



AGENDA
CHARTER TOWNSHIP OF MERIDIAN
PLANNING COMMISSION – REGULAR MEETING
July 8, 2019 7PM

1. CALL MEETING TO ORDER
2. PUBLIC REMARKS
3. APPROVAL OF AGENDA
4. APPROVAL OF MINUTES
 - A. June 24, 2019
5. COMMUNICATIONS – listed on separate page
6. PUBLIC HEARINGS
 - A. Special Use Permit #19061 (Meridian Township Parks Department), work in floodplain to construct pedestrian/bicycle pathway on north side of Central Park Drive, west of Marsh Road.
 - B. Wetland Use Permit #19-02 (Meridian Township Parks Department), fill in regulated wetland to construct pedestrian/bicycle pathway on north side of Central Park Drive, west of Marsh Road.
7. UNFINISHED BUSINESS
 - A. Special Use Permit #19-99021 (Williams Volkswagen, Inc.), amend special use permit for new car dealership for building addition at 2186 Jolly Road.
 - B. Special Use Permit #19041 (Williams Volkswagen, Inc.), construct building greater than 25,000 square feet in size at Jolly Road.
 - C. Rezoning #19060 (Bennett Road Holding LLC), rezone approximately 83 acres from RR (Rural Residential) and RAAA (Single Family-Low Density) to RAA (Single Family-Low Density).
8. OTHER BUSINESS
 - A. None.
9. REPORTS AND ANNOUNCEMENTS
 - A. Township Board update.
10. PROJECT UPDATES
 - A. New Applications - None
 - B. Site Plans Received - None
 - C. Site Plans Approved
 1. Site Plan Review #19-06 (LaFontaine Automotive Group), construct new car dealership at 1448 Grand River Avenue.
11. PUBLIC REMARKS
12. ADJOURNMENT
13. POST SCRIPT: JOHN SCOTT-CRAIG

AGENDA page 2
CHARTER TOWNSHIP OF MERIDIAN
PLANNING COMMISSION MEETING
July 8, 2019 7:00 pm

TENTATIVE PLANNING COMMISSION AGENDA
July 22, 2019

1. PUBLIC HEARINGS
 - A. Special Use Permit #19111 (Woodward Limited Dividend Housing Association), develop 49 unit apartment complex with four buildings on north side of Sirhal Drive, west of Greencliff Drive.
 - B. Special Use Permit #19121 (Woodward Limited Dividend Housing Association), construct group of buildings greater than 25,000 square feet in size on north side of Sirhal Drive, west of Greencliff Drive.

2. UNFINISHED BUSINESS
 - A. Special Use Permit #19061 (Meridian Township Parks Department), work in floodplain to construct pedestrian/bicycle pathway on north side of Central Park Drive, west of Marsh Road.
 - B. Wetland Use Permit #19-02 (Meridian Township Parks Department), fill in regulated wetland to construct pedestrian/bicycle pathway on north side of Central Park Drive, west of Marsh Road.
 - C. Rezoning #19060 (Bennett Road Holding LLC), rezone approximately 83 acres from RR (Rural Residential) and RAAA (Single Family-Low Density) to RAA (Single Family-Low Density).

3. OTHER BUSINESS
 - A. 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: 5151 Marsh Road, Okemos, MI 48864 Township Hall

Providing a safe and welcoming, sustainable, prime community.



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

DRAFT

June 24, 2019

5151 Marsh Road, Okemos, MI 48864-1198

517-853-4560, Town Hall Room, 7:00 P.M.

PRESENT: Commissioners Lane, Scott-Craig, Hendrickson, Trezise, Richards, Premoe, Cordill, and Shrewsbury

ABSENT: None

STAFF: Director of Community Planning & Development Mark Kieselbach and Principal Planner Peter Menser.

1. Call meeting to order

Chair Scott-Craig called the regular meeting to order at 7:01 P.M.

2. Public Remarks

- A. Wei Li, 2565 Sophiea Parkway, spoke in opposition to Rezoning #19060.
- B. Lynne Page, 3912 Raleigh Drive, spoke in opposition to Rezoning #19060.
- C. Jane Meland, 2515 Capeside Drive, spoke in opposition to Rezoning #19060.
- D. Mark Bird, 2515 Capeside Drive, spoke in opposition to Rezoning #19060.
- E. James Giguere, 6253 Fen Wick Court, spoke in support of the Prepreliminary Plat #19012.
- F. David Pierson, 1142 S. Washington Avenue, spoke in support to Special Use Permit # 19031 and Special Use Permit #19071.
- G. Dr. Dean McFarlane-Parrott, 4324 Aztec Way, spoke in opposition to Rezoning #19060.
- H. Gerry Broski, 4332 Aztec Way, spoke in opposition to Rezoning #19060.

3. Approval of Agenda

Commissioner Premoe moved to approve the agenda as written.

Seconded by Commissioner Cordill.

VOICE VOTE: Motion approved unanimously.

4. Approval of Minutes

- A. June 10, 2019 Regular Meeting

Commissioner Hendrickson moved to approve the minutes as written.

Seconded by Commissioner Richards.

VOICE VOTE: Motion approved unanimously.

5. Communications

Chair Scott-Craig noted the list of communications listed with the agenda.

6. Public Hearings

- A. Special Use Permit #19-99021 (Williams Volkswagen, Inc.), amend special use permit for new car dealership for building addition at 2186 Jolly Road.
- B. Special Use Permit #19041 (Williams Volkswagen, Inc.), construct building greater than 25,000 square feet in size at Jolly Road.

Chair Scott-Craig opened the public hearing at 7:20 P.M.

Principal Planner Menser provided a summary of both requests and noted they would be discussed together for the public hearing.

The applicant, Jeff Williams, 2008 Bellwood, owner of Williams Volkswagen, Inc. provided comments regarding the proposed requests. He further explained the need to expand is due to the increased number of vehicles for sale.

Public Comments: None

Planning Commission Discussion:

- Chair Scott-Craig asked where the bike parking was located on the property and Principal Planner Menser noted it was not on the plans shown but would be added.
- The property is nice and maintained well.
- There are many young trees on the property and the Planning Commission wanted to know if the trees would be relocated. Jeff Kyes of KEBS, Inc. stated the Landscape Architect will evaluate the trees on the property before the renovation happens. He did note the east side of the property will remain the same.
- A retention pond exists on the site and the addition of more asphalt will require a pretreatment filter for the parking lot.
- Jeff Kyes will provide a letter with 9 conditions for the Special Use Permit #19041 at the July 8, 2019 meeting.

A straw poll indicated the Planning Commission would recommend approval of Special Use Permit #19-99021 and Special Use Permit #19041 at the next meeting.

Chair Scott-Craig closed the public hearing at 7:35 p.m.

7. Unfinished Business

- A. Special Use Permit #19031 (Okemos Retail Mgmt. LLC), develop 9,316 square foot shopping center with drive-through window at 2085 Grand River Avenue.

Motion by Commissioner Premoe to approve the Special Use Permit #19031 with conditions. Supported by Commissioner Richards.

Principal Planner Menser noted there was a condition not added to the resolution but it was discussed at the May 13, 2019 meeting by Jeff Kyes, KEBS, INC., with regards to adding non-motorized pedestrian pathways. The plans will be updated to reflect the areas.

Motion by Commissioner Premoe to amend the Special Use Permit # 19031 with conditions to add the non-motorized pedestrian pathways.
Supported by Commissioner Richards.

Planning Commission Discussion:

- Commissioner Cordill is in favor of the redevelopment but cannot support the drive-through window because of the busy Okemos Road and Grand River intersection. She suggested reserved parking spots for the food pick-up instead of the drive-through window. Commissioner Cordill also stated the Special Use Permit #19031 runs with the land and future restaurant changes could cause problems.
- Commissioner Hendrickson is in favor of the redevelopment project but the exit drives from the site are going to cause increased safety concerns.

ROLL CALL VOTE:

YEAS: Commissioners Premoe, Richards, Shrewsbury, Lane, Trezise and Chair Scott-Craig.

NAYS: Commissioners Hendrickson and Cordill

MOTION CARRIED: 6-2

- B. Special Use Permit #19071 (Okemos Retail Mgmt. LLC), work in floodplain to construct shopping center at 2085 Grand River Avenue.

Motion by Commissioner Hendrickson to approve the Special Use Permit #19071 with conditions.
Supported by Commissioner Premoe.

ROLL CALL VOTE:

YEAS: Commissioners Hendrickson, Premoe, Trezise, Cordill, Lane, Shrewsbury, Richards and Chair Scott-Craig.

NAYS: None

MOTION CARRIED: 8-0

- C. Special Use Permit #19-95151 (Cedar Endowment Corporation), establish private school in existing church at 3654 Okemos Road.

Motion by Commissioner Cordill to approve the Special Use Permit #19-95151 with conditions.
Supported by Commissioner Trezise.

ROLL CALL VOTE:

YEAS: Commissioners Cordill, Trezise, Premoe, Lane, Shrewsbury, Hendrickson, Richards and Chair Scott-Craig.

NAYS: None

MOTION CARRIED: 8-0

- D. Rezoning #19060 (Bennett Road Holding LLC), rezone approximately 96.74 acres located on the north side of Bennett Road, east of Hagadorn Road from RR (Rural Residential) and RAAA (Single Family-Low Density) to RA (Single Family-Medium Density) with conditions.

Principal Planner Menser provided an update and noted the modified request will be discussed at the July 8, 2019 Planning Commission meeting and a recommendation will be made at a future meeting. (Public comment will be available at the beginning of the meeting.)

Planning Commission Discussion:

- A suggestion was made to leave the north and south plots alone and only rezone the middle section of the property to RAA in order to create a buffer area for the adjacent neighborhood.
- School enrollment numbers fluctuate and the current enrollment should not be a determining factor in the decision for how to rezone the property.
- It would be helpful if the applicant could revise the questionnaire portion of the application in order to explain the reasons and rationale for changes in the rezoning requests.
- The Okemos School District could submit a letter sharing support for the development.

8. Other Business

- A. Prepreliminary Plat #19012 (Giguere), conceptual review of Sanctuary 3 plat on Robins Way.

Principal Planner Menser provided a review of the conceptual plat and explained this would be an opportunity to provide feedback before the applicant proceeds with the additional steps.

The applicant, James Giguere, noted he met with homeowners in the area last year to get feedback and was available to answer questions.

Planning Commission Discussion:

- Mr. Giguere was commended for meeting with homeowners in the area and for listening to their questions, comments and concerns. Many homeowners expressed the natural beauty of being surrounded by woods and the Planning Commission is anxious to review the next step which is the tentative preliminary plat

9. REPORTS AND ANNOUNCEMENTS

- A. Township Board update.

Principal Planner Menser provided an update from the Township Board's recent agendas.

Chair Scott-Craig, Commissioner Hendrickson, and Commissioner Premoe attended a Form Base Code Meeting on June 11, 2019.

Commissioners Premoe, Lane, and Hendrickson attended a Zoning training last week

Chair Scott-Craig attended the Brownfield Redevelopment Authority meeting on June 20, 2019.

10. Project Updates

- A. New Applications - None
- B. Site Plans Received - None
- C. Site Plans Approved - None

11. Public Remarks

- A. Dan McCole, 4137 Benham Way, spoke in opposition to Rezoning #19060.
- B. Eric Torng, 4138 East Benca Way, spoke in opposition to Rezoning #19060.
- C. Lynne Page, 3912 Raleigh Drive, spoke in opposition to Rezoning #19060.

12. Adjournment

Commissioner Richards moved to adjourn the meeting.

Supported by Commissioner Lane.

VOICE VOTE: Motion carried unanimously.

Chair Scott-Craig adjourned the regular meeting at 8:31 P.M.

Respectfully Submitted,

Debbie Budzynski

Recording Secretary

Communications Received

Meridian Township Planning Commission – Monday, July 8, 2019

1. Yingxin Zhou RE: Rezoning #19060
2. Laura Stebbins RE: Rezoning #19060
3. Carolyn Sebestyen RE: Rezoning #19060
4. Gang & Jiao Teng RE: Rezoning #19060
5. Yingxin Zhou RE: Rezoning #19060
6. Jeff Jacobsen & Lisa Duffey RE: Rezoning #19060
7. Lynne Page RE: Rezoning #19060
8. John Ley RE: Rezoning #19060
9. Yaping Jin RE: Rezoning #19060
10. Samip Patel RE: Rezoning #19060
11. Matthew & Catherine Harris RE: Rezoning #19060
12. Scott Fairmont RE: Rezoning #19060
13. Candy Parker RE: Rezoning #19060
14. Jeff Jacobsen & Lisa Duffey RE: Rezoning #19060
15. Larry McCurdy RE: Rezoning #19060
16. Mindy Kraus RE: Rezoning #19060
17. Ameer O'Leary RE: Rezoning #19060
18. Jim Rundquist RE: Rezoning #19060
19. Carol Sholt RE: Rezoning #19060
20. Champion Woods Condo Association RE: Rezoning #19060
21. Wei Li RE: Rezoning #19060
22. Bingwei Xu RE: Rezoning #19060
23. Yingxin Zhou RE: Rezoning #19060

Peter Menser

From: Yingxin Zhou <zhou0824@gmail.com>
Sent: Friday, June 21, 2019 3:02 PM
To: Peter Menser; Planning Commision (DG)
Subject: Amendment to request #19060 (Bennett Road Holding LLC)

Dear Meridian Township Planning Commission Chair, Vice Chair, Secretary, Commissioners, and Mr. Menser:

I'm a resident in the Champion Woods subdivision. I was notified by our HOA on June 19, 2019 that the applicant is "amending" the request to RAA zoning with no conditions.

Be definition, "amendment" refers to a minor change or addition designed to improve a text, piece of legislation. Regarding the rezoning application from Bennett Road Holding LLC, the original application #19060 requests for RA zoning, with PUD and max 210 units condition. The "amended" request is just RAA zoning. Thus the zoning class changed; the conditions got eliminated. So the newest request is 100% different from the original request #19060. There is nothing common between the two requests. How could you call that an amendment?

Rezoning to RAA requires a start over which means a new application form with a fee, notice the request, a new public hearing to be held etc. The submitted documentations from the applicant do not support the request to rezone to RAA.

Please recommend a denial of #19060 as scheduled at the June 24, 2019 meeting. Thank you for your time and consideration.

Sincerely,

Yingxin Zhou
2565 Sophiea Pkwy
Okemos, MI 48864

Peter Menser

From: LAURA STEBBINS <lstebbins123@comcast.net>
Sent: Sunday, June 23, 2019 11:37 AM
To: Planning Commision (DG)
Subject: Proposed Re-Zoning Hagadorn, Bennett and Hulett Rds

Ladies and Gentlemen;

The proposed re-zoning by Mayberry Homes from RAAA to RAA on the 96.74 acre parcel of land bordered by Hagadorn, Bennett and Hulett Rd would affect the residents of Meridian Township negatively.

- 1) There has already been increased traffic in those areas. We do not need more congestion.

- 2) People move to Meridian for the natural areas and open spaces. We do not need more density.

- 3) The schools, particularly Bennett Woods Elementary, are experiencing overcrowding as it is.

This higher density plan will have a negative environmental impact on the township. Please vote against this proposal.

Thank You,

Laura Stebbins

3875 Roxbury Ave.

Okemos, MI 48864

Peter Menser

From: Carolyn Sebestyen <555csebestyen@gmail.com>
Sent: Sunday, June 23, 2019 1:20 PM
To: Planning Commision (DG)
Subject: Hagadorn/Bennett Mayberry Rezoning

Unable to attend meeting tomorrow regarding request for Mayberry Homes to amend their application to slightly lower density housing WITHOUT conditions. The issues regarding traffic, threat to wetlands, impact on schools raised during the first application hearing have not been addressed in their new approach. As a Commission you had serious concerns about Mayberrys development in this area. We did too, we still do. Vote no. New application, new hearings, address the issues raised. Thank you.

Peter Menser

From: Gang Teng <tenggang@gmail.com>
Sent: Sunday, June 23, 2019 9:47 PM
To: Planning Commision (DG)
Subject: Comments against Mayberry Rezoning Request

Dear Planning Commission,

We learned that Mayberry is submitting request to the Planning Commission to consider further amendments to its request to rezone their land bounded by Hagadorn, Bennett and Hulett Roads, so that they can build properties on smaller lot size than what's allowed currently.

We're writing to express our opinions to against its proposal. We live in College Fields, very close to the area requested for rezone and our concerns are:

1. it's inconsistent with other neighborhoods in the same area and will negatively impact the environment.
2. the proposal will increase the traffic in the area. Currently roads in this area are not designed to support too much traffic and it's basically a roundabout with four 2-way roads. With Bennett Woods elementary school around the corner, we're afraid that high-density residual zone will greatly increase the traffic congestion and jeopardize the safety of school students.
3. The increased population/density will also impose higher demands on township resources such as 911/police/fire department/education. We certainly oppose any changes to the zone that reduces the quality and efficiency of public services.
4. Also I learned that there will be no new application nor public hearing, that against increases our concerns that residence's voice can't be heard and this proposal might have bigger impact that the Planning Commission would have thought of.

all the above will negatively impact us and detract people from moving to this area.

As we're not able to attend the meeting thus please consider this email as our comments against Mayberry's request.

Best Regards,
Gang&Jiao

Yingxin Zhou
2565 Sophiea Pkwy
Okemos, MI 48864

June 24, 2019

Re: "Amendment" to request #19060 (Bennett Road Holding LLC) (Opposition)

Dear Meridian Township Planning Commission Chair, Vice Chair, Secretary, Commissioners, and Mr. Menser:

First I want to thank you for your time on this important matter.

I'm disturbed by how this rezoning request is proceeding. I have two following requests and would greatly appreciate it if you could consider: 1. The applicant needs to pay application fee for rezoning request #19060. 2. Rezoning to RAA requires a new application form with a fee and a new public hearing. I strongly urge Planning Commission to recommend denial of rezoning request #19060 at the June 24, 2019 planning commission meeting.

The applicant needs to pay application fee for rezoning request #19060

Once again we ask the applicant to pay the fee. The application form for request #19060 shows \$4,400 was paid in September 2018 so nothing has been paid this time. But application #19060 is a new request. Section E.1. of rezoning application form clearly states that application fee is nonrefundable. Therefore the \$4.4K fee paid for request #18120 can't be refunded and applied to rezoning request #19060. Please see the attached screenshots.

The applicant's paying no fee is against the Township's policy, is disrespectful to planning commission, and is unfair for taxpayers in our township who have been meeting deadlines to pay tax due.

Part I – E.1. States Nonrefundable fee

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
SEP 27 2018

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 BENNETT FOND HOLDING, LLC. (MAYBERRY HOMES)
Address of applicant 1650 KENDALE BLVD., EAST LANSING, MI 48023
Telephone: Work 517-371-5000 Home 517-575-5355
Fax _____ Email DSTRAUS@MAYBERRYHOMES.COM

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 DAVID STRAUS
Address 1650 KENDALE BLVD., EAST LANSING, MI 48023
Telephone: Work 517-371-5000 Home 517-575-5355
Fax _____ Email DSTRAUS@MAYBERRYHOMES.COM

C. Site address/location N. SIDE OF BENNETT BETWEEN HULETT RD & HOLLAND
Legal description (Attach additional sheets if necessary) ATTACHED
Parcel number 33-02-02-29-300 Site acreage 96.74
008, 020, 021, 023, 025, 026 & 33-02-02-29-251-009

D. Current zoning RAA-R1L Requested zoning RA

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

- 1. Nonrefundable fee.

Rezoning to RAA requires start over

Per the letter submitted by Mayberry Homes on June 19, 2019, the applicant is "amending" the request to RAA. By definition, "amendment" refers to a minor change or addition designed to improve a text, piece of legislation, etc.

Rezoning to RAA is not a minor change and could not be considered an amendment to the original request #19060. During the public hearing at the June 10, 2019 planning commission meeting, the applicant, Mr. Bob Schroeder noted he would add an additional amendment to the rezoning with conditions that would include limiting the northern 20 acre piece of property to 10 units or less for development. I admit that this change is an amendment.

Rezoning to RAA requires start over which means a new application form with a fee, notice the request, and a new public hearing to be held etc. Mr. Menser explained it very well in Oct 2018 while answering a question related to rezoning request #18120. Below is the screenshot of the message. That is the correct approach to process request to rezone to RAA.

From: Peter Menser <menser@meridian.mi.us>
Sent: Friday, October 26, 2018 3:44 PM
To: etorng@gmail.com
Subject: RE: Township Board meeting

Hi Eric,

Sorry I have been in meetings all day. If the developer proposes to modify the request by requesting a different zoning district other than RA, then we would start over and re-notice the request, hold a new public hearing, etc. If they stick with the current RA zoning request, but modify it by, for example, limiting the number of units or offer to only develop the land as a planned unit development (PUD) then we can proceed with the current process. It is typical that conditions get added to projects along the way, which do not require starting over.

Hope this helps, I will have an idea of next steps hopefully by the end of the day on Monday and will let you know.

Please recommend a denial of #19060 as originally scheduled at the June 24, 2019 meeting.

Sincerely,

Yingxin Zhou

Peter Menser

From: Jeff Jacobsen <jeffsjake22@gmail.com>
Sent: Monday, June 24, 2019 7:29 AM
To: Planning Commision (DG)
Subject: Additional Amendments to Mayberry Rezoning

June 24, 2019

Dear Planning Commission:

Register us as strongly against the rezoning amendment (between College Field back 9 holes and the bus garage/Bennett Woods Elementary School/Champion Woods) to RA which would substantially and negatively impact this area and adjacent areas. Why should Mayberry be permitted to manipulate the system and intensify the number of homes in this highly sensitive areas? When we purchased our home we did the research to see what might be on the horizon in terms of other building in our area and knew there would be some, yet not as populated as this one proposed. Multiple reasons for our objection are listed below:

- 1) Rural and low density housing as is now would not impact the environment nearly as much as single family low density housing without conditions. This area is full of surface waters, wetlands, wildlife and more natural features. More people means more concrete, more surface area of roads/houses which will add to the pollutant load in this area. Less density means less pollution in these sensitive areas. Are there other areas where the original intensification of development has increased beyond the original zoning, so that the cumulative negative impact is greater? This would geometrically add to the negatives.
- 2) Bennett Road was completely redone not too long ago. With its existing load of traffic, it is already exhibiting significant degradation to its surface due to the frequency and type of traffic. Increasing the amount and kind of traffic would accelerate its demise and it would be added to the deplorable list of unsafe roads. Given the nature of school buses and the elementary and high schools in close proximity this adds to the growing negatives. In addition, the elevations on Bennett Road make any type of new access with more homes problematic as it is very busy during the peak periods and this would potentially exacerbate the problem. What types of mitigation and enhancements is Mayberry Homes doing due to its impact with either scenario?
- 3) In addition to #2, the increased traffic would substantially increase the safety risks to drivers, bike riders, children and pedestrians.
- 4) I have no idea about its potential impact to water, electrical, sewer and other public services, yet wonder if they will overwhelm the infrastructure that already exists.
- 5) Additional areas of infrastructure concerns: can the school systems handle this increased volume, can fire/police handle this increased volume, etc? We have already had new assessments over the last several years to pay for the services and obligations that were underfunded.

There should be more to consider than pure profit by a developer by packing in more homes into a rural area. The existing zoning must remain the same and would provide viable options for a credible developer.

I will not be able to attend the hearing as I will be out of town on business.

Sincerely,

Jeff Jacobsen and Lisa Duffey
4053 Highland Terrace
Bennett Village
517-388-3794

**Lynne S. Page
3912 Raleigh Drive
Okemos, MI 48864
517-347-7403**

June 24, 2019

Planning Commission
Charter Township of Meridian
5151 Marsh Road
Okemos, MI 48864

Re: Rezoning #19060 – Bennet Road Holding, LLC (Opposition)

To the Planning Commission:

I am writing to express my continued opposition to Rezoning Request #19060. Subsequent to the June 10, 2019, Public Hearing on this application, Mayberry Homes (“Mayberry”) asked the Planning Commission to consider further amendments to its request to rezone 96.74 acres of land bounded by Hagadorn, Bennett and Hulett Roads. As I understand it, this proposed amendment entails rezoning 75 acres of RAAA (Single Family-Low Density) property and 8 acres of RR (Rural Residential) to RAA (Single Family-Low Density) zoning without conditions.

Land use decisions are fundamental to preserving the character and value of our predominantly single-family residential community. Although Mayberry made substantive changes to its Rezoning Application by removing the PUD condition and changing the requested zoning, Township staff considers this a modification of the existing application. This treatment allows the Township to forego the legal notice, public hearing, and supporting material requirements of the Township Zoning Ordinance and the Michigan Zoning Enabling Act. Other municipalities have specific ordinances that require a new application under these circumstances to ensure a transparent, fair, consistent, and balanced process that respects and encourages public participation. Meridian Township should modify its ordinance and review process to ensure that these standards are upheld.

In addition to these process-related concerns, my objections to this rezoning request are as follows:

1. The property can be developed for single family housing as currently zoned.
2. The requested zoning is not consistent with the RAA zoning of neighboring properties.
3. According to the staff report dated, the property has numerous environmentally sensitive features that could be compromised by increasing the zoning density, including 9.06 acres of wetlands regulated by the State of Michigan EGLE, two Meridian Township wetlands (0.99 acres), and floodplain areas (both floodway and floodway fringe). The increased density requested by the applicant will result in additional impervious surfaces, such as roofing and pavement, which reduces infiltration and increases water runoff. The increased volume of water runoff will adversely impact the properties of the surrounding subdivisions, Meridian Township’s Southwest Meridian Uplands Preserve, the contiguous wetlands and woodlands, the Heron Creek Drain, and the Red Cedar River.

4. The applicant has failed to provide evidence that the current zoning is unreasonable. As noted by the developer in its rezoning application, the current zoning is consistent with the Township's Master Plan. The applicant's responses to Part II A (2) and (3) of the Rezoning Application ("Reasons why the present zoning is unreasonable") are not relevant or substantive. Simply stating that "sanitary sewer was stubbed to this property" and "(Champion Woods) has been developed and completed" does not demonstrate that the current zoning is unreasonable. Similarly, noting that the requested RA zoning is consistent with the Township's Master Plan does not refute the fact that the current zoning is reasonable and consistent with the Township's Master Plan.
5. The applicant's responses to Part II B (2) and (5) of the Rezoning Application ("Reasons why the requested zoning is appropriate") are incomplete, irrelevant and/or not substantive. The requested zoning (RA) is inconsistent with the less dense zoning of the adjacent single-family low-density properties (RAA, RAAA, and RR) that includes the adjacent subdivisions of Champion Woods and the Woods of Heron Creek. Stating that there is a "high demand" for housing in Okemos and listing the possible buyer demographics for other Mayberry developments is not evidence of any proven community need.
6. The data summarized in the developer's updated Traffic Assessment dated May 2019 is counterintuitive. Obviously, a zoning request for increased density will increase traffic. For the purposes of analysis, the traffic generation data should be calculated on a consistent basis. In any case, the developer's June 19, 2019 request to remove the PUD condition from Rezoning Application #19060 renders the May 2019 Traffic Assessment irrelevant and unusable.

Projects that negatively impact the natural environment and increase traffic congestion devalue neighboring properties and detract from the quality of life for all Meridian Township residents. Please vote to deny this rezoning request.

Sincerely,

Lynne S. Page

Lynne S. Page

Peter Menser

From: John Ley <johnley70@hotmail.com>
Sent: Monday, June 24, 2019 1:04 PM
To: Planning Commision (DG)
Subject: Mayberry Rezoning Issue

Dear Commissioners,

Thank you for hearing my concerns. It is my understanding, that Mayberry Homes has asked the Planning Commission to consider further amendments to its request to rezone 96.64 acres of land bounded by Hagdorn, Bennett and Hulett Roads. I believe, along with most of the neighbors in the area, that more dense zoning is **not** consistent with the neighborhood properties. Many issues that were discussed about at the last meeting are still valid. I think the ecological impact of putting a bunch of houses close together is definitely going to increase the stress on environment. The RA zoning with modifications is just not a good fit for the area. Therefore, the development should occur with how it is currently zoned.

Sincerely,

John Ley

2601 Creekstone Trail

Okemos, MI 48864

Peter Menser

From: yapingjin <yapingjin@gmail.com>
Sent: Monday, June 24, 2019 10:33 PM
To: Planning Commision (DG)
Subject: Recommend denial of #19060

Dear Sir/Mam,

I am aware that the #19060 case is still open for applying another request for RAA rezoning instead of RA requested earlier. I believe it would be another case which applicant should apply.

Please recommend denial of #19060.

Thanks!

Best,

Yaping Jin

Resident from

Champion Woods neighborhood

发自我的iPhone

Peter Menser

From: Samip Patel <asms1220@yahoo.com>
Sent: Tuesday, June 25, 2019 7:03 AM
To: Planning Commision (DG)
Subject: Mayberry project

We do not need any more subdivisions. Traffic will be double and road size is small. I am not in favour for one more subdivision.

Samip Patel

Peter Menser

From: Matthew Harris <mattharris61@gmail.com>
Sent: Monday, June 24, 2019 6:39 PM
To: Planning Commision (DG)
Cc: Cathy Harris
Subject: Mayberry Rezoning

I am extremely disappointed that the Mayberry homes request is being shoved through without resistance. I wish for them to submit a new application and for the planning commission to hold a public hearing on the new proposal. More dense zoning is not consistent with the neighboring properties. It will also have a negative impact on our communities natural environment. We do not need to increase our traffic congestion nor decrease the quality of life in Meridian Township.

Matthew and Catherine Harris
1765 Mirabeau Dr.

Scott Fairmont
1720 Maple Ave. #650
Evanston, IL 60201
sfairmont@icloud.com

July 1, 2019

Meridian Township Planning Commission
5151 Marsh Road
Okemos, MI 48864

Re: Zoning #19060 (Bennett Road)

Dear Planning Commissioners,

I watched the June 24, 2019 Planning Commission meeting via HomeTV and was pleased to hear the Commissioners' apprehension about approving the zoning. It's incomprehensible how the developer would expect you to approve upzoning all 96 acres without providing any reason for the zoning change - other than the obvious grab for additional profit that comes from more density (greed) at the expense of the neighbors and the environment.

Mayberry's modification letter, requesting RAA for all 96 acres, states they heard what the community said about RA zoning. Frankly, Mayberry's claim seems hollow. Had they listened, they would not have asked for RAA on the entire site. The community's voice was loud and clear - leave the zoning as is with no changes.

Mayberry's proposal does not address the community's concerns about increased stormwater, additional automobile traffic or zoning consistency. Increased density from upzoning will increase stormwater, plain and simple. Leaving the zoning RAAA and RR will minimize increased stormwater. Regarding traffic, Sophiea Pkwy and Creekside Dr. need to be connected to each other for emergency access but they do not have to be connected to Bennett Road.

The current zoning allows the land to be developed as a sensible residential neighborhood. The existing zoning is consistent with the zoning of the surrounding, adjacent, properties. The only zoning change worth considering would be assigning RAA zoning to the land that is adjacent to Champion Woods - defined as the area within an imaginary "extension" of Champion Woods' northern and southern borders. RAA on this limited section of land would be consistent with the zoning on Champion Woods..

Zoning the southern section is pretty straightforward. With RR zoning on the east, west and south, the southern land should remain zoned as is; RR and RAAA.

The northern parcel presents a different, more complex zoning problem. Since the northern parcel is sandwiched between Land Preservation property and RAA zoned Herron

Creek, it seems this section should act as a transition - making RR or RAAA zoning most appropriate. Additionally, the northern section contains several regulated wetlands that the developer did not identify in his application. Intensive development (RA/RAA) in the northern section will exacerbate the water problems in the existing neighborhoods.

I'm certain that Mayberry is capable of developing an outstanding residential neighborhood without the zoning change. They can design a neighborhood that will not increase stormwater volume or velocity; will provide the emergency road between Sophia Pkwy and Creekside Dr.; create a road pattern that avoids funneling additional traffic from their new neighborhood through existing neighborhoods; preserve the beautiful woodlot, wetlands and other sensitive environmental features; protect the wildlife corridor; while making a handsome profit for themselves. Their challenge is to build a neighborhood that benefits the entire Meridian Township community without intruding on the existing neighborhoods.

Thank you for your consideration of this and the community's input.

Sincerely,

Scott Fairmont

Peter Menser

From: Candy Parker <candypar@comcast.net>
Sent: Monday, July 01, 2019 4:07 PM
To: Peter Menser; Planning Commision (DG)
Subject: rezoning #19060

July 1, 2019

Dear Mr. Menser and Commissioners,

Once again I am contacting you regarding rezoning request #19060. Twice now, the commissioners have seen no need to change the zoning as is being requested. The revised request will have the same negative impact on the natural environment as the other two requests. The revised request will still increase traffic congestion, and it will detract from the quality of life of the current residents.

The Township Master Plan in 2017 desired to preserve and strengthen residential neighborhoods and preserve open space and natural areas. The proposed revision will certainly not be working toward those goals.

Please once again see that there is no need to change the current zoning on the property in question.

Thank you,

Candy Parker

4361 Aztec Way

Okemos, Michigan

Peter Menser

From: Jeff Jacobsen <jeffsjake22@gmail.com>
Sent: Monday, July 01, 2019 6:09 PM
To: Planning Commision (DG)
Subject: Rezoning Request #19060

Dear Planning Commission:

Please add this email to the ones sent on 6/3 and 6/24 in opposition to the request. The reasons are the same and have not changed. Please review our rationale as we are for development as prescribed by zoning, not by dollars. Mayberry Homes is attempting to make a mockery of the zoning process simply for cold hard cash. There is no need for these extra homes for any other reason.

Going from a home every 0.92 acre to 0.45 acre and now to 0.31 acre with a potential increase in 44% in number of units is an embarrassment to even ask, yet apparently that is what is occurring.

Please put the nail in this rezoning request coffin and let them proceed wit the original zoning and build this as zoned.

We are out of town and can not make the meeting.

Jeff Jacobsen and Lisa Duffey
4053 Highland Terrace
Bennett Village
517-388-3794

Peter Menser

From: Kathy & Larry McCurdy <kathyandlarrymccurdy@gmail.com>
Sent: Monday, July 01, 2019 8:02 PM
To: Peter Menser
Subject: letter regarding amendment to Application #19060

Larry McCurdy
2710 Sophiea Parkway
Okemos MI 48864

Members of the Planning Commission;

As stated in previous letters, my wife and I have been residents and homeowners in Meridian Township for 42 years and have lived in our present home since 2009. We are of the opinion that the rezoning request #19060 and its amendment should be denied. The application is the exact same application the commission voted to not recommend to the township board in 2018. The amendment entirely changes the developers' request, and in our opinion should not have been allowed. Still the amendment changes nothing; the developers want to rezone in order to be able to build more units than they can with the existing zoning. As we and many other members of the Champion Woods Association and from other nearby neighborhoods pointed out at that earlier meetings, the fragile ecosystem that exists in this area cannot bear the stress of more development, so how can a denser development be allowed?

The development of Champion Woods has already added more strain than the environment can absorb. My wife and I were one of the first families to move into Champion Woods and were delighted that we had a natural area in back of our unit that we could walk through and enjoy nature and the natural beauty of the area. This is no longer possible. Once the developers used fill dirt to add additional building areas, water collected in the area to the rear of our lot. This spring we have had water at least as deep as 20 inches in that area and it has stayed at double digits depth. Unfortunately, this has not been the worst spring in terms of the amount of standing water. We have had amounts close to, if not more than 20 inches of standing water. As of now what was dry land with many healthy trees is now literally under water from very early spring to well into the summer. There is no time during spring, summer or fall that the area can be walked through. I have been asked to view the water levels in other parts of our subdivision and the circumstances are the same. In one case, a natural area that was not wetlands, is now a virtual lake that will not be dry until late summer or even into the fall. I have also personally viewed the county drain that allows water to flow from Champion Woods to the area in question for rezoning. At this time water in the drain is about 2 inches deep which means the standing water can only go down that much from the drain tile. The problem becomes more alarming when I viewed the exit of the drain, again in the area with the rezoning request; the water in the area where the water was flowing is already very high. I was looking out over a large area of very high grass, completely flooded. The concern then becomes the water level without the addition of new homes, is not too far from being the height of the drain. This raises a real possibility of a new development causing a water back flowing through the drain into the areas in Champion Woods, Heron Creek and Sundance and raising water levels there even higher than they are now. This was not an expected consequence of the Champion Woods development, but it certainly is, and unfortunately nothing can be done to change the result.

Keep in mind this issue of standing water encroaching the lots of homeowners, is affecting more than half of the homes in Champion Woods. It is not an isolated issue. So now we are looking at another development that under the best of circumstances will add more stress to the ecosystem of this entire area. There is no reason the developer should be given the ability to build more houses than the existing zoning allows. The developers will say that the drainage issue will remain neutral, but they cannot guarantee that no more than the developers of Champion Woods could. If more problems develop and even more water is backed up, than the residents of at least three or four other subdivisions will bear the consequences. Putting existing residents at risk of more issues with standing water and even water encroaching into their homes is not fair to them. As has been stated before, these residents bought and built homes without knowing

that these problems would develop or that there was even a possibility that they would develop. The commission and the township board has a responsibility to those residents to protect their rights before granting developers the right to cause further damage to their neighborhood environment.

Another concern is the opening up of Sophiea Parkway to be a thru street. With the traffic flow created by children being dropped off and picked up at Bennett Woods Elementary School, Sophiea Parkway would become part of a loop both morning and evening. Besides this obvious and huge increase in traffic, residents of this new development will likely use Sophiea Parkway when wanting to go north on Okemos Road. Here again, residents bought and built homes here because it was a very safe and secure place for children to play without the worry of traffic from out of the subdivision. That would no longer be true. Added to this concern is a proposed extension of Bennett Road to allow another access to the new hospital. Take away a new subdivision with at least 100 new homes, traffic on Bennett Road is going to increase dramatically. Another subdivision is only going to make the congestion even more intolerable. This area that includes multiple subdivisions, needs to be considered before allowing a denser development than allowed by the present zoning.

These issues will have another result. Property values will be lowered and depending on the degree of the problem of the drainage issue, the values will likely to be substantially lowered. Again, present resident's properties should to be a consideration when discussing rezoning.

Again, the present residents should be considered before granting a developer a rezoning which is requested only for the purpose of more profit without consideration of the detriment to exiting communities in the area.

Thank you for your time and consideration
Larry McCurdy

Peter Menser

From: mindy@northwestbroadcasting.com
Sent: Tuesday, July 02, 2019 10:14 AM
To: Peter Menser
Subject: Bennett Road Holding Company, LLC Development

From Richard and Mindy Kraus residing at 4325 Aztec Way in Sundance Estates.

Please be advised that we are against the development proposed by the above mentioned developer for the following reasons:

1. Lack of transparency – no explanation for rezoning request presented by BRHC or the Township.
2. Wetland disturbance – the NATURAL habitat cannot be replaced by a man-made wetlands at the discretion of the developer and convenience of the development. Disruption of the natural underlying flow cannot be changed no matter!
3. Flora and Fauna – displacement of the diverse wildlife that rely on the wetlands.
4. Traffic – the infrastructure is already antiquated and unable to accommodate current vehicle count. Our subdivision roadway is already deteriorated to the point of gravel in spots and no effort to repair is made other than small patching that holds for about six months.
5. Sidewalks – the Township does not maintain the dilapidated, disconnected pathways in place.
6. Overdevelopment – the area will be unable to accommodate the increased population and place stress on local school systems, power supplies, police enforcement and fire protection.
7. Board and Planning Commission Review – would like a poll on board members for and against this development and reasoning.
8. Lack of transparency – impacting local real estate values.

We are submitting this in lieu of attendance to the Meeting being held on Monday July 8th 2019 at 7:00p and wish for our comments to be considered during discussions.

Thank you,

Mindy D. Kraus

NBI Holdings, LLC
2111 University Park Dr., Suite 650
Okemos, MI 48864

Voice: 517.347.4141

Fax: 517.347.4675

mindy@northwestbroadcasting.com

NORTHWEST BROADCASTING, LP

Broadcasting Communications, LLC

Mountain Broadcasting, LLC

Bristlecone Broadcasting, LLC

Stainless Broadcasting, LLC

Syracuse Broadcasting, Inc.

BRYSON HOLDINGS, LLC

Idaho Broadcast Partners, LLC

Cala Broadcast Partners, LLC

Blackhawk Broadcasting, LLC

Lost Coast Broadcasting, LLC

Redwood Television Partners, LLC

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Peter Menser

From: Amee O'Leary <ameeoleary@mac.com>
Sent: Tuesday, July 02, 2019 10:22 AM
To: Planning Commision (DG)
Subject: Rezoning proposal

Dear Planning Commission,

As a Tacoma Hills resident, I have watched each new development take place. What I anticipated to be an expansive piece of property thoughtfully developed into beautiful new homes that could enhance Okemos bringing in new families, however, with each new neighborhood built near Okemos high school, I am sad to see so many cookie cutter homes put up as quickly and efficiently as possible taking down beautiful trees and cramming as many homes into the space as possible.

We clearly live in a country where money is almost always the top priority.

Please do not continue to encourage this habit. I'm sure you are aware of the setbacks too many homes bring as unintended consequences.

Thankyou,
Amee O'leary

RUNDQUIST

July 3, 2019

Meridian Township Planning Commissioners
Meridian Charter Township
5151 Marsh Road
Okemos, MI. 48864

Re: Modified Rezoning Request 19060

VIA: email

Parcels	29-251-009	ICD Properties LLC
	29-300-008	William Ingrid Schultz
	29-300-020	William Ingrid Schultz
	29-300-021	William Ingrid Schultz
	29-300-023	WI Properties LLC
	29-300-025	Bennett Road Holdings LLC
	29-300-026	Heron Creek Holdings LLC

Commissioners,

Thank you for your previous straw poll representing a resounding rejection of the applicant's proposal to up-zone these parcels to RA with conditions. Your own concerns joined those of other Township residents. You sent a clear message. The time has returned for you to replicate the message to the applicant. This land does not need to be up-zoned and should not be up-zoned. It is developable entirely by-right under the current zoning.

The applicant has now rescinded the previous request of up-zoning to RA with conditions [PUD overlay and a maximum number of units] in favor of a modification that the land be up-zoned to RAA with no conditions. Despite a claim by the applicant to the contrary, the concerns and the message of Meridian Township residents both near and far were not heard. The voices and the straw poll clearly indicate no change in zoning is acceptable. That the applicant now pursues RAA in lieu of RA underscores the greed driven tone deaf pursuit of an increase in density.

Of significant import, the applicant has failed to provide any evidence of hardship, or even a sound reason, that up-zoning should be considered.

By-Right development of these parcels is possible with the current zoning designation, as it was when parcel 29-300-025 was sold to EL Holding Co. LLC in 2013 and to Bennett Road Holding LLC in 2014. At each ownership change, the purchaser was aware of the existing zoning and made the purchase. The by-right development potential has remained unchanged. With the exception of frontage on Bennett Road zoned RR, this parcel is

3634 EAST ARBUTUS | OKEMOS, MI 48864

meridianrealestateinterests@comcast.net

zoned RAAA and will also allow a PUD overlay, providing that parcel owner opportunity to efficiently organize infrastructure while maximizing both existing and new site amenities. There is no hardship for the owners of this land, only financial gain.

Craig Sturk, one of the co-owners, for years excavated and sold sand from this parcel with no regard for wetlands and floodplain, even continuing to mine sand after permits were expired. Despite directives from the Township, no remediation of these impacted areas has occurred.

Bob Schroeder of Mayberry Homes, another of the co-owners and the applicant, has promoted himself as the most visionary and best land planner, developer and builder in the region. By utilizing these credentials, an economically viable single family and detached residential neighborhood can be planned and developed by-right.

I request you deny this proposed modification and allow the land to be developed with the current zoning.

Best Regards,

A handwritten signature in black ink that reads "Jim". The letters are cursive and fluid.

Jim Rundquist
Meridian Township Homeowner

Peter Menser

From: carolsholt@aol.com
Sent: Thursday, July 04, 2019 11:53 AM
To: planning_commission@meridian.mi.us
Subject: Mayberry rezoning request

As a resident of Bennett Village I am voicing opposition to the rezoning. There is already too much traffic on Bennett Road and Hagadorn Road. Mayberry's College Fields is like no other community in area -and I'm sure the rezoning of the requested 96.74 acres would have same overbuilding affect - homes crowded together way too large for lot sizes.

July 4, 2019
Charter Township of Meridian, Planning Commission
% Peter Menser, Principal Planner
5151 Marsh Road,
Okemos, MI 48864

Dear Members of the Planning Commission and Mr. Menser:

We first thank you again for your time and work on this important issue.

As a neighborhood, Champion Woods fully supports the rights of the property owners to responsibly develop their land. However, as we were in October, 2018, and again in June 2019, Champion Woods is strongly opposed to this rezoning request #19060 (Bennett Road Holding LLC) with the new amendment for RAA zoning throughout the parcel. First, we highlight some concerns that we have expressed and you have acknowledged and supported in your careful deliberations.

- As noted by Commissioner Richards in October 2018 and reiterated by the Planning Commission on June 10, 2019, the property can be developed as it is currently zoned (and with a PUD if desired).
- In October 2018, Commissioners Trezise, Premoe, Richards, Shrewsbury, and Scott-Craig all noted concerns regarding the environmental impact including drainage and flooding of this proposed rezoning. This concern was reiterated in the June 10, 2019 meeting. The Planning commission noted that it would be beneficial to get input from the Ingham County Drain Commission to understand the water flow.
- In the October 2018 meeting, Commissioner Trezise expressed concerns with the potential increased traffic volume. The Planning Commission reiterated in the June 10, 2019 meeting that there are still concerns relating to density, traffic concerns, and environmental impacts of a potential new development.

Beyond these concerns, we emphasize that the applicant has failed to address any of the reasons why the current zoning is unreasonable and that they did not give any argument for why the requested zoning is appropriate. This is especially true as the applicant has not modified their application and thus most of the justification for the new requested zoning is incorrect. We are pleased that these concerns have been recognized by the Planning Commission. Specifically,

- In the June 10, 2019 meeting, the Planning Commission notes that “The applicant did not provide reasons why the present zoning is unreasonable and did not offer explanations for the proposed zoning change.”

We will not laboriously repeat the evidence that the applicant has failed to make a case for rezoning but simply emphasize that, in our opinion, great weight should be given to the status quo. The current zoning allows for the land to be developed, with or without a PUD, and a rezoning should only be granted if an applicant can make a compelling case that (1) the current zoning is unreasonable AND (2) the proposed zoning is appropriate. Since the applicant has completely failed in both counts, we strongly feel this request should be dismissed summarily.

In particular, it should not be the Planning Commission’s job or the Township Board’s job to find reasons to approve a rezoning change. We strongly feel that it is the applicant’s job to provide the reasons for a rezoning change, and if the applicant fails to provide any rationale, then the only choice for the Planning Commission and the Township Board is rejection.

We close by summarizing a few key points.

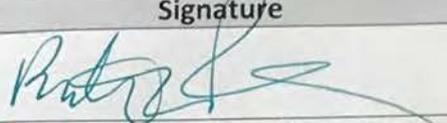
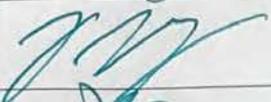
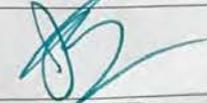
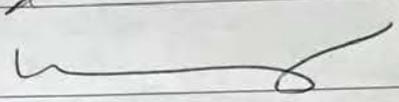
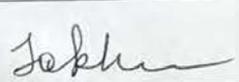
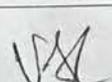
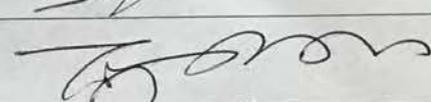
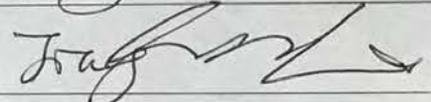
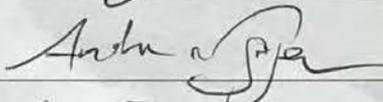
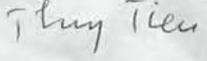
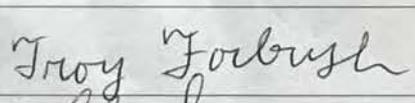
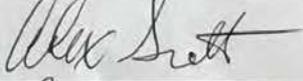
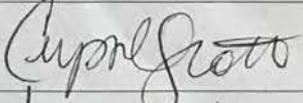
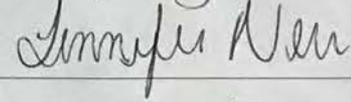
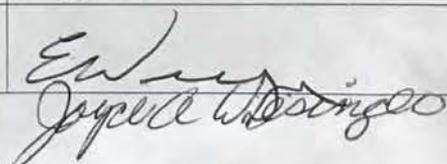
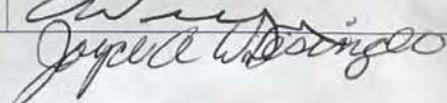
The applicant noted in the June 10, 2019 Planning Commission meeting that they met with neighbors to hear their concerns. It is true that they met with several Champion Woods and The Woods at Heron Creek families on April 30. However, while we appreciated the chance to talk with the applicant, we must emphasize that we did not have a real chance to offer any input into the rezoning application. We note that the rezoning application #19060 was dated April 16, 2019 and thus submitted prior to meeting with the neighborhoods and not modified at all based on the meeting. We further observe that the primary feedback that all in attendance gave to the applicant was that we supported the PUD but were opposed to the requested RA zoning density. They have not modified the application to remove the RA zoning density. They now have finally taken some feedback into consideration and have requested RAA zoning. However, failing to provide any rationale for changing zoning should lead to immediate rejection of the proposal.

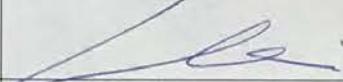
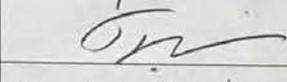
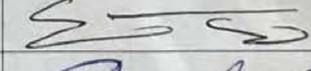
Second, in the original Rezoning #19060 application and in the remarks made by the applicant at the June 10, 2019 meeting, the applicant repeatedly emphasized their desire for development with a PUD citing how the flexibility of the PUD will allow them to protect the environment and also create better solutions. Furthermore, they provided a limit of 210 units for the proposed rezoning. Given that they have gone from RA to RAA zoning, we see no reason why those conditions should be removed. Specifically, if 210 units was a reasonable upper bound with RA zoning, how could 210 units not be a reasonable upper bound with RAA zoning? Furthermore, if their goal is to have a PUD, why not maintain that condition?

