site driveway to Northwind Drive.

Trip Generation

Trip Generation, Tenth Edition, by the Institute of Transportation Engineers (ITE) was used to calculate the anticipated traffic that may be generated by the proposed marijuana provisioning center. Trips were calculated for the typical weekday morning and afternoon peak-hours. Table 2 shows the typical weekday peak-hour trips anticipated to be generated by the proposed development.

Table 2. Weekday Morning and Afternoon Peak-Hour Trip Generation Summary

Land Use	ITE Code	Size	AM		PM	
			Enter	Exit	Enter	Exit
Marijuana Dispensary	882	2,700 sft	16	13	30	30

Source: Progressive AE, February 2020

Trip Distribution

The directional distribution of the project-generated new trips was based upon existing travel patterns and engineering judgment. The directional distribution to/from the proposed development is expected to be approximately 60 percent to/from the west along M-43 (Grand River Avenue) and 40 percent to from the east along M-43 (Grand River Avenue). While a small portion of the trips to/from the site may be from the south on Northwind Drive, this percentage was assumed to be zero to be conservative and assign all new trips to the signalized intersection at M-43 (Grand River Avenue) and Northwind Drive.

Based upon the anticipated distribution patterns for new trips, the peak-hour development traffic was assigned to the M-43 (Grand River Avenue)/Northwind Drive intersection. Figure 3 shows the total anticipated morning and afternoon peak-hour trips for site-generated traffic upon full completion and occupancy of the proposed site.

The anticipated site trips were added to the existing peak-hour volumes to depict the estimated total future (2020) volumes during the morning and afternoon peak-hours. Figure 4 shows the total anticipated future (2020) volumes including background traffic growth and site-generated traffic.

Future (2020) Capacity Analysis

Intersection level-of-service calculations were completed to evaluate the future (2020) morning and afternoon peak-hour conditions at the M-43 (Grand River Avenue)/Northwind Drive intersection. No improvements or signal timing adjustments were made for this analysis. The results of the level-of-service analyses are shown in Table 3 and Figure 4.

As shown in Table 3 and Figure 4, the intersection is anticipated to continue to operate at an overall LoS "A" during the morning peak-hour and LoS "B" during the afternoon peak-hour. All individual movements are anticipated to continue to operate at LoS "D" or better during the morning and afternoon peak-hours. Copies of the Synchro® analyses are included in the appendix.

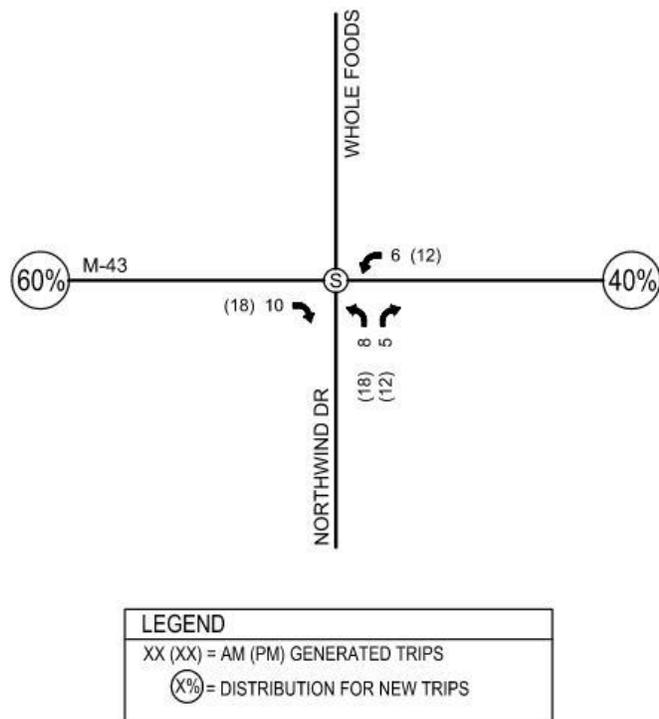


Figure 3. Future (2020) Trip Distribution

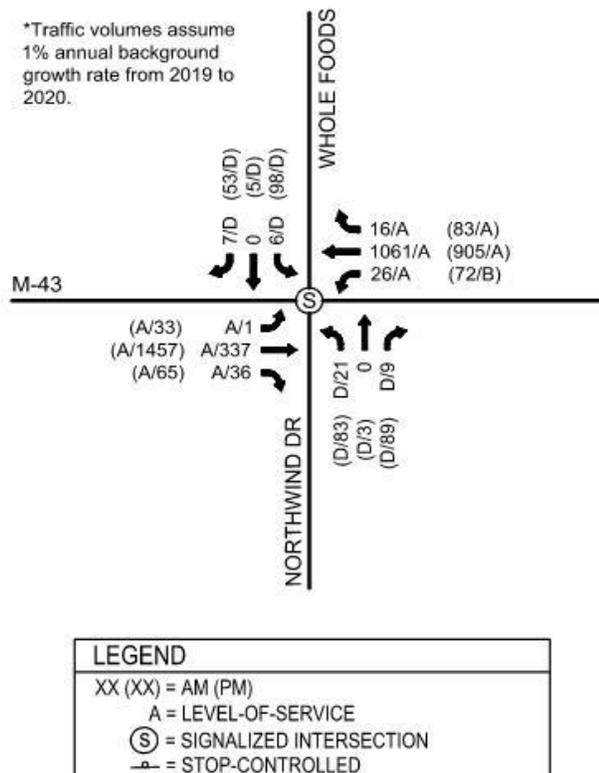


Figure 4. Future (2020) Peak-Hour Volumes and LoS

Table 3. Future (2020) Levels-of-Service and Delay

Intersection/ Movement	Existing Conditions				Future (2020) Conditions			
	AM		PM		AM		PM	
	LoS	Delay (s)	LoS	Delay (s)	LoS	Delay (s)	LoS	Delay (s)
M-43 (Grand River Ave) / Northwind Drive								
Overall	A	3.5	B	10.2	A	4.5	B	10.7
<i>EBL</i>	A	1.4	A	4.4	A	1.8	A	4.5
<i>EBT</i>	A	1.7	A	7.3	A	2.2	A	7.5
<i>EBR</i>	A	1.5	A	3.8	A	1.9	A	3.9
<i>WBL</i>	A	1.5	B	10.4	A	2.0	B	13.5
<i>WBT</i>	A	2.5	A	5.5	A	3.2	A	5.6
<i>WBR</i>	A	1.4	A	3.9	A	1.9	A	4.0
<i>NBL</i>	D	50.0	D	40.7	D	49.6	D	42.0
<i>NBT/R</i>	D	46.3	D	38.5	D	44.2	D	38.9
<i>SBL</i>	D	47.8	D	44.7	D	45.2	D	45.0
<i>SBT/R</i>	D	46.4	D	37.3	D	44.1	D	37.2

Source: Progressive AE, February 2020

CONCLUSIONS

Based on the analyses performed, the future development of the proposed marijuana provisioning center will have minimal impacts to existing operations within the study area. The findings of this study are as follows:

- The proposed marijuana provisioning center is anticipated to generate 29 (16 entering, 13 exiting) new weekday morning peak-hour trips and 60 (30 entering, 30 exiting) new weekday afternoon peak-hour trips.
- The M-43 (Grand River Avenue)/Northwind Drive intersection currently operates at an overall LoS “B” or better during the morning and afternoon peak hours. All individual movements operate at LoS “D” or better during both peak hours.
- After the completion of the proposed marijuana provisioning center, the M-43 (Grand River Avenue)/Northwind Drive intersection is anticipated to continue to operate at LoS “B” or better during the morning and afternoon peak-hours. All individual movements are also anticipated to continue to operate at LoS “D” or better during both peak hours.
- The analyses show the existing M-43 (Grand River Avenue)/Northwind Drive signalized intersection has adequate capacity to handle the anticipated traffic from the proposed provisioning center. No improvements or signal timing adjustments at the intersection would be recommended based on the analyses.

Sincerely,



Nicholas D. LaCroix, PE, PTOE
Senior Transportation Engineer



Christopher E. Zull, PE
Transportation Practice Leader

NDL:smg

Enclosures

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Technical Appendix
Skymint Provisioning Center TIS

- **Level of Service Definitions**
- **Glossary**
- **Site Plan**
- **Traffic Count Data**
- **Synchro Analyses Results**

Level of Service Definitions

Signalized Intersections

- Level of Service A:** Describes operations with very low average stopped delay, i.e., less than 10.0 seconds per vehicle. This occurs when progression is extremely favorable, and most vehicles arrive during the green phase. Most vehicles do not stop at all. Short cycle lengths may also contribute to low delay.
- Level of Service B:** Describes operations with an average stopped delay in the range of 10.0 to 20.0 seconds per vehicle. This generally occurs with good progression and/or short cycle lengths. More vehicles stop than for LOS A, causing higher levels of average delay.
- Level of Service C:** Describes operations with an average stopped delay in the range of 20.1 to 35.0 seconds per vehicle. These higher delays may result from fair progression and/or longer cycle lengths. Individual cycle failures may begin to appear in this level. The number of vehicles stopping is significant at this level, although many still pass through the intersection without stopping.
- Level of Service D:** Describes operations with an average stopped delay in the range of 35.1 to 55.0 seconds per vehicle. At Level of Service D, the influence of congestion becomes more noticeable. Longer delays may result from some combination of unfavorable progression, long cycle lengths, or high v/c (volume/capacity) ratios. Many vehicles stop, and the proportion of vehicles not stopping declines. Individual cycle failures are noticeable.
- Level of Service E:** Describes operations with an average stopped delay in the range of 55.1 to 80.0 seconds per vehicle. This is considered to be the limit of acceptable delay in many cases. These high delay values generally indicate poor progression, long cycle lengths, and high v/c ratios. Individual cycle failures are a frequent occurrence.
- Level of Service F:** Describes operations with an average stopped delay in excess of 80.0 seconds per vehicle. This is considered to be unacceptable to most drivers. This condition often occurs with over-saturation, i.e., when arrival flow rates exceed the capacity of the intersection. It may also occur at high v/c ratios with many individual cycle failures. Poor progression and long cycle lengths may also be major contributing causes to such delay levels.

Level of Service Definitions

Unsignalized Intersections

Level of Service A:	Average delay per vehicles for impeded movements is less than 10 seconds. There is little or no delay with typically low side street and/or main street traffic.
Level of Service B:	Average stopped delays from 10.1 seconds to 15.0 seconds. Short delays, many acceptable gaps in main street traffic stream.
Level of Service C:	Average delay per vehicle ranges from 15.1 to 25.0 seconds. Average traffic delays with frequent gaps in main street traffic.
Level of Service D:	Average delays from 25.1 to 35.0 seconds for impeded movements. Long traffic delays for impeded movements due in part to a limited number of acceptable gaps.
Level of Service E:	Average delays in the 35.1 to 50.0 second range. May experience very long delays for impeded movements with a very small number of acceptable gaps in the traffic stream.
Level of Service F:	Average vehicle delays of over 50.0 seconds. Extreme traffic delays with virtually no acceptable gaps in main street traffic.

Glossary

Approach: A set of lanes accommodating all left-turn, through, and right-turn movements arriving at an intersection from a given direction.

Arterial: Signalized streets that serve primarily through traffic and provide access to abutting properties as a secondary function.

Average Stopped Delay: The total time vehicles are stopped in an intersection approach or lane group during a specified time interval divided by the volume departing from the approach or lane group during the same time period, in seconds per vehicle.

Background Traffic: Traffic volumes that will be on the roadway network without the presence of the proposed development.

Bypass Lane: A one-lane widening on a two-lane roadway that allows through traffic to pass by waiting left-turn traffic.

Capacity: The maximum rate of flow at which persons or vehicles can be reasonably expected to traverse a point or uniform segment of a lane or roadway during a specified time period under prevailing roadway, traffic, and control conditions; usually expressed as vehicles per hour or persons per hour.

Conflicting Traffic Volume: The volume of traffic which conflicts with a specific movement at an intersection.

Corridor: A lineal study area aligned with a roadway facility in which traffic, land use, right-of-way, environmental, and other factors are evaluated to determine future transportation facility needs.

Cycle: Any complete sequence of traffic signal indications.

Cycle Length: The total time for a traffic signal to complete one cycle.

Design Hour Volume: The traffic volume for the design hour, usually a forecast of the relevant peak hour volume, in vehicles per hour.

Diverted Linked Trips: Trips from the traffic volume on roadways within the vicinity of the generator but which requires a diversion from that roadway to another roadway to gain access to the site.

Driveway Offset: Distance between driveways on opposite sides of a roadway, measured parallel to roadway.

Freeway: A multi-lane divided highway having a minimum of two lanes for exclusive use of traffic in each direction and full control of access and egress.

Gaps (Critical Gap): The median time headway between vehicles in a major traffic stream which will permit side-street vehicles to cross through or merge with the major traffic stream.

Green Time: The actual length of the "green" indication for a given movement at a signalized intersection.

Level of Service: A qualitative measure describing operational conditions within a traffic stream; generally described in terms of such factors as speed and travel time, delay, freedom to maneuver, traffic interruptions, comfort and convenience, and safety.