Respectfully yours,

The Champion Woods Condominium Association

Signatory to the letter to Charter Township of Meridian, Planning Commission % Peter Menser, Principal Planner

Name	Address	Signature
1) Renata opaczynski	2589 sophiea Parkway	
2) Patrick Murphy	2589 Sophiea Parkway	
4) JAN CASEY	2677 Laforet circle	
5) Dan McGlo	4137 Benham Way	
6) Nikki Fabiano	4150 Benham way	
7) Igor NAZAROV	2547 Sophiea Pkwy	
8) Luda Sakhanenko	2547 Sophiea Pkwy	
9) SRINIVASA VEYURI	2573 Sophiea Pkwy	
10) Satya Byrani	2581 Sophiea Pkwy	
11) Ting Shen	2601 Sophiea Pkwy	
12) Jiahang	2601 Sophiea Pkwy	
13) Andre Nguyen	4159 Benca Cir	
14) Thuy Tieu	4159 Benca Cir	
15) Troy Forbush	2613 Sophiea Parkway	
16) Alex Scott	2619 Sophiea Parkway	
17) Crystal Scott	2619 Sophiea Pkwy	
18) Jennifer New	4139 Benca Circle	
19) Ashleigh New	4139 Benca Circle	
20) FRIZZ WINDSINGER	4134 Bonca way	
Jayel Winesinger	4134E Benca way	

Name	Address	Signature
1) Wei Li	2565 Sophia Pkwy	
2) Yingxin Zhou	2565 Sophia Pkwy	Yingxin Zhou
4) Bingwei Xu	2691 Caporet Circle	Bingwei Xu
5) Yaping Jin	2691 Caporet Circle	Yaping Jin
6) Kevin Lin	4155 W Benham Way	
7) Joy Lin	4155 W Benham Way	Joy Wakerlin
8) Yiyi ng Tong	2520 Kevern Way	
9) Santhil Kumar	4150 Benham Way	K. Santhil Kumar
10) BENJAMIN D. BROWN	2532 KEVERN WAY	Benjamin D. Brown
11) Darlene E. Brown	2532 Kevern Way	Darlene E. Brown
12) Jill Stephenson-McCole	4137 W. Benham Way	Jill Stephenson-McCole
13) Narxen Tusimella	2553 Sophia Pkwy	Narxen Tusimella
14) HENRY NGUYEN	4144 Benham Way	Henry Nguyen
15) Vivien Lo	2516 Kevern Way	Vivien Lo
16) ERIC TORNG	4138 E Benca Way	
17) Patricia Soranno	4138 E Benca Way	Patricia Soranno
18)		
19)		
20)		

Name	Address	Signature
1) Andrea R Ma	2713 sophiea pkwy	Andrea Ma
2) Huiping Jiang	Okemos, MI, 48864	Huiping Jiang
4) Jonathan Pickett	4145 Bena Cir Okemos, MI 48864	
5) Linda Scarpetta	4149 Bena Circle Okemos, MI 48864	Linda Scarpetta
6) UDAY KORGANJI	4153 Bena Cir, Okemos MI, 48864	Uday
7) Dhana Korgarji	4153 Bena Cir, Okemos MI 48864	K. Dhana
8) Hyeon Park	4141 Usiak C.v. Okemos MI 48864	Hyeon Park
9) Ting Xu	4158 Usiak Cir. Okemos 48864	Ting Xu
10) Miywish Mardhe	2702 LaForest	Miywish Mardhe
11) Vedantha	2683, LaForest Cir	
12) Steve Delp	2675 Sophiea Pkwy	
13) Gina Delp	2675 Sophiea Pkwy	Gina Delp
14) Stacy Schabel	2714 Sophiea Pkwy	Stacy Schabel
15) Dana Flink	2717 Sophiea Pkwy	
16) Andi Pinchein	4228 Rain Forest Cir	
17) TAE AHN	4232 Rain Forest Cir.	
18) ANJANA SUSARLA	4239 RAIN FOREST CIR	Jan Susarla
19) Geri Potchen	4233 Rain Forest	Geri Potchen
20) Jim Potchen	4233 Rain Forest	Jim Potchen

Signatory to the letter to Charter Township of Meridian, Planning Commission % Peter Menser, Principal Planner

Name	Address	Signature
1) <i>Jen Li</i>	2709 Sophita Parkway	
2) <i>Sooge Ahn</i> <i>Sooge Ahn</i>	4232 Rainforest Cir.	<i>Sooge Ahn</i>
4) <i>Prabode Weebadde</i>	2721 Sophiea Pkwy	<i>Prabode Weebadde</i>
5) <i>Cholani Weebadde</i>	2721, Sophiea Pkwy	<i>Cholani Weebadde</i>
6) <i>John/Isabel Wang</i>	2699 Sophiea Pkwy	<i>John/Isabel Wang</i>
7) <i>Eleni Davlantes</i>	2698 Sophiea Pkwy	<i>Eleni Davlantes</i>
8) <i>Soohyun chu</i>	2679 Sophiea Pkwy	<i>Soohyun chu</i>
9) <i>Sungyong Park</i>	2679 Sophiea Pkwy	<i>Sungyong Park</i>
10) <i>Sung Beom Park</i>	2679 Sophiea Pkwy	<i>Sung Beom Park</i>
11) <i>Joe White</i>	2682 Sophiea	<i>Joe White</i>
12) <i>Stephanie White</i>	2682 Sophiea Pkwy	<i>Stephanie White</i>
13) <i>FRANCEETH YARLAGA DDA</i>	2690 SOPHIEA PKWY	<i>Franceeth Yarlagada</i>
14) <i>Yuo Ceci</i>	2687 Sophiea Pkwy	<i>Yuo Ceci</i>
15) <i>CHRIS WREDE</i>	2691 Sophiea Pkwy	<i>Chris Wrede</i>
16) <i>Tiggung Wrede</i>	2691 Sophiea Pkwy	<i>Tiggung Wrede</i>
17) <i>Ronald Kawachi</i>	2702 Sophiea Pkwy	<i>Ronald Kawachi</i>
18) <i>Jamie Pickett</i>	4145 Benca Cir	<i>Jamie Pickett</i>
19) <i>Ma Khlesa</i>	2710 Sophiea Parkway Ma Khlesa	<i>Ma Khlesa</i>
20) <i>Larry M°Curry</i>	2710 Sophiea Parkway	<i>Larry M°Curry</i>

Name	Address	Signature
1) FABIO CASAGRANDE	2672 LAFORET CIRCLE	Fabio Casagrande
2) TERA CASAGRANDE	2672 LAFORET CIRCLE	Tera Casagrande
4) Kristin Phillips	2680 Laforet Circle	Kristin Phillips
5) Justin Phillips	2680 LAPORTE CR	Justin Phillips
6) Sarah Stephens	4123 Usiak Circle	Sarah Stephens
7) Mi Zhang	4135 Usiak Circle	Mi Zhang
8) Jingbo Meng	4135 Usiak Cir	Jingbo Meng
9) Dongman Chai	4141 Usiak Cir	Dongman Chai
10) Michael Flinn	2717 Saphira Pky	Michael Flinn
11) Zhiheng Bi Xiamei Xu	2694 sophia PKWY	Zhiheng Bi Xiamei Xu
12)	2694 Saphira Pky	Zhiheng Bi
13) Mythili & Mukundan	2683 Laforet Circle	Mythili & Mukundan
14) Steve Casey	2677 LaForet Circle	Steve Casey
15) Christina Salem	2688 laforet circle	Christina Salem
16) Brad Salem	2688 Laforet Circle	Brad Salem
17) James Fenton	2683 SOPHIEA PKWY	James Fenton
18) Christine Blomer	2683 Saphira Pkwy	Christine Blomer
19) MAURICIO PINHEIRO	4228 Rain Forest Circle	Mauricio Pinheiro
20) Adnan Safdar	4229 Rain Forest Circle	see attached e-mail



Kathy & Larry McCurdy <kathyandlarrymccurdy@gmail.com>

CW letter to township

2 messages

Kathy & Larry McCurdy <kathyandlarrymccurdy@gmail.com>
To: Safdar@msu.edu

Fri, Jun 28, 2019 at 9:38 PM

Adnan,

We are collecting signatures for an Association letter regarding the latest rezoning changes proposed by Mayberry for the land adjacent to your lot. You should have received a copy of letter that is being sent to the township. I have attempted to reach you at your home and have not been successful. If you would like to have your signature included with the letter, please send us an email stating that you have read the letter and want your name attached to it, as being against the changes in the zoning. I will fill in your name on the signature from and add a note stating to see the attached email.

You may also text me to let me know when would be a good time to stop by 517-488-2932.

Larry McCurdy

Safdar, Adnan <safdar@msu.edu>
To: Kathy & Larry McCurdy <kathyandlarrymccurdy@gmail.com>

Fri, Jun 28, 2019 at 10:16 PM

Thank you for the e mail. I am sorry that I was not in the home when you came.

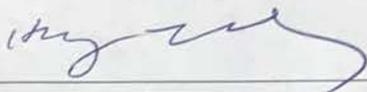
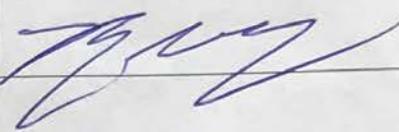
I have read the letter and want my name attached to it, as being against the changes in the zoning.

Thank you
Adnan Safdar
[4229 Rain Forest Circle](#)
Okemos, MI 48864
Tel: 517-449-9120
Tel: 617-360-1381

From: Kathy & Larry McCurdy <kathyandlarrymccurdy@gmail.com>
Sent: Friday, June 28, 2019 9:38:53 PM
To: Safdar, Adnan
Subject: CW letter to township

[Quoted text hidden]

Signatory to the letter to Charter Township of Meridian, Planning Commission % Peter Menser, Principal Planner

Name	Address	Signature
1) Hong Trebesh	2706 Sophiea PKWY	
2) Archana Patoj	2708 Lufufot CIR	A.K.Patoj
4) Ketan Patoj	2708 Lufufot CIR	K.Patoj
5) Ryan Morgan	4236 MAIN FOREST CIR	
6)		
7)		
8)		
9)		
10)		
11)		
12)		
13)		
14)		
15)		
16)		
17)		
18)		
19)		
20)		

Peter Menser

From: Li, Wei <wli@msu.edu>
Sent: Friday, July 05, 2019 11:27 AM
To: Planning Commision (DG)
Subject: Opposition to Rezoning Request #19060

Dear Planning Commission,

I'm a resident in the Champion Woods subdivision in Okemos. First I want to thank you for your time and consideration on this important matter.

I'm strongly opposed to the amendment to rezoning request #19060 from Bennett Road Holding LLC that asks for rezoning 75 acres of RAAA and 8 acres of RR to RAA.

There has been no demonstrated public need for the rezoning. I believe that there is no reason why the property cannot still be developed with the current zoning category.

I must emphasize the size of the project site requested for rezoning. It's not 2 acres, 5 acres or 10 acres. It's 83 acres and is the second largest rezoning request in terms of size since 2014 in Meridian Township, next to the rezoning request from Summer Park Realty or Walnut Hills Country Club that requested 156 acres to be rezoned. The bigger the size, the bigger potential negative impact.

I'm also strongly opposed to opening up Sophiea Parkway in Champion Woods and the local streets in Woods of Heron Creek and Sundance Estate due to the development of the project site in this rezoning request. We're not opposed to new development but the development should not cause disturbance for the existing residents in other neighborhoods. The developer should figure out a way to build the roads. Also the \$35M street improvement bond will help build the local roads if passed by voters on the August 6, 2019 ballot.

Please deny rezoning request #19060.

Sincerely,

Wei Li

Peter Menser

From: Bingwei Xu <xubingwei@gmail.com>
Sent: Friday, July 05, 2019 11:27 AM
To: Peter Menser
Subject: Re: Rezoning on Sophiea PKWY to Bennett Road (Rezoning #19060)

Dear Mr. Menser,

First I'd like to thank you for your service and hard work.

I am a homeowner in Champion Woods neighborhood where Sophiea Pkwy is, in Okemos, Michigan. I remember that I wrote a similar letter to you last year on the similar topic (Rezoning #18120). I heard that the rezoning application has been revised and applied again, so I am sending this email to oppose it again.

I moved in Okemos area 6 years ago when my son and daughter are approaching school age. My wife and I did a lot of research in the areas and was very much attracted by Champion Woods neighborhood. It is a secluded neighborhood so my children can play safely and it is also in walking distance from Bennett woods Elementary and close enough to middle school and high schools.

As result of this location advantage, a lot of families with school age children are in the community. Our neighbors are conscientious and watch out for each other because we are able to keep our community relatively closed. The traffic in the neighborhood is limited and families are driving responsibly here. Our kids are safe when they are playing on the streets. They feel comfortable because they know who lives here and who they can play with. That was top reason my son got in love with this community when we first moved in. I would like to keep it that way. So would our neighbors.

I am very concerned that the rezoning plan will change this peaceful neighborhood into another busy streets that everyone can use our road to get in and out to the Bennett woods as alternative route.

Other than the safety and traffic issue, I am also very concerned the drainage issue when more houses are built in the area. As I understand, our community serves as the flood reserve in town. More houses may contradict to such purpose. If the drain is not being properly address, are we all expecting special assessment in the future to fix the drainage from the drain commission?

I would hope the staff from your office or the board meeting will address the concerns from the residents. I assume the public hearing and meeting minutes will be available for the public inspection.

Respectfully,
Bingwei Xu , Ph.D.

Yingxin Zhou
2565 Sophiea Pkwy
Okemos, MI 48864

July 5, 2019

Re: Amendment to request #19060 (Bennett Road Holding LLC) (Opposition)

Dear Meridian Township Planning Commission Chair, Vice Chair, Secretary, Commissioners, and Mr. Menser:

I'm a resident in the Champion Woods subdivision. I'm strongly opposed to the amendment to rezoning request #19060 from Bennett Road Holding LLC that requests rezoning 75 acres of RAAA and 8 acres of RR to RAA for the following reasons.

Inconsistent with Meridian Township 2017 Master Plan

Section B.3 under 2. Goals and Objectives –Preserve Open Space and Natural Areas of the 2017 master plan adopted on November 21, 2107 states: “Discourage development within wetlands, floodplains, floodplain fringe areas, and water retention areas.”

In the project site of this rezoning request, there are 5 wetlands. 3 of them have been delineated and are about 10 acres in total. 2 of them, which are located on the north side, have not been delineated. The size for the 2 wetlands that have not been delineated has not been provided but they appear about 10 acres in total.

There are areas of both floodway and floodway fringe on portions of the property. The Herron Creek Drain and associated floodway runs south to north on the western edge of the project site.

Therefore, rezoning the project site to more dense zoning class and development of the land in the proposed zoning is inconsistent with 2017 master plan.

Ecologically Sensitive Land

The project site is a piece of ecologically sensitive land. In addition to the wetlands and floodplain, it is adjacent to the Southwest Meridian Upland Preserve that the Township used \$1.3M taxpayer money to purchase in 2010. Development under a denser zone proposed by this rezoning request may damage the wetlands, floodplain, the land preserve, and may cause great risk of flooding.

Planning Commission Previous Cases

I reviewed all Planning Commission and Board meeting packets dating from 2014. Since 2017, all rezoning requests from RR to RAA were denied. They are #16060 Summer park realty (Walnut hills, 157 acres), #18010 Giguere Homes (7.36 acres), and #18050 Eyde (10.01 acres). If the Planning Commission applies the similar standards to evaluate request #19060, the rezoning from the 8 acres RR to RAA should also be denied.

For the rezoning of 75 acres of RAAA to RAA, the request should also be denied due to the fact that it's inconsistent with 2017 Master Plan and it's an ecologically sensitive parcel.

Please deny rezoning request #19060. Your time and consideration is greatly appreciated.

Sincerely,

Yingxin Zhou



To: Planning Commission

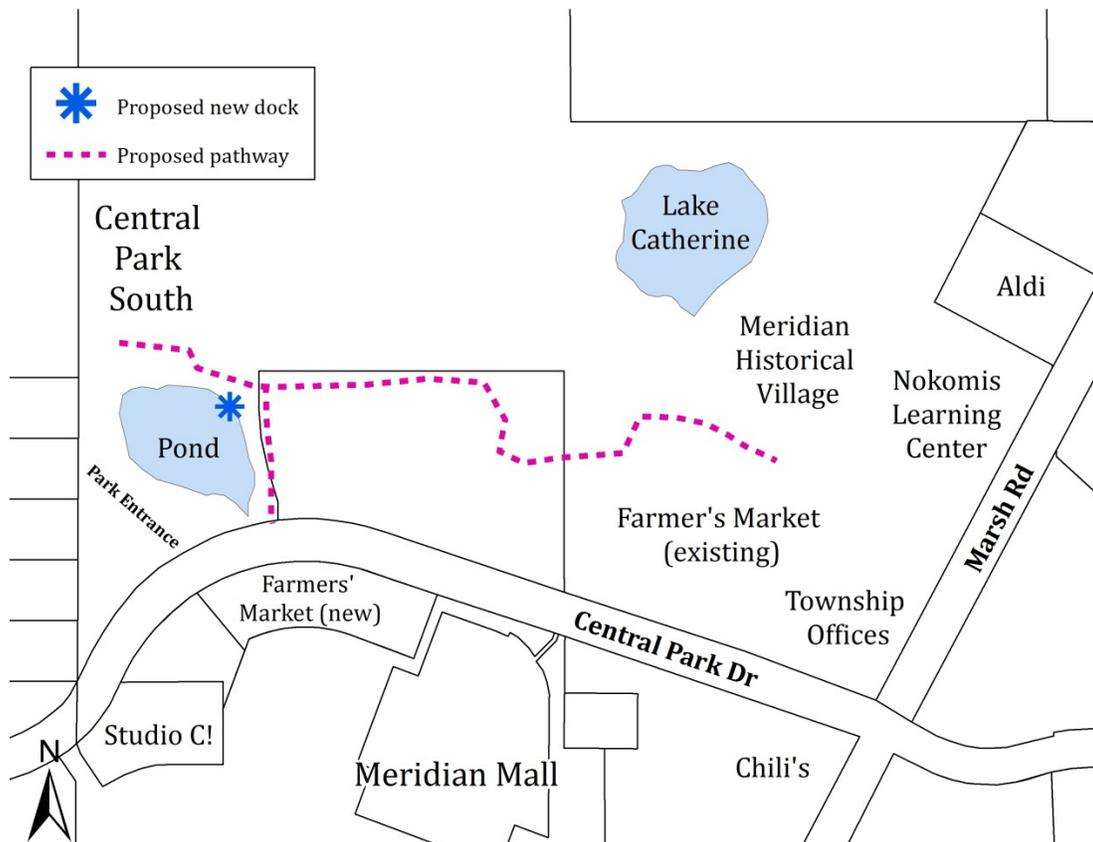
From: Peter Menser, Principal Planner

Date: July 2, 2019

Re: **Special Use Permit #19061 (Meridian Township)**, work in the floodplain of the Mud Lake Drain to construct pedestrian/bicycle trail on the north side of Central Park Drive, west of Marsh Road.

The Meridian Township Parks Department has applied for a special use permit to work in the 100-year floodplain (floodway fringe and floodway) to construct a pedestrian/bicycle pathway. The 12 foot wide paved pathway is proposed to run approximately 2,400 linear feet from Central Park South to the Meridian Historical Village. The pathway will be installed on portions of two parcels; 1990 Central Park Drive, an undeveloped 8.81 acre parcel owned by Meridian Township, and 5151 Marsh Road, a 137 acre parcel owned by Meridian Township and used for Township offices, sports fields, and parkland.

LOCATION MAP

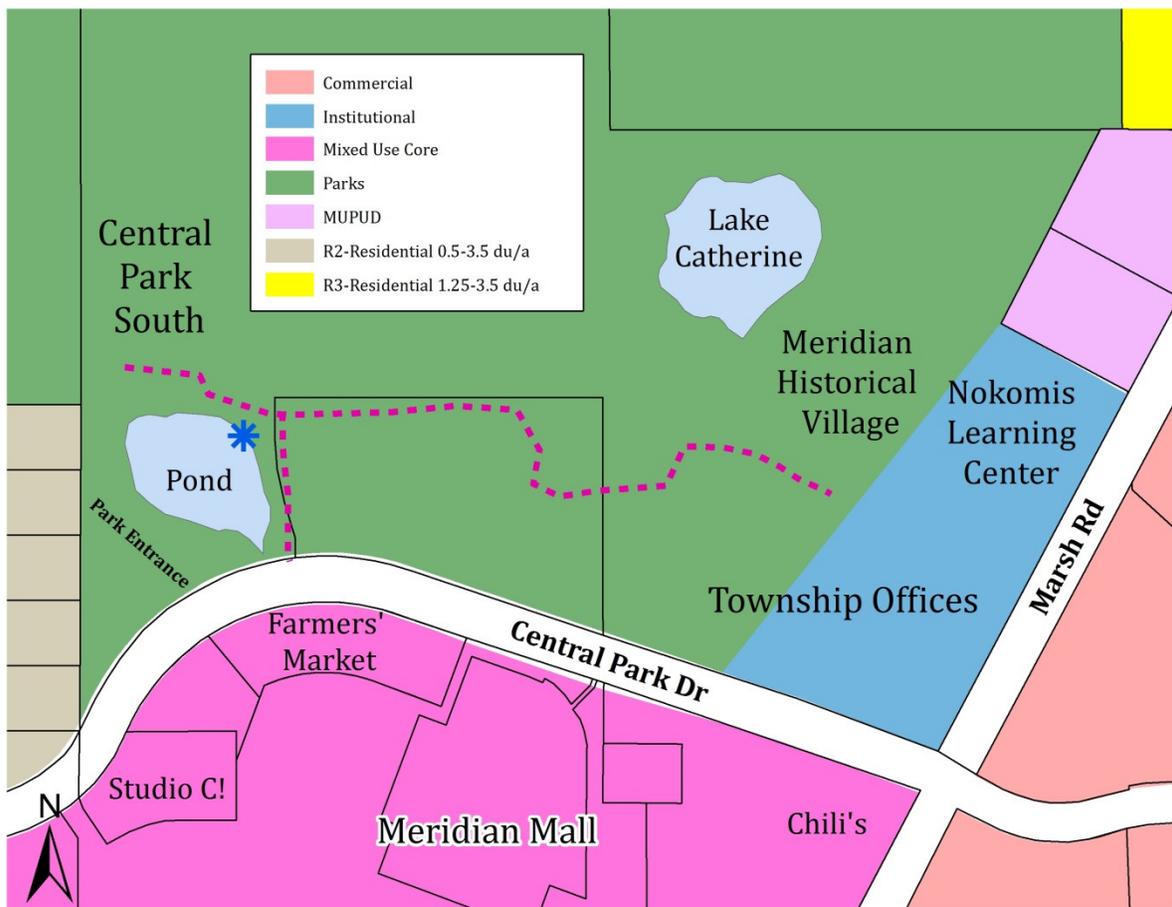


In order to construct the pathway a total of 86 cubic yards soil will be placed in the floodplain; 23 cubic yards at the west end of the pathway to level the grade and 63 cubic yards to replace the bridge over the drain between the existing Farmers' Market and the Meridian Historical Village. A compensating cut (excavation) in the floodplain equal to or greater than the amount of fill is required to compensate for the placement of fill in the floodplain. A total of 230 cubic yards is proposed to be cut from the floodplain to accommodate the boardwalk, which results in a net excavation of 174 cubic yards. A wetland use permit (WUP #19-02) is being reviewed concurrently for work in the wetlands to construct the pathway.

Master Plan

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

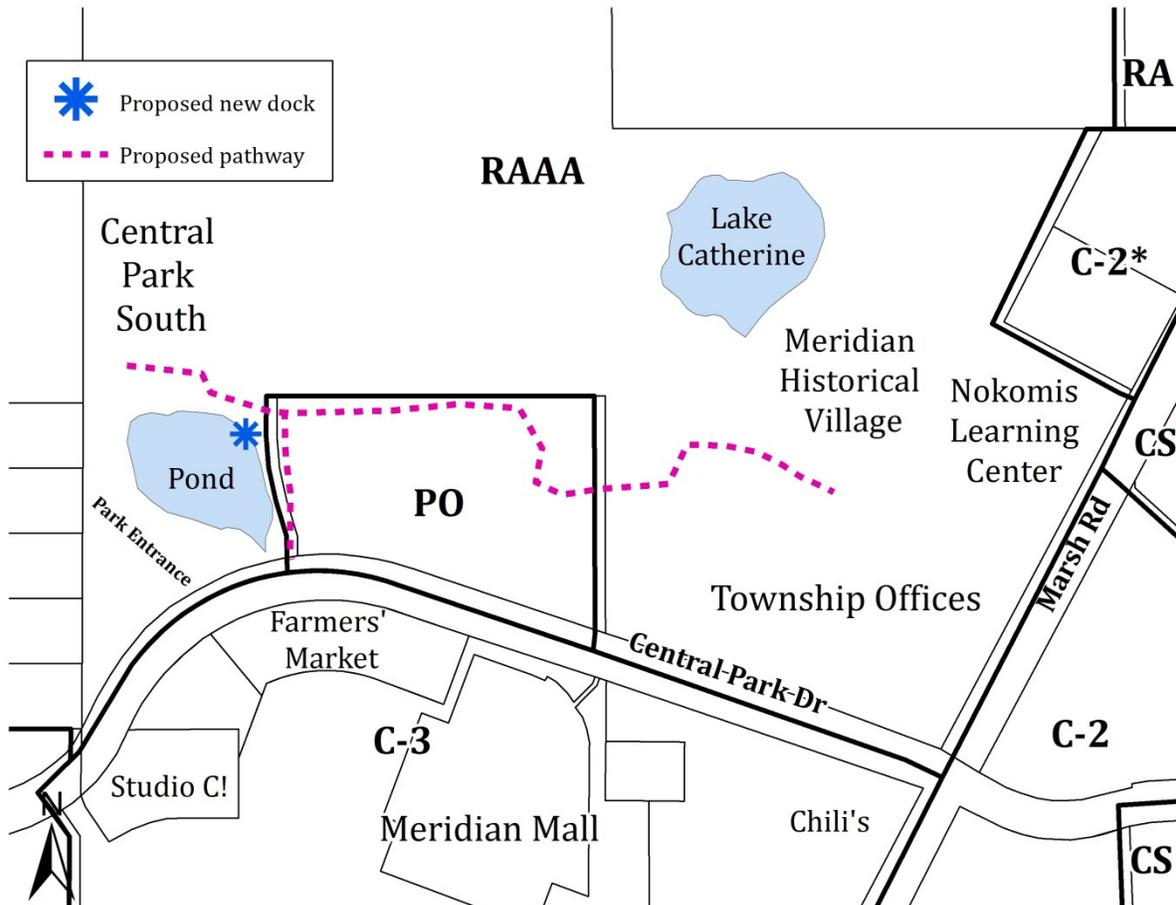
FUTURE LAND USE MAP



Zoning

The project site is located in the zoned PO (Professional and Office) & RAAA (Single Family-Low Density).

ZONING MAP



Staff Analysis

Township regulations require a special use permit to fill within the 100-year floodplain and floodway. The special use permit criteria found in Section 86-126 of the Code of Ordinances should be used when evaluating the proposed special use permit. Section 86-436(n) of the Code of Ordinances provides additional standards for projects in the floodway fringe, which are as follows:

1. All new residential structures and residential structures requiring substantial improvement shall have the lowest floor, including basement, elevated to one foot above the level of the base flood elevation.

2. All new nonresidential structures and nonresidential structures requiring substantial improvements shall have the lowest floor, including basement, elevated to one foot above the level of the base flood elevation or shall be floodproofed to one foot above the level of the base flood elevation.

3. Excavation and shaping of the floodway fringe shall be conducted in such a manner as to maintain or improve the natural impoundment capacity of the base flood elevation. In no case shall the impoundment capacity of the floodway fringe be reduced.

Section 86-436(i) of the Code of Ordinances provides additional standards for projects in the floodway, which are as follows:

1. Structures shall not be designed for human habitation and shall have a low flood damage potential.

2. Structures, if permitted, shall be constructed and placed on the site so as to offer the minimum obstruction to the flow of floodwaters and whenever possible shall be constructed with the longitudinal axis parallel to the direction of the flood flow.

3. No special use permit shall be issued for the development of new structures, the substantial improvement or relocation of old structures, or development of any kind within the floodway area when such development, construction, improvement, or relocation would cause any increase in flood level associated with the base flood elevation.

4. Excavation and shaping of the floodway shall be conducted in such a manner as to maintain or improve the flow of the base flood elevation. In no case shall the flow or impoundment capacity of the floodway be reduced. Excavation of soil, sand, gravel, and other materials for the sole purpose of providing a compensating excavation in the floodway for the placement of fill in the floodway fringe is prohibited.

The 174 cubic yards of net excavation for the pathway will improve the overall impoundment capacity of the floodplain. The project exceeds the 1:1 cut/fill ratio requirement stated in Section 86-436 (Conservancy District) of the Code of Ordinances.

The Meridian Township Department of Public Works and Engineering has reviewed the project and indicated no concerns with the proposal. A permit application is currently under review by the Michigan Department of Environment, Great Lakes, and Energy (EGLE) for the proposed work in the floodplain. If the Planning Commission considers approving the special use permit, staff suggests conditioning the approval on the applicant receiving the EGLE permit.

**Special Use Permit #19061 (Meridian Township Parks Department)
Planning Commission (July 8, 2019)
Page 5**

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.
2. Joint permit application dated June 25, 2019.
3. Site plan prepared by Wolverine Engineers & Surveyors, Inc. dated April 29, 2019 (revision date June 25, 2019) and received by the Township on June 27, 2019.

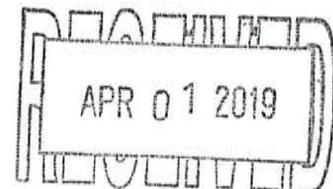
G:\Community Planning & Development\Planning\SPECIAL USE PERMITS (SUP)\2019\SUP 19061 (Meridian Twp Park Dept)\SUP 19061.pc1.docx

- K. If Multiple Housing:
- 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 _____ |

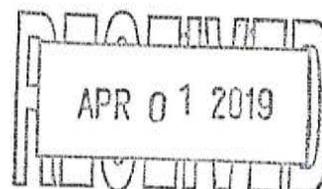
L. The following support materials must be submitted with the application:

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

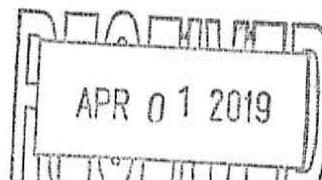
[Handwritten Signature]
Signature of Applicant

3-22-19
Date

Luanne Malsner
Type/Print Name

Fee: _____

Received by/Date: _____



Digital MDEQ/USACE Joint Permit Application Inland Lakes and Streams, Great Lakes, Wetlands, Floodplains, Dams, Environmental Areas, High Risk Erosion Areas and Critical Dune Areas

Digitally signed by:
nForm_nCore_MiWaters_Cert
HCV761WATRPWA01.dnz-ad.state.mi.us
Date: 2019.06.25 11:22:21 -04:00
Reason: Copy Of Record
Location: State of Michigan

version 1.3

(Submission #: HNN-9CQS-T09NZ, version 4)

Details

Form Alias Digital MDEQ/USACE Joint Permit Application (JPA) for Inland Lakes and Streams, Great Lakes, Wetlands, Floodplains, Dams, Environmental Areas, High Risk Erosion Areas and Critical Dune Areas

Submission # HNN-9CQS-T09NZ

Submission Reason New

Status Submitted

Fee \$100.00 (Paid)

Form Input

Instructions

[To download a copy or print these instructions. Please click this link \(recommended\).](#)

The MDEQ/USACE "Joint Permit Application" (JPA)

READ THOROUGHLY BEFORE STARTING THE FORM

It is recommended to download a pdf of this page at www.michigan.gov/jointpermit for reference while filling out the form. Please also refer to this website for additional information regarding this form, including a glossary and other helpful resources on information required to be submitted in this form.

This is the Joint Permit Application (JPA) for construction activities where the land meets the water. This application covers permit requirements derived from state and federal rules and regulations for activities involving:

Wetlands
Floodplains
Marinas
Dams
Inland Lakes and Streams
Great Lakes Bottomlands
Critical Dunes
High Risk Erosion Areas

This application prevents duplication of state and federal forms for these activities and provides concurrent review under all pertinent state and federal laws. In the case of U.S. Army Corps of Engineers (USACE) jurisdiction, the Department will also send a copy of this Joint Permit Application to the USACE for simultaneous processing. The Department will provide coordination between state and federal agencies during the application review.

This application form is set up with the following sections to be completed by the applicant (note that it is recommended to gather all this information prior to starting this form):

Contact Information:

Applicant, Property Owner(s), Consultant(s), and any other Authorized Representative(s)

Authorizations are required from the property owner for:

- when the applicant is not the owner,
- when there is a consultant/representative for the applicant,

- when spoils disposal locations are not on site,
- when other permissions are necessary based on project specifics and are identified by the form.

Project Location Information:

Address, coordinates, and directions to the site, etc.

Background Information:

Existing site conditions, other related permits, existing easements/encumbrances, other related application numbers (pre-application meetings, Wetland Identification Program, etc.)

Permit Application Category and Public Notice Information:

This section asks what permit application category you believe fits your project. While this is not required to submit the application, knowing this will also help you submit the right permit application fee and avoid a correction request and processing delays.

The choices of permit application categories to select in the form are:

General Permit, \$50 fee (Link to General Permit Categories)

Minor Project, \$100 fee (Link to Minor Project Categories)

Public Notice Individual Permit, range from \$500-\$4,000 depending on type of activity. Additional fees may be applied for some special project requirements such as hydraulic analysis, dam projects, and critical dune or high risk erosion areas. See Fee Schedule on website for more information.

Unsure, select this and the permit reviewer will make the determination on permit type after the application is submitted based on the project details. However, some fee is required to be submitted with the application. If an additional fee is required, the Department will send a correction request that will show the remaining amount required. The application will not be considered complete without the proper fee.

Adjacent Landowner contact information for Public Notice projects is required by law. This includes any parcels touching the project parcel and parcels across the street.

Project Description:

Information on the Proposed Use and Purpose of the project (who and what the project is intended for and why is it needed). This includes a written summary of the project as well as a list of project uses and types to select from as follows:

Project Use Selections:

Private

Commercial

Public/Gov/Tribal

Federal/State funded

Non-Profit

Other

Project Type Selections:

Agriculture

Airport

Development- Condo/ Subdivision/Residential

Development-Commercial/ Industrial

Drain-County

Drain-Private

Drawdown

Lake, Drawdown

Wetland Forestry

Landfill

Marina/Mooring Facility

Marine Railway

Mining-Mineral,

Mining-Sand and Gravel

Private Residence

Restoration-Wetland

Restoration-Stream

Transportation

Septic System Surveying or Scientific Measuring Device

Utility-Electrical, Fiber optic

Utility-Oil and gas pipelines

Utility-Sewer/water line

Other

Construction Details including sequencing, timeframes, SESC measures, etc.

Alternatives Analysis detailing all options considered and why this is the least impactful feasible and prudent proposal. The depth of this analysis is typically commensurate with the size and purpose of the project and at minimum should include variables such as alternate locations (including other properties), configurations and sizes (layout and design), and methods (construction technologies), and other constraints (local regulations, resource issues). Discussion should also include why the "do nothing" alternative is not feasible or prudent.

Project Compensation:

Narrative of how proposed impacts will be compensated (mitigated or other minimization measures), including amount, location, and method; or why mitigation should not be required. This can be traditional mitigation and/or other techniques used to minimize overall loss of functions.

Resource and Activity Type. This section is intended to determine what additional sections of the application are generated (as seen on the left side of the screen) for further information gathering. This includes questions regarding what Resource feature is involved (e.g., wetland, stream, floodplain, pond, dam, critical dune, etc.) and if there are identified Special Activities (i.e., activities requiring a specific series of questions to be answered). Be sure to choose all that apply to your project. If your activity is not listed, choose "None of the Above" and move on to the next question. More specific activity questions will appear later based on the resource section answers.

Resource Information and Impacts Sections (Multiple Sections). These are a series of sections that will appear on the left side of the screen based on your answers to the Resource and Activity Types section. You will input further information on the existing resources to be impacted (e.g., wetland type, permanent or temporary impact, water elevation data, drainage area, etc.) and all proposed Project Activities with their Dimensions (e.g., length, width, depth, square footage). For example, when "Wetland" is selected as a resource that your project will involve, a "Wetland Project Information and Impacts" section will appear on the left side of the screen that includes questions specific to gathering information about the wetland.

For projects including Floodplains, Marinas, Dams, Critical Dunes, or High Risk Erosion Areas individual sections will appear on the left side of the screen that include different sets of specialized questions as required by those programs. These sections do not share a specific format. Help tips will guide you in filling out these sections.

For projects including wetlands, ponds, inland lakes, streams, or the Great Lakes resources, individual sections will appear on the left side of the screen that are similar in format to each other. Each of these resource sections asks initial general information and then has additional questions regarding the Types of Activities proposed for each resource. The outline for these resource activity impacts questions is Activity Type, Dimensions Table, and Special Questions.

There are four overall "Types of Activities" groups for wetlands, ponds, inland lakes, streams or the Great Lakes:

- Fill Activities
- Dredge Activities
- Structure Activities
- Other Activities

Under each of these Types of Activity questions, specific activity lists will be shown that are typical for that type (fill, dredge, structure, other) and resource (wetland, lake, stream, etc). Follow these steps to accurately fill out the Activity Type Questions:

1. Start with the Fill question and choose any activities on the list that is included in your project. If your activity is not shown, then select "None of the Above" and move to the next question.
2. When you select an activity listed under Fill, Dredge, Structure, or Other, a dimensions table will appear under that question. This table is where you enter EACH activity OF THE TYPE YOU SELECTED and associated dimensions. Be sure that all the activities you selected are also listed in the table with the dimensions. Multiple activities covering the same footprint may be combined on one line in the table (for example, riprap on slopes of driveway fill can be entered on the same impact dimensions line and does not necessarily need to be broken out).
3. Continue to answer the Activity Type questions (Fill, Dredge, Structure, Other) until all have been answered with either a specific Activity listed under that Type or "None of the Above". If you did not find your activity in any list then select "Other, Other" and provide a description of your activity in the space that appears. Please be as descriptive as possible.

Proposed mitigation questions may appear within specific resource types sections based on your answers. Enter any proposed mitigation in the appropriate section (wetland, stream, etc.) and if no mitigation is proposed you must provide commentary with an explanation as to why it is not required. Mitigation plans according to the mitigation checklist ([link](#)) are required for a complete application. When mitigation is proposed be sure to also select mitigation in the Permit Application Type section under the second question.

In the above sections, uploads will be prompted as required by the answers to questions. These should be uploaded in these location (ex, mitigation plans should be uploaded in the mitigation section). Please do not wait to upload one large document with all plans combined at the end. Note that each individual upload is limited to 10M.

Upload of Proposed Site Plans.

Any plans or explanatory narratives not requested in previous sections should be uploaded in this section. Construction Plans

including overhead view, cross sections, and profiles showing each impact either to-scale or with dimensions are required and typically would be uploaded here. Plan labels should correspond with labels entered in the form for each activity selected. The application will not be complete without the proper site plans. If drawings are not received with all required dimensions and resources identified, then the Department will send a correction request and your application processing will be delayed. However, please limit drawings, plans, and narratives submitted to the items necessary for permit review. For example, entire bid package documents and CAD drawings are often not helpful for permit review and may cause delays from wading through extraneous information. Plans, profiles and cross sections specific to the resource impacts are the most helpful.

Review:

This section allows you to see the entire form with the answers you entered. Please review for accuracy prior to hitting the submit button. A print option is provided on this screen (print to PDF is recommended). Once the application is submitted you may not make changes to it until the application has been assigned to a staff person.

Certify & Submit:

This is the final section of the application form. The "Submit Form" button selection certifies that all information in the application is true and accurate and that you have the authority to apply for the permit as indicated. This application will become part of public record.

We recommend that you have the above information ready prior to starting this application. You will be able to save in-progress applications and come back later, but all required uploads and questions are necessary before the system will allow submittal of the application. Some sections of this application form load faster than others depending on the complexity of the questions. Thanks for your patience while you work through the application. For assistance with this form visit: <https://www.michigan.gov/jointpermit>

[Click here for additional information on maps, drawings, and other attachment](#)

Contact Information

Applicant Information

Contact

First Name **Last Name**
LUANN MAISNER

Organization Name
MERIDIAN TOWNSHIP

Phone Type **Number** **Extension**
Business 5178534604

Email
MAISNER@MERIDIAN.MI.US

Address
2100 GAYLORD C SMITH CT
HASLETT, MI 48840

Is the Property Owner different from the Applicant?

No

Has the applicant hired an agent or cooperating agency (agency or firm assisting applicant) to complete the application process?

Yes

Upload Attachment for Authorization from Agent

[Authorization letter from Meridian TWP.pdf - 03/21/2019 10:58 AM](#)

Comment

NONE PROVIDED

Agent Contact

Contact

First Name **Last Name**
HUSSEIN KHANJAR

Organization Name
WOLVERINE ENGINEERS AND SURVEYORS, INC

Phone Type **Number** **Extension**
Business 5176769200

Email
Husseink@wolveng.com

Address
312 NORTH ST
MASON, MI 48854

Are there additional property owners or other contacts you would like to add to the application?
No

Project Location

DEQ Site Reference Number (Pre-Populated)
-1218853060970978068

Project Location
42.72956284193838,-84.41924173904147

NONE PROVIDED

Project Location Address
1990 CENTRAL PARK DRIVE
OKEMOS, MI 48864

County
Ingham

Is there a Property Tax ID Number(s) for the project area?
No

Is there Subdivision/Plat and Lot Number(s)?
No

Is this project within Indian Lands?
No

Local Unit of Government (LUG)
Meridian Township

Directions to Project Site
TAKE OKEMOS RD NORTH TO CENTRAL PARK DRIVE IN MERIDIAN TOWNSHIP, MAKE RIGHT AND THE PROJECT LOCATION WILL BE ON THE LEFT

Background Information

Has the DEQ and/or United States Army Corps of Engineers (USACE) conducted a pre-application meeting/inspection for this project?
No

Has the DEQ completed a Wetland Identification Program (WIP) assessment for this site?
No

Environmental Areas are coastal wetlands on the shorelines of the Great Lakes. Enter this number only if a designated Environmental Area is in the proposed project area. Environmental Areas are designated locations along the Great Lakes shoreline. If you don't know whether there is an environmental area within the project area, leave blank. Additional information on Environmental Areas can be found by clicking the following link:
[Click Here for Link](#)

Environmental Area Number (if known):
 NONE PROVIDED

Has the United States Army Corps of Engineers (USACE) completed either an approved or preliminary jurisdictional determination for this site?
 No

Were any regulated activities previously completed on this site under a DEQ and/or USACE permit?
 No

Have any activities commenced on this project?
 No

Is this an after-the-fact application?
 No

Are you aware of any unresolved violations of environmental law or litigation involving the property?
 No

Is there a conservation easement or other easement, deed restriction, lease, or other encumbrance upon the property?
 No

Are there any other federal, interstate, state, or local agency authorizations associated with this project?
 Yes

List all other federal, interstate, state, or local agency authorizations.

Agency	Type of Approval	Number	Date Applied	Approved/Denied/Undetermined
INGHAM COUNTY DRAIN OFFICE	SOIL EROSION	NONE PROVIDED	NONE PROVIDED	NONE PROVIDED

Comments
 THE SOIL EROSION PERMIT APPLICATION IS NOT SUBMITTED YET

Permit Application Category and Public Notice Information

Indicate the type of permit being applied for.
 DEQ Minor Project for wetlands, lakes, streams, floodplains, or Great Lakes

General Permit Categories
[Link to General Permit Categories with Descriptions](#)

Minor Project Categories
[Link to Minor Permit Categories with Descriptions](#)

Floodplain Minor Project Categories
 See R323.1316 in the linked document for a description of the minor project categories for Floodplain projects.
[Link to Minor Project Category descriptions for Floodplain Only projects](#)

If you are applying for a minor project permit, which project type(s) is being proposed?
 Floodplain Only MP Deck
 Floodplain Only MP Boardwalk

If you are applying for a general permit, which project type(s) is being proposed?
 No GP Category (MP Category only)

Project Description

Project Use: (select all that apply - Private, Commercial, Public/Government/Tribal, Receiving Federal/State Transportation Funds, Non-profit, or Other)

Public/Government/Tribal

Project Type (select all that apply):

Other: PARKS AND RECREATIONAL DEVELOPMENT

Please enter your answers in the text box for the next four questions. If you have a long description, please use the document upload at the end of the section. Please make every effort to enter your information directly into the application text boxes. If the answer is in an attachment, please identify that in the text box below.

Project Summary: Provide a summary of all proposed activities including the intended use and reason for the proposed project.

THIS PROJECT CONSISTS OF CONSTRUCTING 2400 LF OF 12 FT WIDE BITUMINOUS PAVEMENT TRAIL, INCLUDING 360 LF OF BOARDWALK WILL BE CONSTRUCTED OVER THE WETLAND. THE REASON FOR THIS PROJECT IS TO CONNECT THE MERIDIAN CENTRAL PARK TO THE SOUTH CENTRAL PARK .

Project construction sequence, methods, and equipment: Describe how the proposed project timing, methods, and equipment will minimize disturbance from the project construction, including but not limited to soil erosion and sedimentation control measures.

INSTALL HELICAL PIERS FOR BOARDWALK AND FISHING DECK FOUNDATION.

Project Alternatives: Describe all options considered as alternatives to the proposed project, and describe how impacts to state and federal regulated waters will be avoided and minimized. This may include other locations, materials, etc.

GMEN THE PROPOSED LOCATIONS FOR THE PATHWAY ENDS AND GIVEN THE WETLANDS DELINEATION BOUNDARIES, AND USING THE HELICAL PEIRS WILL PROVIDE THE LEAST IMPACT TO THE WETLANDS AND PROVIDE THE LEAST RESTRICTION TO THE FLOODWAY.

Project Compensation: Describe how the proposed impacts to state and federal regulated waters will be compensated, OR explain why compensatory mitigation should not be required for the proposed impacts. Include amount, location, and method of compensation (i.e., bank, on-site, preservation, etc.)

THE MIXED USE PATHWAY WILL BE CONSTRUCTED WITH MATERIALS AND METHODS THAT WILL ESSENTIALLY ELIMINATE OR WILL HAVE A MINIMAL IMPACT

Upload any additional information as needed to provide information applicable to your project regarding project purpose sequence, methods, alternatives, or compensation.

NONE PROVIDED

Comment

NONE PROVIDED

Resource and Activity Type

Important! Answer all questions completely. Properly identifying your project in this section generates the proper application sections. Incomplete applications will require corrections before they can be fully processed.

SELECT THE ACTIVITIES from the list below that are proposed in your project (check ALL that apply). If you don't see your project type listed, select "Other Project Type". These activities listed require additional information to be gathered later in the application.

Other Project Type

The Proposed Project will involve the following resources (check ALL that apply).

Wetland

100-year Floodplain

Major Project Fee Calculation Questions

Is filling of 10,000 cubic yards or more proposed (cumulatively) within wetlands, streams, lakes, or Great Lakes?

No

Is dredging of 10,000 cubic yards (cumulatively) or more proposed within streams, lakes, or Great Lakes? (wetlands not included)

No

Is new dredging or adjacent upland excavation in suspected contamination areas proposed by this application?

No

Is a subdivision, condominium, or new golf course proposed?

No

Wetland Project Information and Impacts

PLEASE READ

This section is for entering information regarding the impacts to Wetlands only. Do not input information that pertains to other resources (inland lakes, streams, floodplains, etc.). The initial questions are related to wetlands on the project site in general. The Proposed Activities questions are grouped into Fill, Dredge, Structures, Other and are only for wetland impacts related to these activities.

[Click HERE for more information on Wetlands Protection Program.](#)

Has a professional wetland delineation been completed for this site?

Yes

Attach a copy of wetland delineation report with data form.

[Delineation report.pdf - 03/27/2019 11:24 AM](#)

Comment

NONE PROVIDED

Total acres of wetland affected by this project.

Category	Affected area (acres)
Permanent	0.2
Temporary	0
	Sum: 0.2

CORRECTION REQUEST (CORRECTED)

Provide a written description of the 0.2 acre impact to wetlands

The 0.2 acre impact to wetland is not demonstrated in the tables, and needs a written description to be clear to the reader. Please provide a narrative statement listing each proposed construction item located in WETLAND and the associated square feet of wetland to be impacted.

2 COMMENTS

Hussein Khanjar (husseink@wolveng.com) (5/24/2019 8:58 AM)

a. The elevation of the existing wetland closely matches the 100-year floodplain in this area. We have determined the fill volume in the wetland area to match the volume of the fill in the 100-year floodplain for this area (142 CYD). If the additional fill volume from the wetland elevation to the proposed final grade is required for any reason just let us know and we can provide this data as well.

Hussein Khanjar (husseink@wolveng.com) (5/1/2019 3:41 PM)

The 0.2 Acres refer to three areas shown on sheets C9.0 and C9.1 included with our revised submittal. Fishing pier = 1,000 sft (temporary) Boardwalk = 4,660 sft (temporary) Crossing = 3,150 sft (permanent)

Is filling or draining of 1 acre or more (cumulatively) of wetland proposed?

No

Select all wetland types that will be affected by this project:

Emergent

The following questions gather information on the specific Types of Activities your project includes that will impact WETLANDS. There are four overall Types of Activities: Fill, Dredge, Structure, Other. Under each of the Activity Type questions, specific activity lists will be shown. If the activity is not shown in the list given, select None of the Above and move to the next question. When you select an activity under Fill, Dredge, Structure, or Other, a table will appear

under that type. Only enter the dimensions of the activity that are within wetland. Multiple activities covering the same footprint may be combined on one line in the table. Continue to answer the Activity Type questions (Fill, Dredge, Structure, Other) until all have been answered with either a specific Activity listed under that Type or "None of the Above". If you did not find your activity in any list then select "Other, Other" and provide a description of your activity.

If your project includes placing fill in wetland then select the proposed activities from the following list. If your activity is not shown, then select "None of the Above" and move to the next question. Only enter an impacted area in one of the impact tables (do not duplicate impact entries):

Path/Sidewalk

Complete this table for projects involving Fill. Enter each activity/ location that corresponds with each activity selected in the previous question and enter the dimensions. Activities may be entered in one line of the table if they occupy the same impact footprint and cannot be broken out separately (Example: Activity - Driveway and Riprap slope). Multiple activities in different locations should be listed on different lines of the table.

Activity	Length (feet)	Width (feet)	Depth (feet)	Area (square feet)	Volume (cubic feet)	Volume (cubic yards)
PATHWAY	50	27	5	1350	6750	250
PATHWAY	200	24	2.1	4800	10080	373
				Sum: 6150	Sum: 16830	Sum: 623

Source of Fill Material:

On-site (show on plan)

Type of Fill.

Sand

Is riprap proposed?

No

Select from the following list for Excavation/Dredge Activities (if your proposed project is primarily a structure enter the impact as a structure. Only enter an impacted area in one of the impact tables in one impact section):

None of the above

If your project includes STRUCTURES IN WETLAND then select all of the proposed activities in the following list. If your activity is not shown, then select "None of the Above" and move to the next question. Only enter an impacted area in one of the impact tables (do not duplicate impact entries):

Boardwalk

Deck/Platform

Projects involving Structures:

Activity	Length (feet)	Width (feet)	Depth (feet)	Area (Sq. feet)	Volume (cubic feet)	Volume (cubic yards)
BOARDWALK	360	12	2	4320	8640	320
DECK	55.12	16	2	881.92	1763.84	65
DECK	20	36	2	720	1440	53
				Sum: 5921.92	Sum: 11843.84	Sum: 438

CORRECTION REQUEST (CORRECTED)

Clarify Wetland Impact area (2 parts)

Please clarify the volume of fill or excavation related to the boardwalk and fishing deck. Specifically list the volume of excavation associated with installing pilings or leveling the existing grade to prepare to install the pilings of the boardwalk and fishing pier. Also identify the disposal location of spoils (non-wetland, non-flood plain, and on township owned property). Part 2: Sheet C8.0 shows 180 feet of 15" RCP and a new bioswale over the 15" pipeline. This appears to be work in wetland and a replacement of existing pipe. This work is not listed in the application but shown on plans and does not appear to be associated with or included in the trail head path work. Provide wetland impact details of area and volume for the pipe replacement.

1 COMMENT

Hussein Khanjar (husseink@wolveng.com) (5/1/2019 3:44 PM)

Please see the newly added "Correction Request Statement" file for further explanation of work in referenced project areas.

Is the structure proposed on pilings or fill or both?

Pilings

How high above the ground is the bottom of the structure?

2.5

If your project includes Other Activities in WETLAND not listed in this section, then select from the proposed activities in the following list. If your activity in Wetland has not been listed in this Wetland Section, then select "Other" and enter a description of your activity. Only enter an impacted area in one of the impact tables (do not duplicate impact entries). If you selected a Fill, Excavation/Dredging, or Structure activity above in this section, but do not have an activity listed as Other, then select None of the Above for this question.

Structure Removal (except dam removal)

Wetland Mitigation

The DEQ may impose as a condition of any wetland permit, other than a General permit, a requirement form compensatory mitigation. The wetland mitigation requirement may be waived for projects affecting less than one-third of an acre of wetland if no reasonable opportunity for mitigation exists.

Mitigation plans according to the mitigation checklist (link) are required for a complete application

[Wetland Mitigation Information](#)

Is Wetland Mitigation being proposed as part of this proposed project?

No

Explain why no mitigation is proposed.

THE WETLAND DISTURBANCE IS LESS THAN 1/3 OF AN ACRE.

Floodplain

Proposed Activity

Deck
Boardwalk

Please provide a name for the stream, river, channel, or waterbody:

N/A

100-Year Floodplain Elevation (feet)

842.1

100-Year Floodplain Elevation Datum:

NAVD88

Is compensating cut provided for this project?

No

Is this project located in the floodway?

No

Were one or more Hydraulic Analyses completed for this project?

No

Local Unit of Government (LUG) Acknowledgement Letter Upload

NONE PROVIDED

Comment

NONE PROVIDED

Is there an existing building on site?

No

Upload of Proposed Site Plans

REQUIRED Application, maps, and drawings:

*Overall Project Site Plan

*Cross-Sectional Drawings

For Part 315 Dam Safety applications attach detailed signed and sealed engineering plans for a Part 315 dam repair, dam alteration, dam abandonment, or dam removal.

[Examples site plan and cross-sectional drawings](#)

[For additional information on maps, drawings, and other attachments visit michigan.gov/jointpermit](http://michigan.gov/jointpermit)

Required on all Site Plan uploads. Please identify that all of the following items are included on your plans that you upload with this application.

Site Plan Features	Existing and Proposed Plan Set
Scale, Compass North, and Property Lines	Yes
Fill and Excavation areas with associated amounts in cubic yards	Yes
Any rivers, lakes, or ponds and associated Ordinary High Water Mark (OHWM)	Yes
Exterior dimensions of Structures, Fill and Excavation areas associated with the proposed project	Yes
Dimensions to other Structures and Lot Lines associated with the project	N/A
Topographic Contour Lines from licensed surveyor or engineer when applicable	Yes

CORRECTION REQUEST (CORRECTED)

Clarify plan table on sheet C4.0

The plan table shows 1173.63 cy of cut and 1260.80 cy of fill, however it is unclear if these volumes pertain to flood plain only or flood plain and wetland combined. Please update the plan table to show the volumes associated with Part 31 and Part 303.

1 COMMENT

Hussein Khanjar (husseink@wolveng.com) (5/1/2019 3:50 PM)

Table has been removed from plans as it related to cut and fill for the entire project and not just work within floodplain/wetland areas. Please see "Correction request statement" and notes/cross-sections shown on sheets C7.0 & C8.0 for additional cut/fill information.

Upload Site Plans and Cross Section Drawings for your Proposed Project

[MERIDIAN TRAIL AND RESTROOM - DNR SUBMITTAL SET - 062519.pdf - 06/25/2019 11:21 AM](#)

Comment

NONE PROVIDED

Additional Required and Supplementary Documents

[Correction request statement - JAL_042619.pdf - 05/01/2019 03:54 PM](#)

[RE_HNN-9CQS-T09NZ - LUANN MAISNER, MERIDIAN TOWNSHIP Flood Plain and Wetland Impacts..pdf - 05/24/2019 09:03 AM](#)

Comment

NONE PROVIDED

Fees

The application fee identified in this section is a calculation based on answers to the questions in this application. This calculation is an estimate of the total fee and will be reviewed by the application processor to determine if any additional fees are required for a complete application.

Minor Project Fee:
+\$100.00

CORRECTION REQUEST (CORRECTED)

Fee

The application fee for the project is \$500.00 minus the payment of \$100.00 submitted with your application, leaving a balance due of \$400.00.

1 COMMENT

Hussein Khanjar (husseink@wolveng.com) (5/1/2019 3:56 PM)

We acknowledge that an additional fee of \$400.00 is due however this field does not appear to be editable. Please let us know how and where to submit additional funds and we will complete payment ASAP.

Total Fee Amount:

\$100.00

Status History

	User	Processing Status
6/25/2019 11:16:31 AM	Hussein Khanjar	Draft
6/25/2019 11:21:56 AM	Hussein Khanjar	Submitted

Audit

Event	Event Description	Event By	Event Date
Submission Locked	Submission Locked	Carol Valor	4/15/2019 12:51 PM
Submission Unlocked	Submission Unlocked	Carol Valor	4/15/2019 2:10 PM

Revisions

Revision	Revision Date	Revision By
Revision 1	3/15/2019 12:47 PM	Hussein Khanjar
Revision 2	5/1/2019 3:25 PM	Hussein Khanjar
Revision 3	5/24/2019 8:55 AM	Hussein Khanjar
Revision 4	6/25/2019 11:16 AM	Hussein Khanjar

CONTRACT 1: HISTORIC VILLAGE GATEWAY AND RESTROOM

CONTRACT 2: CENTRAL MERIDIAN REGIONAL TRAIL CONNECTOR

1990 CENTRAL PARK DR, OKEMOS, 48864 MI

SECTION 15, MERIDIAN TOWNSHIP
INGHAM COUNTY, MICHIGAN

PUBLIC UTILITIES
THE EXISTING UTILITIES LISTED BELOW AND SHOWN REPRESENT THE BEST INFORMATION AVAILABLE AS OBTAINED FROM SERVICE PROVIDER AND FIELD OBSERVATION. THIS INFORMATION DOES NOT RELIEVE THE CONTRACTOR OF THE RESPONSIBILITY TO SATISFY HIMSELF AS TO THEIR ACCURACY OR OF HIS RESPONSIBILITY TO NOTIFY THE PROPER UTILITIES BEFORE COMMENCING WORK. THE FOLLOWING UTILITIES ARE LOCATED IN OR NEAR THE RIGHT OF WAY FOR THIS PROJECT.

NAME AND ADDRESS OF UTILITY	TYPE OF UTILITY	TELEPHONE LINES
CONSUMERS ENERGY 1155 W. PARVALL RD. JSC 173-3 JACKSON, MI 49201 PH: 517788.1191 TYLER LAWRENCE	GAS/POWER	
AT&T 337 N. ABBOTT RD. EAST LANSING, MI 48823 PH: 517862.1882 WILLIE DILLARD, JR.		
INGHAM COUNTY DRAIN COMMISSION 707 BULL STREET MASON, MI 48864 PH: 517-676-8395 FAX: 517-543-6446 PAT LINDEMANN	STORM SEWER	
MERIDIAN TOWNSHIP 5151 MARSH ROAD OKEMOS, MI 48864 PH: 517853.4000	SOIL EROSION	

OWNERS OF PUBLIC UTILITIES WILL NOT BE REQUIRED TO MOVE POLES OR STRUCTURES THAT ARE NOT WITHIN GRADING OR STRUCTURE LIMITS IN ORDER TO FACILITATE THE OPERATION OF CONSTRUCTION EQUIPMENT. LIMITS ARE DETERMINED BY THE ENGINEER THAT SUCH LINES OR STRUCTURES CONSTITUTE A HAZARD TO THE PUBLIC OR ARE EXTRA-ORDINARILY DANGEROUS TO THE CONTRACTOR'S OPERATIONS. (SEE SPECIAL PROVISIONS FOR UTILITY COORDINATION)

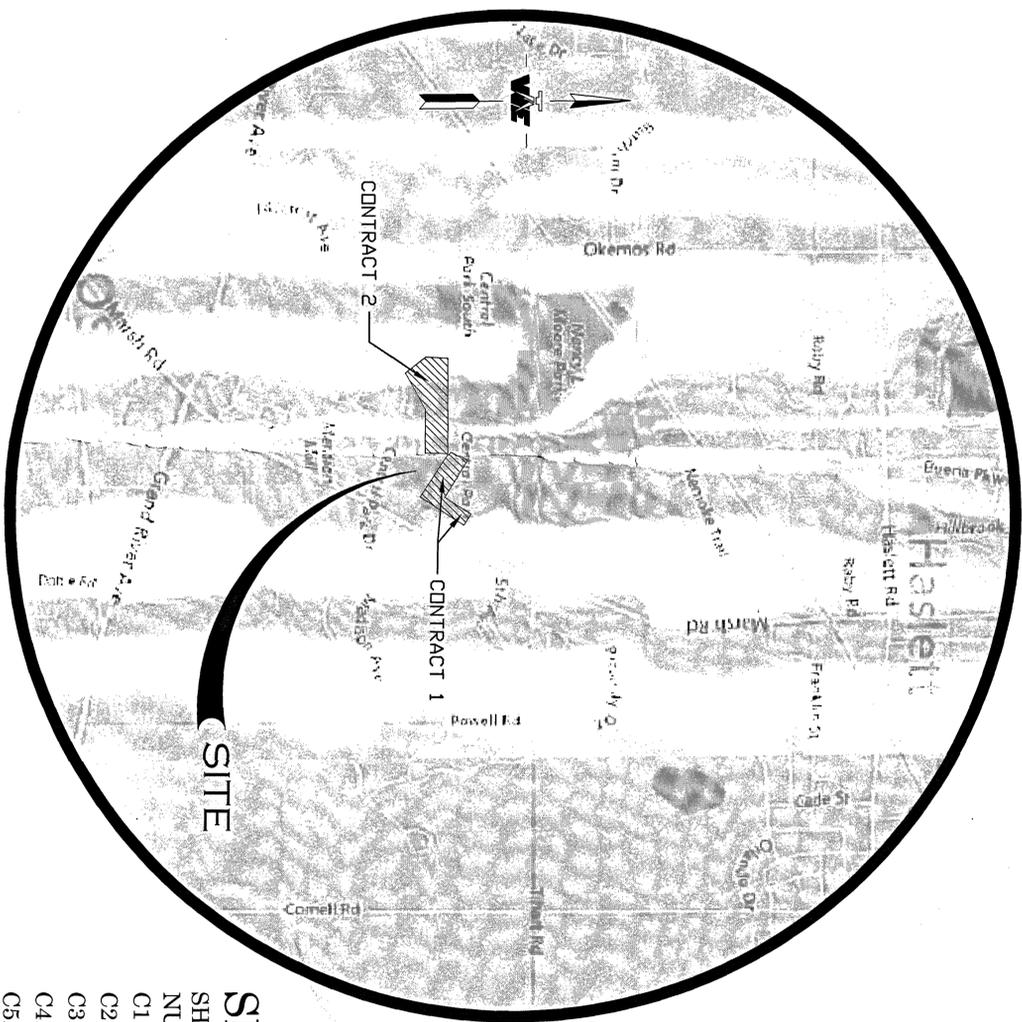
PARCEL DESCRIPTION:

COM @ THE SW COR SEC 15 - NO DEG 34.19E. ON SEC LN 493.07 FT. - NELY ON CURVE LEFT ON R/W LN CENTRAL PARK DR 18.47 FT HAVING A 340 FT RADIUS AND A CHD OF 18.46 FT BRG N 24 DEG 46.11'E. TO A PT OF REVERSE CURVATURE - NELY ON CURVE RT ON R/W 705.69 FT HAVING A 665 FT RADIUS & A CHD OF 673.04 FT BRG N 53 DEG 36.53'E. TO THE POB - NO DEG 31.51'E. 53.79 FT. - N 16 DEG 28.11'W. 95.26 FT. - N 12 DEG 46.09'W. 83.31 FT. - N 04 DEG 34.10'W. 83.88 FT. - NO DEG 31.51'E. 93.08 FT. - S 89 DEG 28.09'E. 831.33 FT. - S 0 DEG 23.50'E. 600.76 FT TO N R/W LN. - N 70 DEG 35.39'W ON R/W 515.35 FT ON R/W - SWEELY 294.70 FT ALONG AN ARC OF A 655 FT RADIUS CURVE LEFT TO THE POB SEC 15. TAN RTW 881 AC

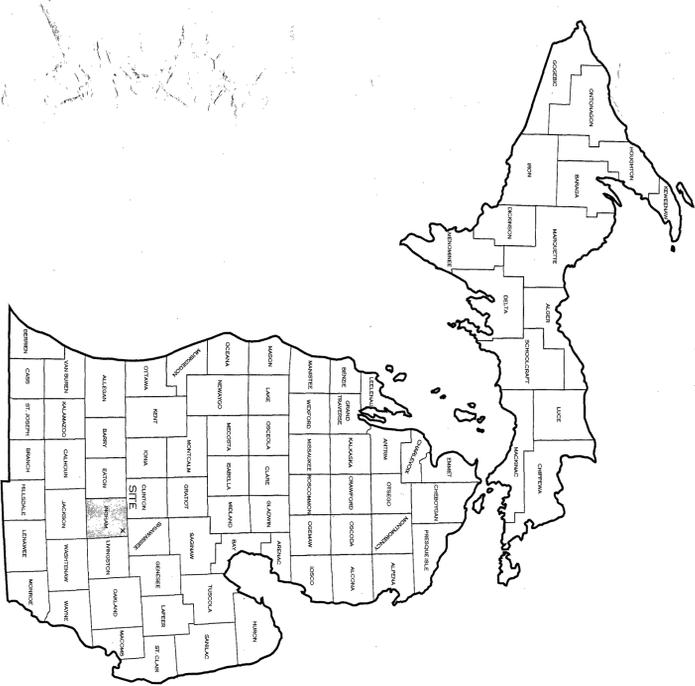
OWNER/AGENT CONTACT INFORMATION

OWNER: MERIDIAN TOWNSHIP
AGENT CONTACT: LUANN MAISNER
2100 GAYLORD C SMITH COURT
HASLETT, MI 48840
PH: 517 853.4604
EMAIL: MAISNER@MERIDIAN.MI.US

WOLVERINE
Engineers & Surveyors, Inc.
312 North Street
Mason, Michigan 48854
Ph: 517-676-9200
Fx: 517-676-9396
http://www.wolverine.com



LOCATION MAP
NOT TO SCALE



Sheet List Table

SHEET NUMBER	SHEET TITLE
C1.0 (#1) + (#2)	COVER
C2.0 (#2)	PATHWAY LAYOUT PLAN
C3.0 (#2)	PATHWAY PLAN AND PROFILE
C4.0 (#2)	PATHWAY & BOARDWALK PLAN & PROFILE
C5.0 (#1)	SANITARY SEWER PLAN AND PROFILE
C5.1 (#1)	SANITARY SEWER PLAN
C6.0 (#2)	BOARDWALK DETAILS
C6.1 (#2)	BOARDWALK DETAILS
C7.0 (#2)	DECK PLAN AND PROFILE
C8.0 (#1)	ENLARGED PLAN (AREA 1)
C9.0 (#2)	SESC PLAN (WEST)
C9.1 (#1)	SESC PLAN (EAST) & NOTES
C9.2 (#1) + (#2)	SESC DETAILS
C10.0 (#1) + (#2)	DETAILS & NOTES
C10.1 (#1) + (#2)	DETAILS & NOTES 2
C11.0 (#1)	RESTROOM PLAN & ELEVATIONS

* (#1) : CONTRACT 1
* (#2) : CONTRACT 2



4/27/19

RECEIVED JUN 27 2019

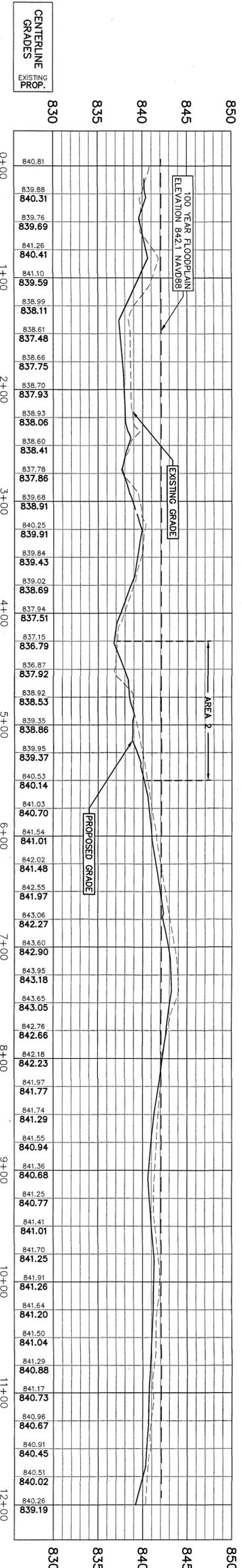
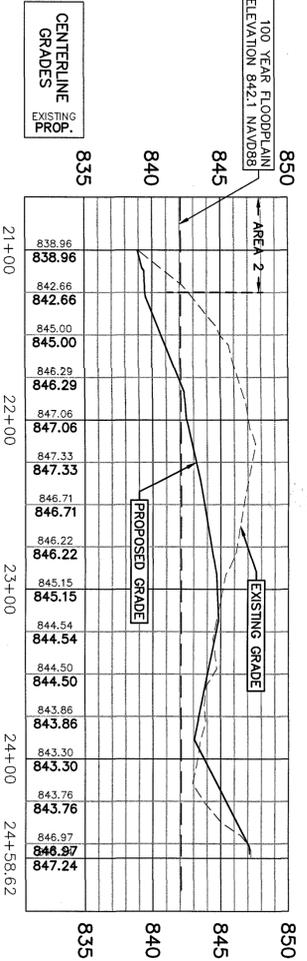
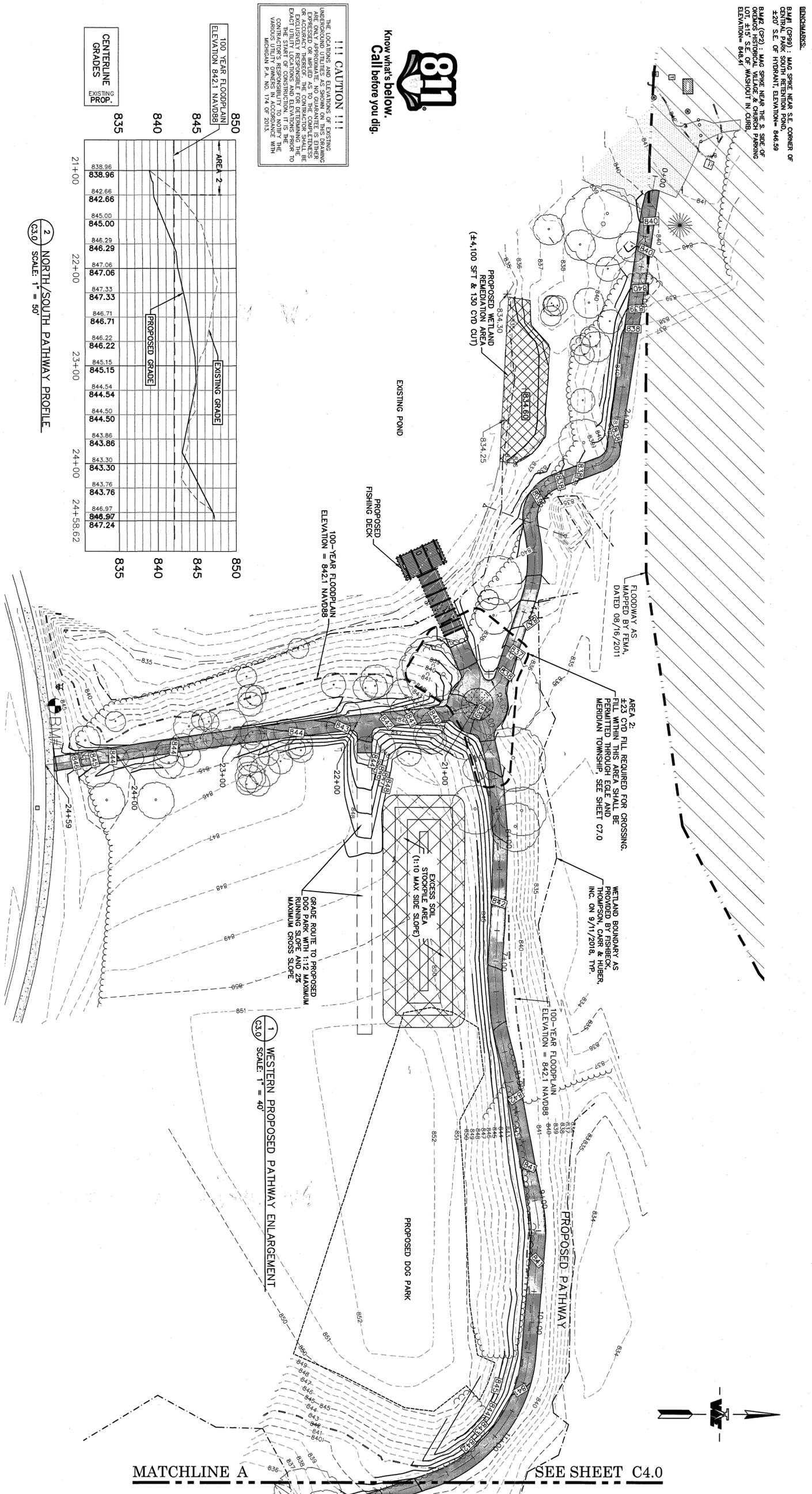
06/25/2019

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BENCHMARKS:
 BM#1 (999) : MAG SPINE NEAR S.E. CORNER OF CENTRAL PARK SOUTH RETENTION POND. ELEVATION= 846.59
 BM#2 (999) : MAG SPINE NEAR THE S. SIDE OF OGDON HISTORICAL WILDLIFE & CHURCH PARKING LOT. 115' S.E. OF WASHOUT IN CURB. ELEVATION= 848.54

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

!!! CAUTION !!!
 THE LOCATION AND DEPTH OF UTILITIES UNDERGROUND ARE NOT SHOWN ON THIS DRAWING AND ARE ONLY APPROXIMATE. NO GUARANTEE IS EITHER EXPRESSED OR IMPLIED. THE CONTRACTOR SHALL BE EXCLUSIVELY RESPONSIBLE FOR DETERMINING THE EXACT LOCATION AND DEPTH OF UTILITIES. IT IS THE CONTRACTOR'S RESPONSIBILITY TO NOTIFY THE VARIOUS UTILITY OWNERS IN ACCORDANCE WITH MICHIGAN PA. 207.15 (B) (2).



MATCHLINE A

SEE SHEET C4.0

REVISION	DATE	DRAWN	DESCRIPTION
1	04/29/19	JAL	REVISE GRADING
2	05/20/19	JAL	REVISE GRADING & WALK LAYOUT
3	06/05/19	JAL	ADD ADDITIONAL NOTES TO DOG PARK AREA
4	06/25/19	JAL	UPDATE WETLAND AREA & GRADING

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 Ph: 517-676-9200
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CENTRAL MERIDIAN REGIONAL TRAIL CONNECTOR
 MERIDIAN TOWNSHIP
 INGHAM COUNTY, MICHIGAN
PATHWAY PLAN AND PROFILE

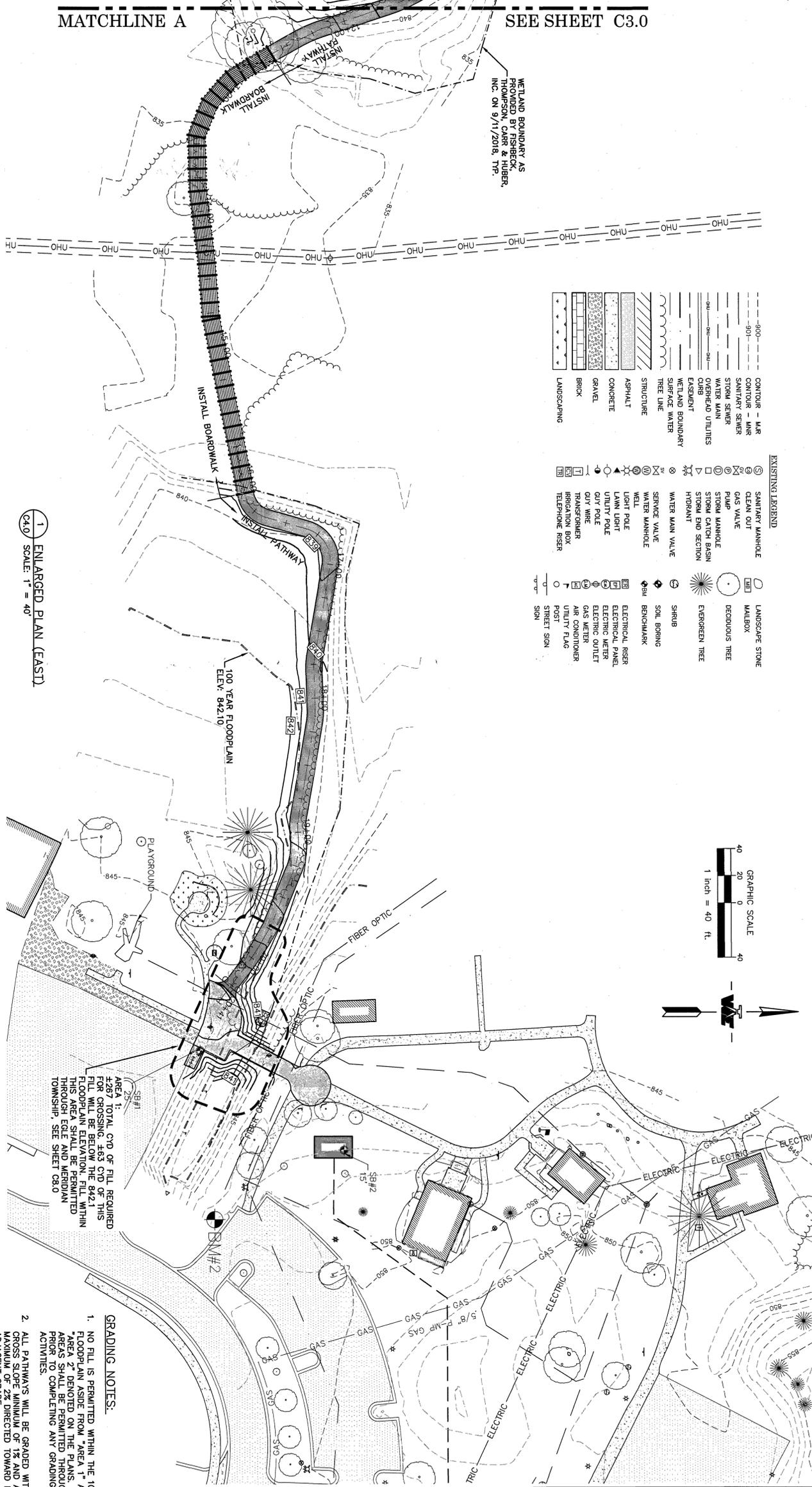
DATE	3/18/2019
SCALE	AS NOTED
SHEET NO.	C3.0
PROJECT	CENTRAL MERIDIAN REGIONAL TRAIL CONNECTOR
APPROVED	DBH
CHECKED	DBH
DRAWN	HTK
DATE	18-0066
NO.	18-0066

BENCHMARKS:
 BM#1 (G29) - 1405 SPONGE NEAR S.E. CORNER OF
 230' S.E. OF HYDRANT, ELEVATION= 846.59
 BM#2 (G22) - 1405 SPONGE NEAR THE S. SIDE OF
 60' S.E. OF HYDRANT, ELEVATION= 848.41
 LOT #15' S.E. OF WASHOUT IN CURB,
 ELEVATION= 848.41

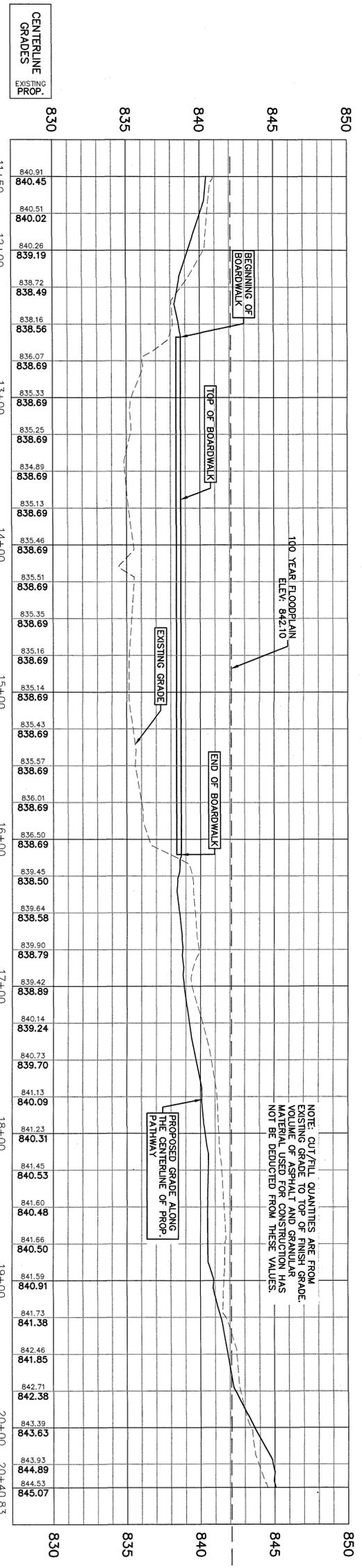
MATCHLINE A SEE SHEET C3.0

EXISTING LEGEND

---000---	CONTOUR - MAR	⊙	SANITARY MANHOLE
---001---	CONTOUR - MAR	⊙	CLEAN OUT
---	SANITARY SEWER	⊙	GAS VALVE
---	STORM SEWER	⊙	PUMP
---	WATER MAIN	⊙	STORM MANHOLE
---	OVERHEAD UTILITIES	⊙	STORM CATCH BASIN
---	CURB	⊙	STORM END SECTION
---	EASEMENT	⊙	HYDRANT
---	WETLAND BOUNDARY	⊙	WATER MAIN VALVE
---	SURFACE WATER	⊙	SERVICE VALVE
---	TREE LINE	⊙	WATER MANHOLE
---	STRUCTURE	⊙	WELL
---	ASPHALT	⊙	LIGHT POLE
---	CONCRETE	⊙	LAWN LIGHT
---	GRAVEL	⊙	UTILITY POLE
---	BRICK	⊙	GUY WIRE
---	LANDSCAPING	⊙	TRANSFORMER
		⊙	IRRIGATION BOX
		⊙	TELEPHONE RISER
		⊙	POST
		⊙	STREET SIGN



1 ENLARGED PLAN (EAST)
 C4.0 SCALE: 1" = 40'



NOTE: CUT/FILL QUANTITIES ARE FROM EXISTING GRADE TO TOP OF FINISH GRADE. VOLUME OF ASPHALT AND GRANULAR MATERIALS FOR FINISH GRADE AND STREETS SHALL NOT BE DEDUCTED FROM THESE VALUES.

2 PATHWAY PROFILE (EAST)
 C4.0 SCALE: 1" = 40'

- GRADING NOTES:**
- NO FILL IS PERMITTED WITHIN THE 100-YEAR FLOODPLAIN ASIDE FROM "AREA 1" AND "AREA 2" DENOTED ON THE PLANS. THESE AREAS SHALL BE PERMITTED THROUGH EFILE PRIOR TO COMPLETING ANY GRADING ACTIVITIES.
 - ALL PATHWAYS WILL BE GRADED WITH A CROSS SLOPE MINIMUM OF 1% AND A MAXIMUM OF 2% DIRECTED TOWARD LOWEST ADJACENT GRADE.
 - NO FINAL GRADE SHALL BE CONSTRUCTED TO IMPED DRAINAGE OR RESULT IN PONDING IN PATHWAY OR OTHER AREAS INTENDED FOR PUBLIC USE.
 - MERIDIAN TOWNSHIP MINIMUM 1:1 COMPENSATION REQUIRED FOR ALL FILL IN THE FLOODPLAIN.
 - MERIDIAN TOWNSHIP MINIMUM 2:1 COMPENSATION REQUIRED FOR ALL FILL IN WETLAND AREAS.



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 THE LOCATIONS AND ELEVATIONS OF EXISTING UNDERGROUND UTILITIES AS SHOWN ON THIS DRAWING ARE BASED ON RECORD DRAWINGS AND FIELD SURVEY. THE CONTRACTOR SHALL BE RESPONSIBLE FOR VERIFYING THE ACCURACY OF ALL UTILITIES PRIOR TO THE START OF CONSTRUCTION. IT IS THE CONTRACTOR'S RESPONSIBILITY TO NOTIFY THE MICHIGAN PUBLIC SERVICE COMMISSION (MPSC) AT (800) 487-4889 PRIOR TO ANY WORK IN THE WETLANDS. MICHIGAN P.A. NO. 174 OF 2013.

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REVISION	DATE	DRAWN	DESCRIPTION
1	04/28/19	JAL	UPDATE GRADING
2	05/20/19	JAL	UPDATE GRADING

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 312 North Street
 Mason, Michigan 48854
 Ph: 517-676-9200
 Fax: 517-676-9396
 http://www.wolveng.com

CENTRAL MERIDIAN REGIONAL TRAIL CONNECTOR
 MERIDIAN TOWNSHIP
 INGHAM COUNTY, MICHIGAN

PATHWAY & BOARDWALK PLAN & PROFILE

PROJECT: SHEET TITLE

APPROVED: DBH

CHECKED: DBH

DRAWN: HTK

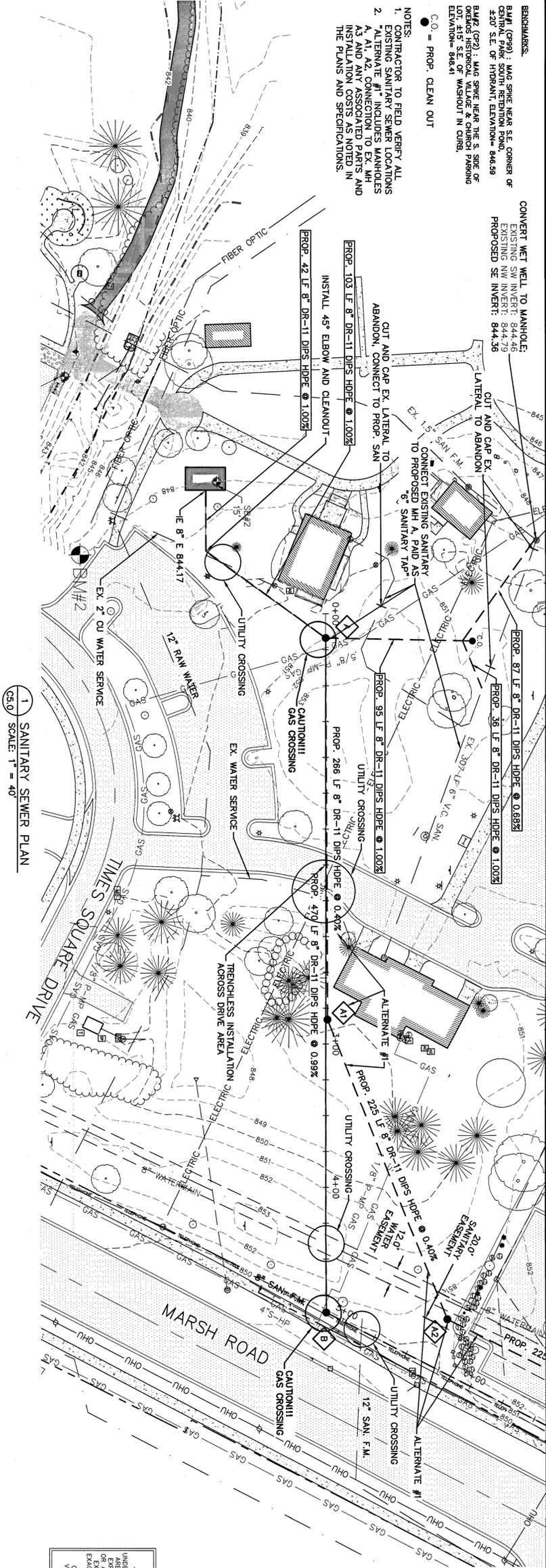
DATE: 11/12/18

SCALE: 1" = 40'

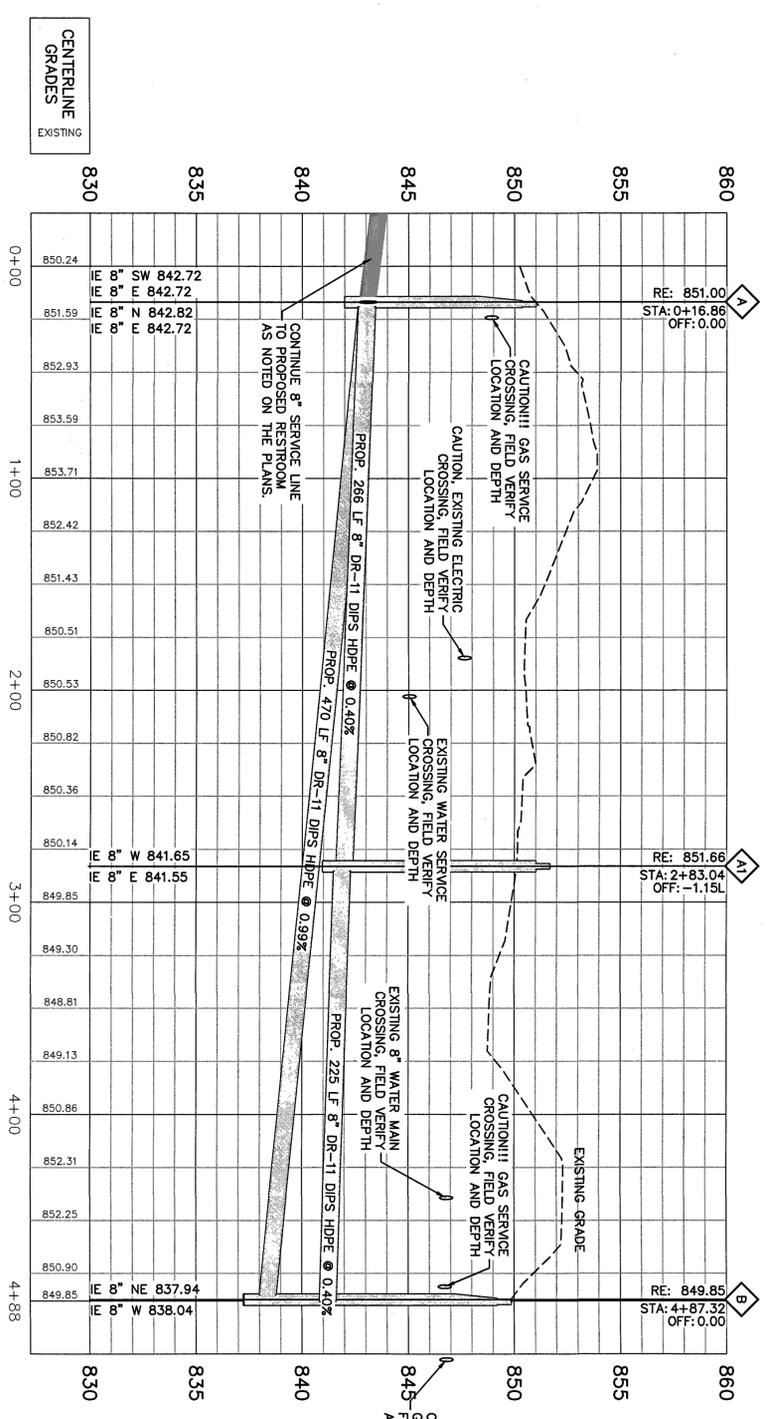
SHEET NO. C4.0

BENCHMARKS:
 BM#1 (CP99) : MAG SPIKE NEAR S.E. CORNER OF CENTRAL PARK SOUTH RETENTION POND, ±20' S.E. OF HYDRANT, ELEVATION= 846.99
 BM#2 (CP2) : MAG SPIKE NEAR THE S. SIDE OF BAKERS HISTORICAL VILLAGE & CHURCH PARKING LOT, ±15' S.E. OF WASHOUT IN CURB, ELEVATION= 846.41
 C.O. = PROP. CLEAN OUT

NOTES:
 1. CONTRACTOR TO FIELD VERIFY ALL EXISTING SANITARY SEWER LOCATIONS
 2. ALTERNATE #1 INCLUDES MANHOLES A, A1, A2, CONNECTION TO EX. MH A3 AND ANY ASSOCIATED PARTS AND INSTALLATION COSTS AS NOTED IN THE PLANS AND SPECIFICATIONS.



1 SANITARY SEWER PLAN
 (CS.0) SCALE: 1" = 40'



2 SANITARY SEWER PROFILE
 (CS.0) SCALE: HORIZ. 1" = 40' VERT. 1" = 4'

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REVISION	DATE	DRAWN	DESCRIPTION
1	05/20/19	JAL	SPLIT PROFILE TO SHEET CS.1, EXPAND SITE INFO & UTILITIES
2	06/24/19	JAL	ADD ALTERNATE #1 & PROVIDE ADDITIONAL EX. SAN. CONNECTION

**CENTRAL MERIDIAN REGIONAL TRAIL CONNECTOR
 MERIDIAN TOWNSHIP
 INGHAM COUNTY, MICHIGAN**

SANITARY SEWER PLAN AND PROFILE

PROJECT: DBH
 CHECKED: DBH
 DRAWN: HTK
 DATE: 6/24/2019
 SHEET NO.: CS.0

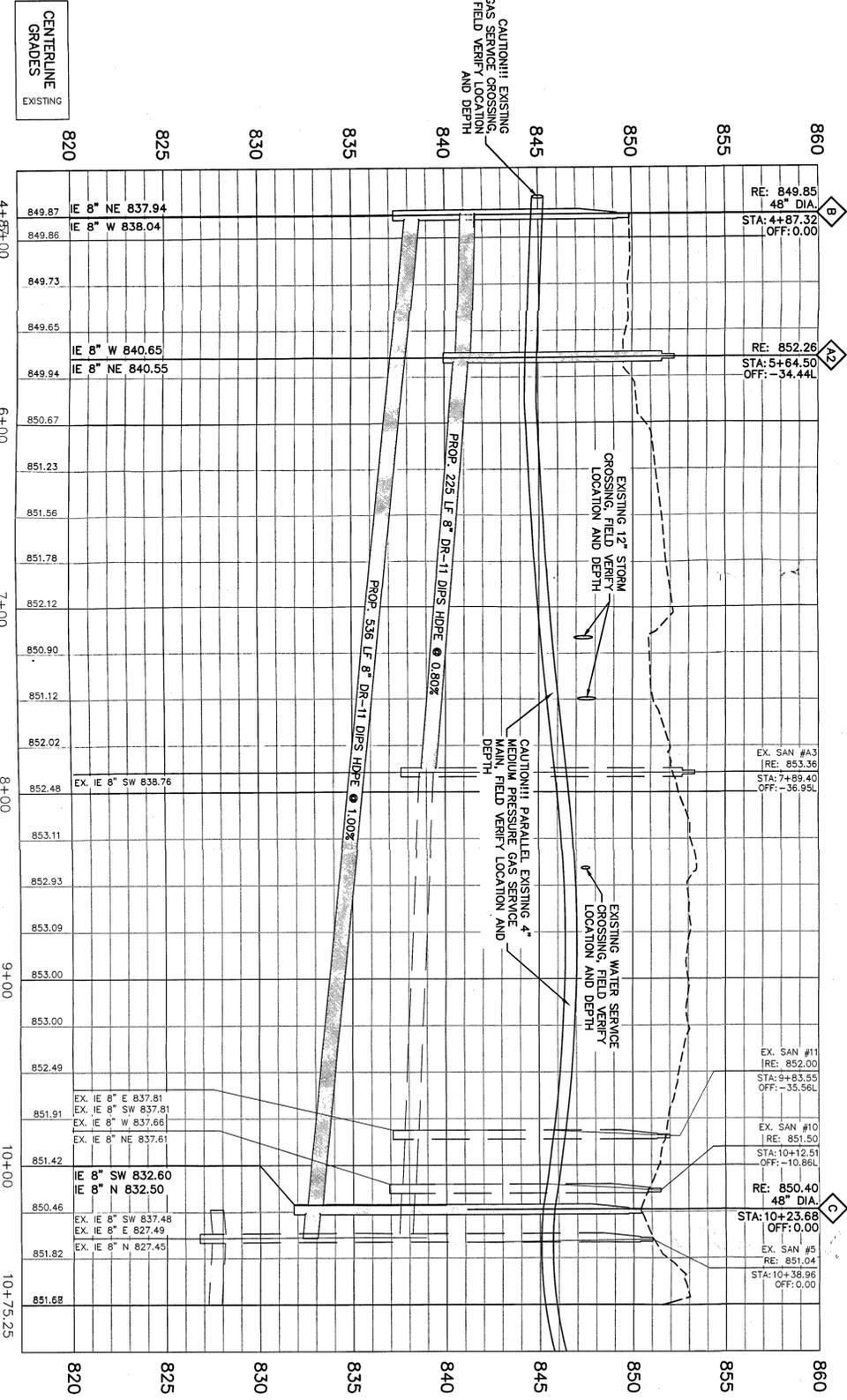
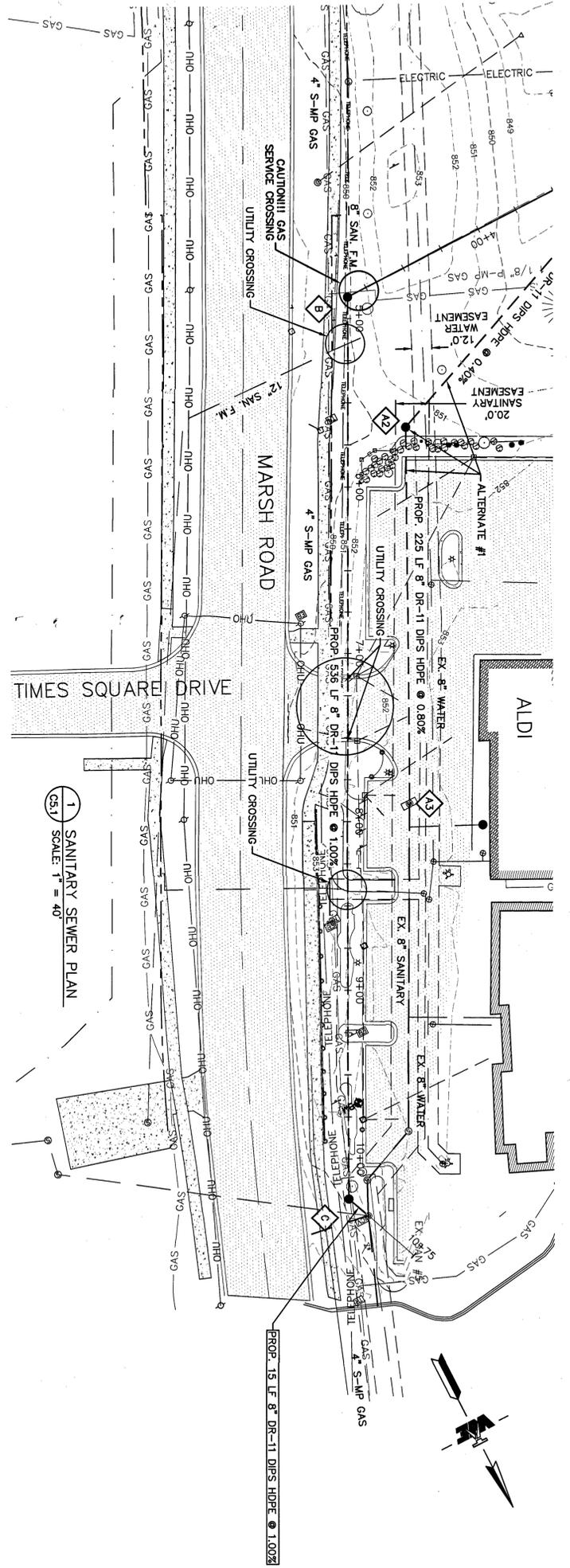
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BECHTOLD MARKS:
 B.M. (CP29) : MAG SPIKE NEAR S.E. CORNER OF CENTRAL PARK SOUTH RESTORATION #46.59 @20' S.E. OF HYDANTY, ELEVATION 846.59
 B.M. (CP2) : MAG SPIKE NEAR THE S. SIDE OF OGDEN'S HISTORICAL WALKWAY & CHIMNEY LOT #15 SE, #41 @ 20' S.E. OF HYDANTY, ELEVATION 844.4

- "ALTERNATE #1"
 - DO NOT CUT INTO PAVEMENT.
 - CONNECT VIA HDD FROM INSIDE THE MANHOLE
- SUGGESTED PROCEDURE PER MERIDIAN TWP:
 1. SEND PILOT DRILL FROM LAMM AREA TO THE EXISTING MANHOLE FROM WITHIN AND CONNECT
 2. A STEEL CABLE WITH A WINCH;
 3. PULL BACK STEEL CABLE AND CONNECT NEW PIPE;
 4. SIMULTANEOUSLY WINCH AND PUSH NEW PIPE INTO PLACE; AND CONNECTION USING A LINK-SEAL DEVICE AND NON-SHRINK GROUT.