Operational Analysis: A use of capacity analysis to determine the prevailing level of service on an existing or projected facility, with known or projected traffic, roadway, and control conditions. This analysis can involve a particular location, such as an intersection or a corridor.

Pass-by Trips: Trips made as intermediate stops on the way from an origin to a primary trip destination.

Peak Hour (AM): The one hour period in the morning representing the highest hourly volume of traffic flow on the adjacent public street system.

Peak Hour (PM): The one hour period in the afternoon or evening representing the highest hourly volume of traffic flow on the adjacent public street system.

Peak Hour Factor: The hourly volume during the maximum volume hour of the day divided by four times the peak 15-minute flow within the peak hour; a measure of traffic demand fluctuation within the peak hour.

Phase: The part of the signal cycle allocated to any combination of traffic movements receiving the right-of-way simultaneously during one or more intervals.

Roadway Conditions: Geometric characteristics of a street or highway, including the type of facility, number and width of lanes (by direction), shoulder widths and lateral clearances, design speed, etc.

Service Drive: A roadway (usually private) that provides internal access to two or more uses.

Site Traffic: Existing or projected vehicular traffic generated by the development.

Study Area: The geographic area containing site access points and critical intersections (and connecting highway segments) which are impacted by the site-traffic generated by the development, and should be evaluated.

System Improvements: Added lanes, signal improvements, and other roadway improvements not considered site-related improvements.

Traffic Impact: The adverse impact on intersection Level of Service and/or street and highway safety and operations as determined by the criteria and procedures set forth in this handbook.

Trip (Directional Trip): A single or one-direction vehicle movement with either the origin or the destination (exiting or entering) inside a study site.

Trip Distribution: The distribution or assignment of site traffic into site driveways and study area roadways/intersections based upon expected direction of approach and departure.

Unsignalized Intersection: Any intersection not controlled by traffic signals.

Volume: The number of persons or vehicles passing a point on a lane or roadway during some time interval, such as one hour or during an average day.

Volume-to-Capacity Ratio (V/C): The ratio of demand flow rate to capacity for a traffic facility.

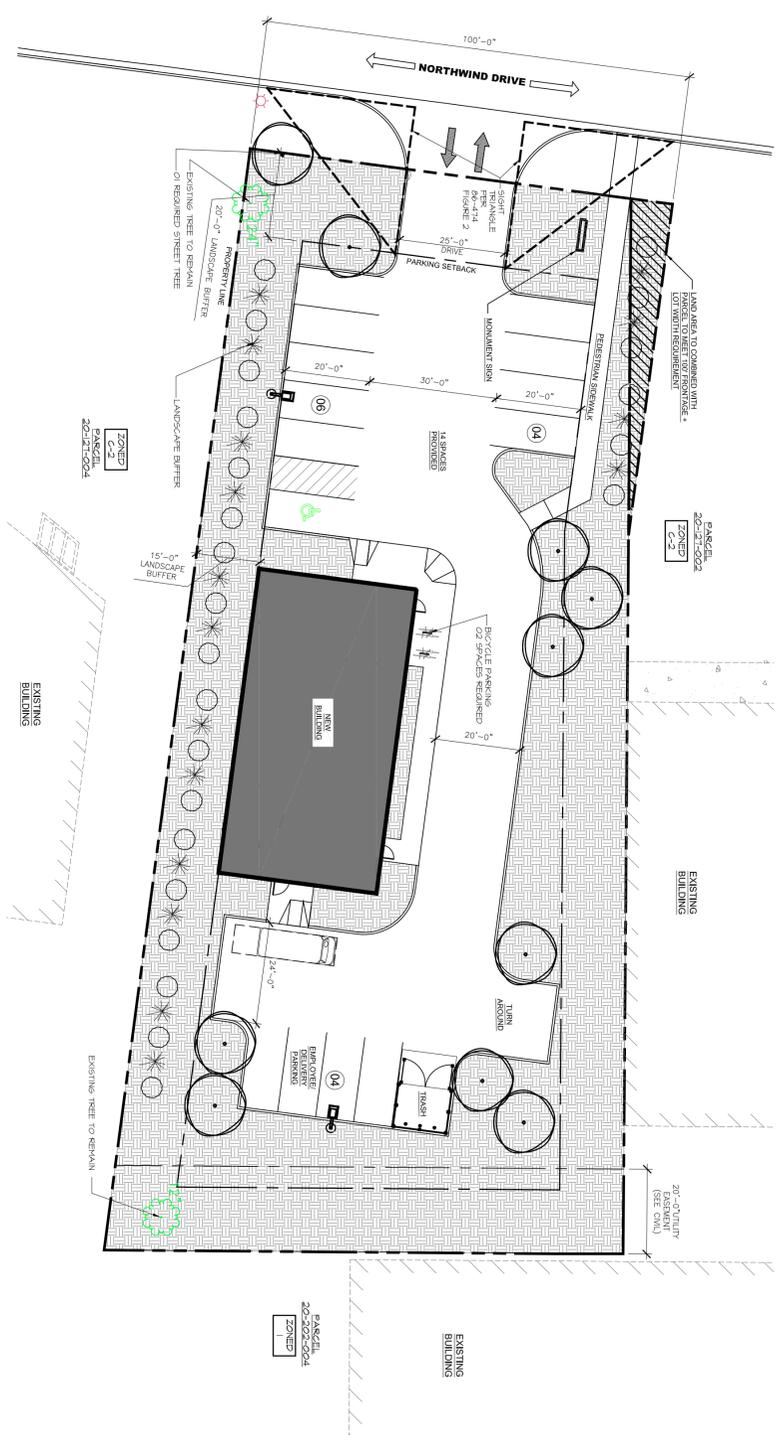
Site Plan



SITE LOCATION
PARCEL 20-127-003

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**NORTHWIND DRIVE
PARCEL 20-127-003
GRAPHIC SITE PLAN**



SITE DATA

ZONING = C-2 (COMMERCIAL)
PARCEL AREA = ± 0.629 ACRES
NEW BUILDING AREA = 12,700.4 SF.
IMPERVIOUS AREA: 113,546.25 SF (44.4% LOT AREA)
49.48% 10% MAX
PARKING REQUIREMENTS:
RETAIL (NON-SPECIFIC UNDER 25,000 GFA) 5.5 SPACE PER 1,000 GROSS FLOOR AREA MAXIMUM.
68095 FLOOR AREA = 12,556 SF.
2,556/1,000 = 2.556 X'S
14.05 SPACES PERMITTED
SPACES PROVIDED = 14 SPACES

APPLICANT
GREEN PEAK INNOVATIONS, LLC 10070 HARVEST PARK, DIMONDALÉ, MI 48821 # 517-408-0172

02/11/20	SUP SUBMITTAL

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Project Type
NEW CONSTRUCTION

Client
SKYMINT
MEDICAL MARIJUANA
PROVISIONING CENTER
NORTHWIND DR. PARCEL 20-127-003
OKEMOS, MI 48864

Project
GREEN PEAK INNOV.
10070 HARVEST PARK
DIMONDALÉ, MI 48821

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Project Number
19,098

Street
C-100

Traffic Count Data



Progressive AE
1811 4 Mile Rd NE

Grand Rapids, Michigan, United States 49525
(616) 361-2664

Count Name: M-43 at Northwind Dr
Site Code:
Start Date: 12/10/2019
Page No: 1

Turning Movement Data

Start Time	M-43 (Grand River Ave) Eastbound					M-43 (Grand River Ave) Westbound					Northwind Dr Northbound					Whole Foods Drwy Southbound					Int. Total
	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	
7:00 AM	0	52	2	1	54	0	124	3	0	127	8	0	1	0	9	2	0	0	0	2	192
7:15 AM	0	58	1	0	59	3	204	0	0	207	3	0	2	0	5	1	0	0	0	1	272
7:30 AM	0	76	2	0	78	2	277	2	0	281	4	0	2	0	6	1	0	0	0	1	366
7:45 AM	1	89	6	0	96	2	298	4	0	304	3	0	1	1	4	2	0	1	0	3	407
Hourly Total	1	275	11	1	287	7	903	9	0	919	18	0	6	1	24	6	0	1	0	7	1237
8:00 AM	0	78	6	0	84	7	250	8	0	265	1	0	1	0	2	1	0	3	1	4	355
8:15 AM	0	91	12	0	103	9	225	2	0	236	5	0	0	0	5	2	0	3	0	5	349
8:30 AM	2	106	5	0	113	3	216	8	0	227	5	0	2	0	7	3	0	0	0	3	350
8:45 AM	3	90	2	1	95	18	244	6	0	268	4	0	2	0	6	2	0	4	0	6	375
Hourly Total	5	365	25	1	395	37	935	24	0	996	15	0	5	0	20	8	0	10	1	18	1429
*** BREAK ***	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
4:00 PM	4	305	8	0	317	15	205	14	1	234	18	0	21	1	39	26	0	10	1	36	626
4:15 PM	9	295	12	1	316	14	211	14	0	239	13	0	13	1	26	18	1	9	1	28	609
4:30 PM	8	308	5	3	321	13	203	13	0	229	32	1	28	0	61	21	3	10	1	34	645
4:45 PM	11	332	6	0	349	15	191	19	0	225	14	0	15	0	29	16	2	14	1	32	635
Hourly Total	32	1240	31	4	1303	57	810	60	1	927	77	1	77	2	155	81	6	43	4	130	2515
5:00 PM	6	381	11	0	398	9	200	10	0	219	18	0	22	1	40	22	0	17	0	39	696
5:15 PM	5	384	9	1	398	21	242	21	0	284	17	1	16	1	34	25	2	10	0	37	753
5:30 PM	12	355	13	0	380	18	226	22	0	266	14	0	19	0	33	22	2	12	0	36	715
5:45 PM	10	323	14	2	347	11	228	29	0	268	15	2	19	0	36	28	1	13	0	42	693
Hourly Total	33	1443	47	3	1523	59	896	82	0	1037	64	3	76	2	143	97	5	52	0	154	2857
Grand Total	71	3323	114	9	3508	160	3544	175	1	3879	174	4	164	5	342	192	11	106	5	309	8038
Approach %	2.0	94.7	3.2	-	-	4.1	91.4	4.5	-	-	50.9	1.2	48.0	-	-	62.1	3.6	34.3	-	-	-
Total %	0.9	41.3	1.4	-	43.6	2.0	44.1	2.2	-	48.3	2.2	0.0	2.0	-	4.3	2.4	0.1	1.3	-	3.8	-
Lights	70	3265	113	-	3448	159	3487	171	-	3817	173	4	161	-	338	190	11	105	-	306	7909
% Lights	98.6	98.3	99.1	-	98.3	99.4	98.4	97.7	-	98.4	99.4	100.0	98.2	-	98.8	99.0	100.0	99.1	-	99.0	98.4
Mediums	0	52	1	-	53	1	43	3	-	47	0	0	3	-	3	2	0	1	-	3	106
% Mediums	0.0	1.6	0.9	-	1.5	0.6	1.2	1.7	-	1.2	0.0	0.0	1.8	-	0.9	1.0	0.0	0.9	-	1.0	1.3
Articulated Trucks	1	6	0	-	7	0	14	1	-	15	1	0	0	-	1	0	0	0	-	0	23
% Articulated Trucks	1.4	0.2	0.0	-	0.2	0.0	0.4	0.6	-	0.4	0.6	0.0	0.0	-	0.3	0.0	0.0	0.0	-	0.0	0.3
Pedestrians	-	-	-	9	-	-	-	-	1	-	-	-	-	5	-	-	-	-	5	-	-
% Pedestrians	-	-	-	100.0	-	-	-	-	100.0	-	-	-	-	100.0	-	-	-	-	100.0	-	-

Turning Movement Peak Hour Data (7:30 AM)

Start Time	M-43 (Grand River Ave) Eastbound					M-43 (Grand River Ave) Westbound					Northwind Dr Northbound					Whole Foods Drwy Southbound					Int. Total
	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	
7:30 AM	0	76	2	0	78	2	277	2	0	281	4	0	2	0	6	1	0	0	0	1	366
7:45 AM	1	89	6	0	96	2	298	4	0	304	3	0	1	1	4	2	0	1	0	3	407
8:00 AM	0	78	6	0	84	7	250	8	0	265	1	0	1	0	2	1	0	3	1	4	355
8:15 AM	0	91	12	0	103	9	225	2	0	236	5	0	0	0	5	2	0	3	0	5	349
Total	1	334	26	0	361	20	1050	16	0	1086	13	0	4	1	17	6	0	7	1	13	1477
Approach %	0.3	92.5	7.2	-	-	1.8	96.7	1.5	-	-	76.5	0.0	23.5	-	-	46.2	0.0	53.8	-	-	-
Total %	0.1	22.6	1.8	-	24.4	1.4	71.1	1.1	-	73.5	0.9	0.0	0.3	-	1.2	0.4	0.0	0.5	-	0.9	-
PHF	0.250	0.918	0.542	-	0.876	0.556	0.881	0.500	-	0.893	0.650	0.000	0.500	-	0.708	0.750	0.000	0.583	-	0.650	0.907
Lights	0	314	25	-	339	20	1036	14	-	1070	12	0	3	-	15	6	0	6	-	12	1436
% Lights	0.0	94.0	96.2	-	93.9	100.0	98.7	87.5	-	98.5	92.3	-	75.0	-	88.2	100.0	-	85.7	-	92.3	97.2
Mediums	0	14	1	-	15	0	9	1	-	10	0	0	1	-	1	0	0	1	-	1	27
% Mediums	0.0	4.2	3.8	-	4.2	0.0	0.9	6.3	-	0.9	0.0	-	25.0	-	5.9	0.0	-	14.3	-	7.7	1.8
Articulated Trucks	1	6	0	-	7	0	5	1	-	6	1	0	0	-	1	0	0	0	-	0	14
% Articulated Trucks	100.0	1.8	0.0	-	1.9	0.0	0.5	6.3	-	0.6	7.7	-	0.0	-	5.9	0.0	-	0.0	-	0.0	0.9
Pedestrians	-	-	-	0	-	-	-	-	0	-	-	-	-	1	-	-	-	-	1	-	-
% Pedestrians	-	-	-	-	-	-	-	-	-	-	-	-	-	100.0	-	-	-	-	100.0	-	-