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CENTERLINE GRADES EXISTING

2 SANITARY SEWER PROFILE
 SCALE: HORIZ 1" = 40'
 VERT 1" = 4'

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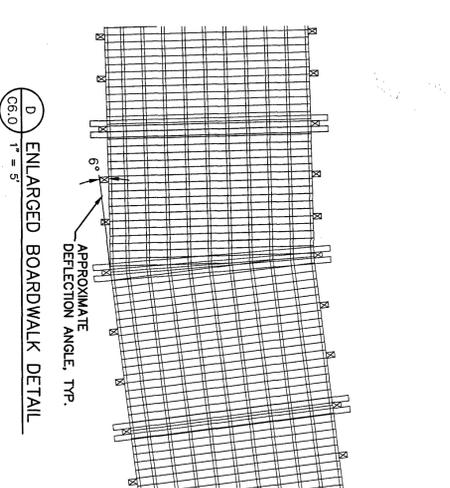
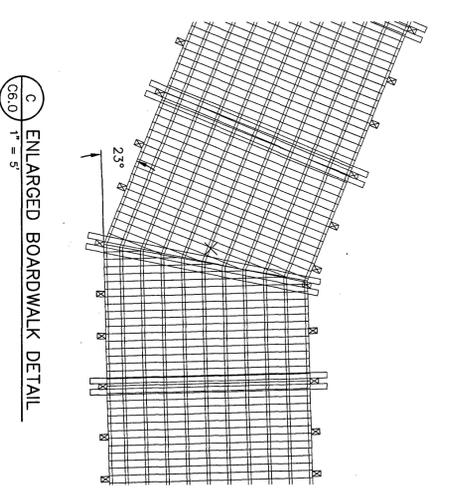
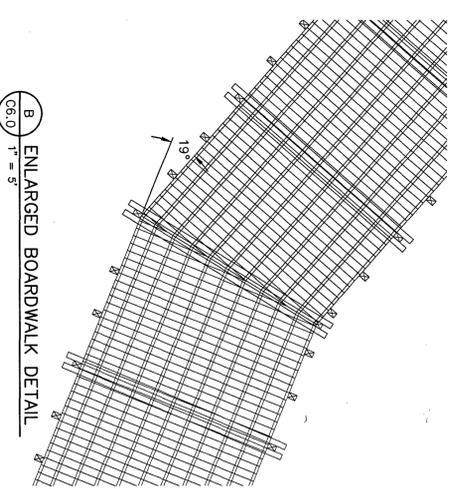
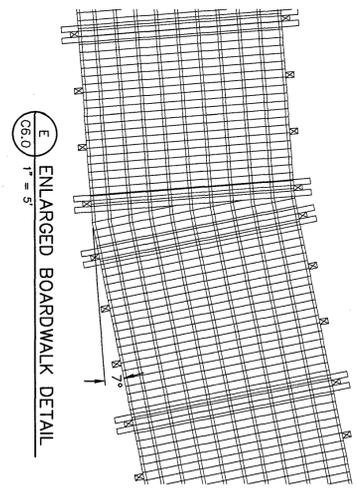
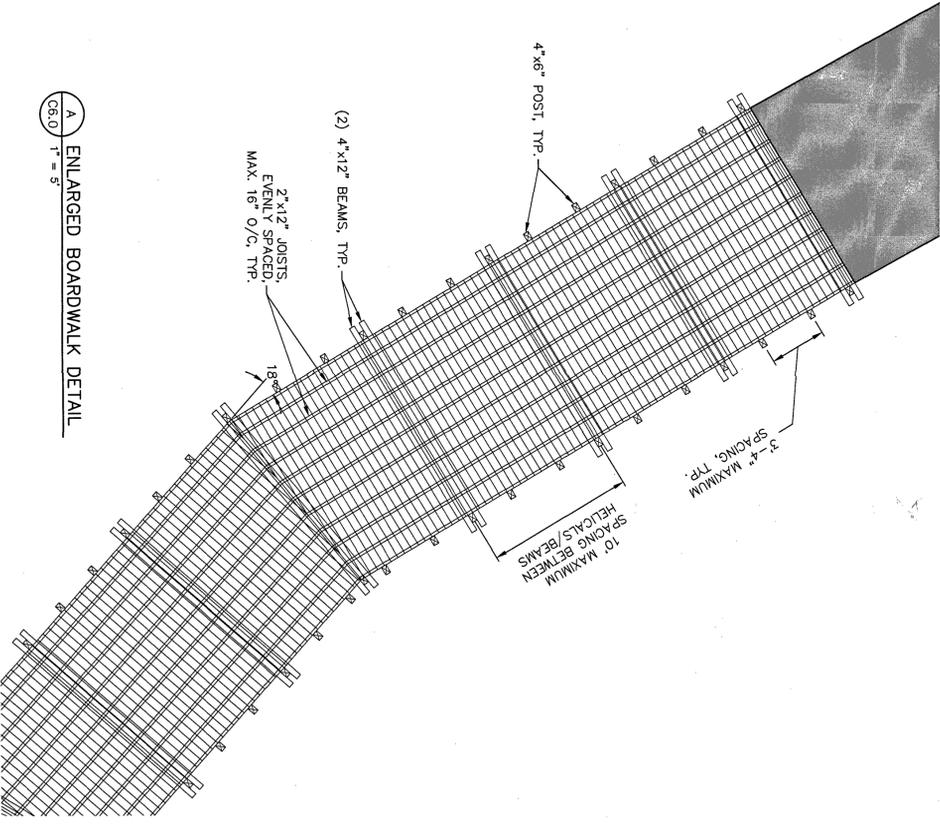
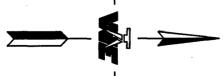
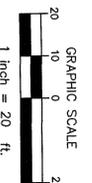
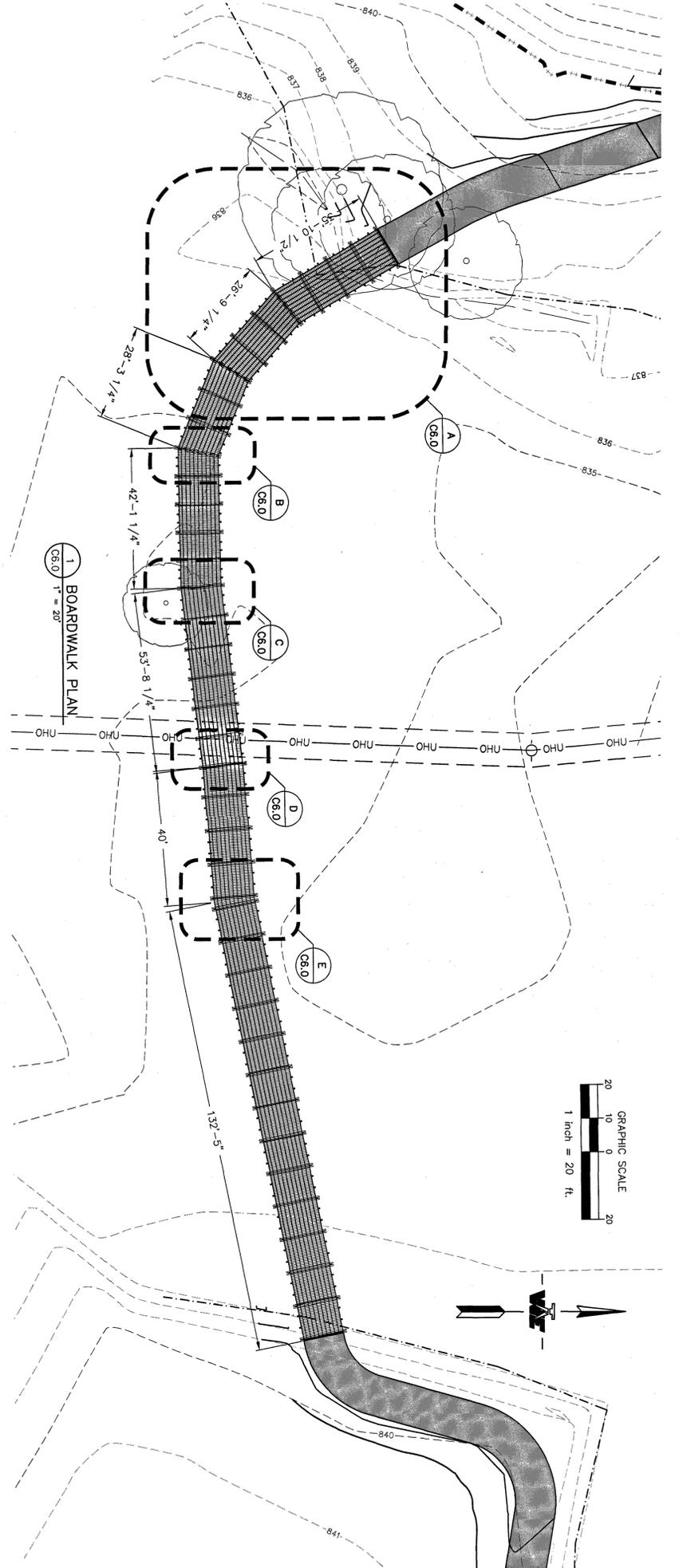
CENTRAL MERIDIAN REGIONAL TRAIL CONNECTOR
 MERIDIAN TOWNSHIP
 INGHAM COUNTY, MICHIGAN
SANITARY SEWER PLAN

PROJECT: DBH
 DESIGNED: DBH
 DRAWN: HTK
 JOB NO.: 18-0066
 DATE: 5/23/2019
 SCALE: 1" = 40'
 SHEET NO.: CS.1

BENCHMARKS:
 BM#1 (GP99) : MAG SPIKE NEAR S.E. CORNER OF
 4320 S.E. OF HOBART, ELEVATION= 846.59
 BM#2 (GP2) : MAG SPIKE NEAR THE S. SIDE OF
 LOCAL HIGHWAY 2 & COUCH PARKING
 LOT, NEAR S.E. CORNER WASHOIT IN CURB,
 ELEVATION= 846.41

BOARDWALK CONSTRUCTION NOTES

1. ALL LUMBER SHALL BE KILN DRIED SOUTHERN PINE #2 OR APPROVED EQUAL. THE CONTRACTOR SHALL ENSURE THAT ALL QUALITY CONTROL REQUIREMENTS AS SPECIFIED IN SECTION 912 OF MOST STANDARD SPECIFICATIONS FOR CONSTRUCTION (2012 EDITION) ARE ADHERED TO.
2. ALL LUMBER SHALL BE GRADE A SELECT QUALITY.
3. ALL LUMBER SHALL BE PRESSURE TREATED TO REFUSAL WITH WOOD PRESERVATIVE. PRESSURE TREATING SHALL BE TO 0.60 MINIMUM FOR WOOD IN CONTACT WITH GROUND. ALL OTHER PRESURE TREATING SHALL BE TO 0.40 MINIMUM. CCA WOOD PRESERVATIVE SHALL NOT BE USED. ENGINEER SHALL APPROVE AN ALTERNATIVE MATERIAL.
4. AVOID HORIZONTAL EXPOSURE OF END GRAIN OR PROVIDE ADEQUATE PROTECTION BY FLASHING OR SEALING. AVOID SITUATIONS WHERE MOISTURE MAY BE TRAPPED BY USING SPACERS AND/OR FLASHING, CHALKING, SEALANT, OR PLASTIC ROOF CEMENT.
5. ALL BOLTS, WASHERS, AND OTHER HARDWARE USED FOR CONSTRUCTION SHALL BE GALVANIZED TO PREVENT CORROSION AND STAINING. USE GALVANIZED FLAT WASHERS UNDER HEADS OF LAG BOLTS, SCREWS AND NUTS.
6. DECK SCREWS USED FOR CONSTRUCTION SHALL BE CLIMACOATED, HOT DIPPED, GALVANIZED PLATED, OR APPROVED EQUAL, TO PREVENT CORROSION AND STAINING. DECK SCREWS SHALL BE #8-4" WITH AN UNTHREADED UPPER SHAFT TO PREVENT BOARD JACKING, PROVIDING A TIGHTER FASTENING.
7. GAP ON DECKING SHALL BE 3/8" MIN.
8. THERE SHALL BE NO END GRAIN NAILING AND TOE NAILING UNLESS SPECIFIED BY THE ENGINEER.
9. THE BOARDWALK SHALL BE CONSTRUCTED IN SUCH A MANNER THAT WILL MINIMIZE THE AMOUNT OF DISTURBANCE TO THE WETLAND AREA. ALL RESTORATION TO DISTURBED AREAS SHALL ADHERE TO THE REQUIREMENTS OF WEDQ WETLAND PERMIT. AND SHALL BE INCLUDED IN THE COST OF THE BOARDWALK.
10. 4"x12" BEAMS SHALL BE ATTACHED TO POSTS WITH CARRIAGE BOLTS WITH WASHERS ON BOTH SIDES. COUNTERSINK NUT ENDS FLUSH WITH FACE OF TIMBER.



!!! CAUTION !!!
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REVISION	DATE	DRAWN	DESCRIPTION

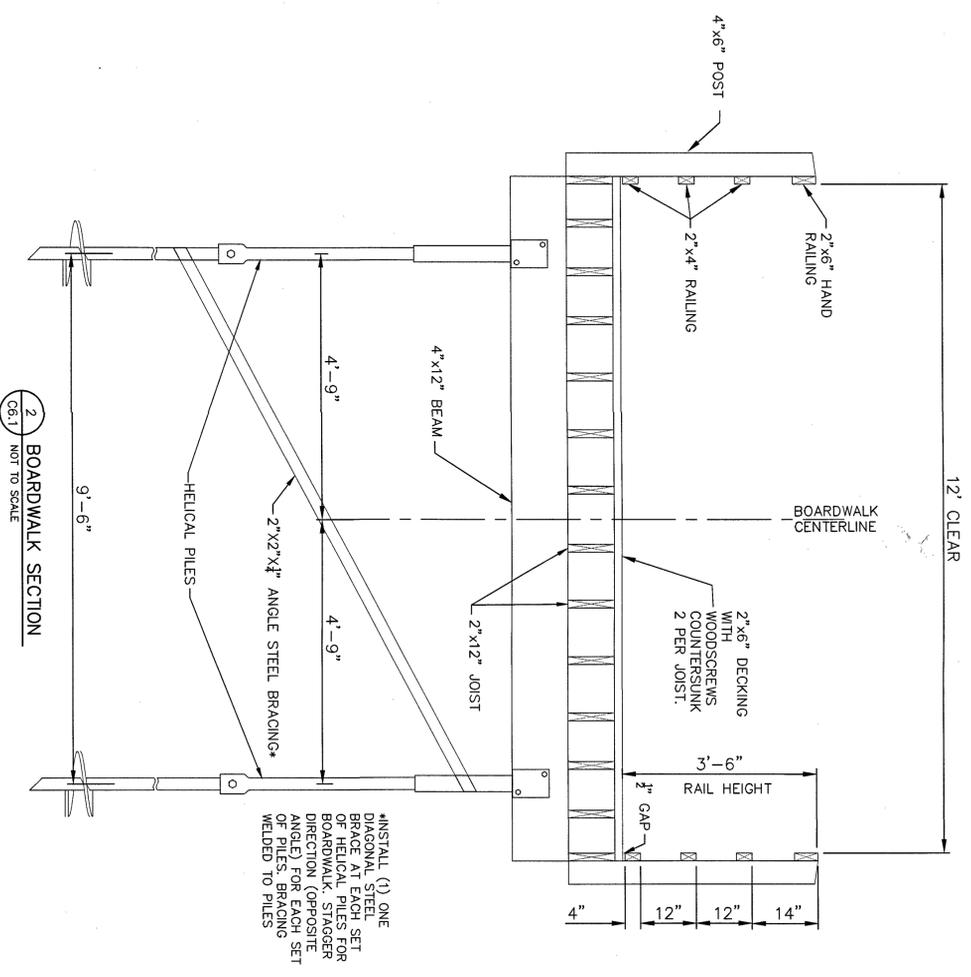
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 Ph: 517-676-9200
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CENTRAL MERIDIAN REGIONAL TRAIL CONNECTOR
 MERIDIAN TOWNSHIP
 INGHAM COUNTY, MICHIGAN

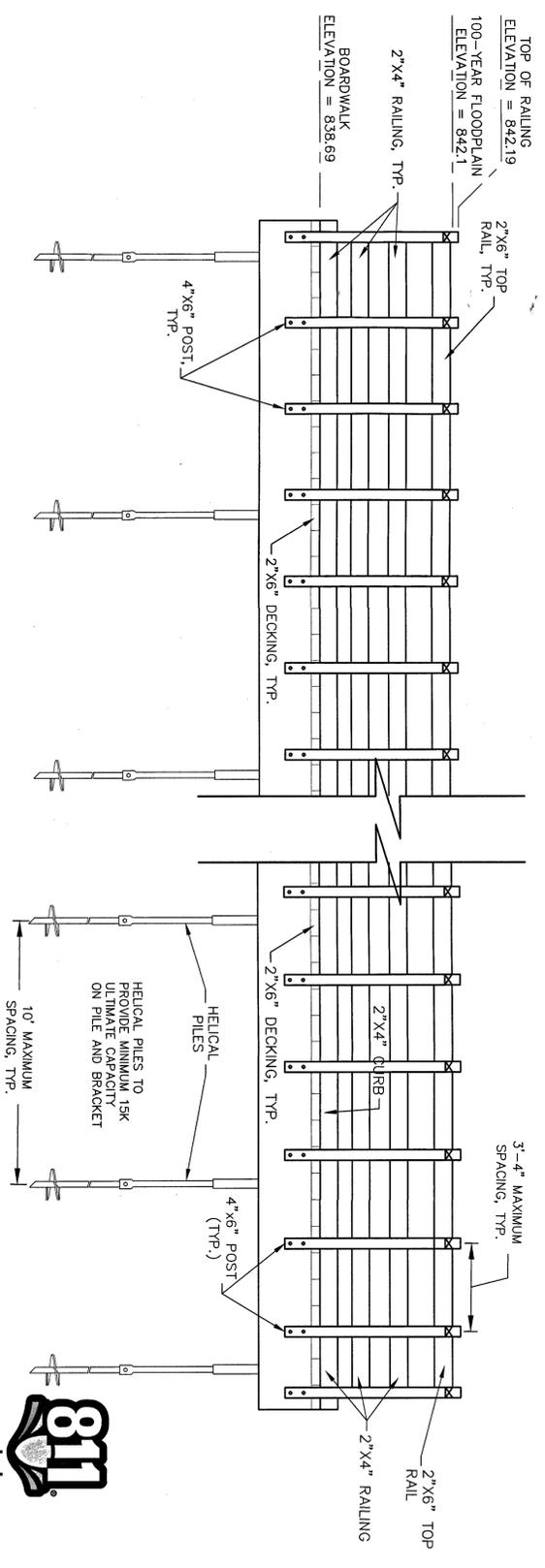
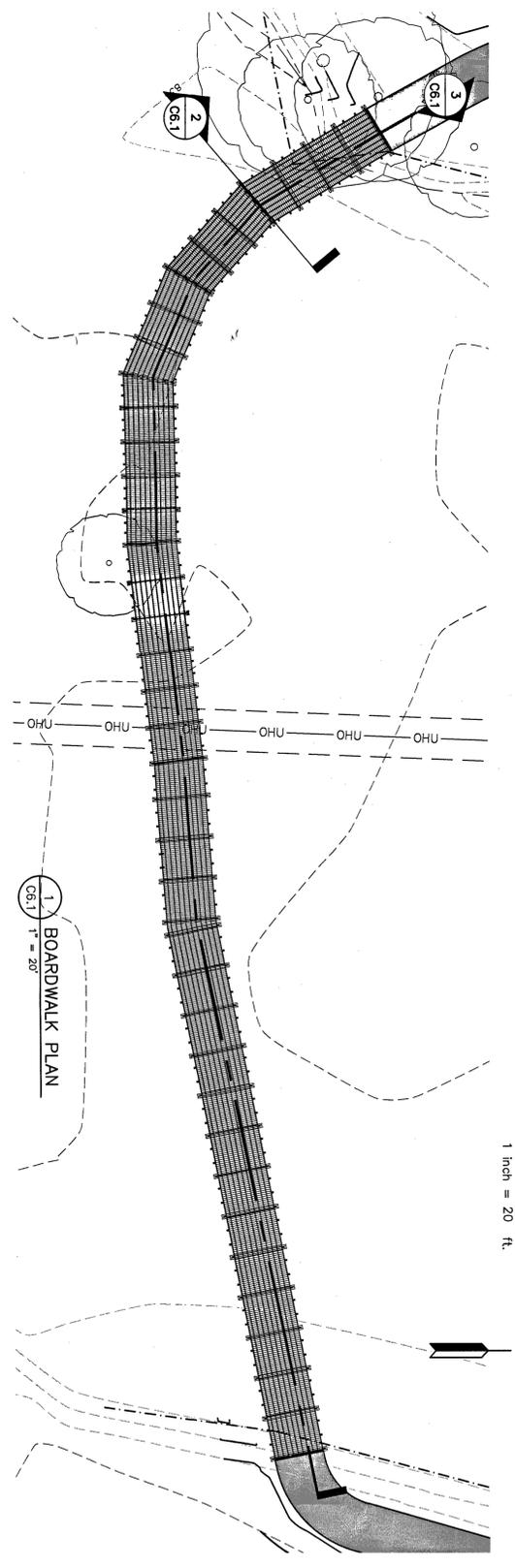
BOARDWALK DETAILS

PROJECT: DBH
 DRAWN: HTK
 DATE: 3/20/19
 SCALE: AS NOTED
 SHEET NO.: C6.0

BENCHMARKS:
 BM#1 (299) - 1/4" GRADE NEAR S.E. CORNER OF
 GENERAL PARK SOUTH RETENTION POND,
 20' S.E. OF HYDRANT ELEVATION= 846.59
 BM#2 (299) - 1/4" GRADE NEAR THE S. SIDE OF
 GENERAL PARK SOUTH RETENTION POND,
 LOT 415' S.E. OF WASHOUT IN CURB,
 ELEVATION= 848.41



*INSTALL (1) ONE
 DIAGONAL STEEL
 BRACE AT EACH SET
 OF HELICAL PILES FOR
 BOARDWALK. STAGGER
 DIRECTION OF BRACE
 ON EACH SET
 OF HELICAL PILES
 WELDED TO PILES



HELICAL PILES TO
 PROVIDE MINIMUM 15K
 ULTIMATE CAPACITY
 ON PILE AND BRACKET



!!! CAUTION !!!
 THE LOCATIONS AND ELEVATIONS OF EXISTING
 UNDERGROUND UTILITIES AS SHOWN ON THIS DRAWING
 WERE OBTAINED FROM RECORD DRAWINGS, FIELD
 SURVEYING OR ACCURACY HEREIN. THE CONTRACTOR SHALL BE
 RESPONSIBLE FOR VERIFYING THE EXACT LOCATION AND
 DEPTH OF ALL UTILITIES PRIOR TO THE START OF
 CONSTRUCTION. IT IS THE CONTRACTOR'S RESPONSIBILITY TO
 VERIFY THE LOCATION AND DEPTH OF ALL UTILITIES
 PRIOR TO THE START OF CONSTRUCTION. THIS IS THE
 STANDARD PRACTICE IN MICHIGAN P.A. NO. 174 OF 2013.

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PROJECT	CENTRAL MERIDIAN REGIONAL TRAIL CONNECTOR MERIDIAN TOWNSHIP INGHAM COUNTY, MICHIGAN
SHEET TITLE	BOARDWALK DETAILS
DESIGNED	DBH
CHECKED	DBH
DRAWN	HTK
DATE	3/18/19
SCALE	AS NOTED
SHEET NO.	C6.1

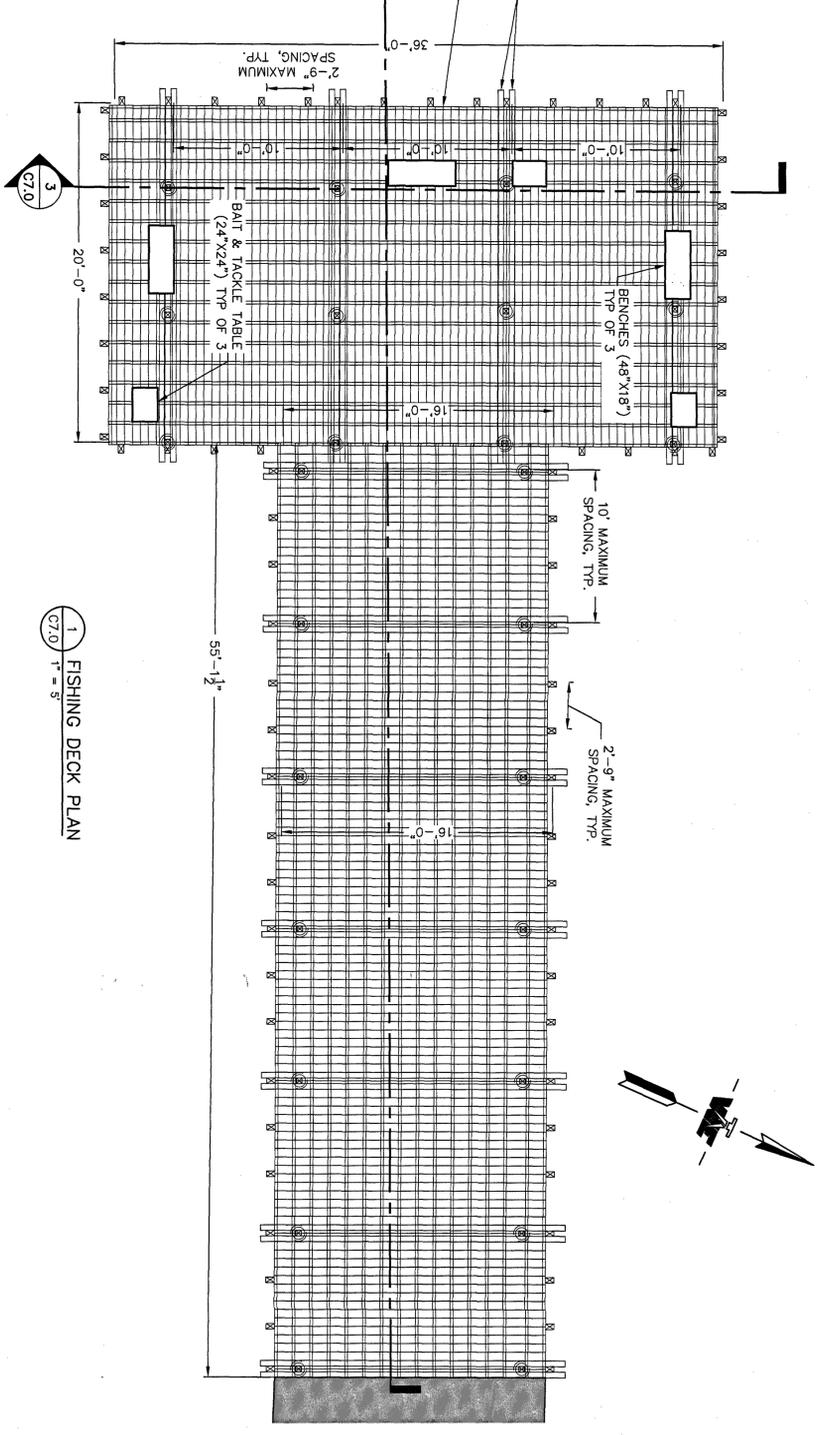
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 312 North Street
 Mason, Michigan 48854
 Ph: 517-676-9200
 Ex: 517-676-9396
 http://www.wolveng.com

REVISION	DATE	DRAWN	DESCRIPTION
1	06/25/19	JAL	UPDATE GRADING & ELEVATIONS

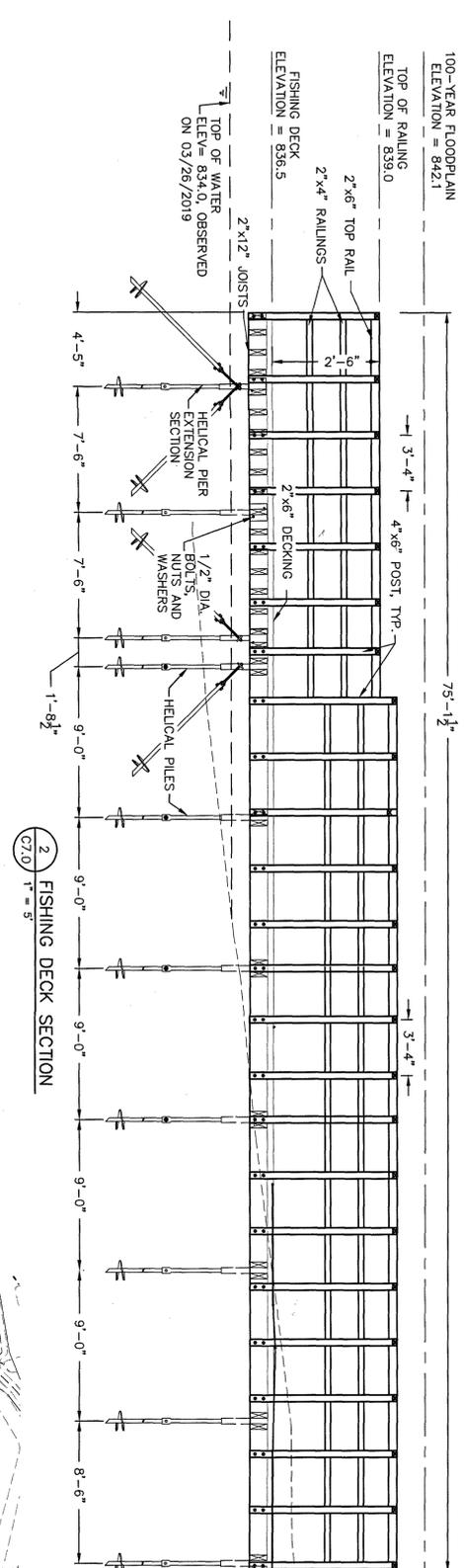
BENCHMARKS:
 BM#1 (GPN) : HAS SPICE NEAR S.E. CORNER OF CENTRAL PARK SOUTH RETENTION POND, ELEVATION = 846.59
 BM#2 (GPN) : HAS SPICE NEAR THE S. SIDE OF OGDEN HISTORICAL VILLAGE & CHURCH PARKING LOT #15' SE. OF WASHOUT IN CURB, ELEVATION = 848.41



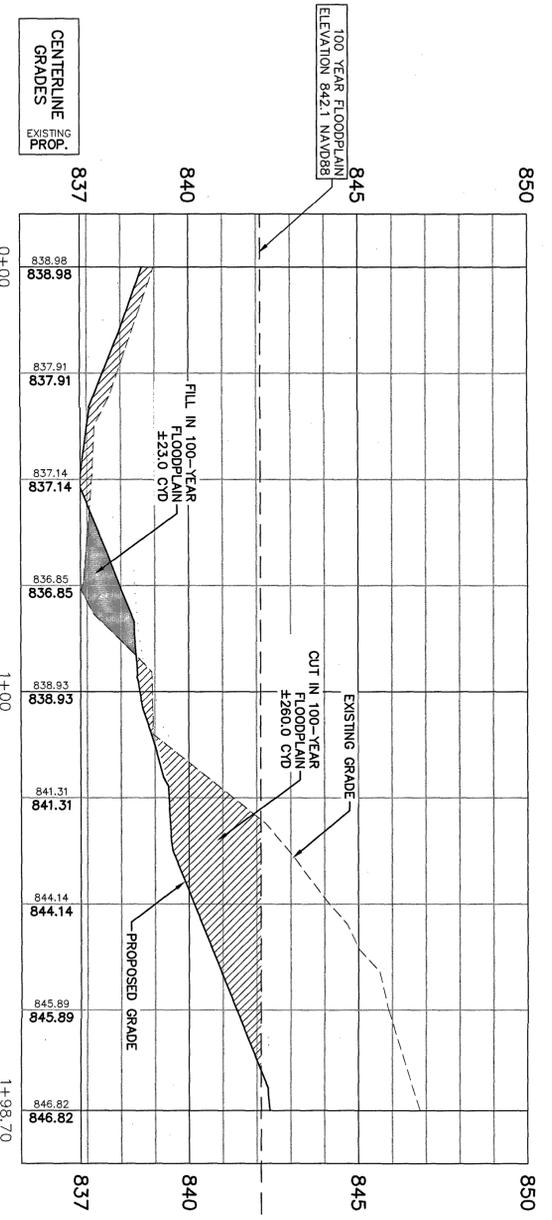
!!! CAUTION !!!
 THE LOCATIONS AND ELEVATIONS OF EXISTING UTILITIES SHOWN ON THIS DRAWING ARE APPROXIMATE. THE CONTRACTOR SHALL VERIFY THE EXISTENCE, DEPTH, AND LOCATION OF ALL UTILITIES PRIOR TO CONSTRUCTION. THE CONTRACTOR SHALL BE RESPONSIBLE FOR OBTAINING ALL NECESSARY PERMITS AND FOR THE EXACT UTILITY LOCATIONS AND ELEVATIONS PRIOR TO CONSTRUCTION. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE PROTECTION OF ALL UTILITIES. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE PROTECTION OF ALL EXISTING UTILITIES OWNERS IN ACCORDANCE WITH MICHIGAN P.A. NO. 174 OF 2013.



1 FISHING DECK PLAN
 C7.0 1" = 5'

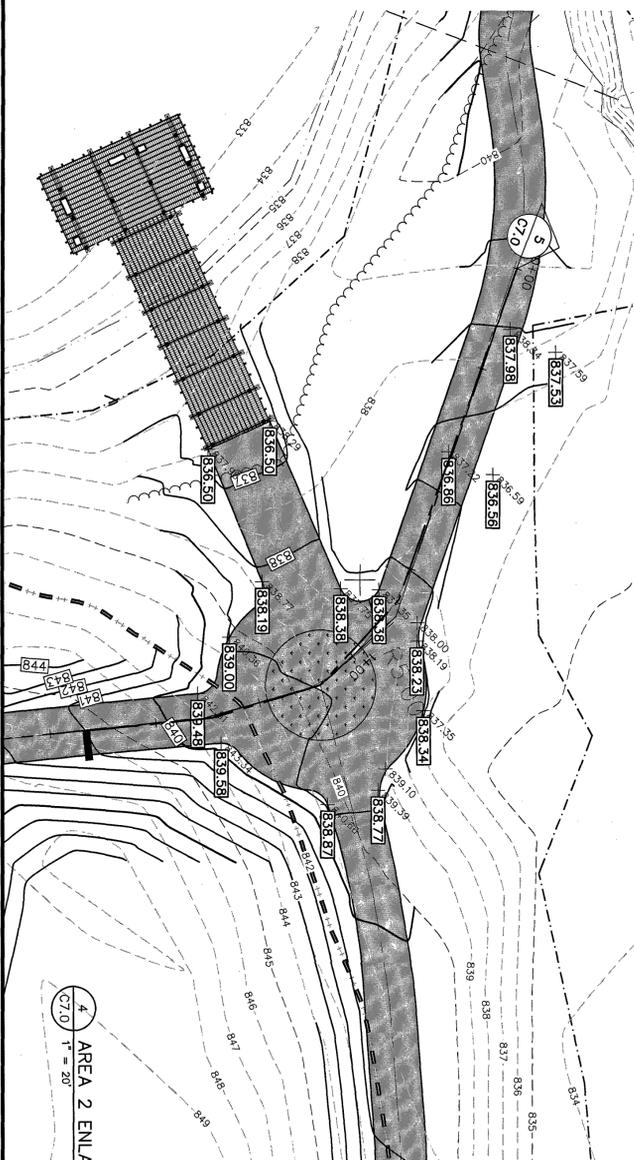


2 FISHING DECK SECTION
 C7.0 1" = 5'

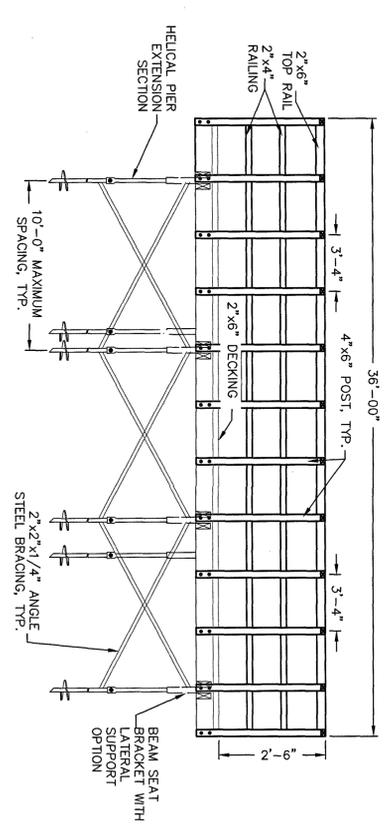


5 AREA 2 PROFILE
 C7.0 1" = 20'

NOTE: CUT AND FILL QUANTITIES SHOWN IN DETAIL 5/C7.0 ARE FOR "AREA 2" ONLY.



4 AREA 2 ENLARGEMENT
 C7.0 1" = 20'



3 FISHING DECK SECTION
 C7.0 1" = 5'

NOTE:
 HELICAL PILES TO PROVIDE 15K LBS ULTIMATE CAPACITY ON PIERS AND BRACKETS

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REVISION	DATE	DRAWN	DESCRIPTION
1	04/28/19	JAL	REVISE GRADING
2	05/23/19	JAL	UPDATE GRADING AND PATH TO AVOID WETLAND
3	06/25/19	JAL	UPDATE CUT/FILL QUANTITIES AND ELEVATIONS

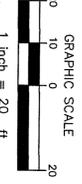
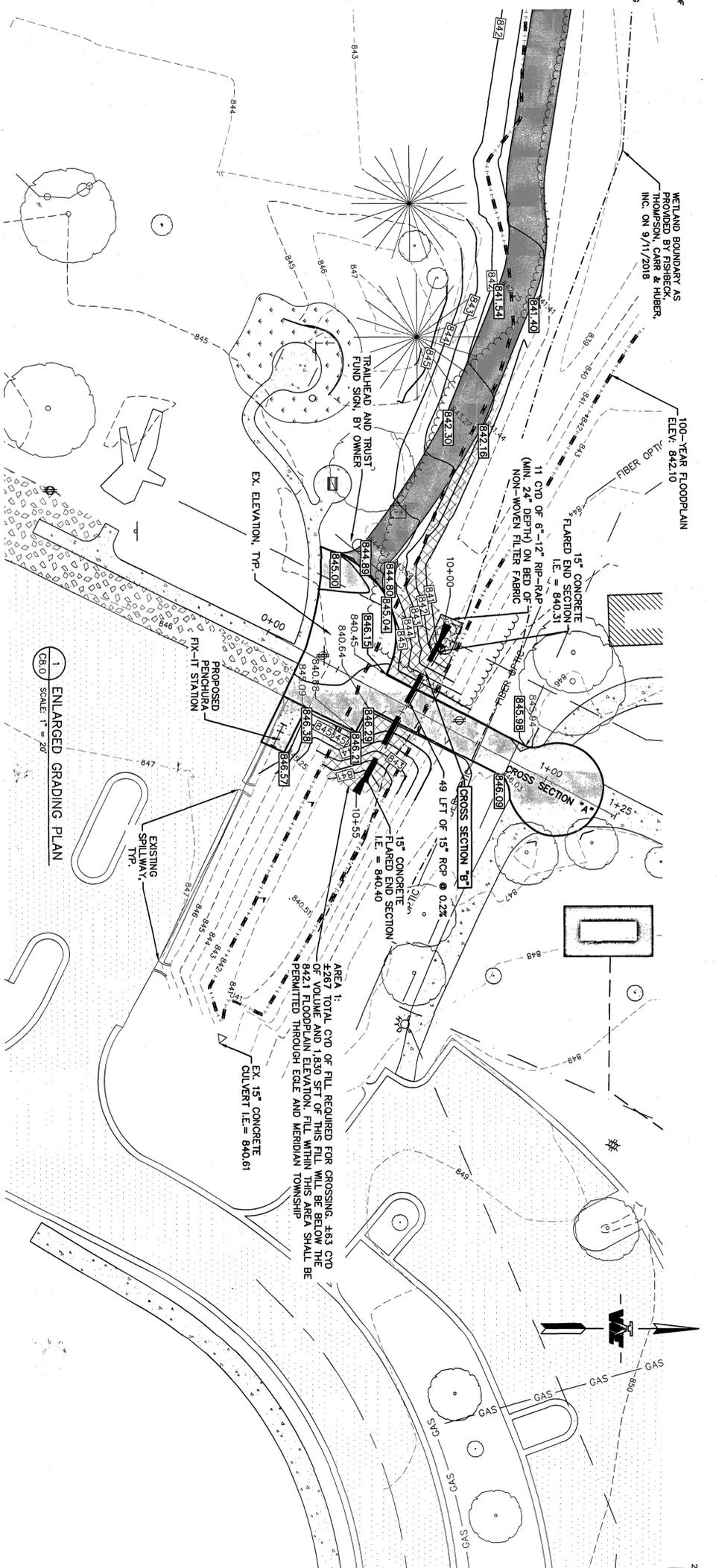
CENTRAL MERIDIAN REGIONAL TRAIL CONNECTOR
 MERIDIAN TOWNSHIP
 INGHAM COUNTY, MICHIGAN

FISHING DECK PLAN AND PROFILE-DETAILS

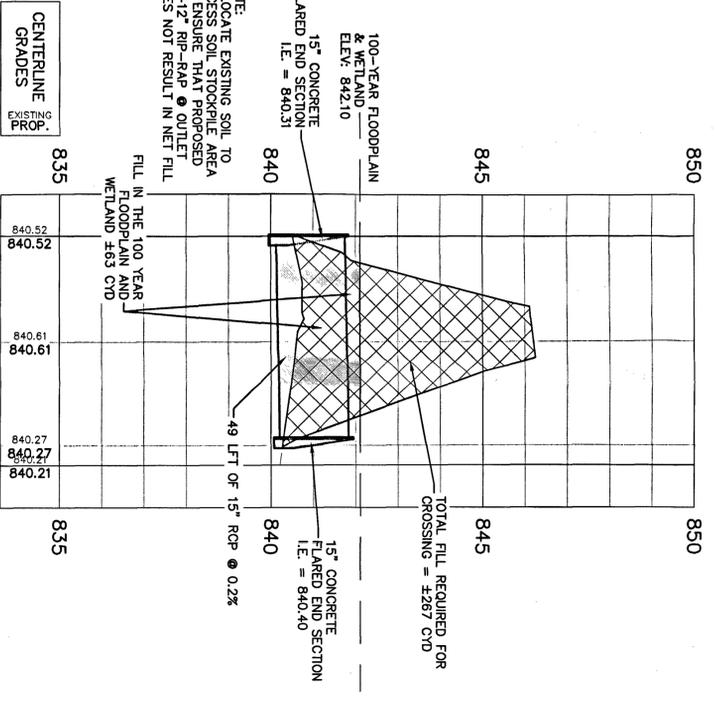
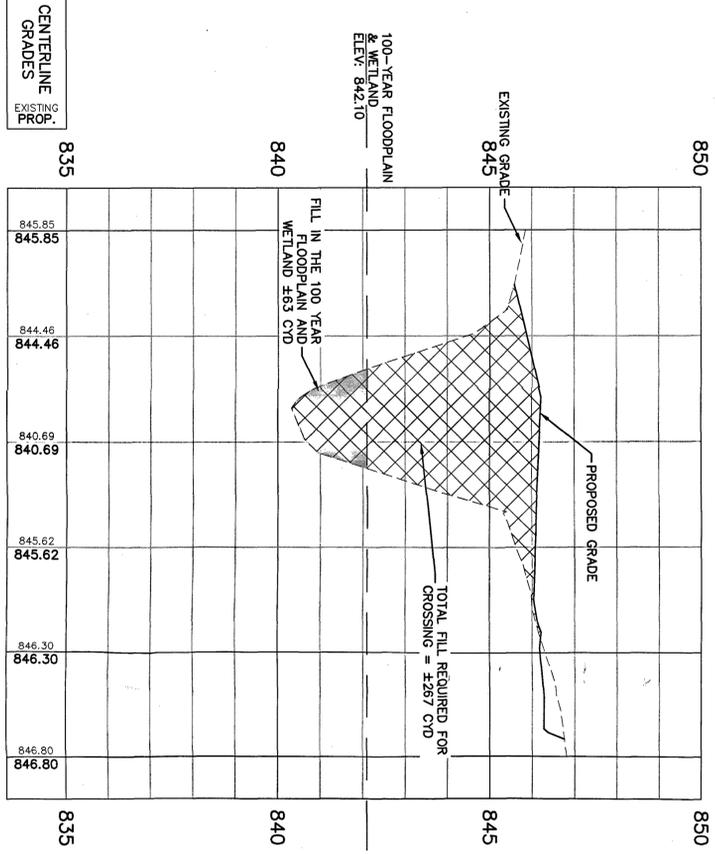
PROJECT	APPROVED
CHECKED	DATE
DRAWN	SCALE
AS NOTED	SHEET NO. C7.0

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BECKMARKS:
 BM#1 (CP9) : MAG SPIKE NEAR S.E. CORNER OF CENTRAL PARK SOUTH RETENTION POND, 820 S.E. OF HYDRANT, ELEVATION= 846.89
 BM#2 (CP2) : MAG SPIKE NEAR THE S. SIDE OF OCEANOS HISTORICAL VILLAGE & CHURCH PARKING LOT, 415 S.E. OF WASHOUT IN CURB, ELEVATION= 848.11



!!! CAUTION !!!
 THE LOCATIONS AND ELEVATIONS OF EXISTING UTILITIES SHOWN ON THIS PLAN ARE APPROXIMATE. CONTRACTORS SHALL VERIFY THE EXACT LOCATION AND DEPTH OF ALL UTILITIES PRIOR TO ANY EXCAVATION. CONTRACTORS SHALL BE RESPONSIBLE FOR NOTIFYING THE APPROPRIATE UTILITY OWNERS IN ACCORDANCE WITH MICHIGAN P.A. NO. 174 OF 2015.



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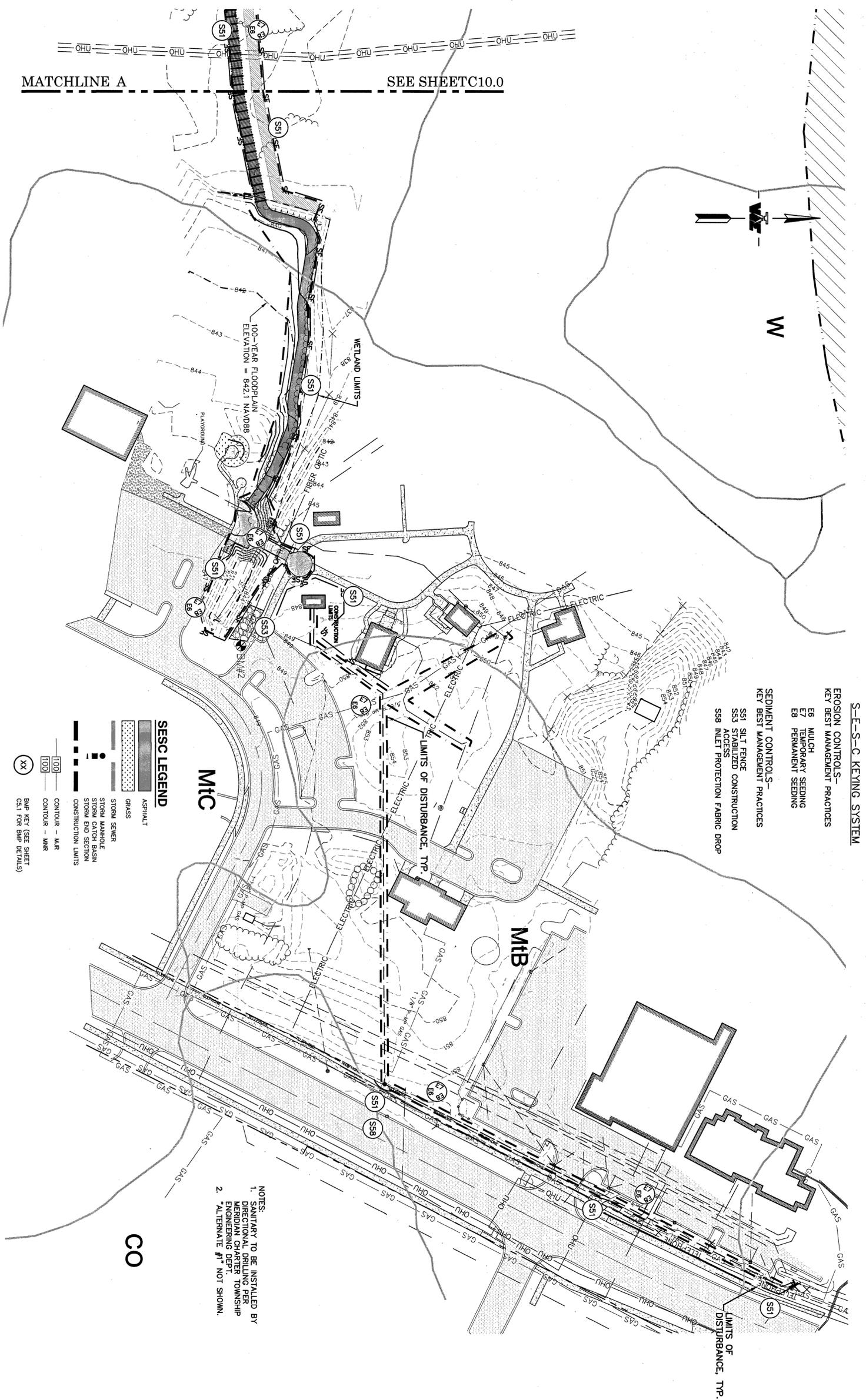
REVISION	DATE	DRAWN	DESCRIPTION
1	04/29/19	JAL	REVISE STORM/GRADING
2	05/20/19	JAL	REVISE GRADING, ADD FILL NOTES
3	06/19/19	JAL	REVISE GRADING AND QUANTITIES

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 Ph: 517-676-9200
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CENTRAL MERIDIAN REGIONAL TRAIL CONNECTOR
 MERIDIAN TOWNSHIP
 INGHAM COUNTY, MICHIGAN
ENLARGED PLAN (AREA 1)

PROJECT: CENTRAL MERIDIAN REGIONAL TRAIL CONNECTOR
 SHEET TITLE: ENLARGED PLAN (AREA 1)
 DRAWN: HTK
 CHECKED: DBH
 DATE: 11/12/18
 SCALE: AS NOTED
 SHEET NO.: C8.0

!!! CAUTION !!!
 THE LOCATIONS AND ELEVATIONS OF EXISTING UNDERGROUND UTILITIES AS SHOWN ON THIS DRAWING ARE ONLY APPROXIMATE. NO GUARANTEE IS EITHER MADE OR IMPLIED FOR THE ACCURACY OF THESE UTILITIES OR ACCURACY THEREOF. THE CONTRACTOR SHALL BE EXCLUSIVELY RESPONSIBLE FOR DETERMINING THE EXACT LOCATION AND DEPTH OF ALL UTILITIES PRIOR TO THE START OF CONSTRUCTION. IT IS THE CONTRACTOR'S RESPONSIBILITY TO NOTIFY THE MICHIGAN PUBLIC SERVICE COMMISSION (MPSC) WITHIN 14 DAYS OF THE START OF CONSTRUCTION.



- SESC LEGEND**
- ASPHALT
 - GRASS
 - STORM SEWER
 - STORM MANHOLE
 - STORM CATCH BASIN
 - STORM END SECTION
 - CONSTRUCTION LIMITS
- CONTOUR - MAR**
- 100'
 - 100'
 - XX
- BMP KEY (SEE SHEET CS.1 FOR BMP DETAILS)

- S-E-S-C KEYING SYSTEM**
- EROSION CONTROLS - KEY BEST MANAGEMENT PRACTICES**
- E6 MULCH
 - E7 TEMPORARY SEEDING
 - E8 PERMANENT SEEDING
- SEDIMENT CONTROLS - KEY BEST MANAGEMENT PRACTICES**
- S51 SILT FENCE
 - S53 STABILIZED CONSTRUCTION ACCESS
 - S58 INLET PROTECTION FABRIC DROP

NOTES

1. SANITARY TO BE INSTALLED BY DIRECTIONAL DRILLING PER MERIDIAN CHARTER TOWNSHIP ENGINEERING DEPT.
2. ALTERNATE #1* NOT SHOWN.

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REVISION	DATE	DRAWN	DESCRIPTION
1	05/20/19	JAL	GENERAL PLAN UPDATES
2	06/25/19	JAL	GENERAL PLAN UPDATES

PROJECT	CENTRAL MERIDIAN REGIONAL TRAIL CONNECTOR MERIDIAN TOWNSHIP INGHAM COUNTY, MICHIGAN
SHEET TITLE	SESC PLAN (EAST) & NOTES
APPROVED	
DESIGNED	DBH
DRAWN	DBH
SCALE	HTK
DATE	18-0066
SCALE	11/12/18
SCALE	1" = 60'
SHEET NO.	C9.1

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S53 STABILIZED CONSTRUCTION ACCESS

NOTES:

1. Establish stabilized construction entrance prior to the start of construction.
2. Care should be taken to prevent material movement into adjacent wetlands/waterbodies.
3. Care should be taken to maintain existing roadside drainage via culvert installation, with sediment sump placed downflow of culvert.

S55 STABILIZED CONSTRUCTION ACCESS SPECIFICATIONS

When

- Construction traffic is expected to leave a construction site.
- Stabilization of interior construction roads is desired.

Why

- To minimize tracking of sediment onto public roadways and to minimize disturbance of vegetation.

Where

- Stabilized construction entrances shall be located at every point where construction traffic enters or leaves a construction site. Vehicles leaving the site must be routed over the rock ingress/egress corridor.