Progressive AE
1811 4 Mile Rd NE

Grand Rapids, Michigan, United States 49525
(616) 361-2664

Count Name: M-43 at Northwind Dr
Site Code:
Start Date: 12/10/2019
Page No: 3

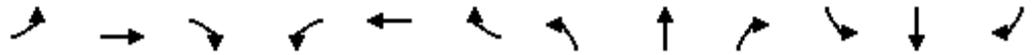
Turning Movement Peak Hour Data (5:00 PM)

Start Time	M-43 (Grand River Ave) Eastbound					M-43 (Grand River Ave) Westbound					Northwind Dr Northbound					Whole Foods Drwy Southbound					Int. Total
	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	
5:00 PM	6	381	11	0	398	9	200	10	0	219	18	0	22	1	40	22	0	17	0	39	696
5:15 PM	5	384	9	1	398	21	242	21	0	284	17	1	16	1	34	25	2	10	0	37	753
5:30 PM	12	355	13	0	380	18	226	22	0	266	14	0	19	0	33	22	2	12	0	36	715
5:45 PM	10	323	14	2	347	11	228	29	0	268	15	2	19	0	36	28	1	13	0	42	693
Total	33	1443	47	3	1523	59	896	82	0	1037	64	3	76	2	143	97	5	52	0	154	2857
Approach %	2.2	94.7	3.1	-	-	5.7	86.4	7.9	-	-	44.8	2.1	53.1	-	-	63.0	3.2	33.8	-	-	-
Total %	1.2	50.5	1.6	-	53.3	2.1	31.4	2.9	-	36.3	2.2	0.1	2.7	-	5.0	3.4	0.2	1.8	-	5.4	-
PHF	0.688	0.939	0.839	-	0.957	0.702	0.926	0.707	-	0.913	0.889	0.375	0.864	-	0.894	0.866	0.625	0.765	-	0.917	0.949
Lights	33	1433	47	-	1513	59	886	82	-	1027	64	3	76	-	143	97	5	52	-	154	2837
% Lights	100.0	99.3	100.0	-	99.3	100.0	98.9	100.0	-	99.0	100.0	100.0	100.0	-	100.0	100.0	100.0	100.0	-	100.0	99.3
Mediums	0	10	0	-	10	0	10	0	-	10	0	0	0	-	0	0	0	0	-	0	20
% Mediums	0.0	0.7	0.0	-	0.7	0.0	1.1	0.0	-	1.0	0.0	0.0	0.0	-	0.0	0.0	0.0	0.0	-	0.0	0.7
Articulated Trucks	0	0	0	-	0	0	0	0	-	0	0	0	0	-	0	0	0	0	-	0	0
% Articulated Trucks	0.0	0.0	0.0	-	0.0	0.0	0.0	0.0	-	0.0	0.0	0.0	0.0	-	0.0	0.0	0.0	0.0	-	0.0	0.0
Pedestrians	-	-	-	3	-	-	-	-	0	-	-	-	-	2	-	-	-	-	0	-	-
% Pedestrians	-	-	-	100.0	-	-	-	-	-	-	-	-	-	100.0	-	-	-	-	-	-	-

Synchro Analysis Results

HCM Signalized Intersection Capacity Analysis
 1: Northwind Dr/Whole Foods Drwy & M-43 (Grand River Ave)

Skymint - Meridian Twp
 Existing AM Peak



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↘	↑↑	↗	↘	↑↑	↗	↘	↗		↘	↗	
Traffic Volume (vph)	1	334	26	20	1050	16	13	0	4	6	0	7
Future Volume (vph)	1	334	26	20	1050	16	13	0	4	6	0	7
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	5.9	5.9	5.9	5.9	5.9	5.9	7.1	7.1		7.1	7.1	
Lane Util. Factor	1.00	0.95	1.00	1.00	0.95	1.00	1.00	1.00		1.00	1.00	
Frpb, ped/bikes	1.00	1.00	0.98	1.00	1.00	0.98	1.00	1.00		1.00	1.00	
Flpb, ped/bikes	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00		1.00	1.00	
Frt	1.00	1.00	0.85	1.00	1.00	0.85	1.00	0.85		1.00	0.85	
Flt Protected	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00		0.95	1.00	
Satd. Flow (prot)	1702	3406	1490	1767	3539	1548	1612	1442		1671	1495	
Flt Permitted	0.23	1.00	1.00	0.53	1.00	1.00	1.00	1.00		1.00	1.00	
Satd. Flow (perm)	414	3406	1490	979	3539	1548	1696	1442		1759	1495	
Peak-hour factor, PHF	0.88	0.88	0.88	0.89	0.89	0.89	0.71	0.71	0.71	0.65	0.65	0.65
Adj. Flow (vph)	1	380	30	22	1180	18	18	0	6	9	0	11
RTOR Reduction (vph)	0	0	5	0	0	3	0	6	0	0	11	0
Lane Group Flow (vph)	1	380	25	22	1180	15	18	0	0	9	0	0
Confl. Peds. (#/hr)	1		1	1		1						
Heavy Vehicles (%)	6%	6%	6%	2%	2%	2%	12%	12%	12%	8%	8%	8%
Turn Type	Perm	NA	Perm	Perm	NA	Perm	Perm	NA		Perm	NA	
Protected Phases		2			6			4			8	
Permitted Phases	2		2	6		6	4			8		
Actuated Green, G (s)	83.2	83.2	83.2	83.2	83.2	83.2	3.8	3.8		3.8	3.8	
Effective Green, g (s)	83.2	83.2	83.2	83.2	83.2	83.2	3.8	3.8		3.8	3.8	
Actuated g/C Ratio	0.83	0.83	0.83	0.83	0.83	0.83	0.04	0.04		0.04	0.04	
Clearance Time (s)	5.9	5.9	5.9	5.9	5.9	5.9	7.1	7.1		7.1	7.1	
Vehicle Extension (s)	0.2	0.2	0.2	0.2	0.2	0.2	4.0	4.0		4.0	4.0	
Lane Grp Cap (vph)	344	2833	1239	814	2944	1287	64	54		66	56	
v/s Ratio Prot		0.11			c0.33			0.00			0.00	
v/s Ratio Perm	0.00		0.02	0.02		0.01	c0.01			0.01		
v/c Ratio	0.00	0.13	0.02	0.03	0.40	0.01	0.28	0.00		0.14	0.01	
Uniform Delay, d1	1.4	1.6	1.4	1.4	2.1	1.4	46.8	46.3		46.5	46.3	
Progression Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00		1.00	1.00	
Incremental Delay, d2	0.0	0.1	0.0	0.1	0.4	0.0	3.3	0.0		1.3	0.1	
Delay (s)	1.4	1.7	1.5	1.5	2.5	1.4	50.0	46.3		47.8	46.4	
Level of Service	A	A	A	A	A	A	D	D		D	D	
Approach Delay (s)		1.7			2.5			49.1			47.0	
Approach LOS		A			A			D			D	

Intersection Summary		
HCM 2000 Control Delay	3.5	HCM 2000 Level of Service
HCM 2000 Volume to Capacity ratio	0.40	A
Actuated Cycle Length (s)	100.0	Sum of lost time (s)
Intersection Capacity Utilization	48.3%	13.0
Analysis Period (min)	15	ICU Level of Service
		A

c Critical Lane Group

HCM Signalized Intersection Capacity Analysis
 1: Northwind Dr/Whole Foods Drwy & M-43 (Grand River Ave)

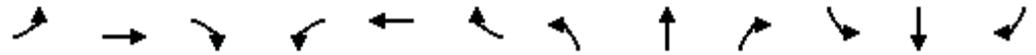
Skymint - Meridian Twp
 Existing PM Peak

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		 			 							
Traffic Volume (vph)	33	1443	47	59	896	82	64	3	76	97	5	52
Future Volume (vph)	33	1443	47	59	896	82	64	3	76	97	5	52
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	5.9	5.9	5.9	5.9	5.9	5.9	7.1	7.1		7.1	7.1	
Lane Util. Factor	1.00	0.95	1.00	1.00	0.95	1.00	1.00	1.00		1.00	1.00	
Frbp, ped/bikes	1.00	1.00	0.98	1.00	1.00	1.00	1.00	1.00		1.00	0.99	
Flpb, ped/bikes	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00		1.00	1.00	
Frt	1.00	1.00	0.85	1.00	1.00	0.85	1.00	0.86		1.00	0.86	
Flt Protected	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00		0.95	1.00	
Satd. Flow (prot)	1787	3574	1560	1786	3574	1599	1800	1625		1805	1615	
Flt Permitted	0.27	1.00	1.00	0.13	1.00	1.00	0.72	1.00		0.70	1.00	
Satd. Flow (perm)	509	3574	1560	251	3574	1599	1358	1625		1330	1615	
Peak-hour factor, PHF	0.95	0.95	0.95	0.91	0.91	0.91	0.89	0.89	0.89	0.92	0.92	0.92
Adj. Flow (vph)	35	1519	49	65	985	90	72	3	85	105	5	57
RTOR Reduction (vph)	0	0	13	0	0	24	0	45	0	0	49	0
Lane Group Flow (vph)	35	1519	36	65	985	66	72	43	0	105	13	0
Confl. Peds. (#/hr)			2	2			3					3
Heavy Vehicles (%)	1%	1%	1%	1%	1%	1%	0%	0%	0%	0%	0%	0%
Turn Type	Perm	NA	Perm	Perm	NA	Perm	Perm	NA		Perm	NA	
Protected Phases		2			6			4			8	
Permitted Phases	2		2	6		6	4			8		
Actuated Green, G (s)	72.9	72.9	72.9	72.9	72.9	72.9	14.1	14.1		14.1	14.1	
Effective Green, g (s)	72.9	72.9	72.9	72.9	72.9	72.9	14.1	14.1		14.1	14.1	
Actuated g/C Ratio	0.73	0.73	0.73	0.73	0.73	0.73	0.14	0.14		0.14	0.14	
Clearance Time (s)	5.9	5.9	5.9	5.9	5.9	5.9	7.1	7.1		7.1	7.1	
Vehicle Extension (s)	0.2	0.2	0.2	0.2	0.2	0.2	4.0	4.0		4.0	4.0	
Lane Grp Cap (vph)	371	2605	1137	182	2605	1165	191	229		187	227	
v/s Ratio Prot		c0.42			0.28			0.03			0.01	
v/s Ratio Perm	0.07		0.02	0.26		0.04	0.05			c0.08		
v/c Ratio	0.09	0.58	0.03	0.36	0.38	0.06	0.38	0.19		0.56	0.06	
Uniform Delay, d1	3.9	6.4	3.8	5.0	5.1	3.8	39.0	37.9		40.1	37.2	
Progression Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00		1.00	1.00	
Incremental Delay, d2	0.5	1.0	0.1	5.4	0.4	0.1	1.7	0.5		4.6	0.1	
Delay (s)	4.4	7.3	3.8	10.4	5.5	3.9	40.7	38.5		44.7	37.3	
Level of Service	A	A	A	B	A	A	D	D		D	D	
Approach Delay (s)		7.2			5.6			39.4			42.0	
Approach LOS		A			A			D			D	
Intersection Summary												
HCM 2000 Control Delay			10.2				HCM 2000 Level of Service				B	
HCM 2000 Volume to Capacity ratio			0.58									
Actuated Cycle Length (s)			100.0				Sum of lost time (s)				13.0	
Intersection Capacity Utilization			73.1%				ICU Level of Service				D	
Analysis Period (min)			15									

c Critical Lane Group

HCM Signalized Intersection Capacity Analysis
 1: Northwind Dr/Whole Foods Drwy & M-43 (Grand River Ave)

Skymint - Meridian Twp
 Future (2020) AM Peak



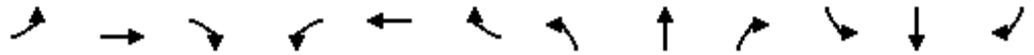
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↖	↗	↘	↖	↗	↘	↖	↗	↘	↖	↗	↘
Traffic Volume (vph)	1	337	36	26	1061	16	21	0	9	6	0	7
Future Volume (vph)	1	337	36	26	1061	16	21	0	9	6	0	7
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	5.9	5.9	5.9	5.9	5.9	5.9	7.1	7.1		7.1	7.1	
Lane Util. Factor	1.00	0.95	1.00	1.00	0.95	1.00	1.00	1.00		1.00	1.00	
Frpb, ped/bikes	1.00	1.00	0.98	1.00	1.00	0.98	1.00	1.00		1.00	1.00	
Flpb, ped/bikes	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00		1.00	1.00	
Frt	1.00	1.00	0.85	1.00	1.00	0.85	1.00	0.85		1.00	0.85	
Flt Protected	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00		0.95	1.00	
Satd. Flow (prot)	1702	3406	1490	1767	3539	1548	1612	1442		1671	1495	
Flt Permitted	0.22	1.00	1.00	0.52	1.00	1.00	0.75	1.00		0.75	1.00	
Satd. Flow (perm)	401	3406	1490	977	3539	1548	1273	1442		1318	1495	
Peak-hour factor, PHF	0.88	0.88	0.88	0.89	0.89	0.89	0.71	0.71	0.71	0.65	0.65	0.65
Adj. Flow (vph)	1	383	41	29	1192	18	30	0	13	9	0	11
RTOR Reduction (vph)	0	0	8	0	0	3	0	12	0	0	10	0
Lane Group Flow (vph)	1	383	33	29	1192	15	30	1	0	9	1	0
Confl. Peds. (#/hr)	1		1	1		1						
Heavy Vehicles (%)	6%	6%	6%	2%	2%	2%	12%	12%	12%	8%	8%	8%
Turn Type	Perm	NA	Perm	Perm	NA	Perm	Perm	NA		Perm	NA	
Protected Phases		2			6			4			8	
Permitted Phases	2		2	6		6	4			8		
Actuated Green, G (s)	80.9	80.9	80.9	80.9	80.9	80.9	6.1	6.1		6.1	6.1	
Effective Green, g (s)	80.9	80.9	80.9	80.9	80.9	80.9	6.1	6.1		6.1	6.1	
Actuated g/C Ratio	0.81	0.81	0.81	0.81	0.81	0.81	0.06	0.06		0.06	0.06	
Clearance Time (s)	5.9	5.9	5.9	5.9	5.9	5.9	7.1	7.1		7.1	7.1	
Vehicle Extension (s)	0.2	0.2	0.2	0.2	0.2	0.2	4.0	4.0		4.0	4.0	
Lane Grp Cap (vph)	324	2755	1205	790	2863	1252	77	87		80	91	
v/s Ratio Prot		0.11			c0.34			0.00			0.00	
v/s Ratio Perm	0.00		0.02	0.03		0.01	c0.02			0.01		
v/c Ratio	0.00	0.14	0.03	0.04	0.42	0.01	0.39	0.01		0.11	0.01	
Uniform Delay, d1	1.8	2.1	1.9	1.9	2.8	1.8	45.2	44.1		44.4	44.1	
Progression Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00		1.00	1.00	
Incremental Delay, d2	0.0	0.1	0.0	0.1	0.4	0.0	4.4	0.1		0.9	0.0	
Delay (s)	1.8	2.2	1.9	2.0	3.2	1.9	49.6	44.2		45.2	44.1	
Level of Service	A	A	A	A	A	A	D	D		D	D	
Approach Delay (s)		2.1			3.1			47.9			44.6	
Approach LOS		A			A			D			D	

Intersection Summary		
HCM 2000 Control Delay	4.5	HCM 2000 Level of Service
HCM 2000 Volume to Capacity ratio	0.41	A
Actuated Cycle Length (s)	100.0	Sum of lost time (s)
Intersection Capacity Utilization	48.3%	13.0
Analysis Period (min)	15	ICU Level of Service
		A

c Critical Lane Group

HCM Signalized Intersection Capacity Analysis
 1: Northwind Dr/Whole Foods Drwy & M-43 (Grand River Ave)

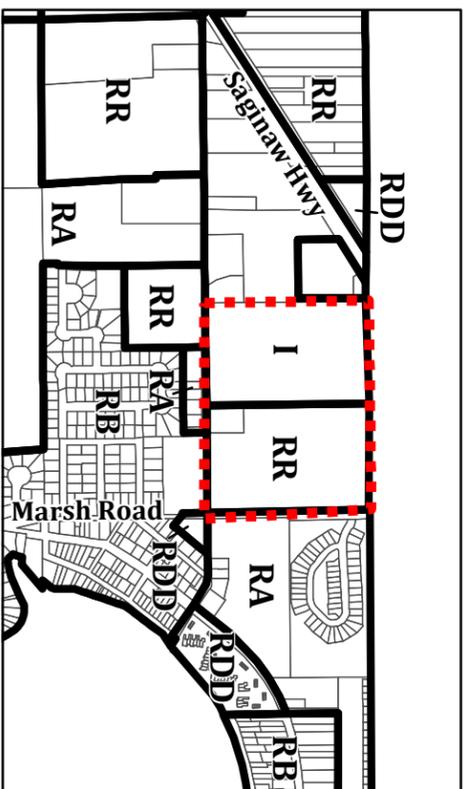
Skymint - Meridian Twp
 Future (2020) PM Peak



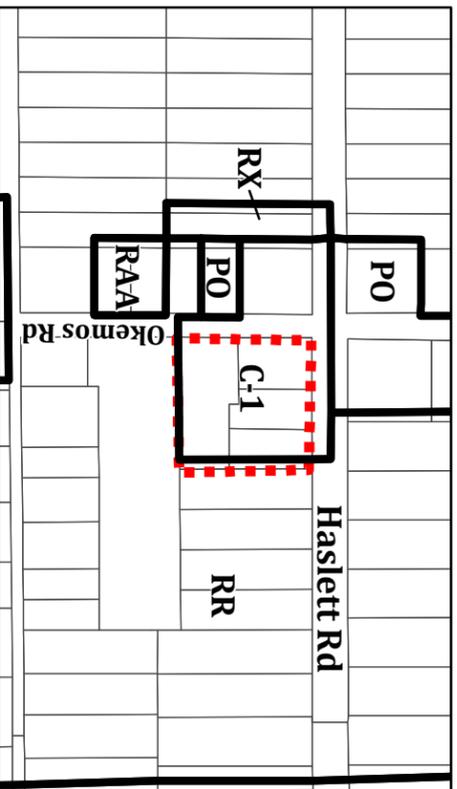
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↘	↑↑	↗	↘	↑↑	↗	↘	↗		↘	↗	
Traffic Volume (vph)	33	1457	65	72	905	83	83	3	89	98	5	53
Future Volume (vph)	33	1457	65	72	905	83	83	3	89	98	5	53
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	5.9	5.9	5.9	5.9	5.9	5.9	7.1	7.1		7.1	7.1	
Lane Util. Factor	1.00	0.95	1.00	1.00	0.95	1.00	1.00	1.00		1.00	1.00	
Frpb, ped/bikes	1.00	1.00	0.98	1.00	1.00	1.00	1.00	1.00		1.00	0.99	
Flpb, ped/bikes	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00		1.00	1.00	
Frt	1.00	1.00	0.85	1.00	1.00	0.85	1.00	0.85		1.00	0.86	
Flt Protected	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00		0.95	1.00	
Satd. Flow (prot)	1787	3574	1560	1787	3574	1599	1800	1623		1805	1615	
Flt Permitted	0.27	1.00	1.00	0.13	1.00	1.00	0.72	1.00		0.69	1.00	
Satd. Flow (perm)	502	3574	1560	244	3574	1599	1356	1623		1312	1615	
Peak-hour factor, PHF	0.95	0.95	0.95	0.91	0.91	0.91	0.89	0.89	0.89	0.92	0.92	0.92
Adj. Flow (vph)	35	1534	68	79	995	91	93	3	100	107	5	58
RTOR Reduction (vph)	0	0	19	0	0	25	0	43	0	0	50	0
Lane Group Flow (vph)	35	1534	49	79	995	66	93	60	0	107	13	0
Confl. Peds. (#/hr)			2	2			3					3
Heavy Vehicles (%)	1%	1%	1%	1%	1%	1%	0%	0%	0%	0%	0%	0%
Turn Type	Perm	NA	Perm	Perm	NA	Perm	Perm	NA		Perm	NA	
Protected Phases		2			6			4			8	
Permitted Phases	2		2	6		6	4			8		
Actuated Green, G (s)	72.7	72.7	72.7	72.7	72.7	72.7	14.3	14.3		14.3	14.3	
Effective Green, g (s)	72.7	72.7	72.7	72.7	72.7	72.7	14.3	14.3		14.3	14.3	
Actuated g/C Ratio	0.73	0.73	0.73	0.73	0.73	0.73	0.14	0.14		0.14	0.14	
Clearance Time (s)	5.9	5.9	5.9	5.9	5.9	5.9	7.1	7.1		7.1	7.1	
Vehicle Extension (s)	0.2	0.2	0.2	0.2	0.2	0.2	4.0	4.0		4.0	4.0	
Lane Grp Cap (vph)	364	2598	1134	177	2598	1162	193	232		187	230	
v/s Ratio Prot		c0.43			0.28			0.04			0.01	
v/s Ratio Perm	0.07		0.03	0.32		0.04	0.07			c0.08		
v/c Ratio	0.10	0.59	0.04	0.45	0.38	0.06	0.48	0.26		0.57	0.06	
Uniform Delay, d1	4.0	6.5	3.8	5.5	5.2	3.9	39.4	38.1		40.0	37.0	
Progression Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00		1.00	1.00	
Incremental Delay, d2	0.5	1.0	0.1	7.9	0.4	0.1	2.6	0.8		5.0	0.1	
Delay (s)	4.5	7.5	3.9	13.5	5.6	4.0	42.0	38.9		45.0	37.2	
Level of Service	A	A	A	B	A	A	D	D		D	D	
Approach Delay (s)		7.3			6.0			40.4			42.1	
Approach LOS		A			A			D			D	

Intersection Summary		
HCM 2000 Control Delay	10.7	HCM 2000 Level of Service
HCM 2000 Volume to Capacity ratio	0.59	B
Actuated Cycle Length (s)	100.0	Sum of lost time (s)
Intersection Capacity Utilization	77.6%	13.0
Analysis Period (min)	15	ICU Level of Service
		D