How

1. Stabilized construction access road should be established at the onset of the construction activities.
2. Installation of this practice should be the responsibility of the site cleaning or excavating contractor.
3. Access location should be cleared of woody vegetation.
4. Non-woven geotextile fabric shall be placed over the existing ground prior to placing stone.
5. Access size should be a minimum of 50' - 30' for single residence lot).
6. Access width should be 12' minimum, flared at the existing road to provide a turning radius.
7. Crushed aggregate (2" to 3"), or reclaimed or recycled concrete equivalent, shall be placed at least 8" deep over the length and width of the ingress/egress corridor.

Maintenance

- Periodic inspection and needed maintenance shall be provided after each rain event.
- Stabilized entrances shall be repaired and rock added as necessary.

S51 SILT FENCE SPECIFICATIONS

When

- A temporary measure for preventing sediment movement.
- Used to prevent sediment suspended in runoff from leaving an earth change area.

Why

- Use adjacent to critical areas, wetlands, base of slopes, and watercourses.

Where

- The silt fence should be made of woven geotextile fabric.

How

1. Install parallel to a contour.
2. The silt fence should accommodate no more than 1/2 to 1 acre of drainage per 100' of fence and on slopes less than 1:2 (V:H).
3. Dig a 6" trench along the area where the fence is to be installed.
4. Place 6" of the silt fence bottom flap into the trench.
5. Backfill the trench with soil and compact the soil on both sides. Create a small ridge on the up-slope side of the fence.
7. Install wooden stakes 6" - 10" apart and drive into the ground a minimum of 12".
8. Staple the geotextile fabric to the wooden stakes.
9. Join sections of silt fence by wrapping ends together (See drawing).

Maintenance

- Inspect frequently and immediately after each storm event. Check several times during prolonged storm events. If necessary, repair immediately.
- If the sediment has reached 1/3 the height of the fence, the soil should be removed and disposed of in a stable upland site.

S51 SILT FENCE SPECIFICATIONS (cont.)

Maintenance

- The fence should be re-installed if water is seeping underneath it or if the fence has become ineffective.
- Silt fence should be removed once vegetation is established and up-slope area has stabilized.
- Silt fence may cause temporary ponding and could fail if too much water flows through the area.
- Do not use in areas with concentrated flows.
- Chance of failure increases if fence is installed incorrectly or if sediment accumulation is not removed.

S58 INLET PROTECTION - FABRIC DROP

INSTALLATION DETAIL

ISOMETRIC VIEW

E8 PERMANENT SEEDING SPECIFICATIONS

When

- To finalize stabilization of temporary seeding areas or when an area needs permanent stabilization following completion of construction. Also used when vegetation establishment can correct existing soil erosion or sediment damage.

Why

- To stabilize soil and prevent or reduce soil erosion/sedimentation problems from developing.

Where

- Used on permanent vegetative stabilization.

How

1. Review SESC plan and construction phasing to identify areas in need of permanent vegetative stabilization.
2. Select perennial grass and ground cover for permanent seeding.
3. Seed mixes vary. However, they should contain native species.
4. Seed mixes should be selected through consultation with a certified seed provider and with consideration of soil type, light, moisture, use applications, and native species.
5. Soil tests should be performed to determine the nutrient and pH levels. The pH may need to be adjusted to between 6.5 and 7.0.
6. Prepare a 3-5" deep seedbed, with the top 3-4" consisting of topsoil.
7. Slopes steeper than 1:3 should be roughened.
8. Apply seed as soon as possible after seedbed preparation, by hand, by broadcast, or by using mechanical drills.
9. Mutch immediately after seeding.
10. Dormant seed mixes are for use after the growing season, using seed which has dormant in the conditions become favorable.

E8 PERMANENT SEEDING SPECIFICATIONS (cont.)

How

1. Protect seeded areas from pedestrian or vehicular traffic until vegetation is established.

Maintenance

- Inspect weekly and within 24 hours following each rain event in the first few months following installation to be sure seedlings are established.
- Silt should be added as necessary.

Limitations

- Seeds need adequate time to establish.
- May not be appropriate in areas with frequent traffic.
- Seeded areas may require irrigation during dry periods.
- Seeding success is site specific, consider mulching or sodding when necessary.

E8 PERMANENT SEEDING

Planting Zone	Lower Peninsula (Seed Zone 1)	Lower Peninsula (Seed Zone 2)	Upper Peninsula (Seed Zone 3)
Seeding with Sodding	4/15 - 10/10	5/1 - 10/1	5/1 - 9/20
Seeding with Sodding	1/15 - 11/1	1/01 - 11/01	1/01 - 11/01

Seeding Schedule

Seeding Zone	Seeding Window	Seeding Window	Seeding Window
Zone 1	4/1 - 8/1	5/1 - 9/20	5/1 - 9/10
Zone 2	4/1 - 8/1	5/1 - 9/20	5/1 - 9/10
Zone 3	4/1 - 8/1	5/1 - 9/20	5/1 - 9/10

Notes:

- Dormant seeding is for use in the late fall after the soil temperature has cooled and is consistently below 50 degrees Fahrenheit.
- Seeding should be completed in the fall before the ground has frozen.
- Seeding should be completed in the fall before the ground has frozen.
- Seeding should be completed in the fall before the ground has frozen.

S58 INLET PROTECTION - FABRIC DROP SPECIFICATIONS

When

- When sediment laden stormwater requires treatment before entering a stormwater drainage system.
- To prevent sediment from entering stormwater systems.

Why

- Use in or at stormwater inlets, especially at construction sites or in streets.

Where

- A filter fabric bag is hung inside the inlet, beneath the grate.
- Replace grate, which will hold bag in place.
- Anchor filter bag with 1" rebar for removal from inlet.
- Flaps of bag that extend beyond the bag can be buried in soil in earth areas.

How

1. A filter fabric bag is hung inside the inlet, beneath the grate.
2. Replace grate, which will hold bag in place.
3. Anchor filter bag with 1" rebar for removal from inlet.
4. Flaps of bag that extend beyond the bag can be buried in soil in earth areas.

Maintenance

- Drop inlet filters should be inspected routinely and after each major rain event.
- Damaged filter bags should be replaced.
- Clean and/or replace filter bag when 1/2 full.
- Replace clogged fabric immediately.
- If needed, initiate repair reports immediately upon inspection.
- Remove entire protective mechanism when upgradient areas are stabilized and streets have been swept.

Limitations

- Can only accommodate small flow quantities.
- Requires frequent maintenance.
- Ponding may occur around storm drains if filter is clogged.

S59 INLET PROTECTION - FABRIC DROP

S53 STABILIZED CONSTRUCTION ACCESS

S55 STABILIZED CONSTRUCTION ACCESS SPECIFICATIONS

When

- Construction traffic is expected to leave a construction site.
- Stabilization of interior construction roads is desired.

Why

- To minimize tracking of sediment onto public roadways and to minimize disturbance of vegetation.

Where

- Stabilized construction entrances shall be located at every point where construction traffic enters or leaves a construction site. Vehicles leaving the site must be routed over the rock ingress/egress corridor.

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6. Access width should be 12' minimum, flared at the existing road to provide a turning radius.
7. Crushed aggregate (2" to 3"), or reclaimed or recycled concrete equivalent, shall be placed at least 8" deep over the length and width of the ingress/egress corridor.

Maintenance

- Periodic inspection and needed maintenance shall be provided after each rain event.
- Stabilized entrances shall be repaired and rock added as necessary.

E8 PERMANENT SEEDING

Planting Zone	Lower Peninsula (Seed Zone 1)	Lower Peninsula (Seed Zone 2)	Upper Peninsula (Seed Zone 3)
Seeding with Sodding	4/15 - 10/10	5/1 - 10/1	5/1 - 9/20
Seeding with Sodding	1/15 - 11/1	1/01 - 11/01	1/01 - 11/01

Seeding Schedule

Seeding Zone	Seeding Window	Seeding Window	Seeding Window
Zone 1	4/1 - 8/1	5/1 - 9/20	5/1 - 9/10
Zone 2	4/1 - 8/1	5/1 - 9/20	5/1 - 9/10
Zone 3	4/1 - 8/1	5/1 - 9/20	5/1 - 9/10

Notes:

- Dormant seeding is for use in the late fall after the soil temperature has cooled and is consistently below 50 degrees Fahrenheit.
- Seeding should be completed in the fall before the ground has frozen.
- Seeding should be completed in the fall before the ground has frozen.
- Seeding should be completed in the fall before the ground has frozen.

S58 INLET PROTECTION - FABRIC DROP SPECIFICATIONS

When

- When sediment laden stormwater requires treatment before entering a stormwater drainage system.
- To prevent sediment from entering stormwater systems.

Why

- Use in or at stormwater inlets, especially at construction sites or in streets.

Where

- A filter fabric bag is hung inside the inlet, beneath the grate.
- Replace grate, which will hold bag in place.
- Anchor filter bag with 1" rebar for removal from inlet.
- Flaps of bag that extend beyond the bag can be buried in soil in earth areas.

How

1. A filter fabric bag is hung inside the inlet, beneath the grate.
2. Replace grate, which will hold bag in place.
3. Anchor filter bag with 1" rebar for removal from inlet.
4. Flaps of bag that extend beyond the bag can be buried in soil in earth areas.

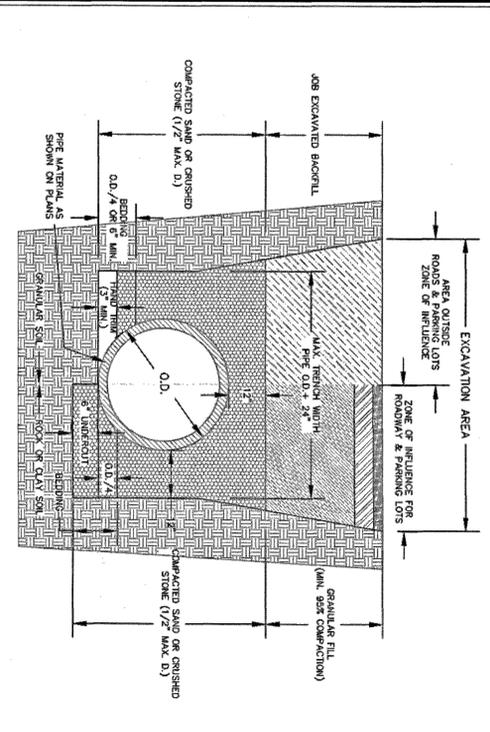
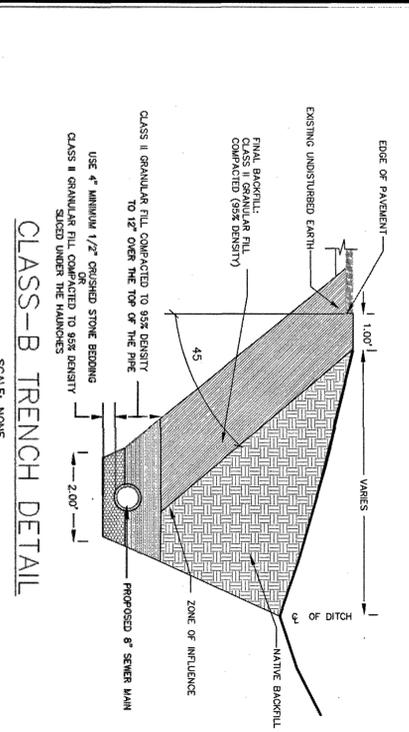
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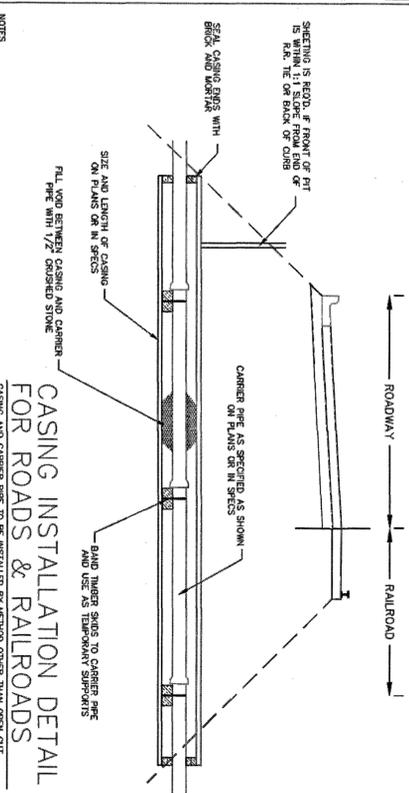
Limitations

- Can only accommodate small flow quantities.
- Requires frequent maintenance.
- Ponding may occur around storm drains if filter is clogged.

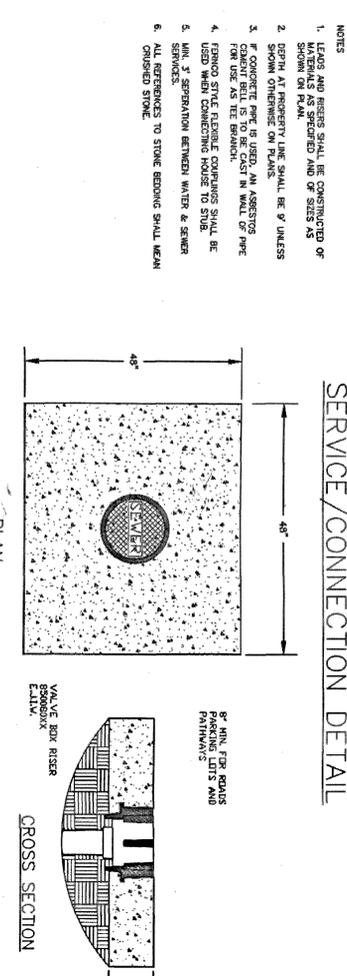
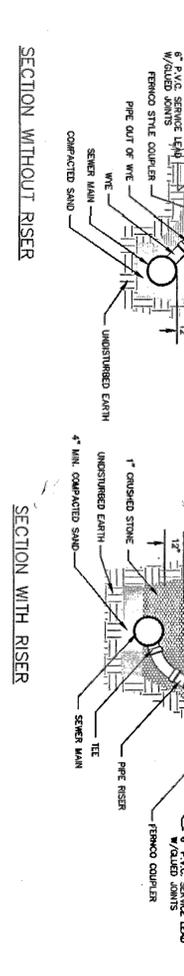
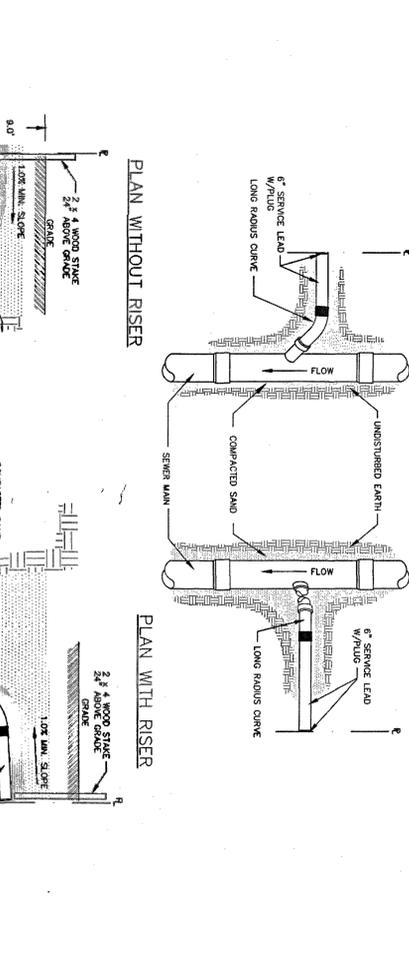
S59 INLET PROTECTION - FABRIC DROP



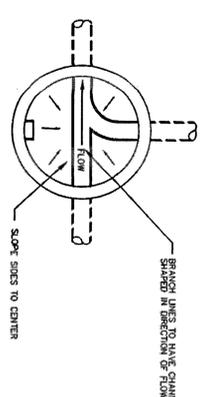
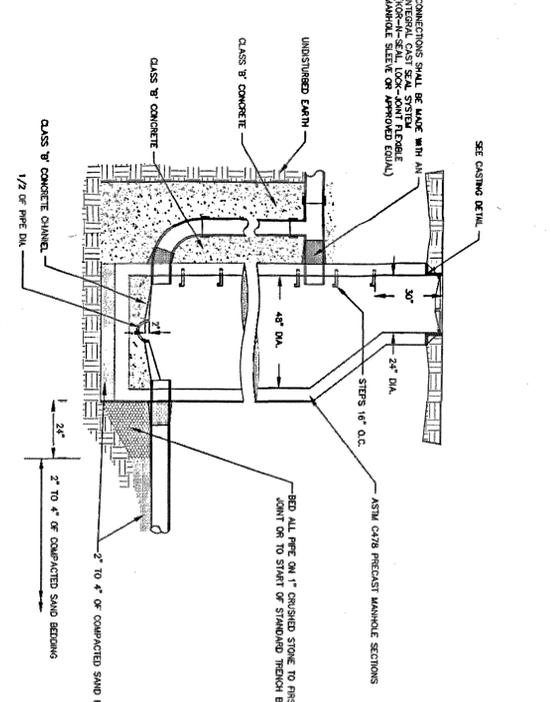
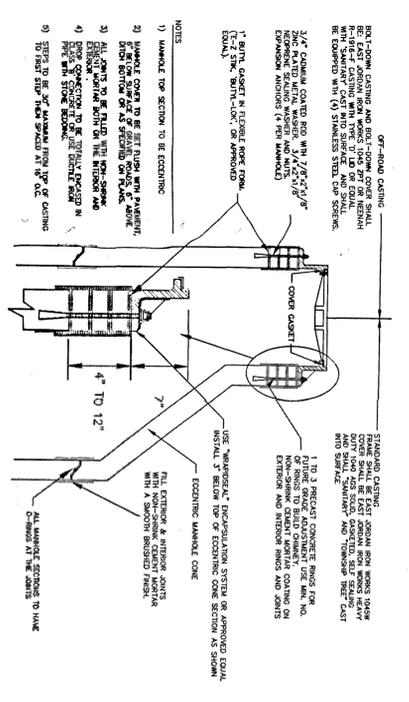
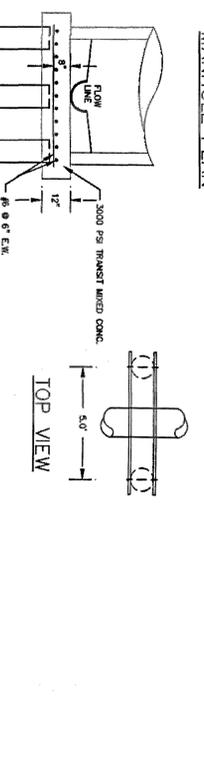
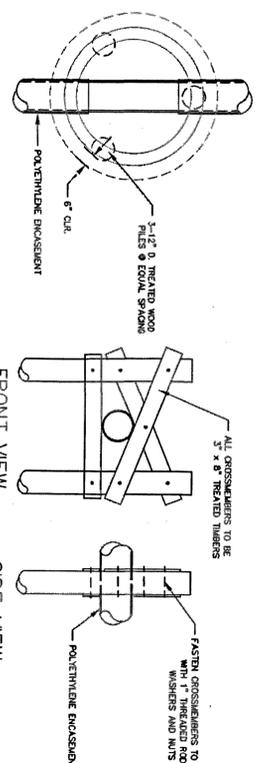
THE PVC (SDR-26) PIPE MATERIAL SHALL CONFORM TO ASTM D 2241, WITH BELLS AND SHORT JOINTS IN ACCORDANCE WITH ASTM F 477. PIPE INSTALLATION SHALL BE IN ACCORDANCE WITH ASTM D 2321. ALL PIPE SHALL BE LAPPED TO PROVIDE ASTM RESISTANCE. SIZE, MANUFACTURER, MAKE AND PIPE DIAMETER. THE CONTRACTOR SHALL TEST THE MAIN FOR DEFLECTION BY PULLING A MANHOLE THROUGH THE SEWER AFTER ALL BACKFILL HAS BEEN PLACED AND COMPACTED OVER THE PIPE. THE MANHOLE SHALL BE PULLED TO THE INSIDE DIAMETER OF THE PIPE. THE OUTSIDE DIAMETER OF THE TEST MANHOLE SHALL BE EQUAL TO THE INSIDE DIAMETER OF THE PIPE. THE MINIMUM TEST SHALL BE PERFORMED AT LEAST 30 DAYS AFTER PIPE IS INSTALLED. DEFLECTION TEST SHALL BE PERFORMED AFTER 10 MONTHS OF PIPE INSTALLATION.



NOTES
1. WORK IN ROADS AND IN RAILROAD RIGHT-OF-WAYS SHALL BE IN ACCORDANCE WITH THE APPROPRIATE REGULATORY AGENCY'S REQUIREMENTS.
2. GRADE B OR C SHALL BE 5' MIN. ABOVE FINISHED GRADE. GRADE B OR C SHALL BE 5' MIN. ABOVE FINISHED GRADE. GRADE B OR C SHALL BE 5' MIN. ABOVE FINISHED GRADE.



CLEANOUT BOXES IN CONCRETE



MANHOLE FLOWLINE PLAN

NOTE: USE 1/2\"/>

Meridian Charter Township Ingham County, Michigan PUBLIC WORKS DEPARTMENT	
DATE	BY
4/26	JG
7/2/29	JG
1/13/00	JG
5/12/08	JG
7/23/12	JG
5/15/15	JG

STANDARD DETAILS
FOR SANITARY SYSTEM

SCALE: NONE
SHEET: 0F 1
SANDFAL.DWG

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REVISION	DATE	DRAWN	DESCRIPTION

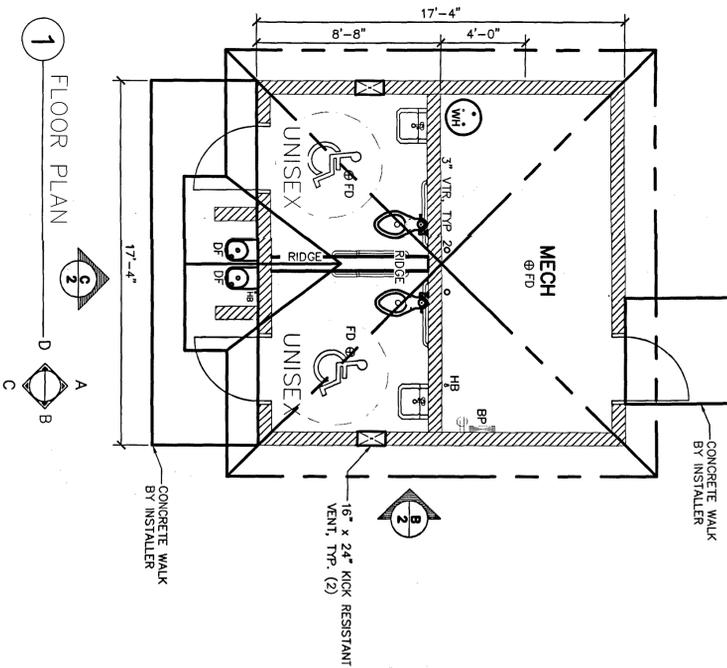
WOLVERINE
Engineers & Surveyors, Inc.
312 North Street
Mason, Michigan 48854
Ph: 313-676-9300
Fax: 313-676-9300
http://www.wolveng.com

CENTRAL MERIDIAN REGIONAL TRAIL CONNECTOR
MERIDIAN TOWNSHIP
INGHAM COUNTY, MICHIGAN
DETAILS & NOTES 2

PROJECT	DBH
DESIGNED	DBH
DRAWN	HTK
JOB NO.	18-0066
DATE	11/12/18
SCALE	AS NOTED
SHEET NO.	C10.1

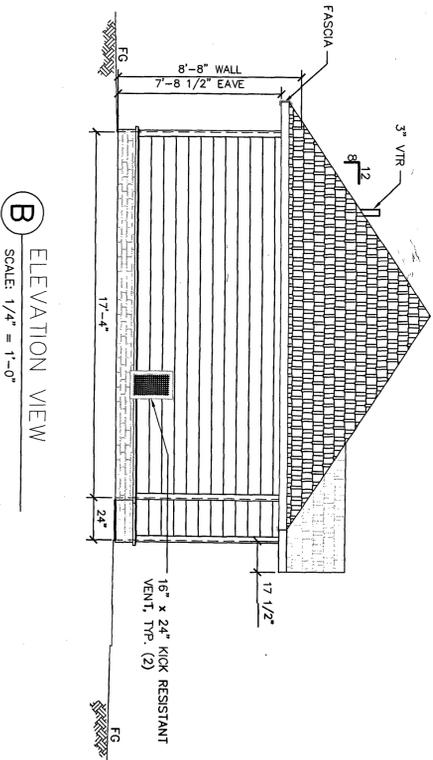
LEGEND		
SYMBOL	DESCRIPTION	AREA/ QUANTITY
	EXTERIOR WALL LIGHTS	3
	INTERIOR WALL LIGHTS	2
	INTERIOR CEILING LIGHTS	1
	ELECTRICAL OUTLET	1
	FLOOR DRAIN	3
	WALL FAUCET	1
	WALL HYDRANT	1
	ELECTRIC EXHAUST FAN EXHAUST FAN 210CFM	1
	KICKROOF WALL VENT	2
	TWO ROLL UP DISPENSER	2
	TOWEL DISPENSER	2
	SOAP DISPENSER	2

THESE PLAN VIEW AND ELEVATION DRAWINGS ARE A PRELIMINARY ARCHITECTURAL REPRESENTATION OF THE BUILDING. ALL DIMENSIONS, FEATURES AND COMPONENTS SHOWN ON THESE PRELIMINARY DRAWINGS MAY OR MAY NOT BE PART OF THE QUOTE. PLEASE REFER TO THE SCOPE OF SUPPLY AND SERVICES LETTER PROVIDED WITH YOUR QUOTE FOR ROMTEC'S PROPOSED SCOPE OF SUPPLY.

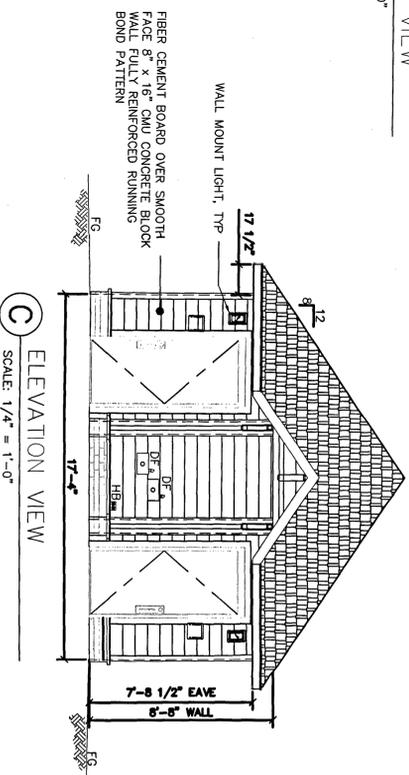


WALL TYPE SCHEDULE

- 8" REINFORCED CONCRETE MASONRY BLOCK WALL WITH MORTAR JOINTS, GROUTED SOLID ALL CELLS RUNNING BOND PATTERN.
- 8" WOOD FRAMED WALL



B ELEVATION VIEW
SCALE: 1/4" = 1'-0"



C ELEVATION VIEW
SCALE: 1/4" = 1'-0"

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REVISION	DATE	DRAWN	DESCRIPTION

WOLVERINE
Engineers & Surveyors, Inc.
312 North Street
Mason, Michigan 48854
Ph: 517-676-9200
Fax: 517-676-9396
http://www.wolveng.com

ROMTEC
16240 NORTH BANK ROAD - ROSELAND, OR 97131
503-465-5431 FAX: 503-465-5432
PRELIMINARY

PROJECT: **CENTRAL MERIDIAN REGIONAL TRAIL CONNECTOR
MERIDIAN TOWNSHIP
INGHAM COUNTY, MICHIGAN**

SHEET TITLE: **RESTROOM PLAN & ELEVATIONS**

APPROVED: **DBH**
CHECKED: **DBH**
DRAWN: **HTK**
JOB NO.: **18-0066**
DATE: **11/12/18**
SCALE: **1/4" = 1'-0"**
SHEET NO.: **C11.0**



To: Planning Commission

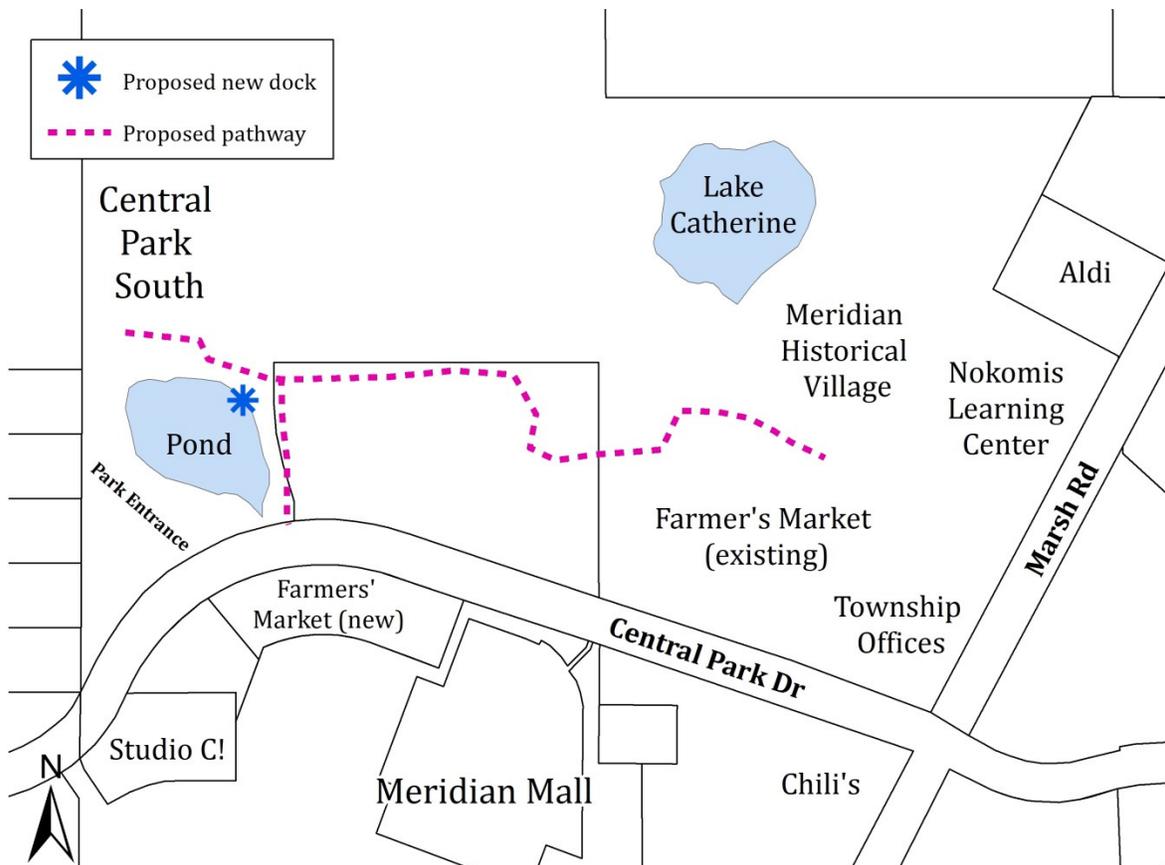
From: Peter Menser, Principal Planner

Date: July 2, 2019

Re: Wetland Use Permit #19-02 (Meridian Township Parks Department), fill regulated wetlands to construct pedestrian/bicycle trail on the north side of Central Park Drive, west of Marsh Road.

The Meridian Township Parks Department has requested a wetland use permit to fill approximately 1,830 square feet of wetland area at 5151 Marsh Road to facilitate the development of a pedestrian/bicycle pathway. The 12 foot wide paved pathway is proposed to run approximately 2,400 linear feet from Central Park South to the Meridian Historical Village. The pathway will be installed on portions of two parcels; 1990 Central Park Drive, an undeveloped 8.81 acre parcel owned by Meridian Township, and 5151 Marsh Road, a 137 acre parcel owned by Meridian Township and used for Township offices, sports fields, and parkland.

LOCATION MAP



**Wetland Use Permit #19-02 (Meridian Township Parks Department)
Planning Commission (July 8, 2019)
Page 2**

The project entails installation of the pathway, a new fishing dock at the Central Park South pond, and the replacement of the bridge over the drain between the existing Farmers' Market and the Meridian Historical Village. The pathway is mostly paved, with the exception of an area through a wetland where the pathway transitions to a wooden boardwalk. A wetland use permit is required for proposed wetland impacts to the bridge replacement over the drain, which will include filling approximately 1,830 square feet of wetland area. A special use permit (SUP #19061) is being reviewed concurrently for work in the floodplain to construct the pathway.

The Township's wetland consultant Fishbeck, Thompson, Carr, & Huber, Inc. (FTCH) delineated the wetland around the project area in 2018. The wetland area delineated by FTCH, which is a portion of an approximately 131 acre wetland, has both emergent, scrub-shrub, and forested wetland characteristics. Wetland 15-2C is regulated by both the State of Michigan and Meridian Township as it is over five acres in size and associated with an adjacent body of water (pond).

The Wetland Protection Ordinance requires wetland mitigation at a minimum ratio of 1.5 to 1 in order to satisfy the Township requirement of no net loss of wetlands. Approximately 4,100 square feet of wetland mitigation located on the north side of the Central Park South pond is proposed to compensate for the loss of wetland.

The Environmental Commission will discuss and make a recommendation on the wetland use permit at its meeting on July 10, 2019. The Environmental Commission recommendation and any related conditions will be included in the meeting packet for the July 22, 2019 Planning Commission meeting.

Staff Analysis

There are eleven general criteria provided in the Wetland Protection Ordinance, Section 22-157(2) of the Code of Ordinances, that must be considered when deciding whether to grant a wetland use permit. These include (paraphrased):

- a. The relative extent of public and private need for the proposed activity.
- b. Availability of prudent and feasible alternatives.
- c. Extent and permanence of beneficial or detrimental effects from the activity.
- d. Probable impact of the proposal in relation to the cumulative effect by other activities in the watershed.
- e. Probable impact on recognized historic, cultural, scenic, ecological, or recreational values, as well as on public health and safety or fish and wildlife.
- f. Economic value of the proposed land change.
- g. The size and quality of the wetland being considered.
- h. The findings of necessity for the proposed activity by other agencies.
- i. Amount of wetland remaining in the general area and proximity to a waterway.
- j. Proximity to any water body.
- k. Extent to which upland soil erosion adjacent to the wetland is controlled.

**Wetland Use Permit #19-02 (Meridian Township Parks Department)
Planning Commission (July 8, 2019)
Page 3**

The Township's environmental consultant has reviewed the wetland use permit application and recommends issuance of Wetland Use Permit #19-02 subject to the following conditions:

1. Construct a mitigation wetland on the north shore of the site's pond, as indicated on Sheet No. C3.0 of the project plans. The mitigation wetland must be at least 2,745 square feet in size to compensate for filled wetland at a ratio of 1.5:1. The mitigation wetland should consist of emergent wetland.
2. Submit a wetland mitigation plan, including a grading plan, planting plan, construction methods and timing, a species list of the native, wetland seed mixture (including scientific and common names), and seeding rates.
3. Submit a wetland restoration plan for the temporary wetland impact areas adjacent to the pond's fishing deck and the wetland boardwalk, including the proposed wetland seed mixture, seeding rate, seeding schedule, and seedbed preparation.
4. Monitor the wetland mitigation area and the temporary wetland impact areas for five years after construction to verify the presence of wetland vegetation and hydrology. After the first full growing season, provide the Township an annual monitoring report by January 31 of the following year.
5. The performance standards for the wetland mitigation and restoration areas are:
 - a. Sixty percent cover of native wetland plant species.
 - b. Ten percent cover or less of invasive species.

A permit application is currently under review by the Michigan Department of Environment, Great Lakes, and Energy (EGLE) for the proposed wetland fill. If the Planning Commission considers approving the wetland use permit, staff suggests conditioning the approval on the applicant receiving the EGLE permit as well as the conditions identified by the Township's wetland consultant.

Planning Commission Options

The Planning Commission has the option to approve, approve with conditions, or deny Wetland Use Permit #19-02. Based on the submittal date of May 24, 2019 and the 90 day review timeline established in the State Wetland Act and the Township's Wetland Ordinance, the deadline for action is August 22, 2019. A resolution will be provided at a future meeting.

Attachments

1. Joint permit application dated June 25, 2019.
2. Site plan prepared by Wolverine Engineers & Surveyors, Inc. dated April 29, 2019 (revision date June 25, 2019) and received by the Township on June 27, 2019.
3. Wetland delineation prepared by FTCH dated September 6, 2018.
4. Township wetland consultant review letter dated June 25, 2019.

G:\Community Planning & Development\Planning\WETLAND USE PERMITS (WUP)\2019\WUP 19-02 (Meridian Township Parks Dept)\WUP 19-02.pc1.docx

Digital MDEQ/USACE Joint Permit Application Inland Lakes and Streams, Great Lakes, Wetlands, Floodplains, Dams, Environmental Areas, High Risk Erosion Areas and Critical Dune Areas

Digitally signed by:
nForm_nCore_MiWaters_Cert
HCV761WATRPWA01.dnz-ad.state.mi.us
Date: 2019.06.25 11:22:21 -04:00
Reason: Copy Of Record
Location: State of Michigan

version 1.3

(Submission #: HNN-9CQS-T09NZ, version 4)

Details

Form Alias Digital MDEQ/USACE Joint Permit Application (JPA) for Inland Lakes and Streams, Great Lakes, Wetlands, Floodplains, Dams, Environmental Areas, High Risk Erosion Areas and Critical Dune Areas

Submission # HNN-9CQS-T09NZ

Submission Reason New

Status Submitted

Fee \$100.00 (Paid)

Form Input

Instructions

[To download a copy or print these instructions. Please click this link \(recommended\).](#)

The MDEQ/USACE "Joint Permit Application" (JPA)

READ THOROUGHLY BEFORE STARTING THE FORM

It is recommended to download a pdf of this page at www.michigan.gov/jointpermit for reference while filling out the form. Please also refer to this website for additional information regarding this form, including a glossary and other helpful resources on information required to be submitted in this form.

This is the Joint Permit Application (JPA) for construction activities where the land meets the water. This application covers permit requirements derived from state and federal rules and regulations for activities involving:

Wetlands
Floodplains
Marinas
Dams
Inland Lakes and Streams
Great Lakes Bottomlands
Critical Dunes
High Risk Erosion Areas

This application prevents duplication of state and federal forms for these activities and provides concurrent review under all pertinent state and federal laws. In the case of U.S. Army Corps of Engineers (USACE) jurisdiction, the Department will also send a copy of this Joint Permit Application to the USACE for simultaneous processing. The Department will provide coordination between state and federal agencies during the application review.

This application form is set up with the following sections to be completed by the applicant (note that it is recommended to gather all this information prior to starting this form):

Contact Information:

Applicant, Property Owner(s), Consultant(s), and any other Authorized Representative(s)

Authorizations are required from the property owner for:

- when the applicant is not the owner,
- when there is a consultant/representative for the applicant,

- when spoils disposal locations are not on site,
- when other permissions are necessary based on project specifics and are identified by the form.

Project Location Information:

Address, coordinates, and directions to the site, etc.

Background Information:

Existing site conditions, other related permits, existing easements/encumbrances, other related application numbers (pre-application meetings, Wetland Identification Program, etc.)

Permit Application Category and Public Notice Information:

This section asks what permit application category you believe fits your project. While this is not required to submit the application, knowing this will also help you submit the right permit application fee and avoid a correction request and processing delays.

The choices of permit application categories to select in the form are:

General Permit, \$50 fee (Link to General Permit Categories)

Minor Project, \$100 fee (Link to Minor Project Categories)

Public Notice Individual Permit, range from \$500-\$4,000 depending on type of activity. Additional fees may be applied for some special project requirements such as hydraulic analysis, dam projects, and critical dune or high risk erosion areas. See Fee Schedule on website for more information.

Unsure, select this and the permit reviewer will make the determination on permit type after the application is submitted based on the project details. However, some fee is required to be submitted with the application. If an additional fee is required, the Department will send a correction request that will show the remaining amount required. The application will not be considered complete without the proper fee.

Adjacent Landowner contact information for Public Notice projects is required by law. This includes any parcels touching the project parcel and parcels across the street.

Project Description:

Information on the Proposed Use and Purpose of the project (who and what the project is intended for and why is it needed). This includes a written summary of the project as well as a list of project uses and types to select from as follows:

Project Use Selections:

Private

Commercial

Public/Gov/Tribal

Federal/State funded

Non-Profit

Other

Project Type Selections:

Agriculture

Airport

Development- Condo/ Subdivision/Residential

Development-Commercial/ Industrial

Drain-County

Drain-Private

Drawdown

Lake, Drawdown

Wetland Forestry

Landfill

Marina/Mooring Facility

Marine Railway

Mining-Mineral,

Mining-Sand and Gravel

Private Residence

Restoration-Wetland

Restoration-Stream

Transportation

Septic System Surveying or Scientific Measuring Device

Utility-Electrical, Fiber optic

Utility-Oil and gas pipelines

Utility-Sewer/water line

Other

Construction Details including sequencing, timeframes, SESC measures, etc.

Alternatives Analysis detailing all options considered and why this is the least impactful feasible and prudent proposal. The depth of this analysis is typically commensurate with the size and purpose of the project and at minimum should include variables such as alternate locations (including other properties), configurations and sizes (layout and design), and methods (construction technologies), and other constraints (local regulations, resource issues). Discussion should also include why the "do nothing" alternative is not feasible or prudent.

Project Compensation:

Narrative of how proposed impacts will be compensated (mitigated or other minimization measures), including amount, location, and method; or why mitigation should not be required. This can be traditional mitigation and/or other techniques used to minimize overall loss of functions.

Resource and Activity Type. This section is intended to determine what additional sections of the application are generated (as seen on the left side of the screen) for further information gathering. This includes questions regarding what Resource feature is involved (e.g., wetland, stream, floodplain, pond, dam, critical dune, etc.) and if there are identified Special Activities (i.e., activities requiring a specific series of questions to be answered). Be sure to choose all that apply to your project. If your activity is not listed, choose "None of the Above" and move on to the next question. More specific activity questions will appear later based on the resource section answers.

Resource Information and Impacts Sections (Multiple Sections). These are a series of sections that will appear on the left side of the screen based on your answers to the Resource and Activity Types section. You will input further information on the existing resources to be impacted (e.g., wetland type, permanent or temporary impact, water elevation data, drainage area, etc.) and all proposed Project Activities with their Dimensions (e.g., length, width, depth, square footage). For example, when "Wetland" is selected as a resource that your project will involve, a "Wetland Project Information and Impacts" section will appear on the left side of the screen that includes questions specific to gathering information about the wetland.

For projects including Floodplains, Marinas, Dams, Critical Dunes, or High Risk Erosion Areas individual sections will appear on the left side of the screen that include different sets of specialized questions as required by those programs. These sections do not share a specific format. Help tips will guide you in filling out these sections.

For projects including wetlands, ponds, inland lakes, streams, or the Great Lakes resources, individual sections will appear on the left side of the screen that are similar in format to each other. Each of these resource sections asks initial general information and then has additional questions regarding the Types of Activities proposed for each resource. The outline for these resource activity impacts questions is Activity Type, Dimensions Table, and Special Questions.

There are four overall "Types of Activities" groups for wetlands, ponds, inland lakes, streams or the Great Lakes:

- Fill Activities
- Dredge Activities
- Structure Activities
- Other Activities

Under each of these Types of Activity questions, specific activity lists will be shown that are typical for that type (fill, dredge, structure, other) and resource (wetland, lake, stream, etc). Follow these steps to accurately fill out the Activity Type Questions:

1. Start with the Fill question and choose any activities on the list that is included in your project. If your activity is not shown, then select "None of the Above" and move to the next question.
2. When you select an activity listed under Fill, Dredge, Structure, or Other, a dimensions table will appear under that question. This table is where you enter EACH activity OF THE TYPE YOU SELECTED and associated dimensions. Be sure that all the activities you selected are also listed in the table with the dimensions. Multiple activities covering the same footprint may be combined on one line in the table (for example, riprap on slopes of driveway fill can be entered on the same impact dimensions line and does not necessarily need to be broken out).
3. Continue to answer the Activity Type questions (Fill, Dredge, Structure, Other) until all have been answered with either a specific Activity listed under that Type or "None of the Above". If you did not find your activity in any list then select "Other, Other" and provide a description of your activity in the space that appears. Please be as descriptive as possible.

Proposed mitigation questions may appear within specific resource types sections based on your answers. Enter any proposed mitigation in the appropriate section (wetland, stream, etc.) and if no mitigation is proposed you must provide commentary with an explanation as to why it is not required. Mitigation plans according to the mitigation checklist ([link](#)) are required for a complete application. When mitigation is proposed be sure to also select mitigation in the Permit Application Type section under the second question.

In the above sections, uploads will be prompted as required by the answers to questions. These should be uploaded in these location (ex, mitigation plans should be uploaded in the mitigation section). Please do not wait to upload one large document with all plans combined at the end. Note that each individual upload is limited to 10M.

Upload of Proposed Site Plans.

Any plans or explanatory narratives not requested in previous sections should be uploaded in this section. Construction Plans

including overhead view, cross sections, and profiles showing each impact either to-scale or with dimensions are required and typically would be uploaded here. Plan labels should correspond with labels entered in the form for each activity selected. The application will not be complete without the proper site plans. If drawings are not received with all required dimensions and resources identified, then the Department will send a correction request and your application processing will be delayed. However, please limit drawings, plans, and narratives submitted to the items necessary for permit review. For example, entire bid package documents and CAD drawings are often not helpful for permit review and may cause delays from wading through extraneous information. Plans, profiles and cross sections specific to the resource impacts are the most helpful.

Review:

This section allows you to see the entire form with the answers you entered. Please review for accuracy prior to hitting the submit button. A print option is provided on this screen (print to PDF is recommended). Once the application is submitted you may not make changes to it until the application has been assigned to a staff person.

Certify & Submit:

This is the final section of the application form. The "Submit Form" button selection certifies that all information in the application is true and accurate and that you have the authority to apply for the permit as indicated. This application will become part of public record.

We recommend that you have the above information ready prior to starting this application. You will be able to save in-progress applications and come back later, but all required uploads and questions are necessary before the system will allow submittal of the application. Some sections of this application form load faster than others depending on the complexity of the questions. Thanks for your patience while you work through the application. For assistance with this form visit: <https://www.michigan.gov/jointpermit>

[Click here for additional information on maps, drawings, and other attachment](#)

Contact Information

Applicant Information

Contact

First Name	Last Name
LUANN	MAISNER

Organization Name
MERIDIAN TOWNSHIP

Phone Type	Number	Extension
Business	5178534604	

Email
MAISNER@MERIDIAN.MI.US

Address
2100 GAYLORD C SMITH CT
HASLETT, MI 48840

Is the Property Owner different from the Applicant?

No

Has the applicant hired an agent or cooperating agency (agency or firm assisting applicant) to complete the application process?

Yes

Upload Attachment for Authorization from Agent

[Authorization letter from Meridian TWP.pdf - 03/21/2019 10:58 AM](#)

Comment

NONE PROVIDED

Agent Contact

Contact

First Name **Last Name**
HUSSEIN KHANJAR

Organization Name
WOLVERINE ENGINEERS AND SURVEYORS, INC

Phone Type **Number** **Extension**
Business 5176769200

Email
Husseink@wolveng.com

Address
312 NORTH ST
MASON, MI 48854

Are there additional property owners or other contacts you would like to add to the application?
No

Project Location

DEQ Site Reference Number (Pre-Populated)
-1218853060970978068

Project Location
42.72956284193838,-84.41924173904147

NONE PROVIDED

Project Location Address
1990 CENTRAL PARK DRIVE
OKEMOS, MI 48864

County
Ingham

Is there a Property Tax ID Number(s) for the project area?
No

Is there Subdivision/Plat and Lot Number(s)?
No

Is this project within Indian Lands?
No

Local Unit of Government (LUG)
Meridian Township

Directions to Project Site
TAKE OKEMOS RD NORTH TO CENTRAL PARK DRIVE IN MERIDIAN TOWNSHIP, MAKE RIGHT AND THE PROJECT LOCATION WILL BE ON THE LEFT

Background Information

Has the DEQ and/or United States Army Corps of Engineers (USACE) conducted a pre-application meeting/inspection for this project?
No

Has the DEQ completed a Wetland Identification Program (WIP) assessment for this site?
No

Environmental Areas are coastal wetlands on the shorelines of the Great Lakes. Enter this number only if a designated Environmental Area is in the proposed project area. Environmental Areas are designated locations along the Great Lakes shoreline. If you don't know whether there is an environmental area within the project area, leave blank. Additional information on Environmental Areas can be found by clicking the following link:
[Click Here for Link](#)

Environmental Area Number (if known):
 NONE PROVIDED

Has the United States Army Corps of Engineers (USACE) completed either an approved or preliminary jurisdictional determination for this site?
 No

Were any regulated activities previously completed on this site under a DEQ and/or USACE permit?
 No

Have any activities commenced on this project?
 No

Is this an after-the-fact application?
 No

Are you aware of any unresolved violations of environmental law or litigation involving the property?
 No

Is there a conservation easement or other easement, deed restriction, lease, or other encumbrance upon the property?
 No

Are there any other federal, interstate, state, or local agency authorizations associated with this project?
 Yes

List all other federal, interstate, state, or local agency authorizations.

Agency	Type of Approval	Number	Date Applied	Approved/Denied/Undetermined
INGHAM COUNTY DRAIN OFFICE	SOIL EROSION	NONE PROVIDED	NONE PROVIDED	NONE PROVIDED

Comments
 THE SOIL EROSION PERMIT APPLICATION IS NOT SUBMITTED YET

Permit Application Category and Public Notice Information

Indicate the type of permit being applied for.
 DEQ Minor Project for wetlands, lakes, streams, floodplains, or Great Lakes

General Permit Categories
[Link to General Permit Categories with Descriptions](#)

Minor Project Categories
[Link to Minor Permit Categories with Descriptions](#)

Floodplain Minor Project Categories
 See R323.1316 in the linked document for a description of the minor project categories for Floodplain projects.
[Link to Minor Project Category descriptions for Floodplain Only projects](#)

If you are applying for a minor project permit, which project type(s) is being proposed?
 Floodplain Only MP Deck
 Floodplain Only MP Boardwalk

If you are applying for a general permit, which project type(s) is being proposed?
 No GP Category (MP Category only)

Project Description

Project Use: (select all that apply - Private, Commercial, Public/Government/Tribal, Receiving Federal/State Transportation Funds, Non-profit, or Other)

Public/Government/Tribal

Project Type (select all that apply):

Other: PARKS AND RECREATIONAL DEVELOPMENT

Please enter your answers in the text box for the next four questions. If you have a long description, please use the document upload at the end of the section. Please make every effort to enter your information directly into the application text boxes. If the answer is in an attachment, please identify that in the text box below.

Project Summary: Provide a summary of all proposed activities including the intended use and reason for the proposed project.

THIS PROJECT CONSISTS OF CONSTRUCTING 2400 LF OF 12 FT WIDE BITUMINOUS PAVEMENT TRAIL, INCLUDING 360 LF OF BOARDWALK WILL BE CONSTRUCTED OVER THE WETLAND. THE REASON FOR THIS PROJECT IS TO CONNECT THE MERIDIAN CENTRAL PARK TO THE SOUTH CENTRAL PARK .

Project construction sequence, methods, and equipment: Describe how the proposed project timing, methods, and equipment will minimize disturbance from the project construction, including but not limited to soil erosion and sedimentation control measures.