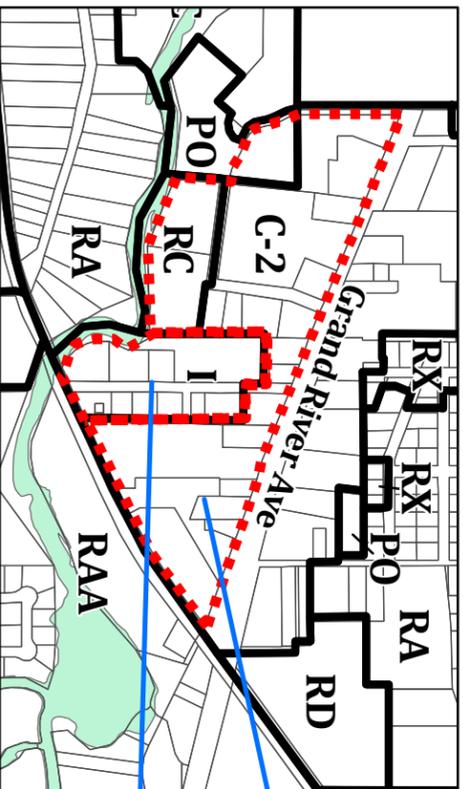
c Critical Lane Group



1

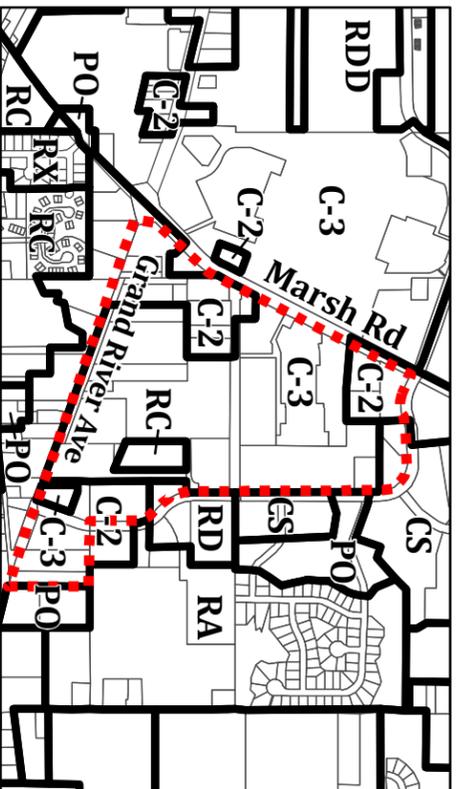


2



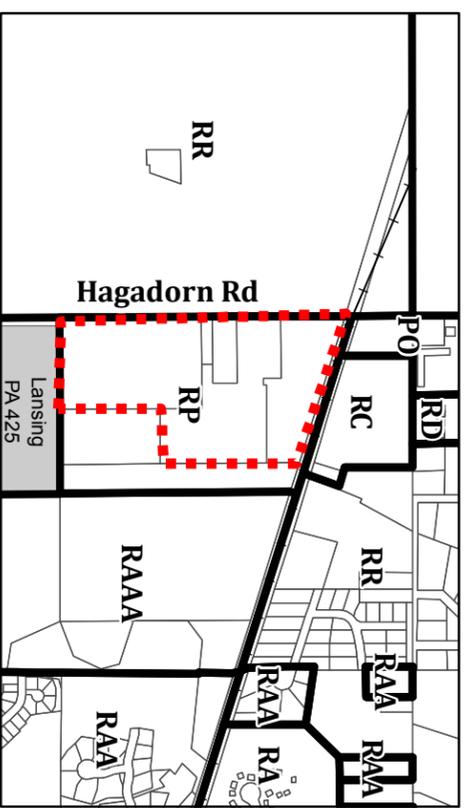
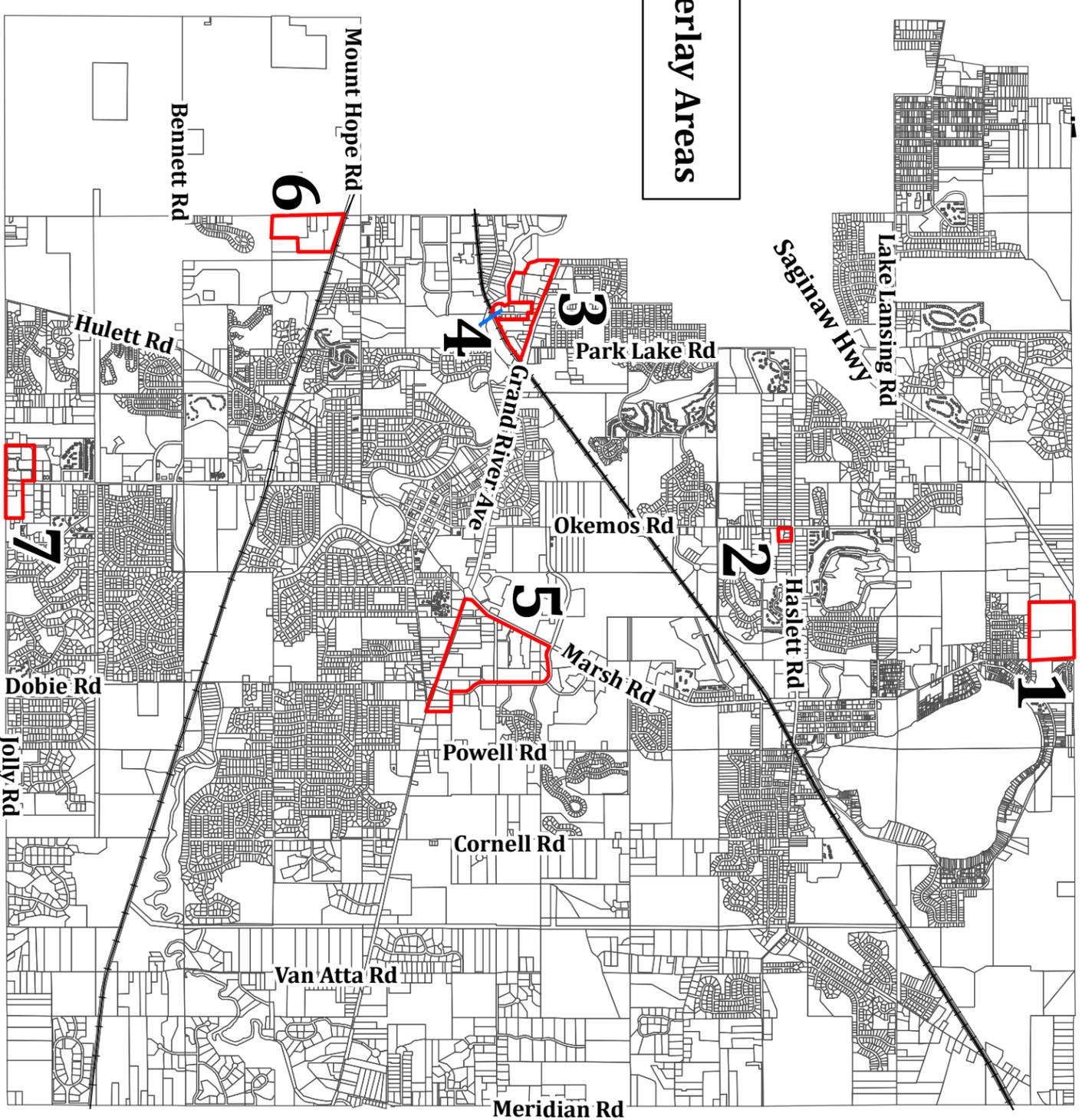
3

4

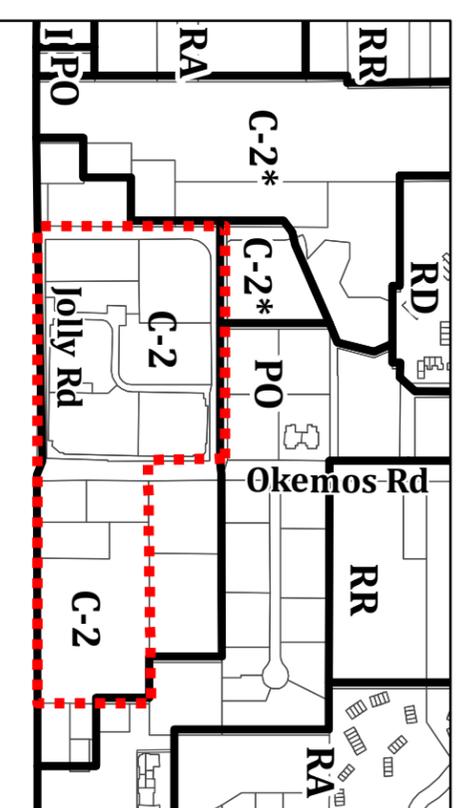


5

 Proposed Overlay Areas



6



7

Updated:
5/16/19



To: Planning Commission

From: Peter Menser, Principal Planner

Keith Chapman, Assistant Planner

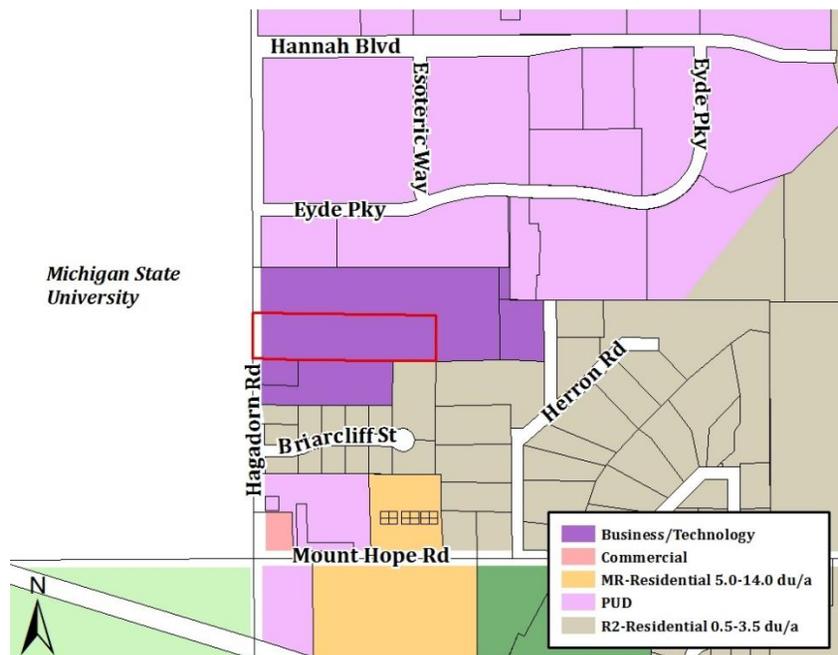
Date: June 19, 2020

Re: Rezoning #20040 (Michigan Baptist Convention), rezone approximately 4.999 acres located at 4606 Hagadorn Road from RR (Rural Residential) to PO (Professional and Office).

Michigan Baptist Convention has requested the rezoning of approximately 4.999 acres located at 4606 Hagadorn Road from RR (Rural Residential) to PO (Professional and Office). The site is located on the east side of Hagadorn Road, south of Eyde Parkway. In 2019, a similar application was submitted from a different applicant that offered to condition the rezoning on approval of a mixed use planned unit development (MUPUD) and purchase of the property within 12 months. The Planning Commission recommended approval but the request was withdrawn by the applicant.

The Future Land Use Map from the 2017 Master Plan designates the subject property in the Business/Technology category.

2017 FUTURE LAND USE MAP



Zoning

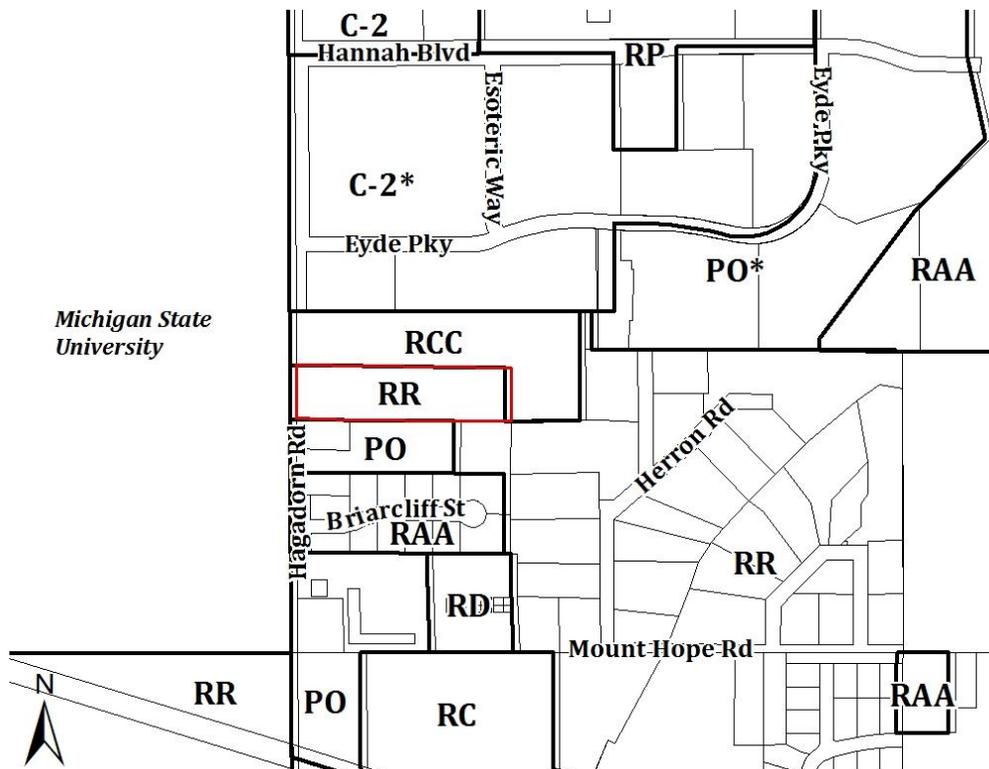
Rezoning #20040 (Michigan Baptist Convention)
Planning Commission (June 22, 2020)
Page 2

The property is currently zoned RR (Rural Residential), which requires a minimum of 200 feet of lot width and 40,000 square feet of lot area. The requested PO zoning district requires a minimum of 50 feet of lot width and 5,000 square feet of lot area.

With 232.40 feet of lot width on Hagadorn Road and 4.999 acres (217,756.44 square feet) of lot area the site meets the minimum standards for both lot area and lot width of the existing RR and the proposed PO zoning districts. The following table illustrates the minimum lot width and lot area requirements for the existing RR and proposed PO zoning districts:

ZONING DISTRICT	MINIMUM LOT AREA	MINIMUM LOT WIDTH
RR	40,000 sq. ft.	200 ft.
PO	5,000 sq. ft.	50 ft.

ZONING MAP



Physical Features

**Rezoning #20040 (Michigan Baptist Convention)
 Planning Commission (June 22, 2020)
 Page 3**

University Baptist Church (11,428 square feet) and a parsonage house occupies the subject site. The site is generally level, with elevations ranging from 859 feet above mean sea level near Hagadorn Road and gradually rising to 862 feet above mean sea level near the east property line. The Township Wetland Map and the Flood Insurance Rate Map indicate neither wetlands nor floodplain are present on or near the site. The site has no special designation on the Township Greenspace Plan.

Streets & Traffic

The site fronts on Hagadorn Road, which is a four-lane divided road with curb and gutter classified as a Minor Arterial on the Street Setbacks and Service Drives Map in the zoning ordinance. A seven foot wide pedestrian pathway is located along the Hagadorn Road property frontage. The most recent (2018) traffic count information from the Michigan Department of Transportation (MDOT) for Hagadorn Road, between Hannah Boulevard and Eyde Parkway, showed a total of 9,127 northbound vehicle trips and 13,431 southbound vehicle trips in a 24 hour period.

The previous applicant submitted a rezoning traffic study prepared by Giffels Webster dated October 1, 2019 that estimates vehicle trips generated by the existing church and future vehicle trips that could be generated by redevelopment of the property under the proposed PO zoning. The Institute of Transportation Engineers (ITE) trip generation rates for Church (Land Use Code 560) were selected to represent the existing church. Apartments (Land Use Code 221) and General Office Building (Land Use Code 710) trip generation rates were selected to represent redevelopment of the subject site under the proposed PO zoning with 102 apartment units and a 5,000 square foot general office building. The following table summarizes findings from the submitted traffic study.

Land Use	ITE Use No.	Size	Week-day Trips	AM Peak-Hour Trips			PM Peak-Hour Trips		
				In	Out	Total	In	Out	Total
Existing Land Use									
Church	560	11,000 SF	76	2	2	4	2	3	5
Proposed Land Use									
Apartments	221	102 DU	555	9	26	35	27	18	45
General Office Building	710	5,000 SF	58	27	4	31	1	6	7
Total Trips by Proposed Land-Use			613	36	30	66	28	24	52
Total Trips Increased by Proposed Land-Use			537	34	28	62	26	21	47

Rezoning #20040 (Michigan Baptist Convention)
Planning Commission (June 22, 2020)
Page 4

A traffic study is required for rezonings when the proposed district would permit uses that could generate more than 100 additional directional trips during the peak hour than the principal uses permitted under the current zoning, or for rezonings of land with direct access to a principal or minor arterial street, unless the uses in the proposed zoning district would generate fewer peak hour trips than uses in the existing zoning district. A peak hour of traffic is the hour of highest volume of traffic entering and exiting the site during the a.m. or p.m. hours. The rezoning traffic study concluded the total number of vehicle trips generated by the apartment and office building uses under the proposed PO zoning district would not generate more than 100 additional directional trips during peak hours of traffic than the existing church under the existing RR zoning district.

Utilities

Municipal water and sanitary sewer serve the subject site. The location and capacity of utilities for any proposed development will be reviewed in detail by the Department of Public Works and Engineering at the time of a development submittal.

Staff Analysis

The applicant has requested the rezoning of approximately 4.999 acres from RR to PO. When evaluating a rezoning request, the Planning Commission should consider all uses permitted by right and by special use permit in the current and proposed zoning districts, as well as the reasons for rezoning listed on page two of the rezoning application (attached).

The applicant has requested the Planning Commission make a decision on the rezoning the same night as the public hearing. Before acting on the applicant's request, the Planning Commission must first suspend Bylaw 6.4a, which states that a decision on a special use permit, zoning request, or ordinance will not be made on the date of the public hearing considering such item. While not done on a regular basis, the Planning Commission has voted on some requests, particularly those that are smaller scale or require timely action, the same night as the public hearing. The following motion is provided to suspend Bylaw 6.4a for this rezoning request:

- **Move to suspend Planning Commission Bylaw 6.4a to consider Rezoning #20040 the same night as the public hearing.**

The following motion is provided to adopt the resolution to recommend approval of Rezoning #20040.

- **Move to adopt the resolution to approve Rezoning #20040.**

Planning Commission Options

The Planning Commission may recommend approval or denial of the request, or it may recommend a different zoning designation than proposed by the applicant to the Township Board. A resolution is provided in the attachments.

**Rezoning #20040 (Michigan Baptist Convention)
Planning Commission (June 22, 2020)
Page 5**

Attachments

1. Rezoning application dated March 11, 2020 and received by the Township on March 13, 2020.
2. Rezoning traffic study prepared by Giffels Webster dated October 1, 2019 and received by the Township on October 1, 2019.
3. Decision request from Michigan Baptist Convention dated March 18, 2020 and received by the Township on March 18, 2020.
4. Rezoning criteria.

G:\Community Planning & Development\Planning\REZONINGS (REZ)\2019\REZ 19080 (Minerva Realty Capital, LLC)\REZ 19080.pc1.doc

CHARTER TOWNSHIP OF MERIDIAN
DEPARTMENT OF COMMUNITY PLANNING AND DEVELOPMENT
5151 MARSH ROAD, OKEMOS, MI 48864
PHONE: (517) 853-4560, FAX: (517) 853-4095

RECEIVED
MAR 13 2020

REZONING APPLICATION

Part I, II and III of this application must be completed. Failure to complete any portion of this form may result in the denial of your request.

Part I

A. Owner/Applicant Michigan Baptist Convention
Address of applicant 4578 S. Hagadorn Road, East Lansing, MI 48823
Telephone: Work 517.332.3594 Home _____
Fax _____ Email jgunneman@abc-mi.org

If there are multiple owners, list names and addresses of each and indicate ownership interest. Attach additional sheets if necessary. If the applicant is not the current owner of the subject property, the applicant must provide a copy of a purchase agreement or instrument indicating the owner is aware of and in agreement with the requested action.

B. Applicant's Representative, Architect, Engineer or Planner responsible for request:
Name / Contact Person Jane Gunneman or Brian Johnson
Address 4578 S. Hagadorn Road, East Lansing, MI 48823
Telephone: Work 517.332.3594 Home _____
Fax 517.332.3186 Email jgunneman@abc-mi.org or brianj@abc-mi.org

C. Site address/location 4606 S. Hagadorn Road, East Lansing
Legal description (Attach additional sheets if necessary) M20-29 Beg 1020.2 FT N of SW Cor of Sec - N 232.4 FT - E 937 FT - S 232.4 FT - W 937 FT to Beg on SW ¼ of Sec. 20, T4N R1W.
Parcel number 33-02-02-20-351-002 Site acreage Five

D. Current Zoning Rural Residential Requested Zoning Professional Office

E. The following support materials must be submitted with the application:

1. Nonrefundable fee.
2. Evidence of fee or other ownership of the subject property.
3. A rezoning traffic study prepared by a qualified traffic engineer based on the most current edition of the handbook entitled *Evaluating Traffic Impact Studies: A Recommended Practice for Michigan Communities*, published by the State Department of Transportation, is required for the following requests:
 - a. Rezoning when the proposed district would permit uses that could generate more than 100 additional directional trips during the peak hour than the principal uses permitted under the current zoning.
 - b. Rezoning having direct access to a principal or minor arterial street, unless the uses in the proposed zoning district would generate fewer peak hour trips than uses in the existing zoning district.
(Information pertaining to the contents of the rezoning traffic study will be available in the Department of Community Planning and Development.)
4. Other information deemed necessary to evaluate the application as specified by the Director of Community Planning and Development.

Respond only to the items which you intend to support with proof. Explain your position on the lines below, and attach supporting information to this form.

A. Reasons why the present zoning is unreasonable:

- 1) There is an error in the boundaries of the Zoning Map, specifically: _____

- 2) The conditions of the surrounding area have changed in the following respects: The existing church building was constructed approximately in 1975 and the surrounding properties have either been developed as apartments or office buildings. The property is currently listed for sale and to maximize the number of interested parties, a proactive re-zoning of the property to PO will help assist a developer.
- 3) The current zoning is inconsistent with the Township’s Master Plan, explain: The current zoning: RR, is not consistent with the Township’s Master Plan. The property in the master plan is designated as Business/Technology and feel PO would allow the proper zoning.
- 4) The Township did not follow the procedures that are required by Michigan laws, when adopting the Zoning Ordinance, specifically: _____

- 5) The Township did not have a reasonable basis to support the current zoning classification at the time it was adopted; and the zoning has exempted the following legitimate uses from the area:

- 6) The current zoning restrictions on the use of the property do not further the health safety or general welfare of the public, explain: _____

B. Reasons why the requested zoning is appropriate:

- 1) Requested rezoning is consistent with the Township’s Master Plan, explain: Requested zoning is consistent with the Township’s Master Plan as the property is located within Business/Technology and zoning PO should be acceptable.
- 2) Requested rezoning is compatible with other existing and proposed uses surrounding the site, specifically: Two properties located to the south (4578 and 4572 S. Hagadorn Road) are both zoned PO.
- 3) Requested rezoning would not result in significant adverse impacts on the natural environment, explain: _____
- 4) Requested rezoning would not result in significant adverse impacts on traffic circulation, water and sewer systems, education, recreation or other public services, explain: _____
- 5) Requested rezoning addresses a proven community need, specifically: _____

- 6) Requested rezoning results in logical and orderly development in the Township, explain:

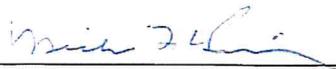
7) Requested rezoning will result in better use of Township land, resources and properties and therefore more efficient expenditure of Township funds for public improvements and services, explain: _____

Part III

I (we) hereby grant permission for members of the Charter Township of Meridian's Boards and/or Commissions, Township staff member(s) and the Township's representatives or experts the right to enter onto the above described property (or as described in the attached information) in my (our) absence for the purpose of gathering information including but not limited to the taking and the use of photographs.

Yes No (Please check one)

By the signature(s) attached hereto, I (we) certify that the information provided within this application and accompanying documentation is, to the best of my (our) knowledge, true and accurate



Signature of Applicant

03-11-2020
Date

Michael F Kingsbury, MBC President
Type/Print Name

Fee: _____

Received by/Date _____

MEMORANDUM



TO: Matt Durbin

CC: Russell Caplin, Michael Darga, Scott Clein

FROM: William Stimpson, Mohamed Aguib

SUBJECT: Minerva Development Rezoning Traffic Study

DATE: September 17, 2019

Introduction

This memorandum documents a rezoning traffic study (RTS) performed for a proposed redevelopment of a 5-acre parcel (4606 Hagadorn Road) located on the east side of S. Hagadorn Road between Hannah Boulevard and Mt. Hope Road. The subject parcel is currently zoned RR (Rural Residential) which is intended to be rezoned conditionally to PO (Professional and Office) through this rezoning traffic study.

According to the Meridian Township Rezoning Application, two conditions require a rezoning traffic study; 1) when the proposed district would permit uses that could generate more than 100 additional directional trips during the peak hour than the principal uses permitted under the current zoning, and 2) when the rezoning parcel has direct access to a principal or minor arterial street, unless the uses in the proposed zoning district would generate fewer peak hour trips than uses in the existing zoning district.

Existing Land Use & Traffic Characteristics

The subject parcel is currently occupied by a church (University Baptist Church), which is non-operational, and a single-family house with site access provided on S. Hagadorn Road through a driveway. The site location and adjacent land-use are shown on **Figure 1**.

South Hagadorn Road between Hannah Boulevard and Mt Hope Road is classified as a minor arterial consisting of four-travel lanes with a divided median and a speed limit of 45 mph. Daily traffic volumes along S. Hagadorn Road were obtained from the Michigan Department of Transportation Transportation Data Management System) (TDMS). The study segment has an interpolated Annual Average Daily Traffic volume (AADT 2018) of 22,557 vehicles-per-day.