INSTALL HELICAL PIERS FOR BOARDWALK AND FISHING DECK FOUNDATION.

Project Alternatives: Describe all options considered as alternatives to the proposed project, and describe how impacts to state and federal regulated waters will be avoided and minimized. This may include other locations, materials, etc.

GMEN THE PROPOSED LOCATIONS FOR THE PATHWAY ENDS AND GIVEN THE WETLANDS DELINEATION BOUNDARIES, AND USING THE HELICAL PEIRS WILL PROVIDE THE LEAST IMPACT TO THE WETLANDS AND PROVIDE THE LEAST RESTRICTION TO THE FLOODWAY.

Project Compensation: Describe how the proposed impacts to state and federal regulated waters will be compensated, OR explain why compensatory mitigation should not be required for the proposed impacts. Include amount, location, and method of compensation (i.e., bank, on-site, preservation, etc.)

THE MIXED USE PATHWAY WILL BE CONSTRUCTED WITH MATERIALS AND METHODS THAT WILL ESSENTIALLY ELIMINATE OR WILL HAVE A MINIMAL IMPACT

Upload any additional information as needed to provide information applicable to your project regarding project purpose sequence, methods, alternatives, or compensation.

NONE PROVIDED

Comment

NONE PROVIDED

Resource and Activity Type

Important! Answer all questions completely. Properly identifying your project in this section generates the proper application sections. Incomplete applications will require corrections before they can be fully processed.

SELECT THE ACTIVITIES from the list below that are proposed in your project (check ALL that apply). If you don't see your project type listed, select "Other Project Type". These activities listed require additional information to be gathered later in the application.

Other Project Type

The Proposed Project will involve the following resources (check ALL that apply).

Wetland

100-year Floodplain

Major Project Fee Calculation Questions

Is filling of 10,000 cubic yards or more proposed (cumulatively) within wetlands, streams, lakes, or Great Lakes?

No

Is dredging of 10,000 cubic yards (cumulatively) or more proposed within streams, lakes, or Great Lakes? (wetlands not included)

No

Is new dredging or adjacent upland excavation in suspected contamination areas proposed by this application?

No

Is a subdivision, condominium, or new golf course proposed?

No

Wetland Project Information and Impacts

PLEASE READ

This section is for entering information regarding the impacts to Wetlands only. Do not input information that pertains to other resources (inland lakes, streams, floodplains, etc.). The initial questions are related to wetlands on the project site in general. The Proposed Activities questions are grouped into Fill, Dredge, Structures, Other and are only for wetland impacts related to these activities.

[Click HERE for more information on Wetlands Protection Program.](#)

Has a professional wetland delineation been completed for this site?

Yes

Attach a copy of wetland delineation report with data form.

[Delineation report.pdf - 03/27/2019 11:24 AM](#)

Comment

NONE PROVIDED

Total acres of wetland affected by this project.

Category	Affected area (acres)
Permanent	0.2
Temporary	0
	Sum: 0.2

CORRECTION REQUEST (CORRECTED)

Provide a written description of the 0.2 acre impact to wetlands

The 0.2 acre impact to wetland is not demonstrated in the tables, and needs a written description to be clear to the reader. Please provide a narrative statement listing each proposed construction item located in WETLAND and the associated square feet of wetland to be impacted.

2 COMMENTS

Hussein Khanjar (husseink@wolveng.com) (5/24/2019 8:58 AM)

a. The elevation of the existing wetland closely matches the 100-year floodplain in this area. We have determined the fill volume in the wetland area to match the volume of the fill in the 100-year floodplain for this area (142 CYD). If the additional fill volume from the wetland elevation to the proposed final grade is required for any reason just let us know and we can provide this data as well.

Hussein Khanjar (husseink@wolveng.com) (5/1/2019 3:41 PM)

The 0.2 Acres refer to three areas shown on sheets C9.0 and C9.1 included with our revised submittal. Fishing pier = 1,000 sft (temporary) Boardwalk = 4,660 sft (temporary) Crossing = 3,150 sft (permanent)

Is filling or draining of 1 acre or more (cumulatively) of wetland proposed?

No

Select all wetland types that will be affected by this project:

Emergent

The following questions gather information on the specific Types of Activities your project includes that will impact WETLANDS. There are four overall Types of Activities: Fill, Dredge, Structure, Other. Under each of the Activity Type questions, specific activity lists will be shown. If the activity is not shown in the list given, select None of the Above and move to the next question. When you select an activity under Fill, Dredge, Structure, or Other, a table will appear

under that type. Only enter the dimensions of the activity that are within wetland. Multiple activities covering the same footprint may be combined on one line in the table. Continue to answer the Activity Type questions (Fill, Dredge, Structure, Other) until all have been answered with either a specific Activity listed under that Type or "None of the Above". If you did not find your activity in any list then select "Other, Other" and provide a description of your activity.

If your project includes placing fill in wetland then select the proposed activities from the following list. If your activity is not shown, then select "None of the Above" and move to the next question. Only enter an impacted area in one of the impact tables (do not duplicate impact entries):

Path/Sidewalk

Complete this table for projects involving Fill. Enter each activity/ location that corresponds with each activity selected in the previous question and enter the dimensions. Activities may be entered in one line of the table if they occupy the same impact footprint and cannot be broken out separately (Example: Activity - Driveway and Riprap slope). Multiple activities in different locations should be listed on different lines of the table.

Activity	Length (feet)	Width (feet)	Depth (feet)	Area (square feet)	Volume (cubic feet)	Volume (cubic yards)
PATHWAY	50	27	5	1350	6750	250
PATHWAY	200	24	2.1	4800	10080	373
				Sum: 6150	Sum: 16830	Sum: 623

Source of Fill Material:

On-site (show on plan)

Type of Fill.

Sand

Is riprap proposed?

No

Select from the following list for Excavation/Dredge Activities (if your proposed project is primarily a structure enter the impact as a structure. Only enter an impacted area in one of the impact tables in one impact section):

None of the above

If your project includes STRUCTURES IN WETLAND then select all of the proposed activities in the following list. If your activity is not shown, then select "None of the Above" and move to the next question. Only enter an impacted area in one of the impact tables (do not duplicate impact entries):

Boardwalk

Deck/Platform

Projects involving Structures:

Activity	Length (feet)	Width (feet)	Depth (feet)	Area (Sq. feet)	Volume (cubic feet)	Volume (cubic yards)
BOARDWALK	360	12	2	4320	8640	320
DECK	55.12	16	2	881.92	1763.84	65
DECK	20	36	2	720	1440	53
				Sum: 5921.92	Sum: 11843.84	Sum: 438

CORRECTION REQUEST (CORRECTED)

Clarify Wetland Impact area (2 parts)

Please clarify the volume of fill or excavation related to the boardwalk and fishing deck. Specifically list the volume of excavation associated with installing pilings or leveling the existing grade to prepare to install the pilings of the boardwalk and fishing pier. Also identify the disposal location of spoils (non-wetland, non-flood plain, and on township owned property). Part 2: Sheet C8.0 shows 180 feet of 15" RCP and a new bioswale over the 15" pipeline. This appears to be work in wetland and a replacement of existing pipe. This work is not listed in the application but shown on plans and does not appear to be associated with or included in the trail head path work. Provide wetland impact details of area and volume for the pipe replacement.

1 COMMENT

Hussein Khanjar (husseink@wolveng.com) (5/1/2019 3:44 PM)

Please see the newly added "Correction Request Statement" file for further explanation of work in referenced project areas.

Is the structure proposed on pilings or fill or both?

Pilings

How high above the ground is the bottom of the structure?

2.5

If your project includes Other Activities in WETLAND not listed in this section, then select from the proposed activities in the following list. If your activity in Wetland has not been listed in this Wetland Section, then select "Other" and enter a description of your activity. Only enter an impacted area in one of the impact tables (do not duplicate impact entries). If you selected a Fill, Excavation/Dredging, or Structure activity above in this section, but do not have an activity listed as Other, then select None of the Above for this question.

Structure Removal (except dam removal)

Wetland Mitigation

The DEQ may impose as a condition of any wetland permit, other than a General permit, a requirement form compensatory mitigation. The wetland mitigation requirement may be waived for projects affecting less than one-third of an acre of wetland if no reasonable opportunity for mitigation exists.

Mitigation plans according to the mitigation checklist (link) are required for a complete application

[Wetland Mitigation Information](#)

Is Wetland Mitigation being proposed as part of this proposed project?

No

Explain why no mitigation is proposed.

THE WETLAND DISTURBANCE IS LESS THAN 1/3 OF AN ACRE.

Floodplain

Proposed Activity

Deck

Boardwalk

Please provide a name for the stream, river, channel, or waterbody:

N/A

100-Year Floodplain Elevation (feet)

842.1

100-Year Floodplain Elevation Datum:

NAVD88

Is compensating cut provided for this project?

No

Is this project located in the floodway?

No

Were one or more Hydraulic Analyses completed for this project?

No

Local Unit of Government (LUG) Acknowledgement Letter Upload

NONE PROVIDED

Comment

NONE PROVIDED

Is there an existing building on site?

No

Upload of Proposed Site Plans

REQUIRED Application, maps, and drawings:

*Overall Project Site Plan

*Cross-Sectional Drawings

For Part 315 Dam Safety applications attach detailed signed and sealed engineering plans for a Part 315 dam repair, dam alteration, dam abandonment, or dam removal.

[Examples site plan and cross-sectional drawings](#)

[For additional information on maps, drawings, and other attachments visit michigan.gov/jointpermit](http://michigan.gov/jointpermit)

Required on all Site Plan uploads. Please identify that all of the following items are included on your plans that you upload with this application.

Site Plan Features	Existing and Proposed Plan Set
Scale, Compass North, and Property Lines	Yes
Fill and Excavation areas with associated amounts in cubic yards	Yes
Any rivers, lakes, or ponds and associated Ordinary High Water Mark (OHWM)	Yes
Exterior dimensions of Structures, Fill and Excavation areas associated with the proposed project	Yes
Dimensions to other Structures and Lot Lines associated with the project	N/A
Topographic Contour Lines from licensed surveyor or engineer when applicable	Yes

CORRECTION REQUEST (CORRECTED)

Clarify plan table on sheet C4.0

The plan table shows 1173.63 cy of cut and 1260.80 cy of fill, however it is unclear if these volumes pertain to flood plain only or flood plain and wetland combined. Please update the plan table to show the volumes associated with Part 31 and Part 303.

1 COMMENT

Hussein Khanjar (husseink@wolveng.com) (5/1/2019 3:50 PM)

Table has been removed from plans as it related to cut and fill for the entire project and not just work within floodplain/wetland areas. Please see "Correction request statement" and notes/cross-sections shown on sheets C7.0 & C8.0 for additional cut/fill information.

Upload Site Plans and Cross Section Drawings for your Proposed Project

[MERIDIAN TRAIL AND RESTROOM - DNR SUBMITTAL SET - 062519.pdf - 06/25/2019 11:21 AM](#)

Comment

NONE PROVIDED

Additional Required and Supplementary Documents

[Correction request statement - JAL_042619.pdf - 05/01/2019 03:54 PM](#)

[RE_HNN-9CQS-T09NZ - LUANN MAISNER, MERIDIAN TOWNSHIP Flood Plain and Wetland Impacts..pdf - 05/24/2019 09:03 AM](#)

Comment

NONE PROVIDED

Fees

The application fee identified in this section is a calculation based on answers to the questions in this application. This calculation is an estimate of the total fee and will be reviewed by the application processor to determine if any additional fees are required for a complete application.

Minor Project Fee:
+\$100.00

CORRECTION REQUEST (CORRECTED)

Fee

The application fee for the project is \$500.00 minus the payment of \$100.00 submitted with your application, leaving a balance due of \$400.00.

1 COMMENT

Hussein Khanjar (husseink@wolveng.com) (5/1/2019 3:56 PM)

We acknowledge that an additional fee of \$400.00 is due however this field does not appear to be editable. Please let us know how and where to submit additional funds and we will complete payment ASAP.

Total Fee Amount:

\$100.00

Status History

	User	Processing Status
6/25/2019 11:16:31 AM	Hussein Khanjar	Draft
6/25/2019 11:21:56 AM	Hussein Khanjar	Submitted

Audit

Event	Event Description	Event By	Event Date
Submission Locked	Submission Locked	Carol Valor	4/15/2019 12:51 PM
Submission Unlocked	Submission Unlocked	Carol Valor	4/15/2019 2:10 PM

Revisions

Revision	Revision Date	Revision By
Revision 1	3/15/2019 12:47 PM	Hussein Khanjar
Revision 2	5/1/2019 3:25 PM	Hussein Khanjar
Revision 3	5/24/2019 8:55 AM	Hussein Khanjar
Revision 4	6/25/2019 11:16 AM	Hussein Khanjar

CONTRACT 1: HISTORIC VILLAGE GATEWAY AND RESTROOM

CONTRACT 2: CENTRAL MERIDIAN REGIONAL TRAIL CONNECTOR

1990 CENTRAL PARK DR, OKEMOS, 48864 MI

SECTION 15, MERIDIAN TOWNSHIP
INGHAM COUNTY, MICHIGAN

PUBLIC UTILITIES
THE EXISTING UTILITIES LISTED BELOW AND SHOWN REPRESENT THE BEST INFORMATION AVAILABLE AS OBTAINED FROM SERVICE PROVIDER AND FIELD OBSERVATION. THIS INFORMATION DOES NOT RELIEVE THE CONTRACTOR OF THE RESPONSIBILITY TO SATISFY HIMSELF AS TO THEIR ACCURACY OR OF HIS RESPONSIBILITY TO NOTIFY THE PROPER UTILITIES BEFORE COMMENCING WORK. THE FOLLOWING UTILITIES ARE LOCATED IN OR NEAR THE RIGHT OF WAY FOR THIS PROJECT.

NAME AND ADDRESS OF UTILITY	TYPE OF UTILITY	TELEPHONE LINES
CONSUMERS ENERGY 1155 W. PARVALL RD. JSC 173-3 JACKSON, MI 49201 PH: 517-788-1191 TYLER LAWRENCE	GAS/POWER	
AT&T 337 N. ABBOTT RD. EAST LANSING, MI 48823 PH: 517-982-1882 WILLIE DILLARD, JR.		
INGHAM COUNTY DRAIN COMMISSION 707 BULL STREET MASON, MI 48864 PH: 517-676-8395 FAX: 517-543-6446 PAT LINDEMANN	STORM SEWER	
MERIDIAN TOWNSHIP 5151 MARSH ROAD OKEMOS, MI 48864 PH: 517-853-4000	SOIL EROSION	

OWNERS OF PUBLIC UTILITIES WILL NOT BE REQUIRED TO MOVE POLES OR STRUCTURES THAT ARE NOT WITHIN GRADING OR STRUCTURE LIMITS IN ORDER TO FACILITATE THE OPERATION OF CONSTRUCTION EQUIPMENT. LIMITS ARE DETERMINED BY THE ENGINEER THAT SUCH LINES OR STRUCTURES CONSTITUTE A HAZARD TO THE PUBLIC OR ARE EXTRA-ORDINARILY DANGEROUS TO THE CONTRACTOR'S OPERATIONS. (SEE SPECIAL PROVISIONS FOR UTILITY COORDINATION)

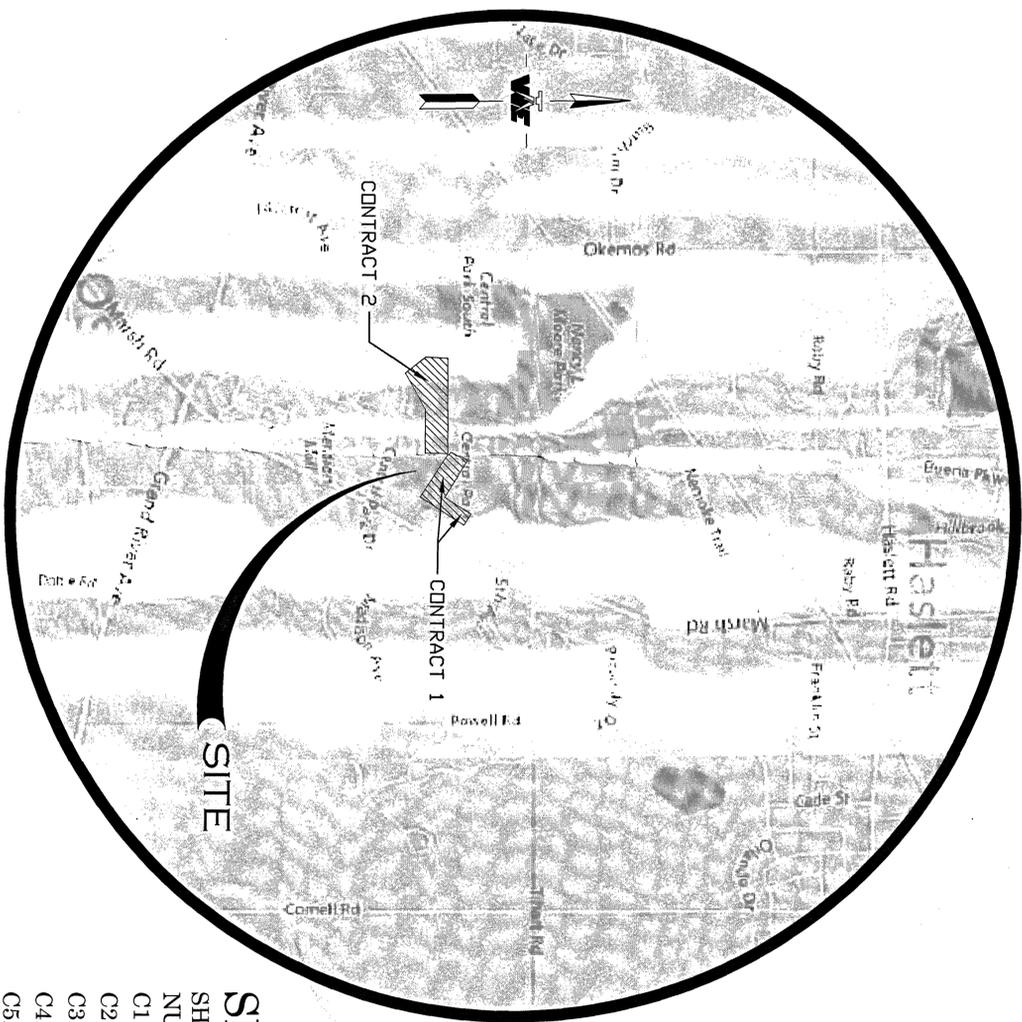
PARCEL DESCRIPTION:

COM @ THE SW COR SEC 15 - NO DEG 34.19E. ON SEC LN 493.07 FT. - NELY ON CURVE LEFT ON R/W LN CENTRAL PARK DR 18.47 FT HAVING A 340 FT RADIUS AND A CHD OF 18.46 FT BRG N 24 DEG 46.11'E. TO A PT OF REVERSE CURVATURE - NELY ON CURVE RT ON R/W 705.69 FT HAVING A 665 FT RADIUS & A CHD OF 673.04 FT BRG N 53 DEG 36.53'E. TO THE POB - NO DEG 31.51'E. 53.79 FT. - N 16 DEG 28.11'W. 95.26 FT. - N 12 DEG 46.09'W. 83.31 FT. - N 04 DEG 34.10'W. 83.88 FT. - NO DEG 31.51'E. 93.08 FT. - S 89 DEG 28.09'E. 831.33 FT. - S 0 DEG 23.50'E. 600.76 FT TO N R/W LN. - N 70 DEG 35.39'W ON R/W 515.35 FT ON R/W - SWEELY 294.70 FT ALONG AN ARC OF A 655 FT RADIUS CURVE LEFT TO THE POB SEC 15. TAN RTW 881 AC

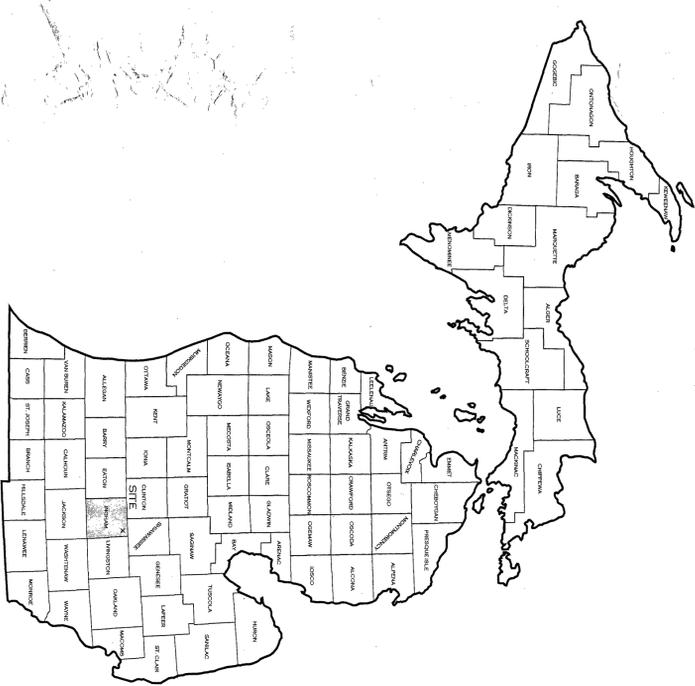
OWNER/AGENT CONTACT INFORMATION

OWNER: MERIDIAN TOWNSHIP
AGENT CONTACT: LUANN MAISNER
2100 GAYLORD C SMITH COURT
HASLETT, MI 48840
PH: 517 853 4604
EMAIL: MAISNER@MERIDIAN.MI.US

WOLVERINE
Engineers & Surveyors, Inc.
312 North Street
Mason, Michigan 48854
Ph: 517-676-9200
Fx: 517-676-9396
http://www.wolverine.com



LOCATION MAP
NOT TO SCALE



Sheet List Table

SHEET NUMBER	SHEET TITLE
C1.0 (#1) + (#2)	COVER
C2.0 (#2)	PATHWAY LAYOUT PLAN
C3.0 (#2)	PATHWAY PLAN AND PROFILE
C4.0 (#2)	PATHWAY & BOARDWALK PLAN & PROFILE
C5.0 (#1)	SANITARY SEWER PLAN AND PROFILE
C5.1 (#1)	SANITARY SEWER PLAN
C6.0 (#2)	BOARDWALK DETAILS
C6.1 (#2)	BOARDWALK DETAILS
C7.0 (#2)	DECK PLAN AND PROFILE
C8.0 (#1)	ENLARGED PLAN (AREA 1)
C9.0 (#2)	SESC PLAN (WEST)
C9.1 (#1)	SESC PLAN (EAST) & NOTES
C9.2 (#1) + (#2)	SESC DETAILS
C10.0 (#1) + (#2)	DETAILS & NOTES
C10.1 (#1) + (#2)	DETAILS & NOTES 2
C11.0 (#1)	RESTROOM PLAN & ELEVATIONS

* (#1) : CONTRACT 1
* (#2) : CONTRACT 2



4/27/19

RECEIVED JUN 27 2019

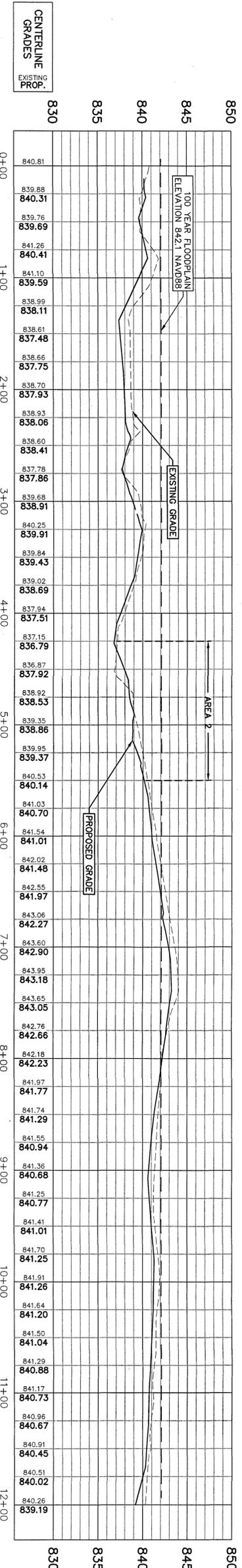
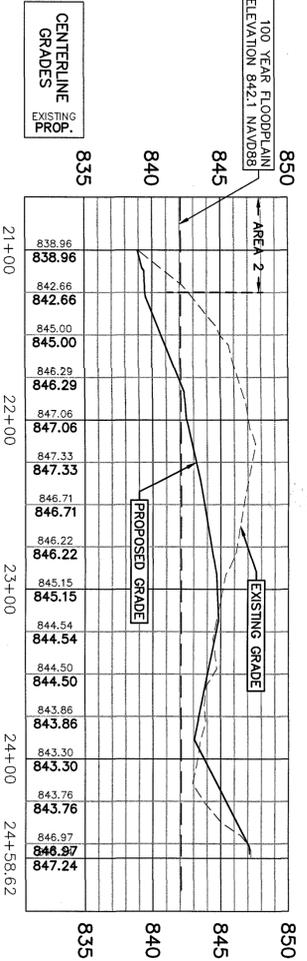
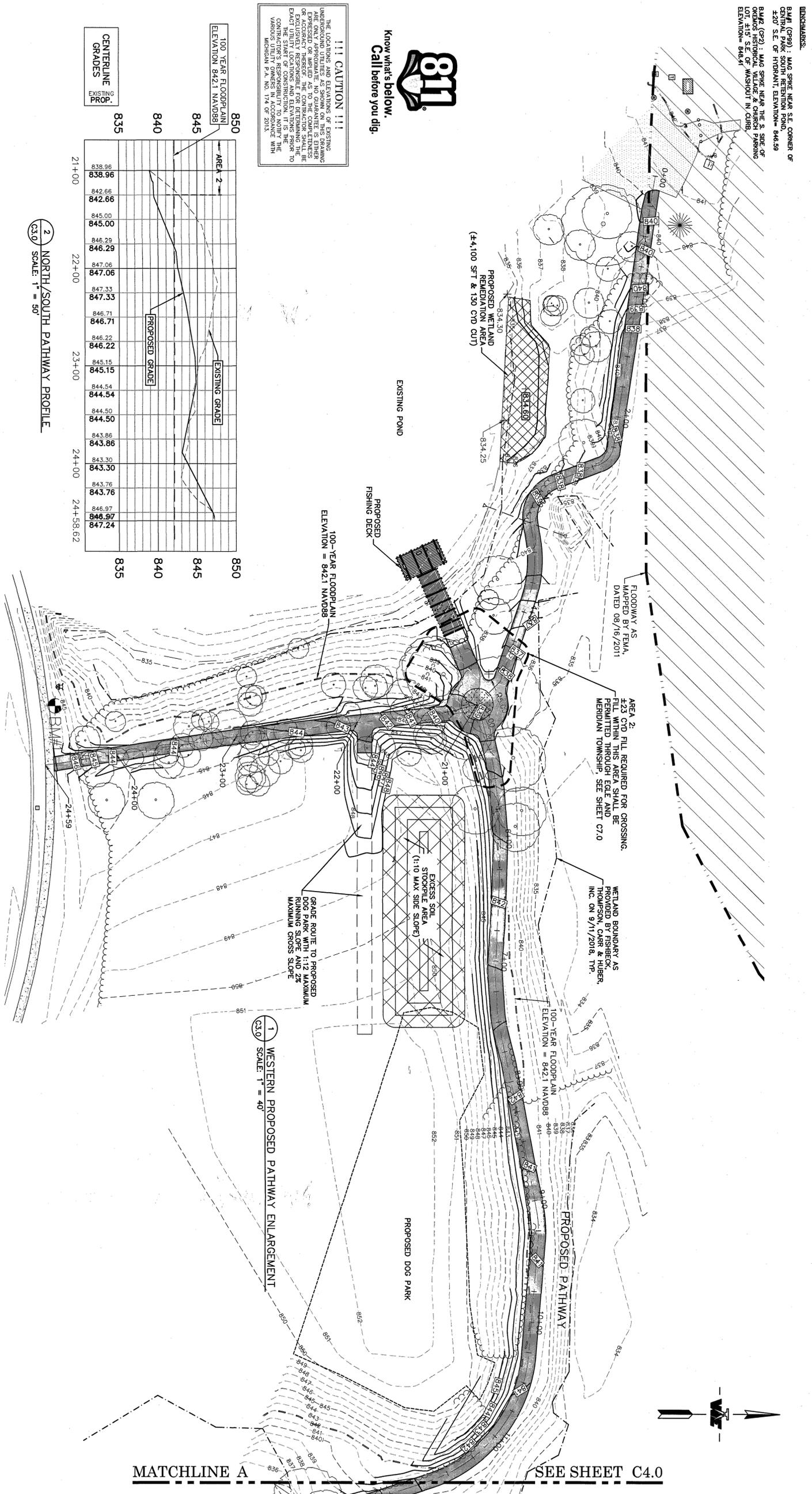
06/25/2019

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BENCHMARKS:
 BM#1 (999) : MAG SPINE NEAR S.E. CORNER OF CENTRAL PARK SOUTH RETENTION POND. ELEVATION= 846.59
 BM#2 (999) : MAG SPINE NEAR THE S. SIDE OF OGDON HISTORICAL WILDLIFE & CHURCH PARKING LOT. 115' S.E. OF WASHOUT IN CURB. ELEVATION= 848.54



!!! CAUTION !!!
 THE LOCATION AND DEPTH OF UTILITIES SHOWN ON THIS DRAWING ARE ONLY APPROXIMATE. NO GUARANTEE IS EITHER EXPRESSED OR IMPLIED. THE CONTRACTOR SHALL BE EXCLUSIVELY RESPONSIBLE FOR DETERMINING THE EXACT LOCATION AND DEPTH OF UTILITIES. IT IS THE CONTRACTOR'S RESPONSIBILITY TO NOTIFY THE UTILITY OWNERS IN ACCORDANCE WITH MICHIGAN PA. 207.15 (S. 207.15).



MATCHLINE A

SEE SHEET C4.0

REVISION	DATE	DRAWN	DESCRIPTION
1	04/29/19	JAL	REVISE GRADING
2	05/20/19	JAL	REVISE GRADING & WALK LAYOUT
3	06/05/19	JAL	ADD ADDITIONAL NOTES TO DOG PARK AREA
4	06/25/19	JAL	UPDATE WETLAND AREA & GRADING

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 Engineers & Surveyors, Inc.
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 Mason, Michigan 48854
 Ph: 517-676-9200
 Fx: 517-676-9396
 http://www.wolveng.com

CENTRAL MERIDIAN REGIONAL TRAIL CONNECTOR
 MERIDIAN TOWNSHIP
 INGHAM COUNTY, MICHIGAN
 PATHWAY PLAN AND PROFILE

DATE	3/18/2019
SCALE	AS NOTED
SHEET NO.	C3.0
DRAMAN	HTK
CHECKED	DBH
APPROVED	DBH

BENCHMARKS:
 BM#1 (G29) - 1405 SPONGE NEAR S.E. CORNER OF
 230' S.E. OF HYDRANT, ELEVATION= 846.59
 BM#2 (G22) - 1405 SPONGE NEAR THE S. SIDE OF
 230' S.E. OF HYDRANT, ELEVATION= 848.59
 BM#3 (G22) - 1405 SPONGE NEAR THE S. SIDE OF
 230' S.E. OF HYDRANT, ELEVATION= 848.41

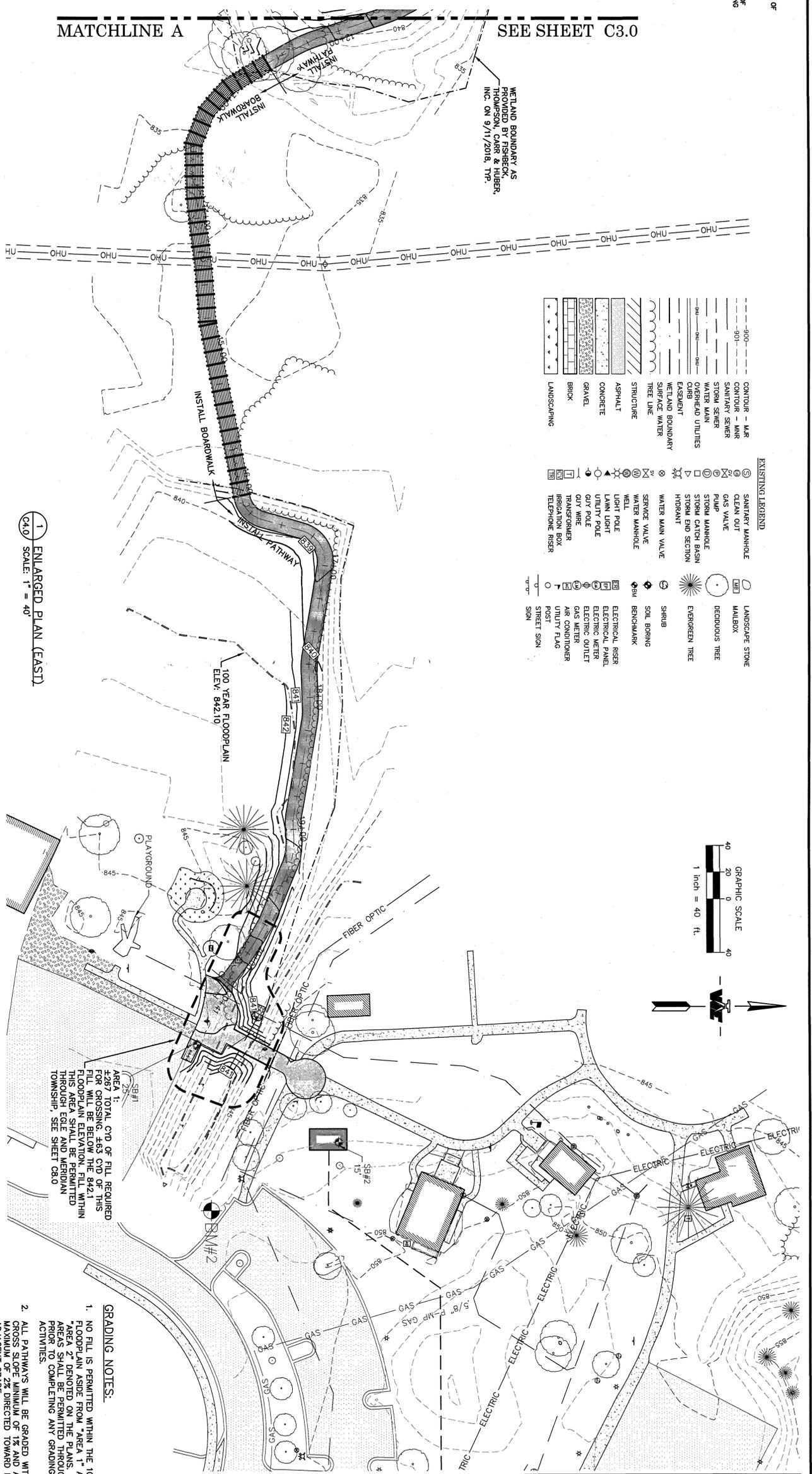
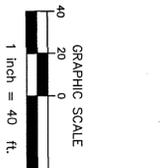
MATCHLINE A SEE SHEET C3.0

EXISTING (LEGEND)

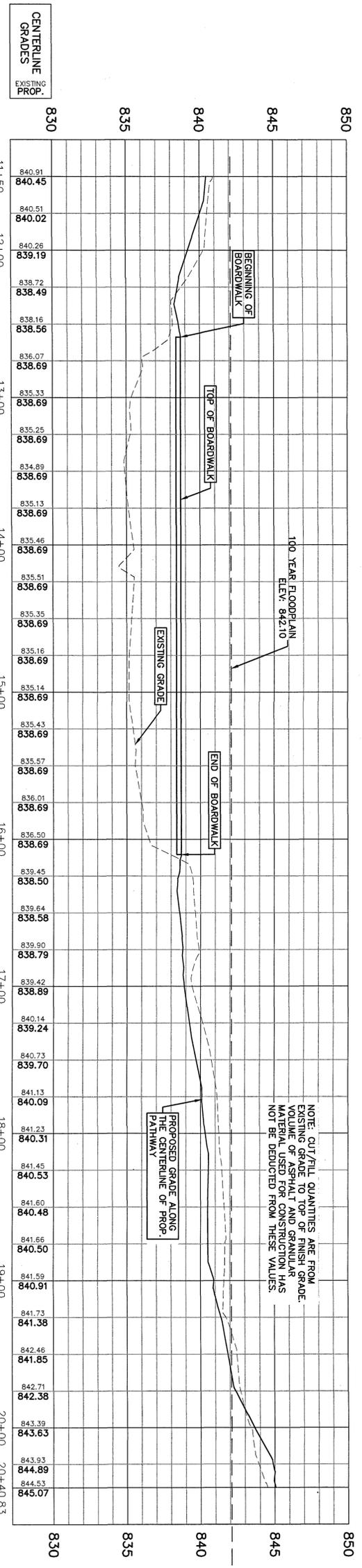
○	LANDSCAPE STONE
□	MAILBOX
○	DECIDUOUS TREE
○	EVERGREEN TREE
○	SHRUB
○	SOIL BORING
○	BENCHMARK
○	ELECTRICAL RISER
○	ELECTRICAL PANEL
○	ELECTRIC METER
○	ELECTRIC OUTLET
○	GAS METER
○	AIR CONDITIONER
○	UTILITY FLAG
○	POST
○	STREET SIGN

EXISTING (LEGEND)

○	SANITARY MANHOLE
○	CLEAN OUT
○	GAS VALVE
○	PUMP
○	STORM MANHOLE
○	STORM CATCH BASIN
○	STORM END SECTION
○	HYDRANT
○	WATER MAIN VALVE
○	SERVICE VALVE
○	WATER MANHOLE
○	WELL
○	LIGHT POLE
○	LAWN LIGHT
○	UTILITY POLE
○	GUY WIRE
○	TRANSFORMER
○	IRRIGATION RISER
○	TELEPHONE RISER



1 ENLARGED PLAN (EAST)
 SCALE: 1" = 40'



2 PATHWAY PROFILE (EAST)
 SCALE: 1" = 40'

NOTE: CUT/FILL QUANTITIES ARE FROM EXISTING GRADE TO TOP OF FINISH GRADE. VOLUME OF ASPHALT AND GRANULAR MATERIALS FOR CONSTRUCTION SHALL NOT BE DEDUCTED FROM THESE VALUES.

AREA 1:
 4267 TOTAL CUB. YD. OF FILL REQUIRED FOR CROSS SECTION OF THIS FLOODPLAIN ELEVATION. FILL WITHIN THIS AREA SHALL BE PERMITTED THROUGH EFILE AND MERIDIAN TOWNSHIP. SEE SHEET C8.0

- GRADING NOTES:**
- NO FILL IS PERMITTED WITHIN THE 100-YEAR FLOODPLAIN ASIDE FROM "AREA 1" AND "AREA 2" DENOTED ON THE PLANS. THESE AREAS SHALL BE PERMITTED THROUGH EFILE PRIOR TO COMPLETING ANY GRADING ACTIVITIES.
 - ALL PATHWAYS WILL BE GRADED WITH A CROSS SLOPE MINIMUM OF 1% AND A MAXIMUM OF 2% DIRECTED TOWARD LOWEST ADJACENT GRADE.
 - NO FINAL GRADE SHALL BE CONSTRUCTED TO IMPEDE DRAINAGE OR RESULT IN PONDING IN PATHWAY OR OTHER AREAS INTENDED FOR PUBLIC USE.
 - MERIDIAN TOWNSHIP MINIMUM 1:1 COMPENSATION REQUIRED FOR ALL FILL IN THE FLOODPLAIN.
 - MERIDIAN TOWNSHIP MINIMUM 2:1 COMPENSATION REQUIRED FOR ALL FILL IN WETLAND AREAS



!!! CAUTION !!!
 THE LOCATIONS AND ELEVATIONS OF EXISTING UNDERGROUND UTILITIES AS SHOWN ON THIS DRAWING ARE BASED ON RECORD DRAWINGS AND FIELD SURVEY. THE CONTRACTOR SHALL BE RESPONSIBLE FOR VERIFYING THE ACCURACY OF ALL UTILITIES PRIOR TO THE START OF CONSTRUCTION. IT IS THE CONTRACTOR'S RESPONSIBILITY TO NOTIFY THE MICHIGAN DEPARTMENT OF TRANSPORTATION AND MERIDIAN TOWNSHIP, P.A. NO. 174 OF 2013.

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REVISION	DATE	DRAWN	DESCRIPTION
1	04/28/19	JAL	UPDATE GRADING
2	05/20/19	JAL	UPDATE GRADING

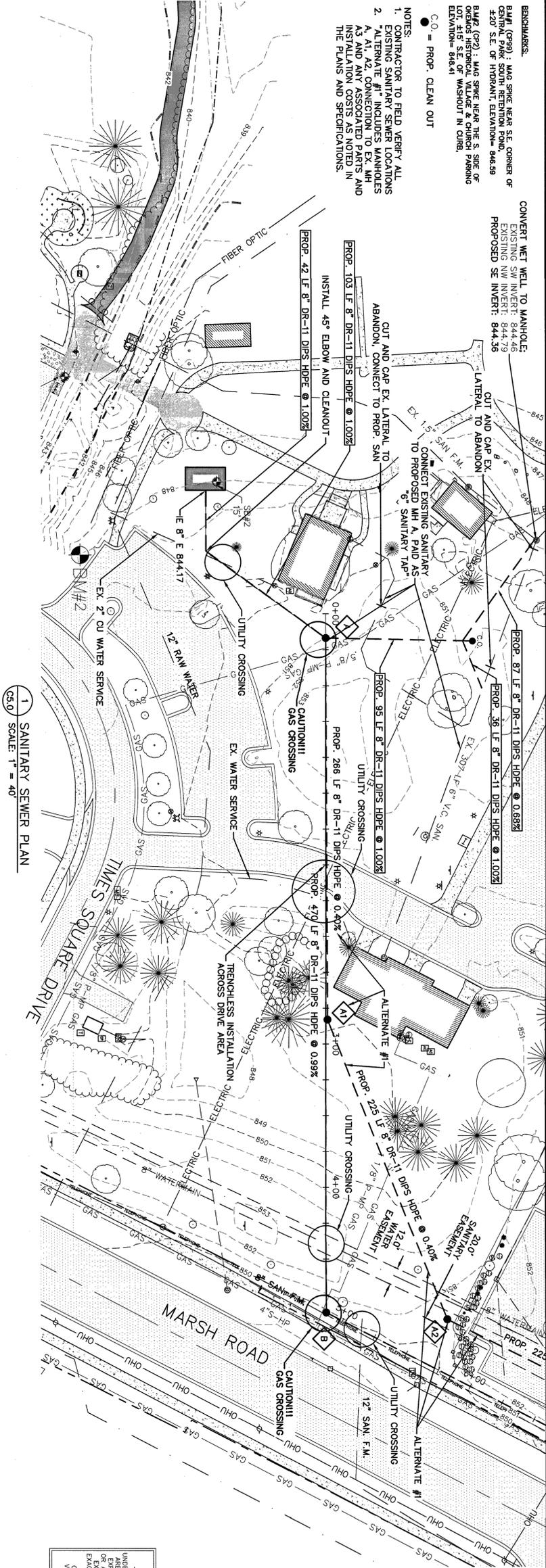
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 312 North Street
 Mason, Michigan 48854
 Ph: 517-676-9200
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CENTRAL MERIDIAN REGIONAL TRAIL CONNECTOR
 MERIDIAN TOWNSHIP
 INGHAM COUNTY, MICHIGAN
 PATHWAY & BOARDWALK PLAN & PROFILE

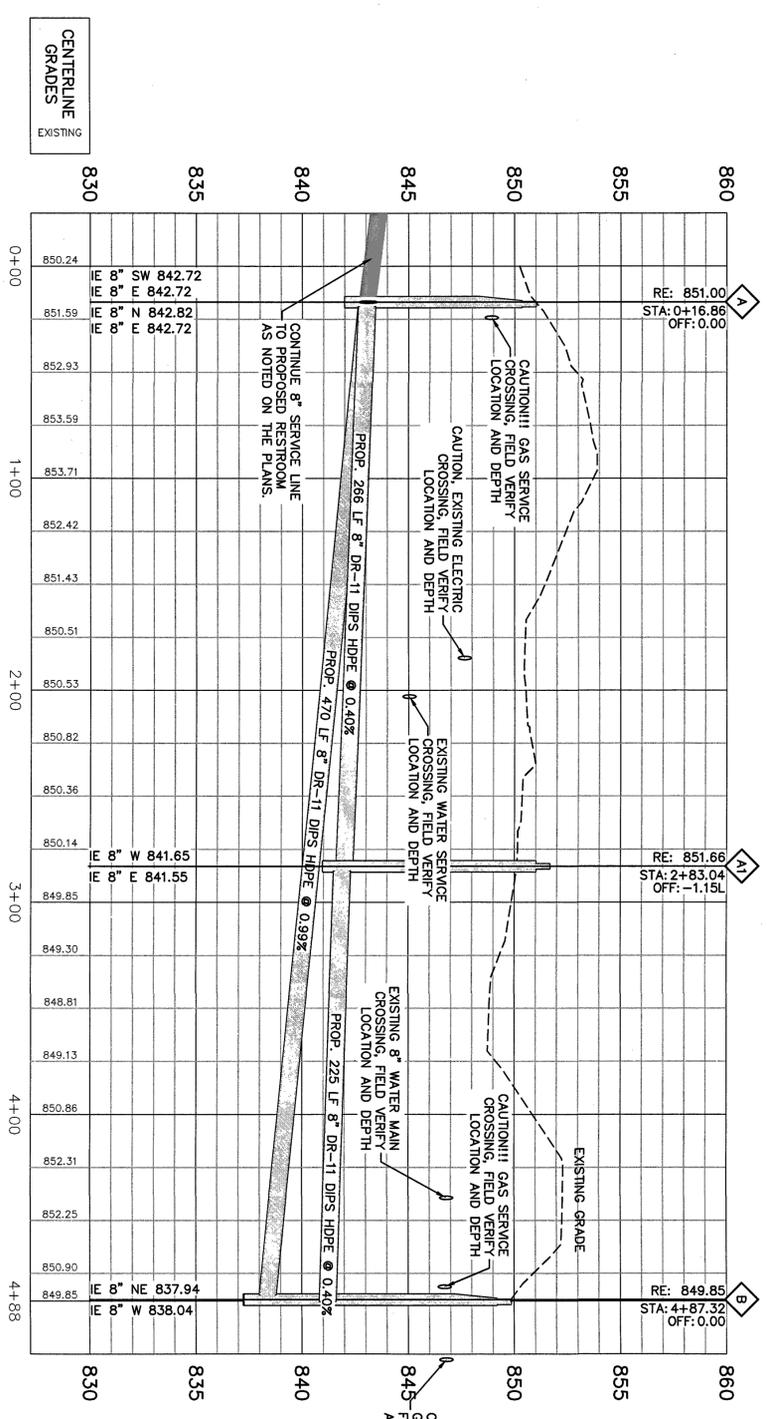
PROJECT	DBH
CHECKED	DBH
DRAWN	HTK
DATE	18-0066
SCALE	11/12/18
SHEET NO.	40
TOTAL SHEETS	C4.0

BENCHMARKS:
 BM#1 (CP99) : MAG SPIKE NEAR S.E. CORNER OF CENTRAL PARK SOUTH RETENTION POND, ±20' S.E. OF HYDRANT, ELEVATION= 846.99
 BM#2 (CP2) : MAG SPIKE NEAR THE S. SIDE OF BAKERS HISTORICAL VILLAGE & CHURCH PARKING LOT, ±15' S.E. OF WASHOUT IN CURB, ELEVATION= 846.41
 C.O. = PROP. CLEAN OUT

NOTES:
 1. CONTRACTOR TO FIELD VERIFY ALL EXISTING SANITARY SEWER LOCATIONS
 2. ALTERNATE #1 INCLUDES MANHOLES A, A1, A2, CONNECTION TO EX. MH A3 AND ANY ASSOCIATED PARTS AND INSTALLATION COSTS AS NOTED IN THE PLANS AND SPECIFICATIONS.



1 SANITARY SEWER PLAN
 (CS.0) SCALE: 1" = 40'



2 SANITARY SEWER PROFILE
 (CS.0) SCALE: HORIZ: 1" = 40' VERT: 1" = 4'

!!! CAUTION !!!
 THE LOCATIONS AND ELEVATIONS OF EXISTING UNDERGROUND UTILITIES AS SHOWN ON THIS DRAWING ARE BASED ON RECORD DRAWINGS, FIELD SURVEY, OR ACCURACY HEREOF. THE CONTRACTOR SHALL BE RESPONSIBLE FOR VERIFYING THE EXACT LOCATION AND DEPTH OF ALL UTILITIES PRIOR TO THE START OF CONSTRUCTION. IT IS THE CONTRACTOR'S RESPONSIBILITY TO OBTAIN THE NECESSARY PERMISSIONS FROM THE VARIOUS UTILITY OWNERS IN ACCORDANCE WITH MICHIGAN P.A. NO. 174 OF 2013.