Zoning Ordinance & Master Plan

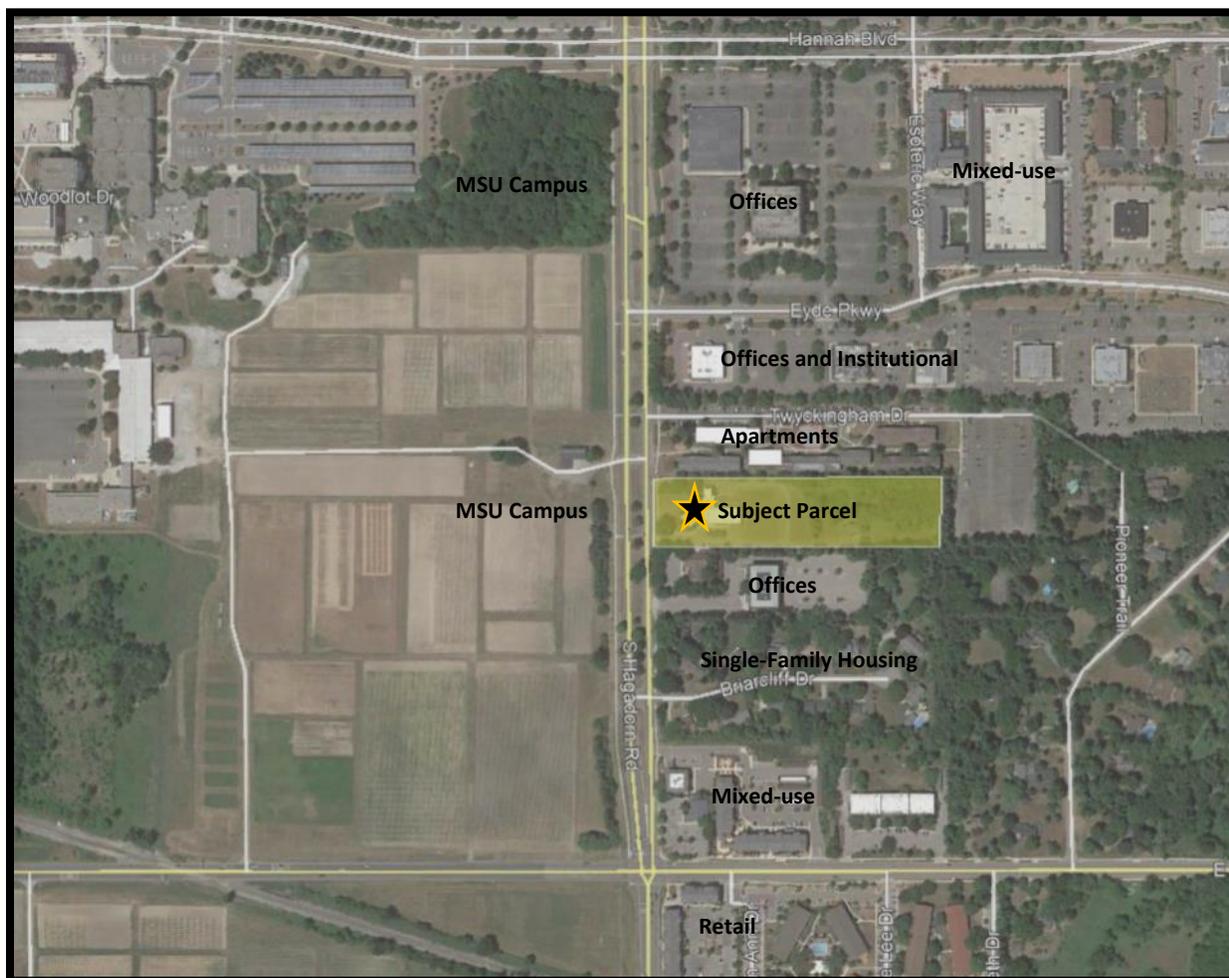
The existing zoning of the subject parcel is RR District (Rural Residential) which is defined in the Meridian Township ordinance as "A one-family residential district implies a predominant occurrence of dwelling structures located on individual lots of land and housing only one family of household group. There exists, however, a range of preference relative to the character and size of individual residential properties prompts creation of at least three one-family residential districts." The uses permitted by right under the RR Districts, as per the township's ordinance, include single-family dwellings, home occupations,

recreational uses, golf courses, public educational institutions, and others. The dimensional requirements under existing zoning specifies that the maximum lot coverage by all buildings, including accessory buildings, shall not cover more than 20% of the lot area.

The proposed zoning of the subject parcel is PO District (Professional and Office) which is defined in the Meridian Township ordinance as *“The PO District is intended to accommodate those nonresidential uses of an administrative or professional nature which are necessary to the normal conduct of a community’s activities. It is specifically designed, however, to prohibit the introduction of commercial establishments of a retail nature, or other activities which require the constant visits of the general public.”* The uses permitted by right under PO Districts, as per the township’s ordinance, include professional offices, hospitals, medical clinics, religious institutions, research & development facility, and others.

According to the Meridian Township Master Plan (dated 2017), Future Land Use Map, the subject parcel is located in a business/technology area which “should serve the community’s need for research facilities, light industrial opportunities, or corporate campuses.” Several business/technology designated areas were identified in the Master Plan including Hagadorn Road near the Michigan State University campus. The business/technology areas also are planned for ongoing non-retail business uses which are not intended to directly provide goods and services to the community.

Figure 1 – Site Location and Adjacent Land-use



Trip Generation Comparison

Land uses from the *ITE Trip Generation Manual (10th Edition)* were identified to correspond with the uses permitted by right under the existing and proposed zoning. The land uses with possible application under existing and proposed zoning were compared. The building footprint used in the trip generation comparison was estimated using a 20% of the subject parcel total area, as identified in the Ordinance.

Several possible land uses were identified from the *ITE Trip Generation Manual (10th Edition)* that would correspond with the uses permitted by right, as per Meridian Township Zoning Ordinance, under the existing and proposed zoning. The possible land uses under existing zoning are public park (LUC 411), elementary school (LUC 520), and nursery (garden center) (LUC 817), while those identified under the proposed zoning are clinic (LUC 630), general office building (LUC 710), and research and development center (LUC 760).

The published daily and peak hour trip generation rates and/or equations, along with inbound/outbound percentages from the Institute of Transportation Engineer’s *Trip Generation Manual (10th Edition)* were used to calculate the number of daily and peak hour trips for the land uses under existing and proposed zoning. **Table 1** shows a summary of the trip generation comparison.

Table 1 – Trip Generation Comparison

Land Use	ITE Use No.	Size	Wee k-day Trips	AM Peak-Hour Trips			PM Peak-Hour Trips		
				In	Out	Total	In	Out	Total
Existing Zoning (RR)									
Public Park	411	5 Acre	92	2	2	4	13	10	23
Elementary School	520	43,500 SF	849	167	136	303	27	33	60
Nursery Green House (not retail)	818	5 Acre	98	1	1	2	1	1	2
Maximum Trips for RR Zoning			849	167	136	303	27	33	60
Proposed Zoning (PO)									
Clinic	630	43,500 SF	1,660	125	36	161	41	102	143
General Office Building	710	43,500 SF	473	58	9	67	8	44	52
Research and Development Center	760	43,500 SF	650	13	5	18	3	18	21
Maximum Trips for PO Zoning			1,660	125	36	161	41	102	143
Total Trips Increased/Reduced by PO Zoning			811	-42	-100	-142	14	69	83

The trip generation comparison indicates that the highest trip generator under the proposed zoning district (PO) will not generate more than 100 additional directional peak hour trips than the highest trip generator under the existing zoning district (RR).

Sight Distance Evaluation

According to the handbook titled “Evaluating Traffic Impact Studies: A Recommended Practice for Michigan Communities” published by Michigan Department of Transportation, a rezoning traffic study requires a sight distance evaluation. The subject parcel has an existing driveway which will continue to be used as the site driveway and access point to Hagadorn Road. Since there is an existing driveway to the site which was used previously by parcel user, a sight distance evaluation may not be necessary. However, an evaluation of sight distance was performed using provided resources such as aerials and street images. As per AASHTO’s manual “A Policy on Geometric Design of Highways and Streets”, the minimum intersection sight distance for passenger car at a subdivision road and a two-lane primary road, 45 mph

speed, is 430 feet. As per **Figures 2** and **3** shown below, there is an adequate sight distance at the site driveway for passenger cars to turn right on Hagadorn Road, in condition that a clear sight is maintained. The sight distance triangle with 430 feet leg is shown on **Figure 2**.

Figure 2 – Sight Distance Evaluation



Figure 3 – Street View from Site Driveway (looking South)



Conclusions

The rezoning study concluded that highest trip generating land use under the proposed zoning district (PO) will not add more than 100 directional trips during the peak hour period than the principal uses permitted under the existing zoning district (RR).

The Meridian Township Master Plan (adopted 2017) was reviewed as part of this study, and it was concluded that the proposed zoning will bring the subject parcel closer to the future land use plan in the area. The proposed zoning district (PO) will provide land uses such as office and research & development which will achieve the future land use plan goal of serving the community needs for research facilities and providing uses not intended to directly provide goods and services.

A sight distance evaluation was performed concluding that an adequate sight distance is provided at the existing site driveway.

Peter Menser

From: Brian Johnson <brianj@abc-mi.org>
Sent: Wednesday, March 18, 2020 11:52 AM
To: Peter Menser
Cc: Jane Gunneman
Subject: suspension of procedures

Dear Peter,

Greetings to you this morning! I trust you are doing well in this moment we find ourselves in. We met with you on Friday, March 13th to submit our application for rezoning of our property at 4606 S. Hagadorn Rd. East Lansing. We would like to formally request that the board suspend their bylaws and act on this motion when you convene your initial meeting of the Meridian Township. By suspending your bylaws and acting on this request it will allow us to be more attractive to potential buyers who may be interested in our property that is for sale. Thank you in advance for your consideration of this matter.

Sincerely,

Rev. Brian D. Johnson

Rev. Brian D. Johnson
Regional Executive Minister
American Baptist Churches of Michigan
brianj@abc-mi.org
Office: 517-332-3594

Part II

REASONS FOR REZONING REQUEST

Respond only to the items which you intend to support with proof. Explain your position on the lines below, and attach supporting information to this form.

A. Reasons why the present zoning is unreasonable:

- 1) There is an error in the boundaries of the Zoning Map, specifically: _____

- 2) The conditions of the surrounding area have changed in the following respects: _____

- 3) The current zoning is inconsistent with the Township's Master Plan, explain: _____

- 4) The Township did not follow the procedures that are required by Michigan laws, when adopting the Zoning Ordinance, specifically: _____

- 5) The Township did not have a reasonable basis to support the current zoning classification at the time it was adopted; and the zoning has exempted the following legitimate uses from the area: _____

- 6) The current zoning restrictions on the use of the property do not further the health safety or general welfare of the public, explain: _____

B. Reasons why the requested zoning is appropriate:

- 1) Requested rezoning is consistent with the Township's Master Plan, explain: _____

- 2) Requested rezoning is compatible with other existing and proposed uses surrounding the site, specifically: _____

- 3) Requested rezoning would not result in significant adverse impacts on the natural environment, explain: _____

- 4) Requested rezoning would not result in significant adverse impacts on traffic circulation, water and sewer systems, education, recreation or other public services, explain: _____

- 5) Requested rezoning addresses a proven community need, specifically: _____

- 6) Requested rezoning results in logical and orderly development in the Township, explain: _____

- 7) Requested rezoning will result in better use of Township land, resources and properties and therefore more efficient expenditure of Township funds for public improvements and services, explain: _____



To: Planning Commission

From: Peter Menser, Principal Planner

Date: June 17, 2020

Re: **Special Use Permit #20011 (Andev Group, LLC), establish an approximately 267,543 square foot senior living community comprised of 230 units on 10.73 acres of a 58 acre undeveloped parcel identified as Parcel I.D. #20-401-005 located at the east end of Hannah Boulevard.**

The public hearing for Special Use Permit #20011 was held at the June 8, 2020 Planning Commission meeting, which was conducted virtually using the Zoom web conferencing application. A straw poll taken at the end of the public hearing indicated support for the proposed project.

This SUP request is being processed separately but concurrently with Special Use Permit #20021 to construct a building or group of buildings greater than 25,000 square feet in gross floor area.

Planning Commission Options

The Planning Commission may approve, approve with conditions, or deny the special use permit. A resolution to approve the request with conditions is provided.

- **Move to adopt the resolution approving Special Use Permit #20011 to establish an approximately 267,543 square foot senior living community comprised of 230 units on 10.73 acres of a 58 acre undeveloped parcel identified as Parcel I.D. #20-401-005 located at the east end of Hannah Boulevard.**

Attachment

1. Resolution to approve

G:\Community Planning & Development\Planning\SPECIAL USE PERMITS (SUP)\2020\SUP 20011 (Andev_senior living comm.)\SUP 20011.pc2docx

RESOLUTION TO APPROVE

**Special Use Permit #20011
(Andev Group, LLC)**

At a regular meeting of the Planning Commission of the Charter Township of Meridian, Ingham County, Michigan, held virtually using the Zoom web conferencing application on the 22nd day of June, 2020, at 7:00 p.m., Local Time.

PRESENT: _____

ABSENT: _____

The following resolution was offered by _____ and supported by _____.

WHEREAS, Andev Group, LLC requested a special use permit to construct a 267,543 square foot senior living community comprised of 230 units on 10.73 acres of a 58 acre undeveloped parcel identified as Parcel I.D. #20-401-005 located at the east end of Hannah Boulevard; and

WHEREAS, the Planning Commission held a public hearing at its regular meeting on June 8, 2020 and has reviewed staff material forwarded under cover memorandums dated March 12, 2020 and June 17, 2020; and

WHEREAS, the subject site is appropriately zoned RAA (Single Family, Low Density), which allows for senior living communities by special use permit as a nonresidential use in a residential district; and

WHEREAS, the proposed project meets the location and development standards for nonresidential uses in a residential district listed in Section 86-654 (e) of the Code of Ordinances; and

WHEREAS, the proposed project meets the location and development standards specific to senior living communities as listed in Section 86-654 (f)(5) of the Code of Ordinances; and

WHEREAS, the proposed project is consistent with the general standards for granting a special use permit found in Section 86-126 of the Code of Ordinances; and

WHEREAS, the proposed senior housing project provides adequate setbacks and screening from adjacent residences; and

WHEREAS, municipal water and sanitary sewer is available to be extended to serve the subject site; and

WHEREAS, the proposed housing project is consistent with Objective B of Goal 1 of the 2017 Master Plan to ensure new residential developments meet high standards of visual attractiveness, health and safety, and environmental sensitivity.

NOW THEREFORE, BE IT RESOLVED THE PLANNING COMMISSION OF THE CHARTER TOWNSHIP OF MERIDIAN hereby approves Special Use Permit #20011 to construct a 267,543 square foot senior living community comprised of 230 units on 10.73 acres of a 58 acre undeveloped parcel identified as Parcel I.D. #20-401-005 located at the east end of Hannah Boulevard, subject to the following conditions:

**Resolution to Approve
SUP #20011 (Andev Group, LLC)
Page 2**

1. Approval is in accordance with the site plan prepared by Kebs, Inc. dated March 25, 2019 (revision date March 2, 2020) and received by the Township on March 3, 2020.
2. Approval is in accordance with the building elevations and floor plans prepared by Ganther Construction Architecture, Inc. dated February 11, 2020 and received by the Township on March 3, 2020.
3. Approval of Special Use Permit #20011 is contingent on the approval of Special Use Permit #20021 by the Township Board for the construction of a building greater than 25,000 square feet in size.
4. Approval of Special Use Permit #20011 is subject to the approval of a land division to split the 10.73 acre project site from the 58 acre parent parcel prior to submitting for site plan review. The resulting parcels must meet the minimum lot frontage and lot area requirements of the underlying zoning district.
5. All of the following shall be completed in Phase 1 of the project, prior to issuance of a certificate of occupancy for Phase 1 of the proposed building: construction of utilities, parking lots, drives, the extension of Hannah Boulevard, installation of landscaping, installation of the sidewalk along the extended Hannah Boulevard, and the installation of the emergency access road.
6. The extension of Hannah Boulevard is subject to approval by the Ingham County Road Department and shall be constructed to meet County standards. The width and composition of the emergency access road is subject to approval by the Township Fire Department.
7. An executed cross access easement agreement for the emergency access road with the property owners of the adjacent parcel to the west where the access road terminates shall be submitted to the Township prior to issuance of a building permit for the project. The Township shall be named in the easement to ensure ongoing future access.
8. The applicant shall construct a five-foot wide concrete sidewalk along both sides of the extended Hannah Boulevard and cul-de-sac to connect to the existing sidewalks along Hannah Boulevard. The sidewalk shall be constructed to Township standards.
9. Accessory uses in the building are limited to those identified in Section 86-654(f)(5) of the Code of Ordinances.
10. As proposed the northernmost site driveway off the extended Hannah Boulevard extends over the proposed north property line, resulting in the parking lot and drive aisle not meeting the required 40 foot setback. An executed cross access easement for the use of the proposed shared drive with the owners of the proposed parcel to the north shall be submitted prior to issuance of a building permit for the project. The Township shall be named in the easement to ensure ongoing future access.
11. Site plan review approval is required to construct the housing project. The final site plan, building elevations, and landscape plan shall be subject to the approval of the Director of Community Planning and Development.
12. A landscaped berm, the size, height, and composition of which shall be approved by the Director of Community Planning and Development, shall be added to the site plan for consideration upon submittal for Site Plan Review.

Resolution to Approve
SUP #20011 (Andev Group, LLC)
Page 4

I, the undersigned, the duly qualified and acting Chair of the Planning Commission of the Charter Township Meridian, Ingham County, Michigan, DO HEREBY CERTIFY that the foregoing is a true and a complete copy of a resolution adopted at a regular meeting of the Planning Commission on the 22nd day of June, 2020.

Scott Hendrickson
Planning Commission Chair

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To: Planning Commission

From: Peter Menser, Principal Planner

Date: June 17, 2020

Re: **Special Use Permit #20021 (Andev Group, LLC), construct building greater than 25,000 square feet in size on 10.73 acres of a 58 acre undeveloped parcel identified as Parcel I.D. #20-401-005 located at the east end of Hannah Boulevard.**

The public hearing for Special Use Permit #20021 was held at the June 8, 2020 Planning Commission meeting, which was conducted virtually using the Zoom web conferencing application. A straw poll taken at the end of the public hearing indicated support for the proposed project.

This SUP request is being processed separately but concurrently with Special Use Permit #20011 to establish an approximately 267,543 square foot senior living community comprised of 230 units.

Planning Commission Options

The Planning Commission may recommend approval, approval with conditions, or denial of the special use permit. A resolution to recommend approval of the request with conditions is provided.

- **Move to adopt the resolution recommending approval of Special Use Permit #20021 to construct building greater than 25,000 square feet in size on 10.73 acres of a 58 acre undeveloped parcel identified as Parcel I.D. #20-401-005 located at the east end of Hannah Boulevard.**

Attachment

1. Resolution to recommend approval.

G:\Community Planning & Development\Planning\SPECIAL USE PERMITS (SUP)\2020\SUP 20021 (Andev_blg. 25k)\SUP 20021.pc2.docx

RESOLUTION TO RECOMMEND APPROVAL

**Special Use Permit #20021
(Andev Group, LLC)**

RESOLUTION

At a regular meeting of the Planning Commission of the Charter Township of Meridian, Ingham County, Michigan, held at the Meridian Municipal Building, in said Township on the 22nd day of June, 2020, at 7:00 p.m., Local Time.

PRESENT: _____

ABSENT: _____

The following resolution was offered by _____ and supported by _____.

WHEREAS, Andev Group, LLC has submitted a request to construct building greater than 25,000 square feet in size on 10.73 acres of a 58 acre undeveloped parcel identified as Parcel I.D. #20-401-005 located at the east end of Hannah Boulevard; and

WHEREAS, the proposed project includes the construction of a 267,543 square foot senior living community building with 230 dwelling units and construction of a 1720 square foot garage; and

WHEREAS, a total of 268,263 square feet is proposed in the project; and

WHEREAS, a special use permit is required for constructing a building or group of buildings totaling more than 25,000 square feet in gross floor area; and

WHEREAS, the Planning Commission held a public hearing at its regular meeting on June 8, 2020, and has reviewed staff material forwarded under a cover memorandum dated March 12, 2020; and

WHEREAS, the subject site is appropriately zoned RAA (Single Family-Low Density), which permits the construction of buildings greater than 25,000 square feet in size by special use permit; and

WHEREAS, the proposed project is consistent with the general standards for granting a special use permit found in Section 86-126 of the Code of Ordinances; and

WHEREAS, municipal water and sanitary sewer is available to extend to serve the subject site.

NOW THEREFORE, BE IT RESOLVED THE PLANNING COMMISSION OF THE CHARTER TOWNSHIP OF MERIDIAN hereby recommends approval of Special Use Permit #20021, subject to the following conditions:

1. Approval is in accordance with the site plan prepared by Kebs, Inc. dated March 25, 2019 (revision date March 2, 2020) and received by the Township on March 3, 2020.
2. Approval of the special use permit is subject to all conditions placed on Special Use Permit #20011 by the Township.

Resolution to Recommend Approval

SUP #20021 (Andev Group, LLC)

Page 2

3. Any future building additions will require an amendment to Special Use Permit #20021.

ADOPTED: YEAS: _____

NAYS: _____

STATE OF MICHIGAN)

) ss

COUNTY OF INGHAM)

I, the undersigned, the duly qualified and acting Chairperson of the Planning Commission of the Charter Township Meridian, Ingham County, Michigan, DO HEREBY CERTIFY that the foregoing is a true and a complete copy of a resolution adopted at a regular meeting of the Planning Commission on the 22nd day of June, 2020.

Scott Hendrickson
Planning Commission Chairperson



To: Planning Commission

From: Peter Menser, Principal Planner

Date: June 18, 2020

Re: **Rezoning #20010 (Ho Cho)**, rezone approximately 4.67 acres located at 5654 Okemos Road from RR (Rural Residential) to RAA (Single Family-Low Density).

The Planning Commission held a public hearing on Rezoning #20010 at its regular meeting on June 8, 2020. The meeting was held virtually using the Zoom web conferencing application. A straw poll taken at the end of the public hearing indicated the Planning Commission does not support the proposed rezoning of the property from RR (Rural Residential) to RAA (Single Family-Low Density).

Planning Commission Options

The Planning Commission may recommend approval or denial of the request to rezone from RR to RAA. A resolution to recommend denial of the proposed rezoning to the Township Board is provided.

- **Move to adopt the resolution recommending denial of Rezoning #20010 to rezone approximately 4.67 acres located at 5654 Okemos Road from RR (Rural Residential) to RAA (Single Family-Low Density).**

Attachment

1. Resolution to recommend denial.

G:\Community Planning & Development\Planning\REZONINGS (REZ)\2020\REZ 20010 (Ho Cho)\REZ 20010.pc.docx

RESOLUTION TO RECOMMEND DENIAL

**Rezoning #20010
5654 Okemos Road**

RESOLUTION

At a regular meeting of the Planning Commission of the Charter Township of Meridian, Ingham County, Michigan, held virtually using the Zoom web conferencing application on the 22nd day of June, 2020, at 7:00 p.m., Local Time.

PRESENT: _____

ABSENT: _____

The following resolution was offered by _____ and supported by _____.

WHEREAS, Young Ho Cho requested the rezoning of approximately 4.67 acres located at 5654 Okemos Road from RR (Rural Residential) to RAA (Single Family-Low Density); and

WHEREAS, the Planning Commission held a public hearing on the request at its regular meeting on June 8, 2020 and has reviewed the staff materials provided under a cover memorandum dated March 13, 2020; and

WHEREAS, the current RR zoning of the subject property is consistent with the zoning of adjacent properties to the east, west, north, and south of the site; and

WHEREAS, the current residential use of the subject property is consistent with the residential use of adjacent properties to the north, east, and south of the subject site; and

WHEREAS, the applicant has not adequately demonstrated why the requested rezoning to RAA is appropriate or why the current RR zoning is unreasonable; and

WHEREAS, the subject property could be used as currently zoned.

NOW THEREFORE, BE IT RESOLVED THE PLANNING COMMISSION OF THE CHARTER TOWNSHIP OF MERIDIAN hereby recommends denial of Rezoning #20010 to rezone approximately 4.67 acres located at 5654 Okemos Road from RR (Rural Residential) to RAA (Single Family-Low Density).

ADOPTED: YEAS: _____

NAYS: _____

STATE OF MICHIGAN)

) ss

COUNTY OF INGHAM)

Resolution to Recommend Denial

Rezoning #20010 (Ho Cho)

Page 2

I, the undersigned, the duly qualified and acting Chairperson of the Planning Commission of the Charter Township of Meridian, Ingham County, Michigan, DO HEREBY CERTIFY that the foregoing is a true and a complete copy of a resolution adopted at a regular meeting of the Planning Commission on the 22nd day of June, 2020.

Scott Hendrickson
Planning Commission Chairperson

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To: Planning Commission

From: Peter Menser, Principal Planner

Date: June 18, 2020

Re: Rezoning #20030 (Planning Commission), rezone approximately 0.10 acre located at 5937 Potter Street from C-1 (Commercial) to RN (Mixed Residential).

The Planning Commission held the public hearing on Rezoning #20030 at its regular meeting on June 8, 2020. The meeting was held virtually using the Zoom web conferencing application. A straw poll taken at the end of the public hearing indicated the Planning Commission supports rezoning the property from C-1 to RN.

Planning Commission Options

The Planning Commission may recommend approval or denial of the request. A resolution to recommend approval of the rezoning to the Township Board is provided.

- **Move to adopt the resolution recommending approval of Rezoning #20030 to rezone approximately 0.10 acre located at 5937 Potter Street from C-1 (Commercial) to RN (Mixed Residential).**

Attachment

1. Resolution to recommend approval.

RESOLUTION TO RECOMMEND APPROVAL

**Rezoning #20030
5937 Potter Street**

RESOLUTION

At a regular meeting of the Planning Commission of the Charter Township of Meridian, Ingham County, Michigan, held virtually using the Zoom web conferencing application on the 22nd day of June, 2020, at 7:00 p.m., Local Time.

PRESENT: _____

ABSENT: _____

The following resolution was offered by _____ and supported by _____.

WHEREAS, the Planning Commission initiated the rezoning of one 0.10 acre parcel addressed as 5937 Potter Street from C-1 (Commercial) to RN (Mixed Residential); and

WHEREAS, the Planning Commission held a public hearing at its regular meeting on June 8, 2020 and discussed the staff material forwarded under cover a memorandum dated March 13, 2020; and

WHEREAS, the proposed rezoning to RN (Mixed Residential) is consistent with the 2017 Future Land Use Map designation of R3 Residential 1.25 – 3.5 dwelling units per acre; and

WHEREAS, the property proposed for rezoning is developed with a single family residence, which is a use allowed by right in the proposed RN zoning district; and

WHEREAS, the property proposed for rezoning is located adjacent to properties used for single family purposes to the east and south; and

WHEREAS, the current zoning of C-1 imposes nonconforming status on the existing single family house, requiring variances from the Zoning Board of Appeals to make improvements to the properties beyond general upkeep and limits the property owner from rebuilding if the structure is removed or destroyed; and

WHEREAS, the proposed rezoning to RN will allow the property owner to maintain the existing use of the property in conformance with the ordinance.

NOW THEREFORE, BE IT RESOLVED THE PLANNING COMMISSION OF THE CHARTER TOWNSHIP OF MERIDIAN hereby recommends approval of Rezoning #20030 to rezone approximately 0.10 acre located at 5937 Potter Street from C-1 (Commercial) to RN (Mixed Residential).