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REVISION	DATE	DRAWN	DESCRIPTION
1	05/20/19	JAL	SPLIT PROFILE TO SHEET CS.1, EXPAND SITE INFO & UTILITIES
2	06/24/19	JAL	ADD ALTERNATE #1 & PROVIDE ADDITIONAL EX. SAN. CONNECTION

CENTRAL MERIDIAN REGIONAL TRAIL CONNECTOR
 MERIDIAN TOWNSHIP
 INGHAM COUNTY, MICHIGAN

SANITARY SEWER PLAN AND PROFILE

PROJECT: DBH
 CHECKED: DBH
 DRAWN: HTK
 DATE: 6/24/2019
 SHEET NO.: CS.0

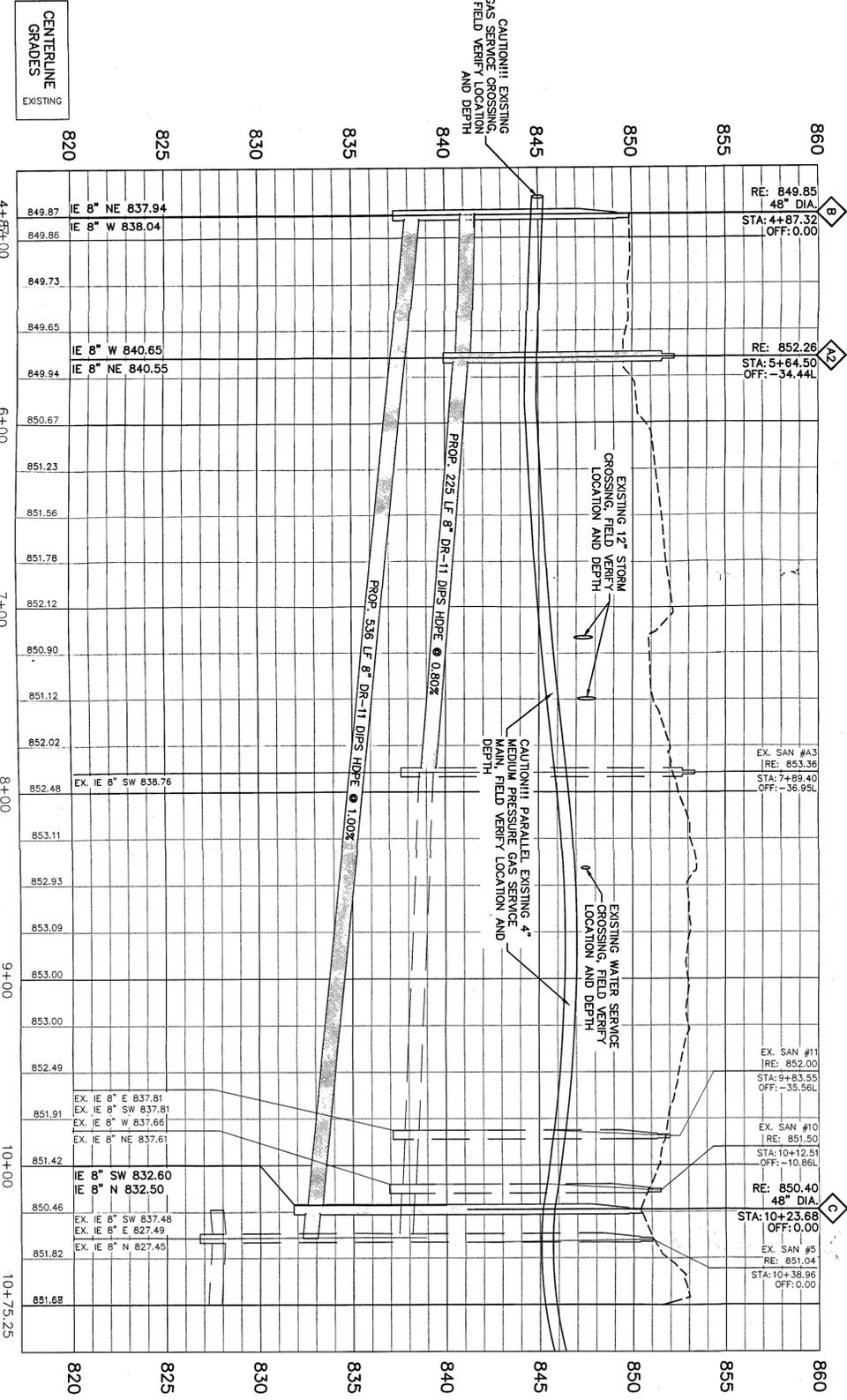
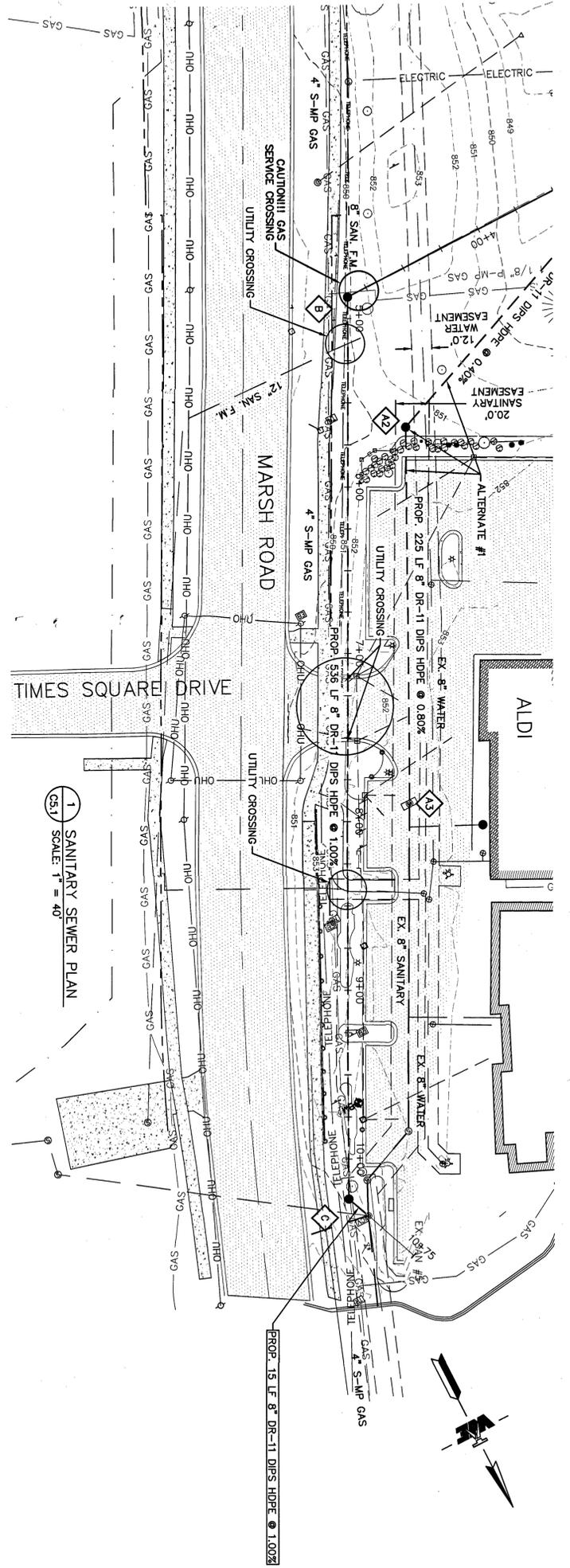
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BECHTOLD MARKS:
 B.M. (CP29) : MAG SPIKE NEAR S.E. CORNER OF CENTRAL PARK SOUTH RESTORATION #46.59 @20' S.E. OF HYDANT, ELEVATION 846.59
 B.M. (CP2) : MAG SPIKE NEAR THE S. SIDE OF OGDEN'S HISTORICAL WALKWAY & CHIMNEY LOT #15 SE, #41 @ 20' S.E. OF HYDANT, ELEVATION 846.41

- "ALTERNATE #1"
 - DO NOT CUT INTO PAVEMENT.
 - CONNECT VIA HDD FROM INSIDE THE MANHOLE
- SUGGESTED PROCEDURE PER MERIDIAN TWP:
 1. SEND PILOT DRILL FROM LAWN AREA TO THE EXISTING MANHOLE FROM WITHIN AND CONNECT
 2. A STEEL CABLE WITH A WINCH;
 3. PULL BACK STEEL CABLE AND CONNECT NEW PIPE;
 4. SIMULTANEOUSLY WINCH AND PUSH NEW PIPE INTO PLACE; AND CONNECTION USING A LINK-SEAL DEVICE AND NON-SHRINK GROUT.

!!! CAUTION !!!
 THE LOCATIONS AND ELEVATIONS OF EXISTING UTILITIES SHOWN ON THIS PLAN ARE ONLY APPROXIMATE. NO GUARANTEE IS EITHER EXPRESSED OR IMPLIED AS TO THE COMPLETENESS OR ACCURACY OF THE INFORMATION. CONTRACTORS ARE EXCLUSIVELY RESPONSIBLE FOR DETERMINING THE EXACT UTILITY LOCATIONS AND ELEVATIONS PRIOR TO CONSTRUCTION. CONTRACTORS ARE ADVISED TO NOTIFY THE VARIOUS UTILITY OWNERS IN ACCORDANCE WITH MICHIGAN P.L.A. NO. 174 OF 2013.



CENTERLINE GRADES EXISTING

2 SANITARY SEWER PROFILE
 SCALE: HORIZ 1" = 40'
 VERT 1" = 4'

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REVISION	DATE	DRAWN	DESCRIPTION

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 312 North Street
 Mason, Michigan 48854
 Ph: 517-676-9200
 Ex: 517-676-9396
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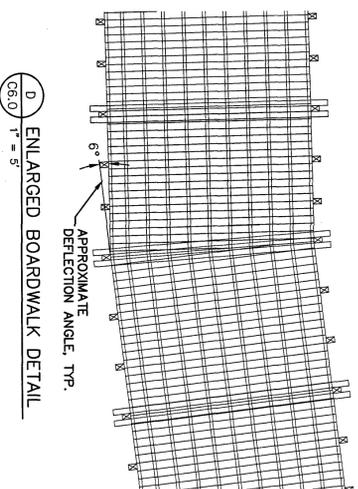
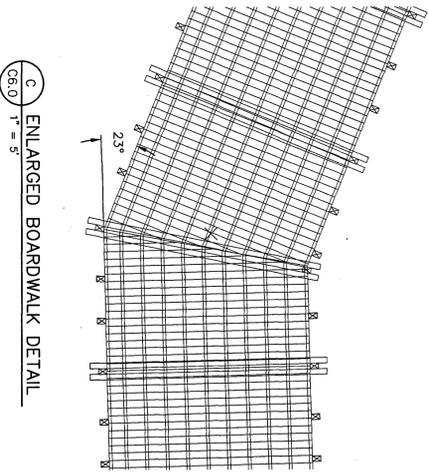
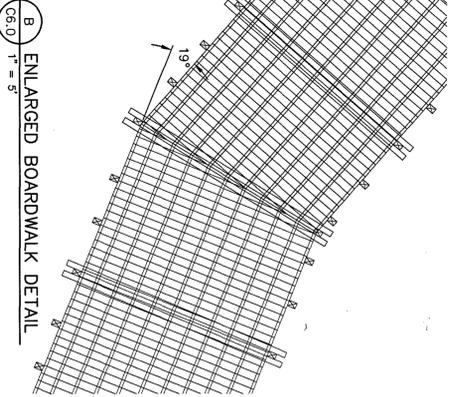
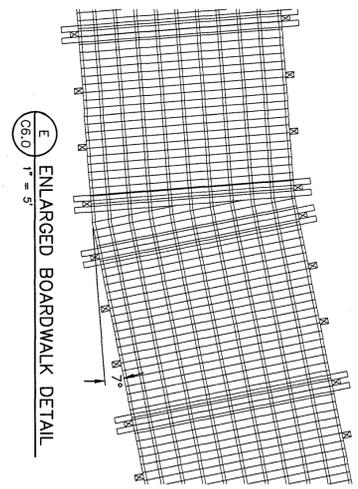
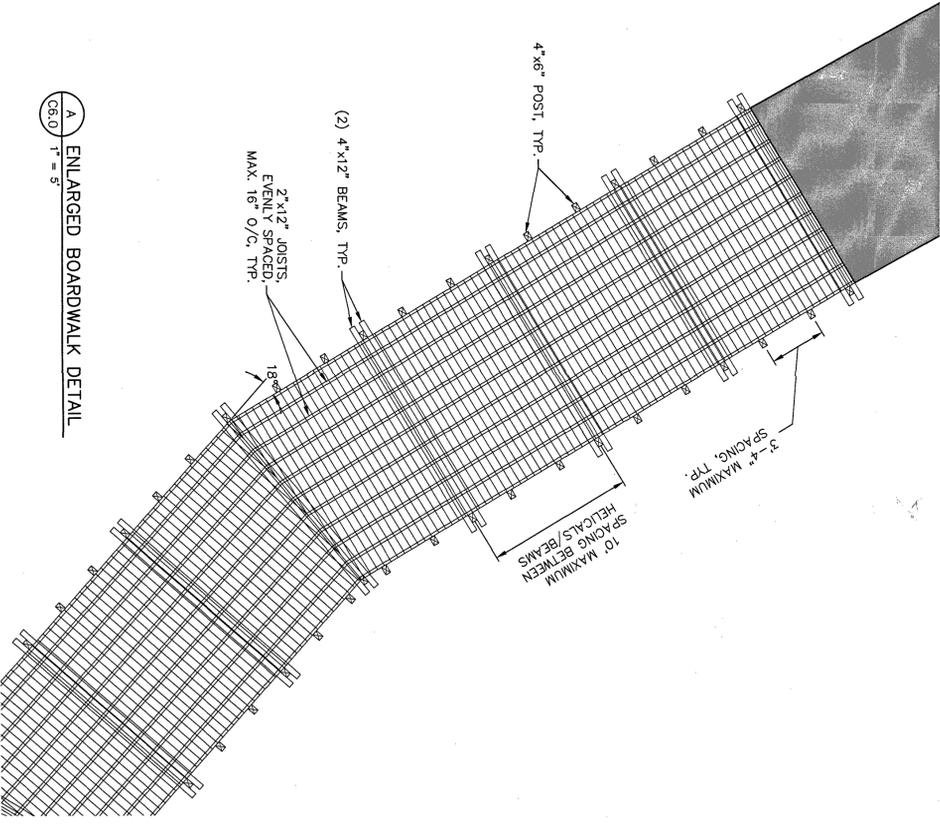
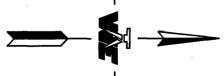
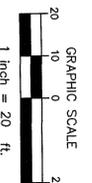
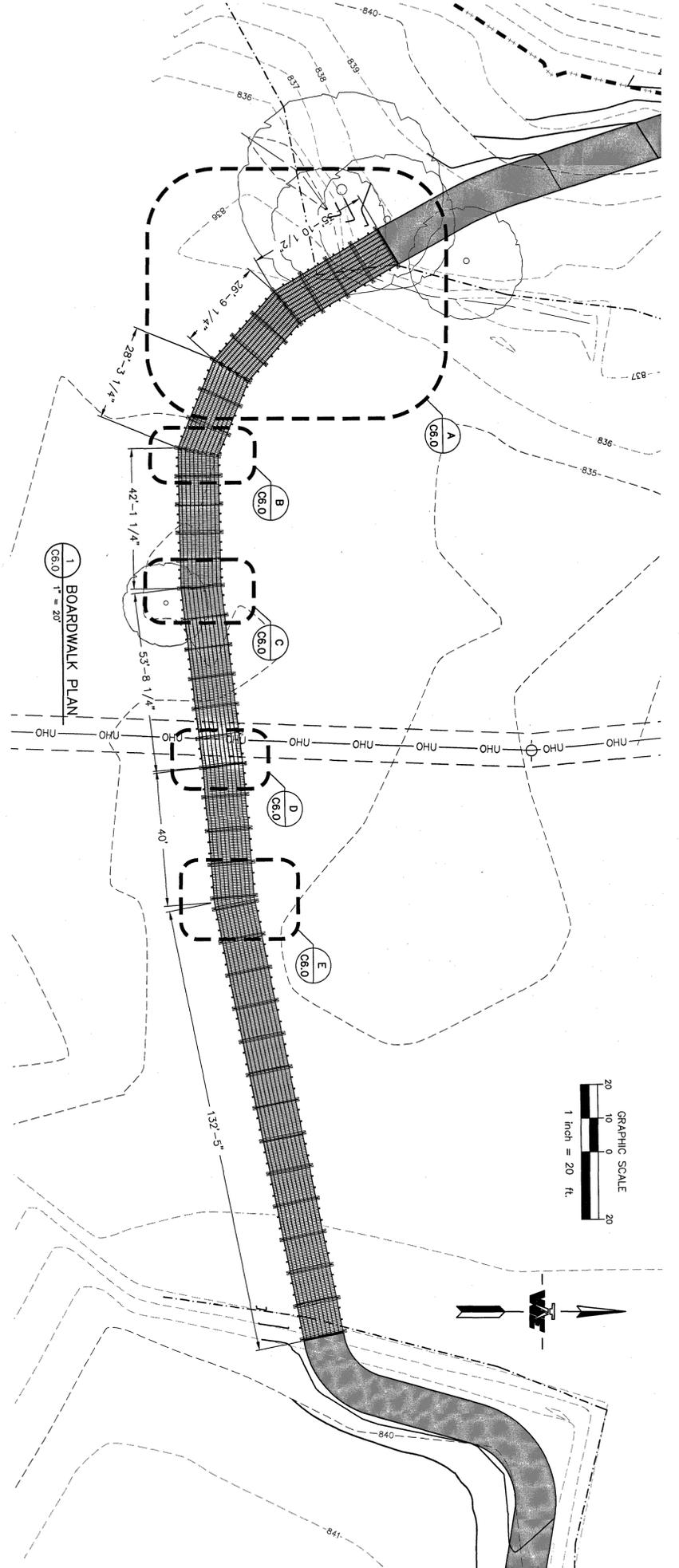
CENTRAL MERIDIAN REGIONAL TRAIL CONNECTOR
 MERIDIAN TOWNSHIP
 INGHAM COUNTY, MICHIGAN
SANITARY SEWER PLAN

PROJECT: DBH
 DESIGNED: DBH
 DRAWN: HTK
 JOB NO.: 18-0066
 DATE: 5/23/2019
 SCALE: 1" = 40'
 SHEET NO.: CS.1

BENCHMARKS:
 BM#1 (GP99) : MAG SPIKE NEAR S.E. CORNER OF
 4320 S.E. OF HOBART, ELEVATION= 846.59
 BM#2 (GP2) : MAG SPIKE NEAR THE S. SIDE OF
 LORAIN ST. S.E. OF WOODS & COUCH PARKING
 LOT, ELEVATION= 846.41
 BM#3 (GP3) : MAG SPIKE NEAR W. SIDE OF
 LORAIN ST. S.E. OF WOODS & COUCH PARKING
 LOT, ELEVATION= 846.41

BOARDWALK CONSTRUCTION NOTES

1. ALL LUMBER SHALL BE KILN DRIED SOUTHERN PINE #2 OR APPROVED EQUAL. THE CONTRACTOR SHALL ENSURE THAT ALL QUALITY CONTROL REQUIREMENTS AS SPECIFIED IN SECTION 912 OF MOST STANDARD SPECIFICATIONS FOR CONSTRUCTION (2012 EDITION) ARE ADHERED TO.
2. ALL LUMBER SHALL BE GRADE A SELECT QUALITY.
3. ALL LUMBER SHALL BE PRESSURE TREATED TO REFUSAL WITH WOOD PRESERVATIVE. PRESSURE TREATING SHALL BE TO 0.60 MINIMUM FOR WOOD IN CONTACT WITH GROUND. ALL OTHER PRESURE TREATING SHALL BE TO 0.40 MINIMUM. CCA WOOD PRESERVATIVE SHALL NOT BE USED. ENGINEER SHALL APPROVE AN ALTERNATIVE MATERIAL.
4. AVOID HORIZONTAL EXPOSURE OF END GRAIN OR PROVIDE ADEQUATE PROTECTION BY FLASHING OR SEALING. AVOID SITUATIONS WHERE MOISTURE MAY BE TRAPPED BY USING SPACERS AND/OR FLASHING, CHALKING, SEALANT, OR PLASTIC ROOF CEMENT.
5. ALL BOLTS, WASHERS, AND OTHER HARDWARE USED FOR CONSTRUCTION SHALL BE GALVANIZED TO PREVENT CORROSION AND STAINING. USE GALVANIZED FLAT WASHERS UNDER HEADS OF LAG BOLTS, SCREWS AND NUTS.
6. DECK SCREWS USED FOR CONSTRUCTION SHALL BE CLIMACOATED, HOT DIPPED, GALVANIZED PLATED, OR APPROVED EQUAL, TO PREVENT CORROSION AND STAINING. DECK SCREWS SHALL BE #8-4" WITH AN UNTHREADED UPPER SHAFT TO PREVENT BOARD JACKING, PROVIDING A TIGHTER FASTENING.
7. GAP ON DECKING SHALL BE 3/8" MIN.
8. THERE SHALL BE NO END GRAIN NAILING AND TOE NAILING UNLESS SPECIFIED BY THE ENGINEER.
9. THE BOARDWALK SHALL BE CONSTRUCTED IN SUCH A MANNER THAT WILL MINIMIZE THE AMOUNT OF DISTURBANCE TO THE WETLAND AREA. ALL RESTORATION TO DISTURBED AREAS SHALL ADHERE TO THE REQUIREMENTS OF WEDQ WETLAND PERMIT. AND SHALL BE INCLUDED IN THE COST OF THE BOARDWALK.
10. 4"x12" BEAMS SHALL BE ATTACHED TO POSTS WITH CARRIAGE BOLTS WITH WASHERS ON BOTH SIDES. COUNTERSINK NUT ENDS FLUSH WITH FACE OF TIMBER.



!!! CAUTION !!!
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REVISION	DATE	DRAWN	DESCRIPTION

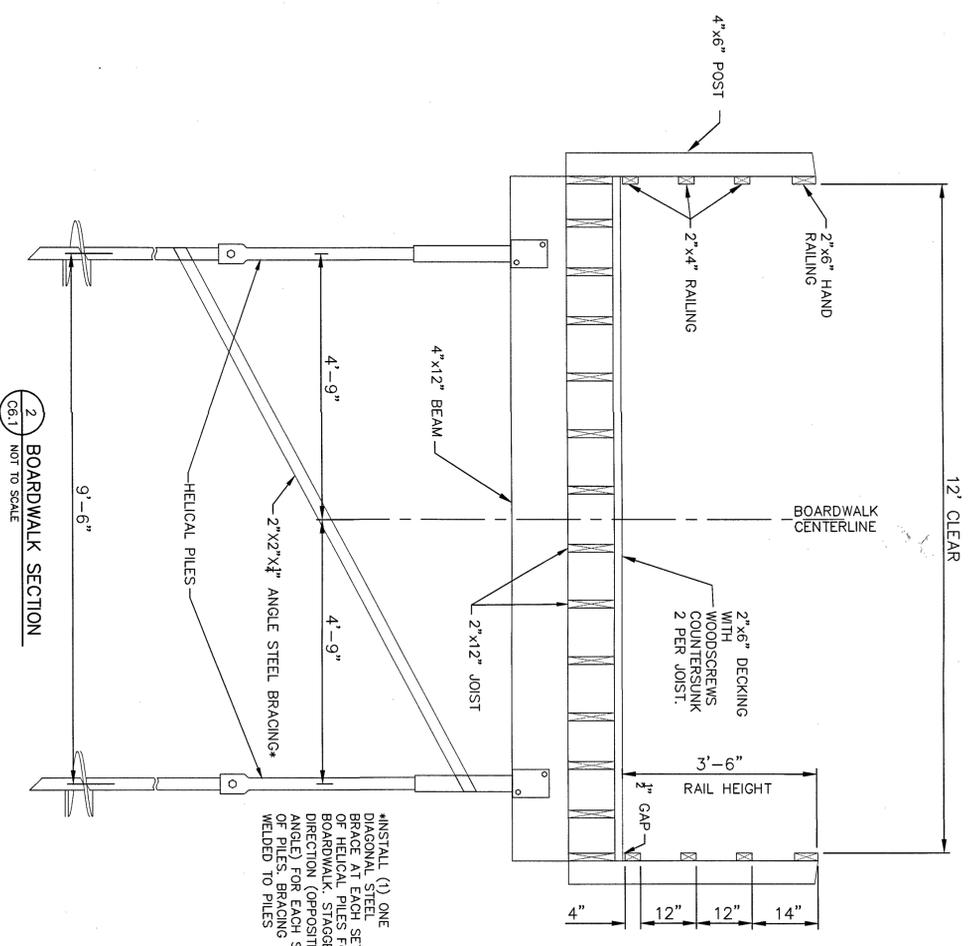
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 Engineers & Surveyors, Inc.
 312 North Street
 Mason, Michigan 48854
 Ph: 517-676-9200
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CENTRAL MERIDIAN REGIONAL TRAIL CONNECTOR
 MERIDIAN TOWNSHIP
 INGHAM COUNTY, MICHIGAN

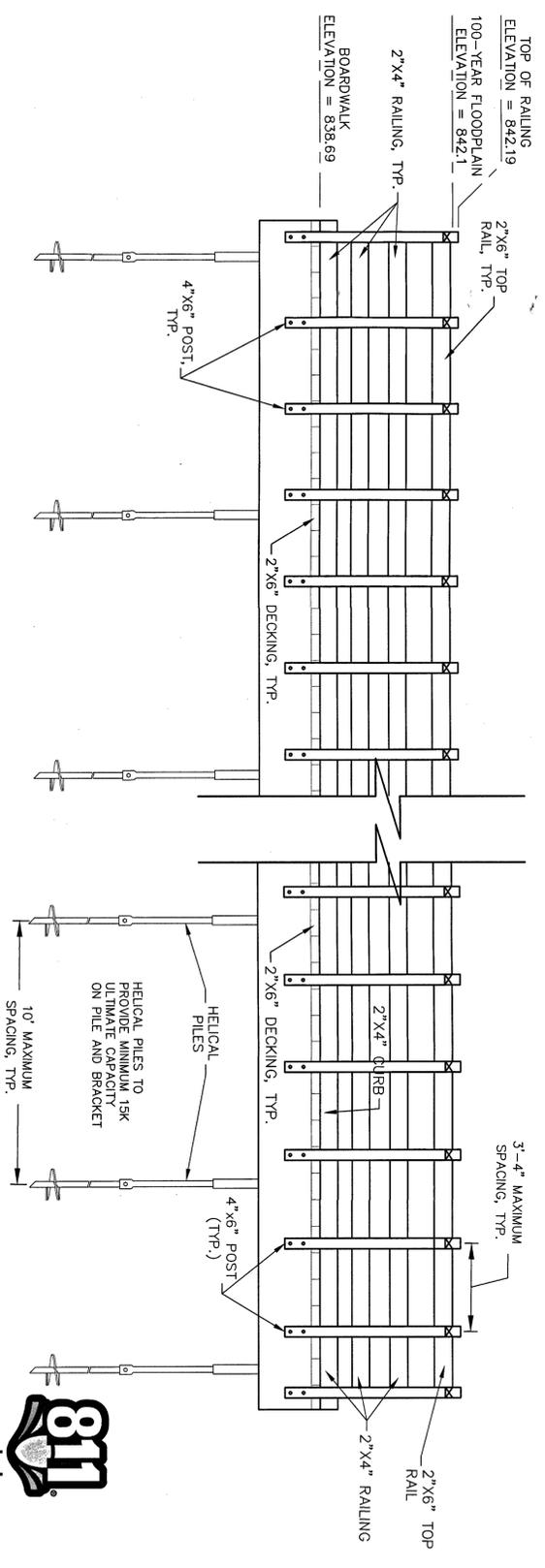
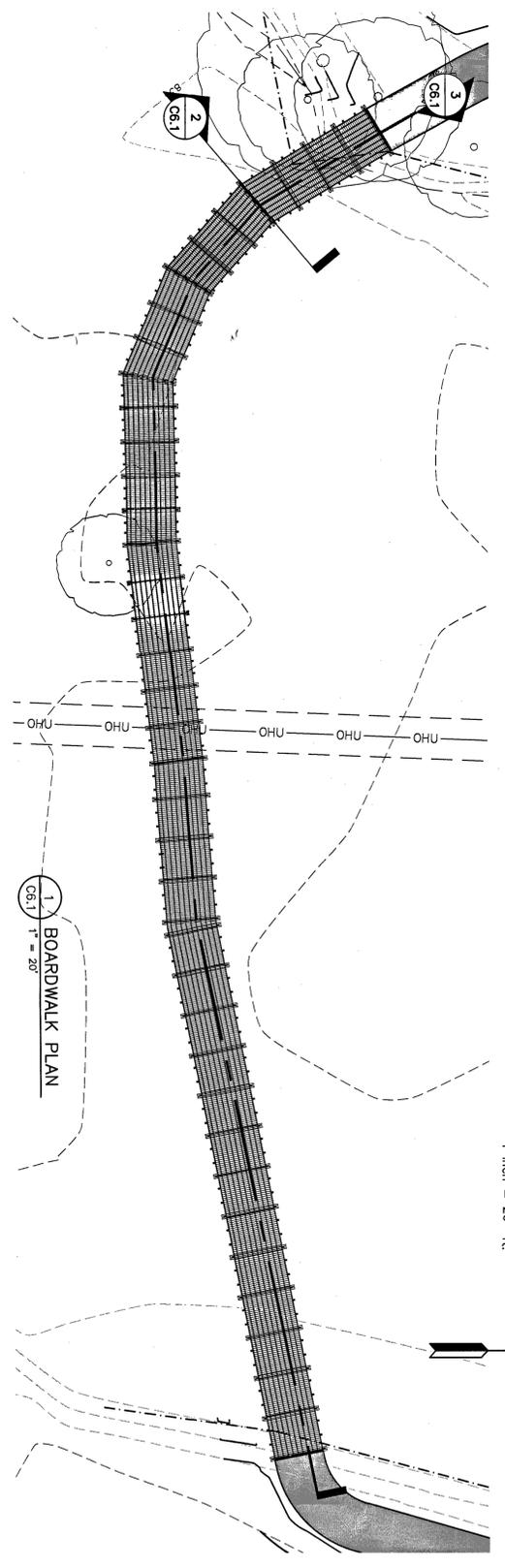
BOARDWALK DETAILS

PROJECT: DBH
 DRAWN: HTK
 DATE: 3/20/19
 SCALE: AS NOTED
 SHEET NO.: C6.0

BENCHMARKS:
 BM#1 (299) - 1/4" GRADE NEAR S.E. CORNER OF
 GENERAL PARK SOUTH RETENTION POND,
 20' S.E. OF HYDRANT ELEVATION= 846.59
 BM#2 (299) - 1/4" GRADE NEAR THE S. SIDE OF
 GENERAL PARK SOUTH RETENTION POND,
 LOT 415' S.E. OF WASHOUT IN CURB,
 ELEVATION= 848.41



*INSTALL (1) ONE
 DIAGONAL STEEL
 BRACE AT EACH SET
 OF HELICAL PILES FOR
 BOARDWALK. STAGGER
 DIRECTION OF POSTS
 AND BRACING SET
 ANGLES. BRACING
 WELDED TO PILES



HELICAL PILES TO
 PROVIDE MINIMUM 15K
 ULTIMATE CAPACITY
 ON PILE AND BRACKET



!!! CAUTION !!!
 THE LOCATIONS AND ELEVATIONS OF EXISTING
 UNDERGROUND UTILITIES AS SHOWN ON THIS DRAWING
 WERE OBTAINED FROM RECORD DRAWINGS, FIELD
 SURVEYING OR ACCURACY HEREIN. THE CONTRACTOR SHALL BE
 RESPONSIBLE FOR VERIFYING THE EXACT LOCATION AND
 DEPTH OF ALL UTILITIES PRIOR TO THE START OF
 CONSTRUCTION. IT IS THE CONTRACTOR'S
 RESPONSIBILITY TO OBTAIN THE NECESSARY
 PERMITS FROM THE MICHIGAN P.A. NO. 174 OF 2013.

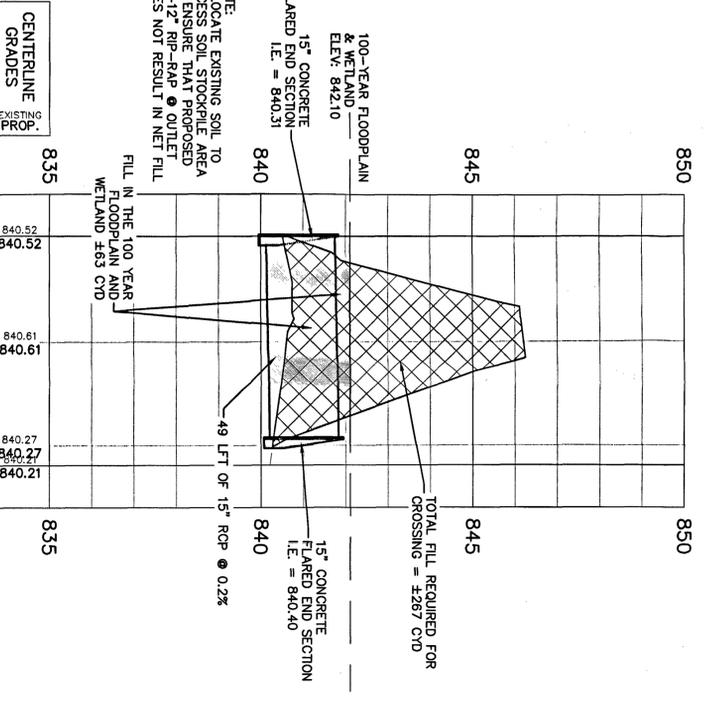
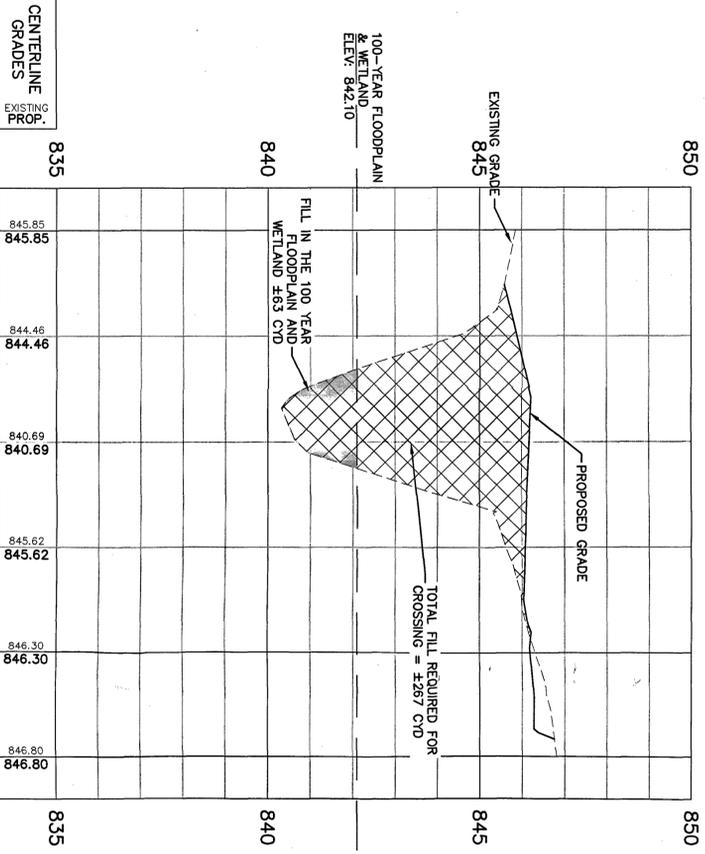
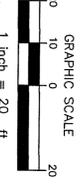
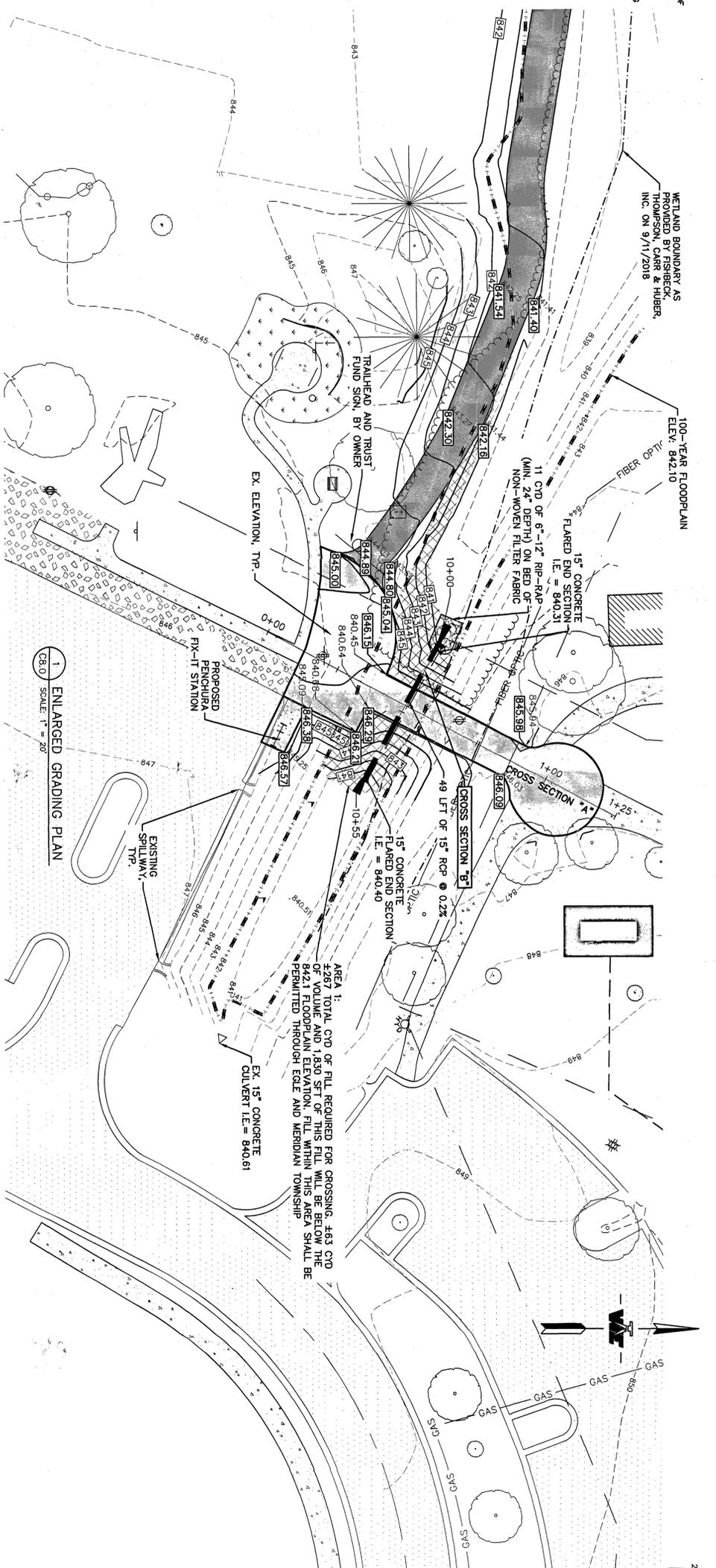
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PROJECT	CENTRAL MERIDIAN REGIONAL TRAIL CONNECTOR MERIDIAN TOWNSHIP INGHAM COUNTY, MICHIGAN		
SHEET TITLE	BOARDWALK DETAILS		
DESIGNED	DBH	CHECKED	DBH
DRAWN	HTK	DATE	3/18/19
APP. NO.	18-0066	SCALE	AS NOTED
SHEET NO.	C6.1		

WOLVERINE
 Engineers & Surveyors, Inc.
 312 North Street
 Mason, Michigan 48854
 Ph: 517-676-9200
 Ex: 517-676-9396
 http://www.wolveng.com

REVISION	DATE	DRAWN	DESCRIPTION
1	06/25/19	JAL	UPDATE GRADING & ELEVATIONS

BECKMARKS:
 BM#1 (CP9) : MAG SPIKE NEAR S.E. CORNER OF CENTRAL PARK SOUTH RETENTION POND, 820 S.E. OF HYDRANT, ELEVATION= 846.89
 BM#2 (CP2) : MAG SPIKE NEAR THE S. SIDE OF OCEANOS HISTORICAL VILLAGE & CHURCH PARKING LOT, 415 S.E. OF WASHOUT IN CURB, ELEVATION= 848.11



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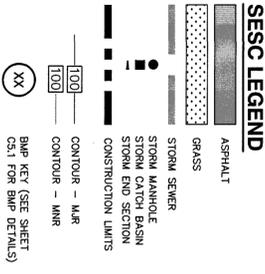
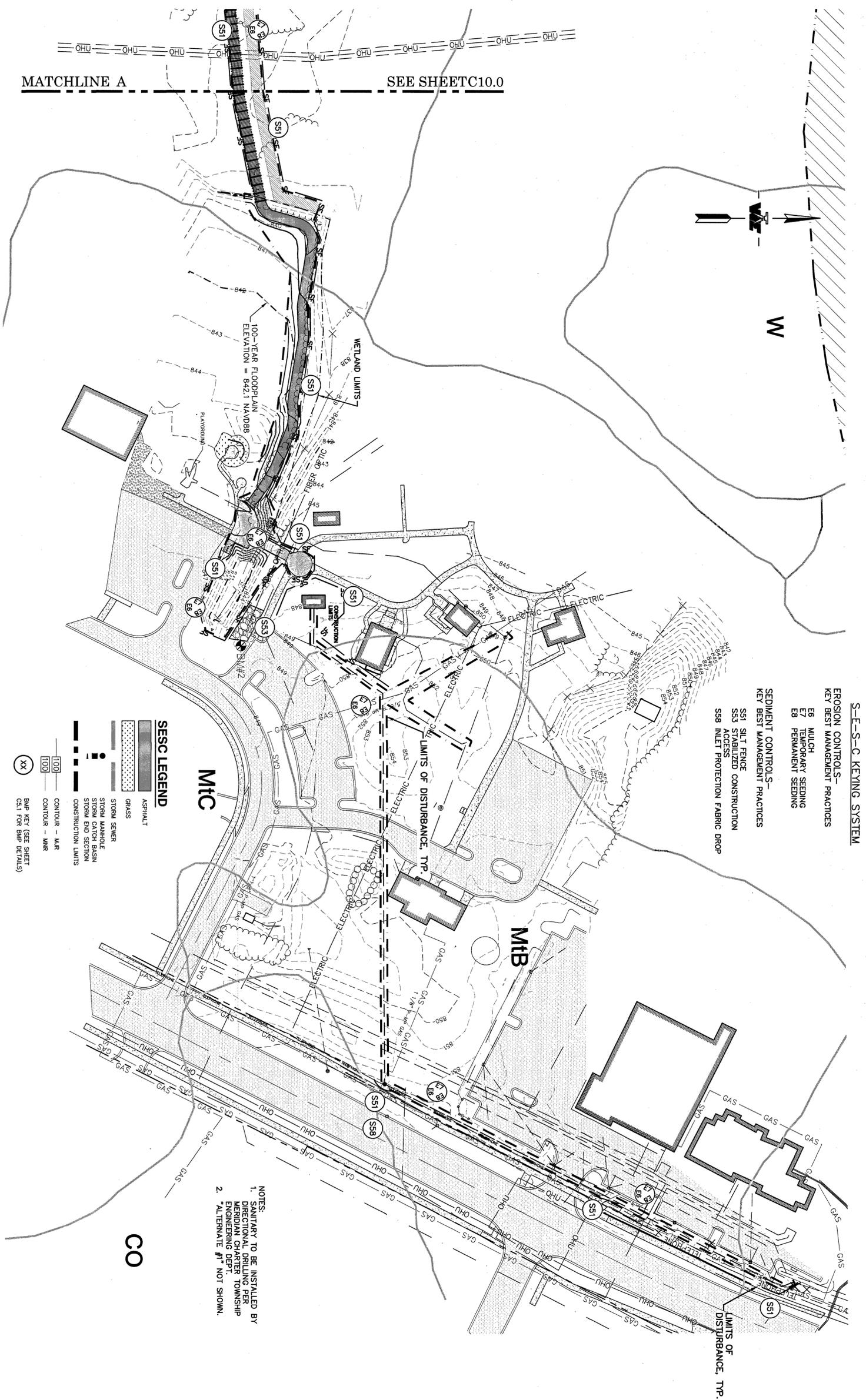
REVISION	DATE	DRAWN	DESCRIPTION
1	04/29/19	JAL	REVISE STORM/GRADING
2	05/20/19	JAL	REVISE GRADING, ADD FILL NOTES
3	06/19/19	JAL	REVISE GRADING AND QUANTITIES

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 Engineers & Surveyors, Inc.
 312 North Street
 Mason, Michigan 48854
 Ph: 517-676-9200
 Fx: 517-676-9396
<http://www.wolveng.com>

CENTRAL MERIDIAN REGIONAL TRAIL CONNECTOR
 MERIDIAN TOWNSHIP
 INGHAM COUNTY, MICHIGAN
 ENLARGED PLAN (AREA 1)

PROJECT	AS NOTED
DRAWN	HTK
CHECKED	DBH
DATE	11/12/18
SCALE	AS NOTED
SHEET NO.	C8.0

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- S-E-S-C KEYING SYSTEM**
- EROSION CONTROLS - KEY BEST MANAGEMENT PRACTICES**
- E6 MULCH
 - E7 TEMPORARY SEEDING
 - E8 PERMANENT SEEDING
- SEDIMENT CONTROLS - KEY BEST MANAGEMENT PRACTICES**
- S51 SILT FENCE
 - S53 STABILIZED CONSTRUCTION ACCESS
 - S58 INLET PROTECTION FABRIC DROP

- NOTES**
1. SANITARY TO BE INSTALLED BY DIRECTIONAL DRILLING PER MERIDIAN CHARTER TOWNSHIP ENGINEERING DEPT.
 2. ALTERNATE #1* NOT SHOWN.

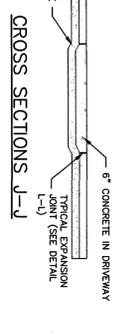
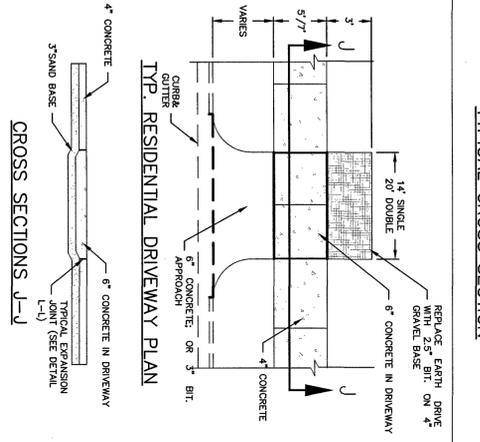
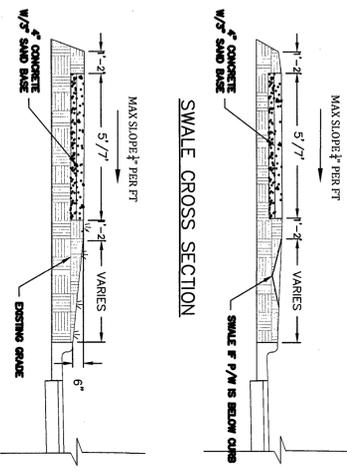
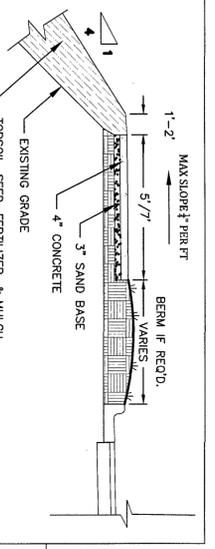
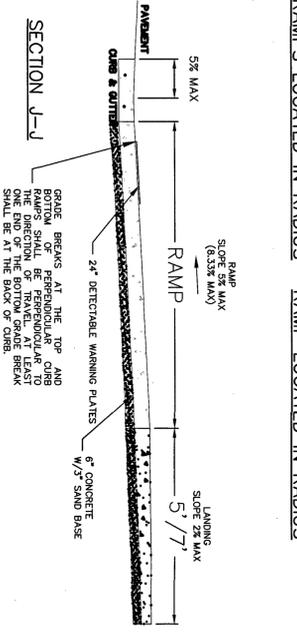
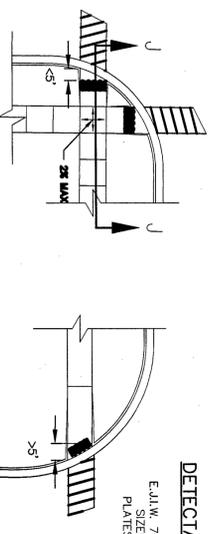
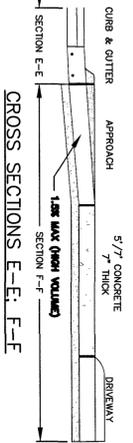
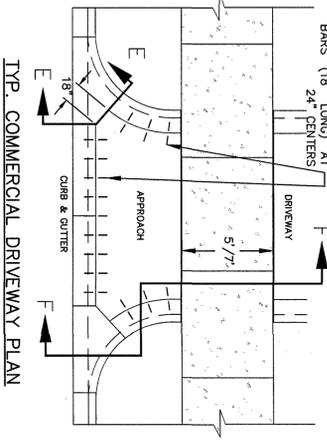
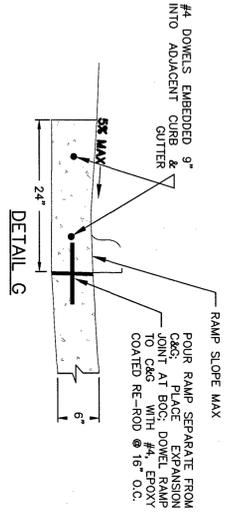
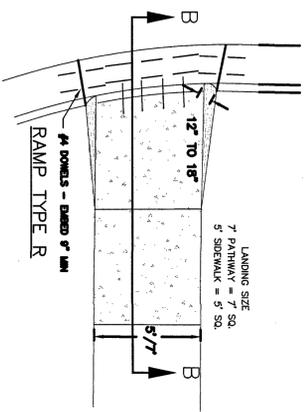
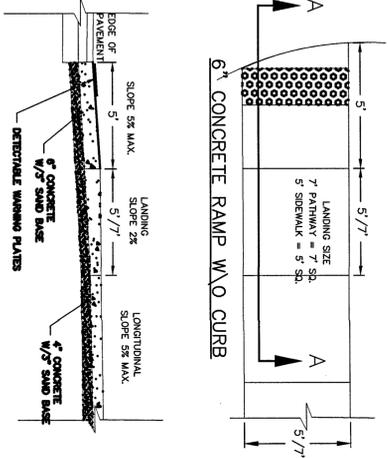
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REVISION	DATE	DRAWN	DESCRIPTION
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2	06/25/19	JAL	GENERAL PLAN UPDATES

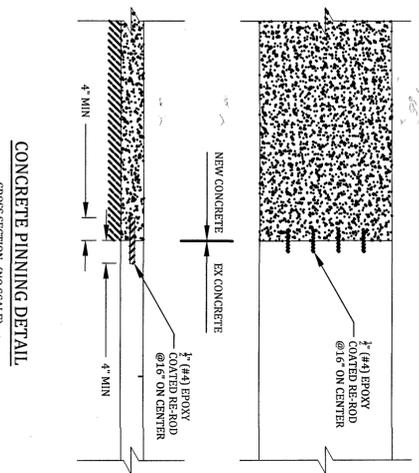
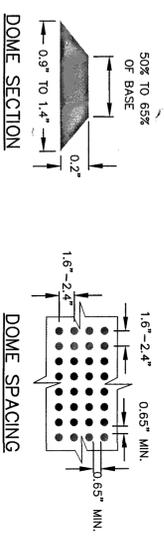
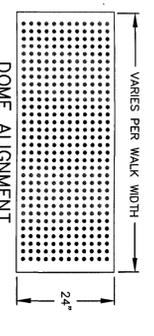
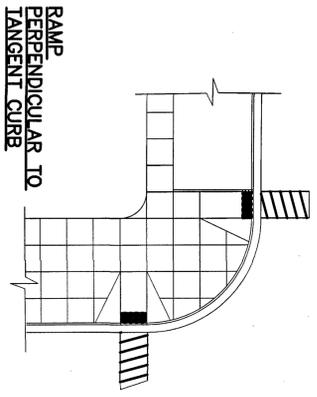
PROJECT	CENTRAL MERIDIAN REGIONAL TRAIL CONNECTOR MERIDIAN TOWNSHIP INGHAM COUNTY, MICHIGAN
SHEET TITLE	SESC PLAN (EAST) & NOTES
APPROVED	
DESIGNED	DBH
DRAWN	DBH
SCALE	HTK
DATE	18-0066
SCALE	11/12/18
SCALE	1" = 60'
SHEET NO.	C9.1

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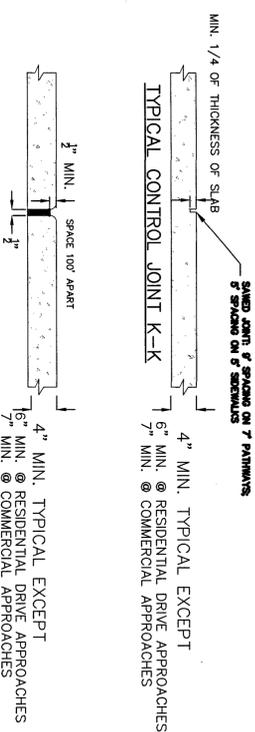
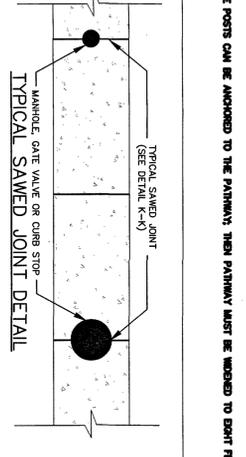
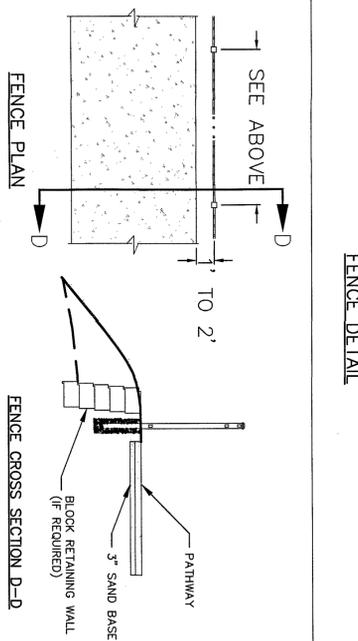
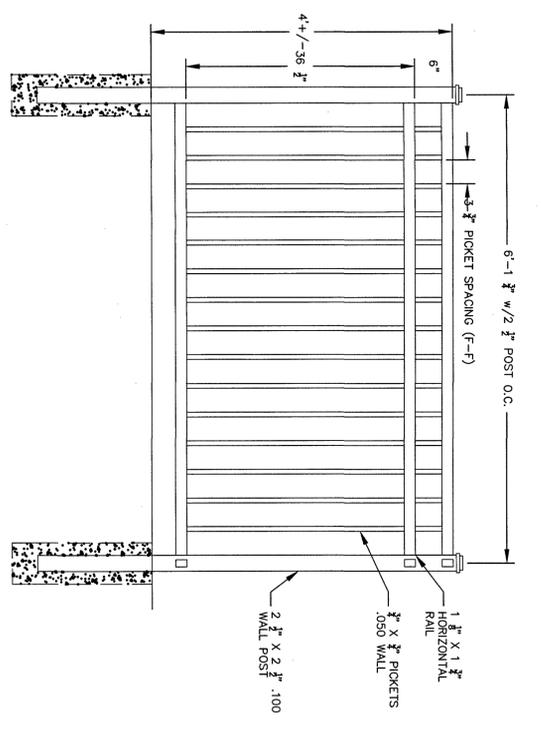
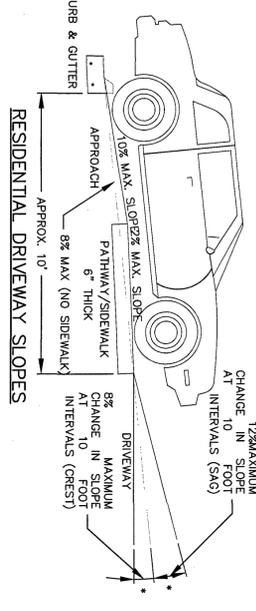
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 Ph: 517-676-9200
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DETECTABLE WARNING DETAILS
E.I.W. 7005 DETECTABLE WARNING PLATE
SIZES AVAILABLE 12" x 18" & 24" x 24"
PLATES MUST BE ASPHALTIC COATED



- GENERAL NOTES
1. SIDEWALKS/PATHWAYS SHALL BE 4" THICK CONCRETE EXCEPT AT DRIVEWAYS.
 2. SIDEWALKS/PATHWAYS THRU DRIVES SHALL BE 6" (RESIDENTIAL); 7" (MULTI-RESIDENTIAL & COMMERCIAL).
 3. 3" OF COMPACTED SAND BASE SHALL BE PLACED UNDER ALL SIDEWALKS/PATHWAYS.
 4. ALL BITUMINOUS APRONS SHALL BE 2 1/2" THICK, UNLESS NOTED OTHERWISE.
 5. ALL EXISTING CONCRETE AND BITUMINOUS TO BE REMOVED OR OTHERWISE IDENTIFIED.
 6. REMOVAL SHALL BE CONSIDERED INCIDENTAL TO CONSTRUCTION.
 7. ALL AGGREGATE BASE SHALL BE 22A, 4" THICK.
 8. ALL TREE AND BUSH REMOVAL SHALL BE CONSIDERED PART OF SUB-GRADE PREPARATION.
 9. ACCORDANCE WITH GUIDELINES ESTABLISHED BY THE MICHIGAN DEPARTMENT OF TRANSPORTATION SHALL BE MAINTAINED BY THE ENGINEER, AND SHALL BE INSTALLED IN ACCORDANCE WITH GUIDELINES ESTABLISHED BY THE MICHIGAN DEPARTMENT OF TRANSPORTATION.
 10. ALL PLANT MATERIAL NOT MARKED FOR REMOVAL SHALL BE PROTECTED.
 11. BITUMINOUS DRIVES SHALL BE SAWCUT 18" ON EITHER SIDE OF PROPOSED PATHWAY.



Meridian Charter Township
Ingham County, Michigan
ENGINEERING

5' SIDEWALK & 7' PATHWAY DETAIL SHEET

SCALE: NOT TO SCALE

PAGE: ** OF **

DATE: 11/12/18

PROJECT: CENTRAL MERIDIAN REGIONAL TRAIL CONNECTOR

DRAWN BY: JG 08/07/05 CHECKED BY: YI 08/07/05

REVISIONS:	DATE:	BY:	COMMENTS:
01	08/07/05	JG	ISSUED FOR PERMITS
02	08/07/05	JG	ISSUED FOR PERMITS
03	08/07/05	JG	ISSUED FOR PERMITS
04	08/07/05	JG	ISSUED FOR PERMITS
05	08/07/05	JG	ISSUED FOR PERMITS
06	08/07/05	JG	ISSUED FOR PERMITS
07	08/07/05	JG	ISSUED FOR PERMITS
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19	08/07/05	JG	ISSUED FOR PERMITS
20	08/07/05	JG	ISSUED FOR PERMITS

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REVISION	DATE	DRAWN	DESCRIPTION

WOLVERINE
Engineers & Surveyors, Inc.

312 North Street
Mason, Michigan 48854
Tel: 517-676-9200
Fax: 517-676-9396
http://www.wolveng.com

CENTRAL MERIDIAN REGIONAL TRAIL CONNECTOR
MERIDIAN TOWNSHIP
INGHAM COUNTY, MICHIGAN

DETAILS & NOTES

PROJECT: CENTRAL MERIDIAN REGIONAL TRAIL CONNECTOR

SHEET TITLE: PATHWAY DETAIL

DATE: 11/12/18

SCALE: AS NOTED

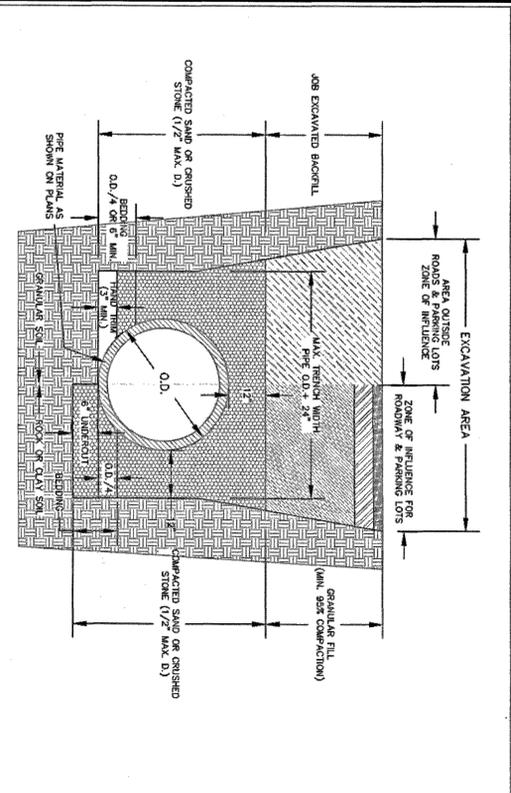
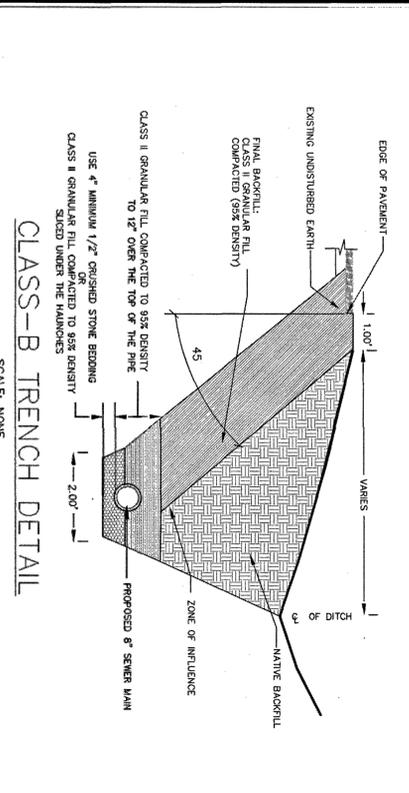
PROJECT NO.: 18-0066

DRAWN BY: HTK

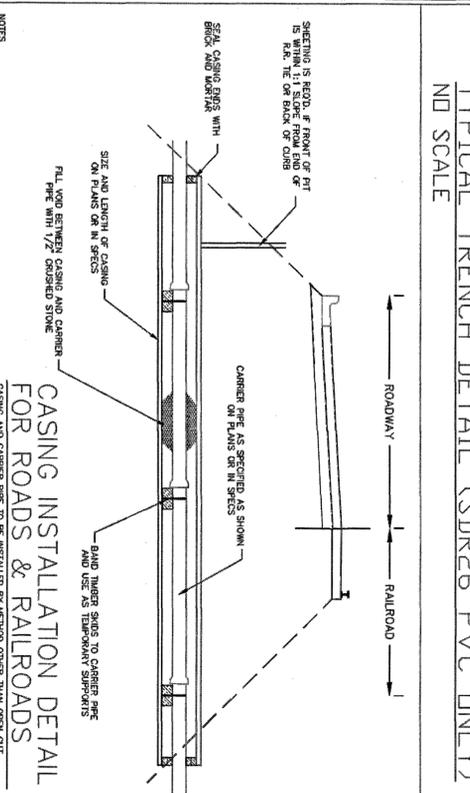
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APPROVED BY: DBH

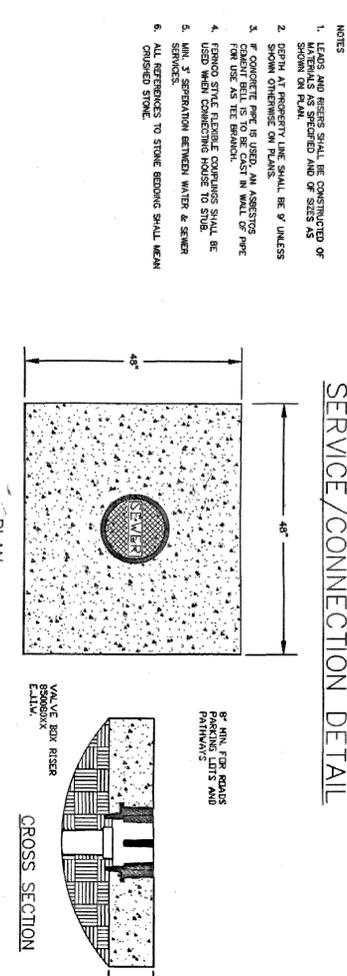
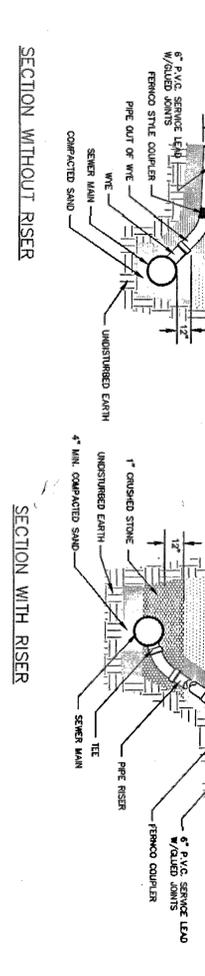
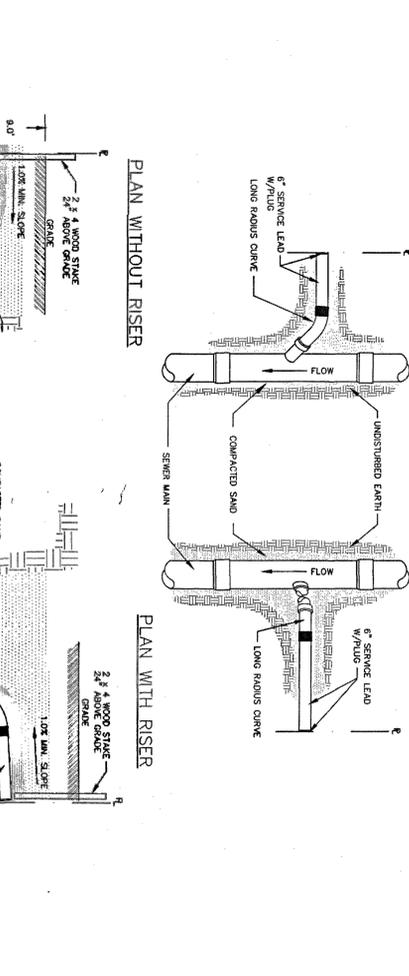
SHEET NO.: C10.0



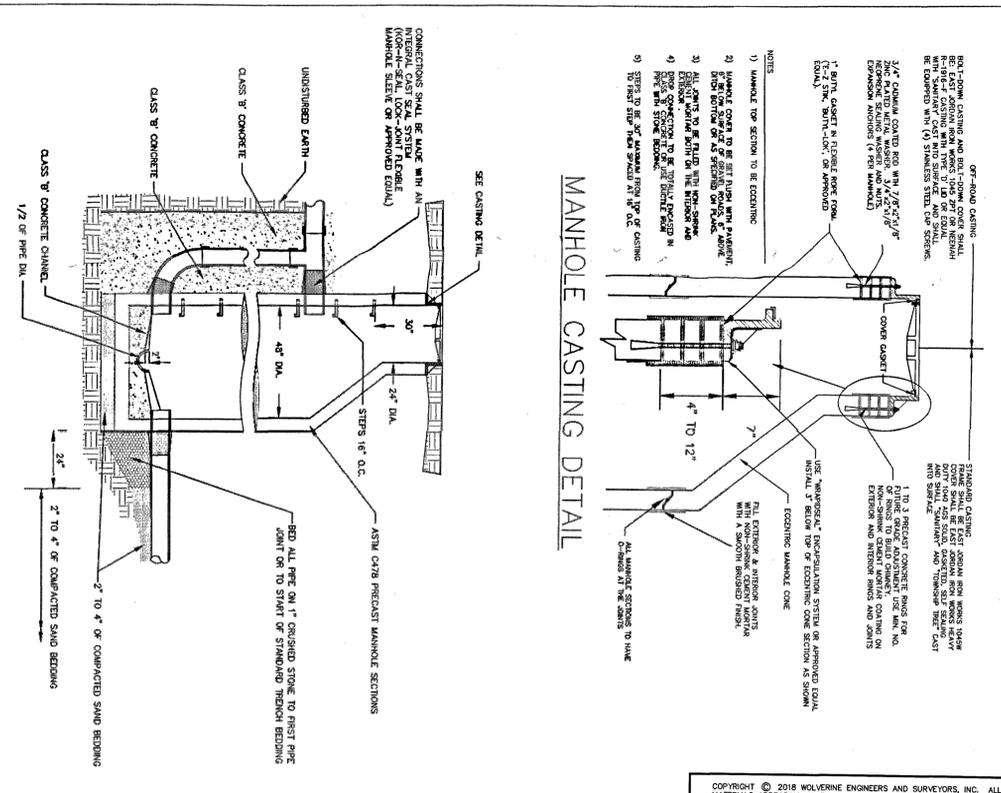
THE PVC (SDR-26) PIPE MATERIAL SHALL CONFORM TO ASTM D 2241 WITH BELLS AND JOINTS IN ACCORDANCE WITH ASTM F 427. PIPE INSTALLATION SHALL BE IN ACCORDANCE WITH ASTM D 2241. ALL PIPE SHALL BE LAPPED TO PROVIDE ASTM RESISTANCE. SIZE NUMBER, MANUFACTURER'S NAME AND PIPE DIAMETER. THE CONTRACTOR SHALL TEST THE JUNT FOR DEFLECTION BY PULLING A MANHOLE THROUGH THE SEWER AFTER ALL BACKFILL HAS BEEN PLACED AND COMPACTED OVER THE PIPE. THE MANHOLE SHALL BE PULLED TO THE INSIDE DIAMETER OF THE PIPE. THE OUTSIDE DIAMETER OF THE TEST MANHOLE SHALL BE EQUAL TO THE INSIDE DIAMETER OF THE PIPE LESS 5/8\"/>



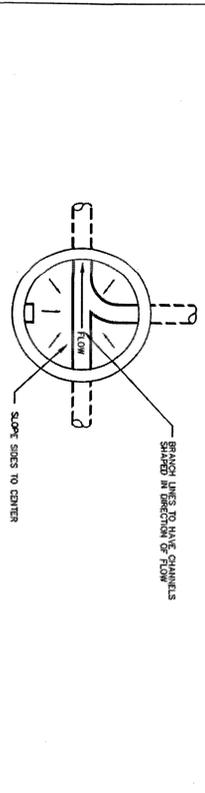
NOTES
1. WORK IN ROADS AND RAILROAD RIGHT-OF-WAYS SHALL BE IN ACCORDANCE WITH THE APPROPRIATE REGULATORY AGENCY'S REQUIREMENTS.
2. CASING PIPE SHALL BE 8\"/>



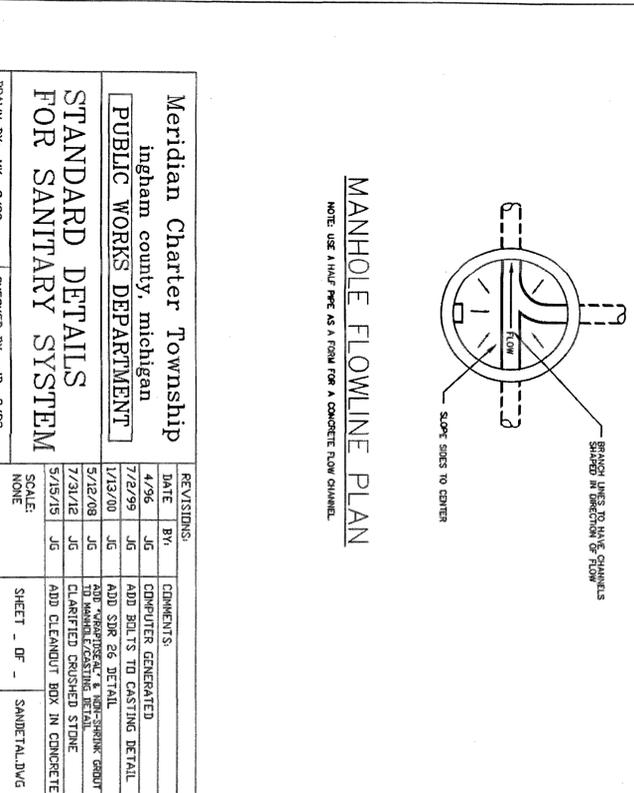
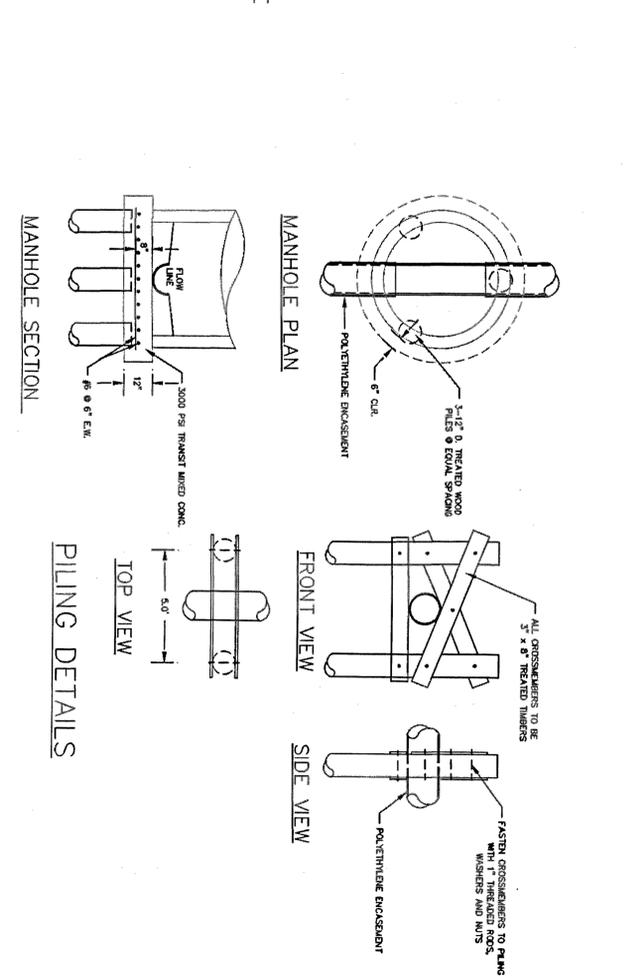
NOTES
1. LEADS AND RISERS SHALL BE CONSTRUCTED OF 6\"/>



NOTES
1) MANHOLE TOP SECTION TO BE ECONOMIC
2) MANHOLE COVER TO BE SET FLUSH WITH PAVEMENT
3) ALL JOINTS TO BE SEALED WITH NON-SOLUBLE EXPANDED SEALING WAXES AND WAXES
4) JOINTS TO BE SEALED WITH NON-SOLUBLE EXPANDED SEALING WAXES AND WAXES
5) JOINTS TO BE SEALED WITH NON-SOLUBLE EXPANDED SEALING WAXES AND WAXES



MANHOLE FLOWLINE PLAN
NOTE: USE 1/2\"/>



Meridian Charter Township Ingham County, Michigan PUBLIC WORKS DEPARTMENT		REVISIONS: DATE BY COMMENTS 4/26 JG COMPUTER GENERATED 7/27/19 JG ADD BOLTS TO CASTING DETAIL 1/13/20 JG ADD SDR 26 DETAIL 5/12/20 JG TOP VIEW/FRONT VIEW/SECTION DETAIL 7/23/21 JG CLARIFIED CRUSHED STONE 5/15/21 JG ADD CLEANOUT BOX IN CONCRETE	
DRAWN BY: MK 3/83 CHECKED BY: JB 3/83	SHEET: 0F 1 SANDTAL.DWG	PROJECT: CENTRAL MERIDIAN REGIONAL TRAIL CONNECTOR MERIDIAN TOWNSHIP INGHAM COUNTY, MICHIGAN SHEET TITLE: DETAILS & NOTES 2	

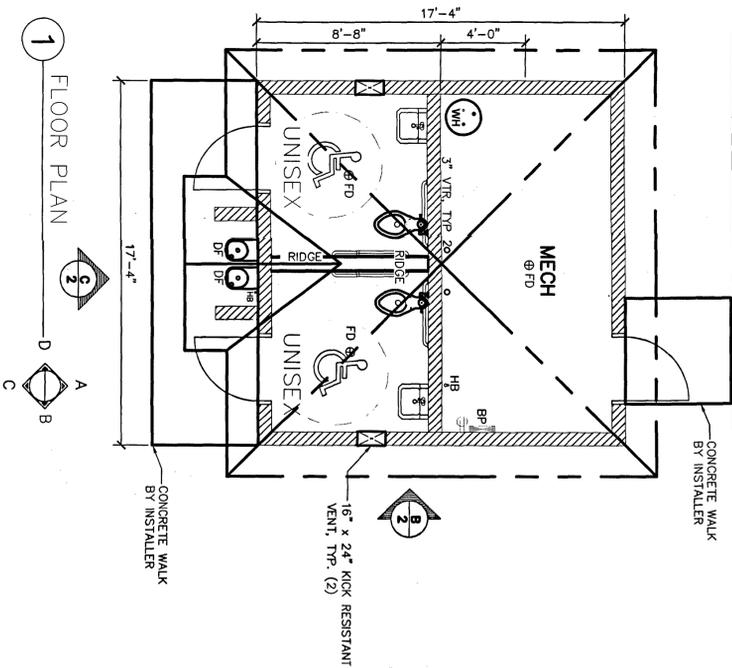
WOLVERINE
 Engineers & Surveyors, Inc.
 312 North Street
 Mason, Michigan 48854
 Ph: 517-676-9300
 Fax: 517-676-9300
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REVISION	DATE	DRAWN	DESCRIPTION

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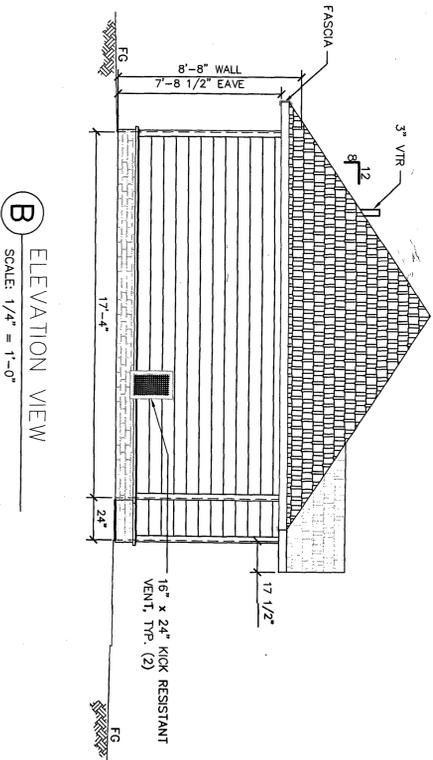
LEGEND		SYMBOL	DESCRIPTION	AREA/ QUANTITY
			EXTERIOR WALL LIGHTS	3
			INTERIOR WALL LIGHTS	2
			INTERIOR CEILING LIGHTS	1
			ELECTRICAL OUTLET	1
			FLOOR DRAIN	3
			WALL FAUCET	1
			WALL HYDRANT	1
			ELECTRIC EXHAUST FAN EXHAUST FAN 210CFM	1
			KICKRESISTANT WALL VENT	2
			TWO ROLL UP DISPENSER	2
			TOWEL DISPENSER	2
			SOAP DISPENSER	2

THESE PLAN VIEW AND ELEVATION DRAWINGS ARE A PRELIMINARY ARCHITECTURAL REPRESENTATION OF THE BUILDING. ALL DIMENSIONS, FEATURES AND COMPONENTS SHOWN ON THESE PRELIMINARY DRAWINGS MAY OR MAY NOT BE PART OF THE QUOTE. PLEASE REFER TO THE SCOPE OF SUPPLY AND SERVICES LETTER PROVIDED WITH YOUR QUOTE FOR ROMTEC'S PROPOSED SCOPE OF SUPPLY.

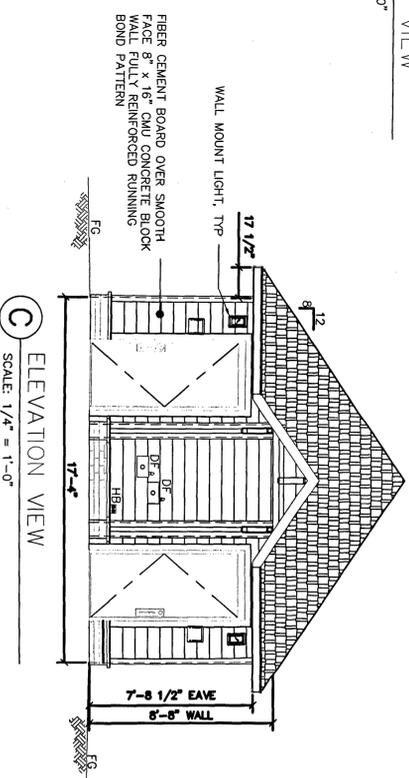


WALL TYPE SCHEDULE

- 8" REINFORCED CONCRETE MASONRY BLOCK WALL WITH MORTAR JOINTS, GROUTED SOLID ALL CELLS RUNNING BOND PATTERN.
- 8" WOOD FRAMED WALL



B ELEVATION VIEW
SCALE: 1/4" = 1'-0"



C ELEVATION VIEW
SCALE: 1/4" = 1'-0"

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Mason, Michigan 48854
Ph: 517-676-9200
Fax: 517-676-9396
http://www.wolveng.com

PROJECT: **CENTRAL MERIDIAN REGIONAL TRAIL CONNECTOR**
MERIDIAN TOWNSHIP
INGHAM COUNTY, MICHIGAN

SHEET TITLE: **RESTROOM PLAN & ELEVATIONS**

APPROVED: **DBH**
CHECKED: **DBH**
DRAWN: **HTK**
JOB NO.: **18-0066**
DATE: **11/12/18**
SCALE: **1/4" = 1'-0"**
SHEET NO.: **C11.0**

ROMTEC
16240 NORTH BANK ROAD - ROSELAND, OR 97131
PRELIMINARY



September 6, 2018
Project No. 181200/181201

Ms. LuAnn Maisner
Parks and Recreation Director
Charter Township of Meridian
2100 Gaylord Smith Court
Haslett, MI 48840

Re: Wetland Delineation – Pathway and Bridge Replacement Project
Central Park, Charter Township of Meridian
Ingham County, Michigan

Dear Ms. Maisner:

On July 30 and August 1 and 13, 2018, Fishbeck, Thompson, Carr & Huber, Inc. (FTCH) staff conducted a field investigation and delineated wetlands near the proposed pedestrian pathway in Central Park, an existing pedestrian bridge, and the proposed location of a restroom facility in the Meridian Historic Village (Figure 1). The pedestrian bridge is located at the east end of the proposed pathway, and it crosses a ditch and connects a parking lot to the Historic Village. The proposed restroom location is approximately 100 feet northeast of the bridge, on the southern edge of the Historic Village. The area of investigation is located in the southwest quarter of Section 15 of Town 4 North, Range 1 West. The results of the investigation are included in this report.

The wetland delineation was conducted in a manner consistent with the 1987 *Corps of Engineers Wetlands Delineation Manual* and 2012 *Regional Supplement to the Corps of Engineers Wetland Delineation Manual: Northcentral and Northeast Region (Version 2)*. The wetlands identification and delineation procedures outlined in these manuals require evaluation of site vegetation, soils, and hydrologic characteristics. Dominant wetland vegetation, hydric soil, and wetland hydrology must all be present for an area to be classified as a wetland. Hydrophytic vegetation decisions are based on the wetland indicator status of species that are dominant in the plant community. Species with indicator statuses of obligate wetland (OBL), facultative wetland (FACW), and facultative (FAC) are considered wetland species, while species with indicator statuses of facultative upland (FACU) and upland (UPL) are considered upland species. FAC species are also commonly present in upland plant communities.

Literature Review

The Charter Township of Meridian (Township) wetland map for Section 15 indicates the proposed pathway crosses the southern lobe of Wetland 15-2C, and the rest of Wetland 15-2C is located north of the pathway. Wetland 15-2C encompasses approximately 131.76 acres and consists of a forested/emergent/scrub-shrub/open water wetland complex. According to the Township wetland map, this wetland is associated with the Mud Lake Drain.

According to the U.S. Department of Agriculture Natural Resources Conservation Service *Web Soil Survey*, Wetland 15-2C contains Houghton muck (100% hydric rating) and Colwood-Brookston loams (80% hydric rating). The remainder of the area of investigation contains several different soil series ranked as not hydric or 28% hydric (Appendix 1).

The National Wetlands Inventory map indicates forested and emergent wetlands are present in generally the same areas as those with mapped hydric soil (Appendix 2).

Site Investigation

The wetland investigation was limited to the proposed pathway route, the bridge, and the proposed restroom location. Wetland boundaries were evaluated within approximately 50 feet of these features. A portion of the pathway route was evaluated on July 30, 2018, for the Township's Parks and Recreation Department as part of the Large Dog Park wetland delineation. The resulting wetland boundary data was incorporated into Figure 1 (i.e. the wetland boundary on the east side of the proposed large dog park).

The proposed pathway traversed rolling terrain and followed an existing gravel and dirt path or mowed turf. The ground at the western end of the proposed pathway sloped down to the south to an approximate 1.9-acre pond. Wetland trees and shrubs grew along the pond's northern shoreline (see photograph in Appendix 3). The adjacent upland consisted of mowed turf. The eastern edge of the pond contained a wider band of emergent wetland. Wetland conditions were confirmed at Sampling Point SP-A, near the southeast end of the pond. The wetland boundary along the north and east sides of the pond was flagged with pink ribbon labelled A1 through A14.

Site topography sloped up from the east side of the pond to the proposed large dog park, which sits at the top of a hill. The upland plant community directly east of the pond was dominated by northern prickly-ash (*Zanthoxylum americanum*, FACU), common buckthorn (*Rhamnus cathartica*, FAC), and eastern cottonwood (*Populus deltoides*, FAC).

Township Wetland 15-2C is located north of the proposed pathway. Much of this wetland consisted of emergent wetland dominated by reed canarygrass (*Phalaris arundinacea*, FACW) and common lakeshore sedge (*Carex lacustris*, OBL). The emergent wetland was present in a low, flat area containing muck soil. Forested wetland was present at the toe of slope extending up to the pathway route and was dominated with swamp white oak (*Quercus bicolor*, FACW), American elm (*Ulmus americana*, FACW), and common buckthorn. Upland forest dominated by sugar maple trees (*Acer saccharum*, FACU) was present between the forested wetland and the pathway route.

A gully containing shallow water was present at the southwest end of Township Wetland 15-2C. Wetland Sampling Point SP-B was evaluated on the terrace adjacent to west of the gully. The terrace was approximately 4 to 5 feet higher than the base of the gully. Dominant wetland vegetation was observed at this location, despite the overstory being dominated by sugar maple trees (an upland species). Wetland hydrology and soil were not present. Therefore, wetland was not confirmed on the terrace. The wetland boundary was flagged at the toe of the slope around the edge of the gully with pink ribbon labelled B1 through B5.

Because wetland flagging was limited to within approximately 50 feet of the pathway route, Figure 1 indicates breaks in the wetland boundary on the north side of the pathway in the western half of the area of investigation. The wetland boundary east of the gully was flagged with pink ribbon labelled C1 through C10. A wetland sampling point was not evaluated in this area due to the obvious presence of wetlands (muck soil, saturation at the ground surface, and dominant wetland vegetation consisting of reed canarygrass and common lakeshore sedge).

The next delineated wetland boundary to the east was associated with a linear depression containing narrowleaf cattails (*Typha angustifolia*, OBL), common reed (*Phragmites australis*, FACW), and common lakeshore sedge. Steep side slopes in this area suggest this area was historically excavated. Data obtained from Wetland Sampling Point SP-D confirmed the presence of wetland within this area. The wetland boundary was flagged with pink ribbon labelled D1 through D17.

Township Wetland 15-2C extends to the south between the proposed large dog park to the west and the athletic field to the east. This depression contains electrical power lines and an emergent wetland dominated by common cattail (*Typha latifolia*, OBL) and reed canarygrass. The proposed pathway crosses the wetland in this area. Forested wetland was present west of the utility right-of-way. The wetland boundary along the west edge

of the forested wetland was delineated as part of the wetland evaluation of the proposed large dog park. This portion of the wetland boundary was flagged with pink ribbon labelled B1 through B9. Flag B9 is located just north of the proposed pathway and connects to Flag D17.

The eastern quarter of the proposed pathway skirts the edge of an athletic field. North of the field, the site slopes down into a drainageway. The drainageway conveys stormwater from parking lots and developed areas into Township Wetland 15-2C. Scrub-shrub wetland was present along the edge of the drainageway, west of the pedestrian bridge. The area east of the bridge appeared channelized and consisted of a linear emergent wetland.

Data obtained from Sampling Point SP-E east of the pedestrian bridge confirmed saturated soil and dominant wetland vegetation (i.e. broadleaf cattails). Excessive soil moisture impaired soil characterization; therefore, the wetland determination was based upon the observed vegetation and hydrology. The wetland boundary on the north side of the bridge was flagged with pink ribbon labelled E1 through E5. The wetland boundary on the south side of the bridge and along the edge of the athletic field was flagged with pink ribbon labeled E6 through E19.

The proposed restroom location consisted of mowed turf on elevated terrain. No wetland indicators were observed at this location.

Photographs of wetland determination sampling points and associated plant communities are included in Appendix 3. A U.S. Army Corps of Engineers Wetland Determination Data Form was completed to describe site vegetation, soil, and hydrology at each sampling location (Points SP-A, SP-B, SP-D, and SP-E) (Appendix 4). The wetland sampling points and boundary flags were surveyed with a handheld GPS unit with submeter accuracy.

Conclusions

According to Michigan's Natural Resources and Environmental Protection Act, Act 451, Section 30301(d), wetlands "contiguous to the Great Lakes or Lake St. Clair, an inland lake or pond, or a river or stream" or "more than 5 acres in size" are regulated by the State of Michigan. In addition, the Township regulates wetlands greater than two acres in size which are not contiguous to a water body and wetlands between 0.25 acre and two acres in size that are determined to be essential to the preservation of the natural resources of the Township.

Most of the wetland boundaries delineated in this investigation are portions of the southern wetland boundary for Wetland 15-2C. In addition, wetland was delineated on the north and east sides of a pond at the western end of the area of investigation. Wetland 15-2C and wetland associated with the pond are regulated by both the State of Michigan and the Township because they are greater than 5 acres in size and/or are associated with a body of water (the Mud Lake Drain and the pond).

A wetland use permit would be required from the Township for the following activities within wetlands regulated by the Township:

- Placing fill or permitting the placement of fill in the wetland.
- Dredging, removing, or permitting the removal of soil or minerals from the wetland.
- Constructing, operating, or maintaining any use or development in the wetland.
- Draining surface water from the wetland.
- Discharging water into the wetland.

In addition, the Township requires that all structures and grading activities during site development shall be set back 40 feet from the delineated wetland boundary and a natural vegetation strip shall be maintained within 20 feet of the wetland boundary.

Ms. LuAnn Maisner
Page 4
September 6, 2018



If you have any questions regarding this letter, the wetland permitting process, or any other wetland-related issues, please contact me at 616.464.3738 or ehtripp@ftch.com.

Sincerely,

FISHBECK, THOMPSON, CARR & HUBER, INC.

A handwritten signature in black ink, reading "Elise Hansen Tripp". The signature is written in a cursive style.

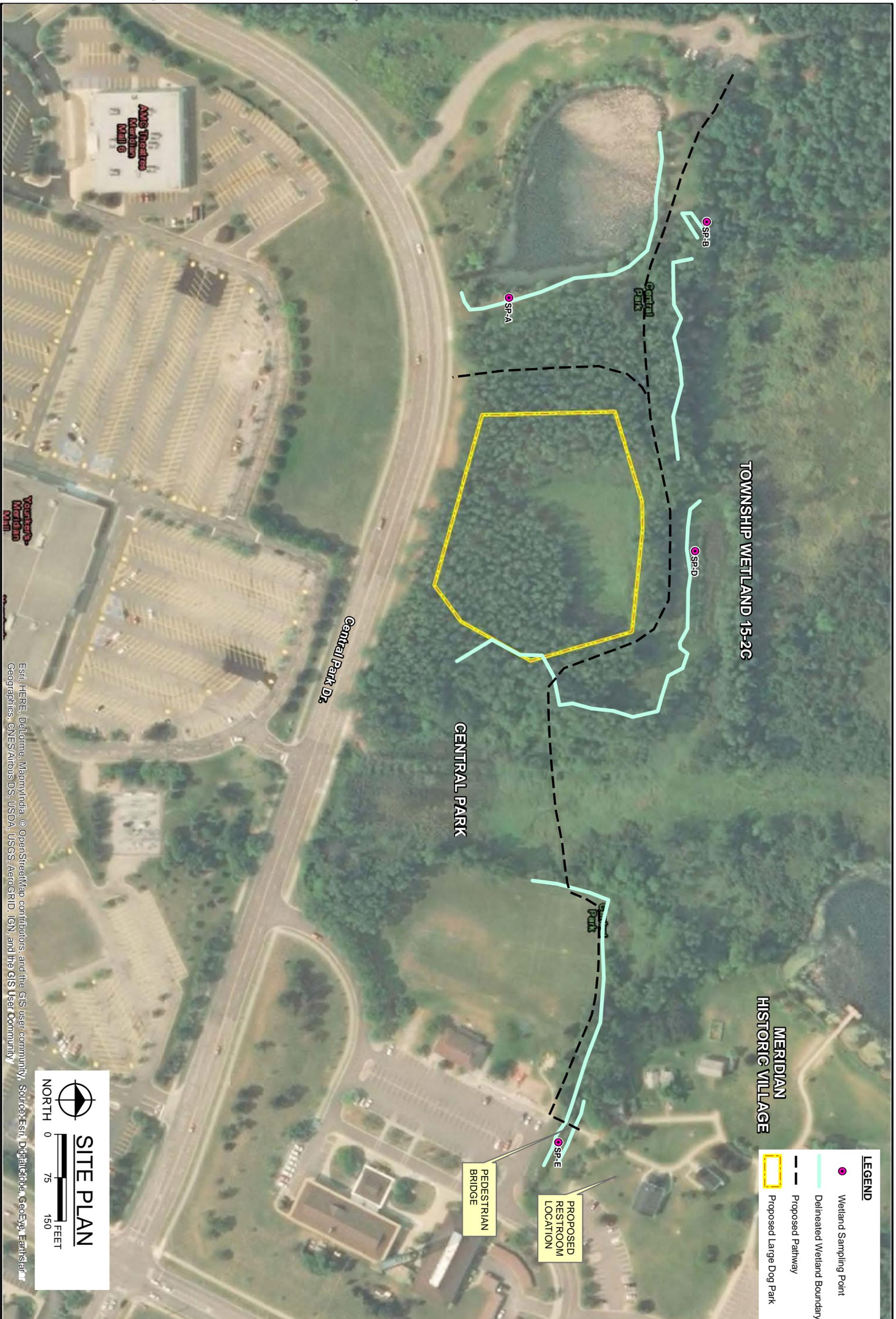
Elise Hansen Tripp, PWS

pmb

Attachments

By email

cc/att: Mr. Peter Menser – Township of Meridian
Mr. Mark Kieselbach – Township of Meridian



LEGEND

- Wetland Sampling Point
- Delineated Wetland Boundary
- Proposed Pathway
- ▭ Proposed Large Dog Park

MERIDIAN HISTORIC VILLAGE

TOWNSHIP WETLAND 15-2C

CENTRAL PARK

Central Park Dr.

PROPOSED RESTROOM LOCATION

PEDESTRIAN BRIDGE

SITE PLAN

NORTH

0 75 150 FEET

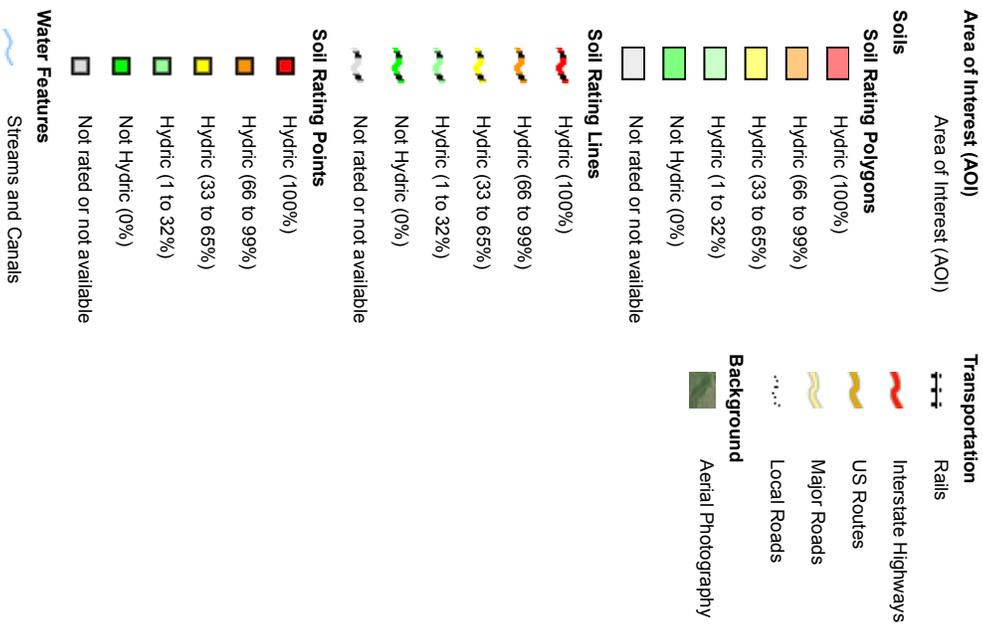
Esri, HERE, DeLorme, MapmyIndia, © OpenStreetMap contributors, and the GIS user community, Source: Esri, DigitalGlobe, GeoEye, Earthstar

	constructors fishbeck, thompson, carr & huber, inc.	architects scientists engineers	Charter Township of Meridian Central Park South, Meridian Twp., Ingham County, Michigan	
			Central Park Pathway and Bridge Rehabilitation	
Hard copy is intended to be 11"x17" when plotted. Scale(s) indicated and graphic quality may not be accurate for any other size.			PROJECT NO. 181201	
© Copyright 2018 All Rights Reserved			FIGURE NO. 1	

Hydric Rating by Map Unit—Ingham County, Michigan



MAP LEGEND



MAP INFORMATION

The soil surveys that comprise your AOI were mapped at 1:15,800.

Warning: Soil Map may not be valid at this scale.

Enlargement of maps beyond the scale of mapping can cause misunderstanding of the detail of mapping and accuracy of soil line placement. The maps do not show the small areas of contrasting soils that could have been shown at a more detailed scale.

Please rely on the bar scale on each map sheet for map measurements.

Source of Map: Natural Resources Conservation Service

Web Soil Survey URL:

Coordinate System: Web Mercator (EPSG:3857)

Maps from the Web Soil Survey are based on the Web Mercator projection, which preserves direction and shape but distorts distance and area. A projection that preserves area, such as the Albers equal-area conic projection, should be used if more accurate calculations of distance or area are required.

This product is generated from the USDA-NRCS certified data as of the version date(s) listed below.

Soil Survey Area: Ingham County, Michigan
Survey Area Data: Version 15, Oct 5, 2017

Soil map units are labeled (as space allows) for map scales 1:50,000 or larger.

Date(s) aerial images were photographed: Jul 1, 2011—Mar 10, 2017

The orthophoto or other base map on which the soil lines were compiled and digitized probably differs from the background imagery displayed on these maps. As a result, some minor shifting of map unit boundaries may be evident.

Hydric Rating by Map Unit

Map unit symbol	Map unit name	Rating	Acres in AOI	Percent of AOI
AnA	Aubbeenaubbee-Capac sandy loams, 0 to 3 percent slopes	8	3.0	4.8%
Co	Colwood-Brookston loams	80	7.6	12.0%
Hn	Houghton muck, 0 to 1 percent slopes	100	14.9	23.6%
MtB	Metea loamy sand, 2 to 6 percent slopes	0	0.4	0.6%
MtC	Metea loamy sand, 6 to 12 percent slopes	0	13.1	20.8%
OtB	Oshtemo-Spinks loamy sands, 0 to 6 percent slopes	0	3.1	4.9%
UpA	Urban land-Capac-Colwood complex, 0 to 4 percent slopes	28	12.0	19.1%
UtB	Urban land-Marlette complex, 2 to 12 percent slopes	5	5.9	9.4%
W	Water	0	3.0	4.8%
Totals for Area of Interest			63.1	100.0%

Description

This rating indicates the percentage of map units that meets the criteria for hydric soils. Map units are composed of one or more map unit components or soil types, each of which is rated as hydric soil or not hydric. Map units that are made up dominantly of hydric soils may have small areas of minor nonhydric components in the higher positions on the landform, and map units that are made up dominantly of nonhydric soils may have small areas of minor hydric components in the lower positions on the landform. Each map unit is rated based on its respective components and the percentage of each component within the map unit.

The thematic map is color coded based on the composition of hydric components. The five color classes are separated as 100 percent hydric components, 66 to 99 percent hydric components, 33 to 65 percent hydric components, 1 to 32 percent hydric components, and less than one percent hydric components.

In Web Soil Survey, the Summary by Map Unit table that is displayed below the map pane contains a column named 'Rating'. In this column the percentage of each map unit that is classified as hydric is displayed.

Hydric soils are defined by the National Technical Committee for Hydric Soils (NTCHS) as soils that formed under conditions of saturation, flooding, or ponding long enough during the growing season to develop anaerobic conditions in the upper part (Federal Register, 1994). Under natural conditions, these soils are either saturated or inundated long enough during the growing season to support the growth and reproduction of hydrophytic vegetation.

The NTCHS definition identifies general soil properties that are associated with wetness. In order to determine whether a specific soil is a hydric soil or nonhydric soil, however, more specific information, such as information about the depth and duration of the water table, is needed. Thus, criteria that identify those estimated soil properties unique to hydric soils have been established (Federal Register, 2002). These criteria are used to identify map unit components that normally are associated with wetlands. The criteria used are selected estimated soil properties that are described in "Soil Taxonomy" (Soil Survey Staff, 1999) and "Keys to Soil Taxonomy" (Soil Survey Staff, 2006) and in the "Soil Survey Manual" (Soil Survey Division Staff, 1993).

If soils are wet enough for a long enough period of time to be considered hydric, they should exhibit certain properties that can be easily observed in the field. These visible properties are indicators of hydric soils. The indicators used to make onsite determinations of hydric soils are specified in "Field Indicators of Hydric Soils in the United States" (Hurt and Vasilas, 2006).

References:

Federal Register. July 13, 1994. Changes in hydric soils of the United States.

Federal Register. September 18, 2002. Hydric soils of the United States.

Hurt, G.W., and L.M. Vasilas, editors. Version 6.0, 2006. Field indicators of hydric soils in the United States.

Soil Survey Division Staff. 1993. Soil survey manual. Soil Conservation Service. U.S. Department of Agriculture Handbook 18.

Soil Survey Staff. 1999. Soil taxonomy: A basic system of soil classification for making and interpreting soil surveys. 2nd edition. Natural Resources Conservation Service. U.S. Department of Agriculture Handbook 436.

Soil Survey Staff. 2006. Keys to soil taxonomy. 10th edition. U.S. Department of Agriculture, Natural Resources Conservation Service.

Rating Options

Aggregation Method: Percent Present

Component Percent Cutoff: None Specified

Tie-break Rule: Lower



Central Park, Okemos, MI



July 18, 2018

Wetlands

- Estuarine and Marine Deepwater
- Freshwater Emergent Wetland
- Estuarine and Marine Wetland
- Freshwater Forested/Shrub Wetland
- Freshwater Pond
- Lake
- Other
- Riverine

U.S. Fish and Wildlife Service, National Standards and Support Team,
wetlands_team@fws.gov

This map is for general reference only. The US Fish and Wildlife Service is not responsible for the accuracy or currentness of the base data shown on this map. All wetlands related data should be used in accordance with the layer metadata found on the Wetlands Mapper web site.

Fishbeck, Thompson, Carr & Huber, Inc.

Wetland Delineation: Central Park Pathway and Bridge Charter Township of Meridian Ingham County, Michigan

ftc&h

Project No. 181200/181201

Pond at West End of Pathway Route



North side, looking east



East side, looking south



Wetland at SP-A



Sampling Point SP-A



Terrace at SP-B



Sampling Point SP-B



Gully adjacent to SP-B



Township Wetland 15-2C,
Viewed from Wetland Boundary (C Flags)



Wetland at SP-D



Sampling Point SP-D



Forested Wetland between proposed Large
Dog Park and Athletic Field



Pathway Route traversing Emergent
Wetland west of Athletic Field.

Wetlands Associated with Pedestrian Bridge



Sampling Point SP-E



Emergent Wetland at SP-E

Wetlands Associated with Pedestrian Bridge



Wetland west of the Bridge, as viewed from the northwest



June 28, 2019
Project No. 190844

Mr. Mark Kieselbach
Charter Township of Meridian
5151 Marsh Road
Okemos, MI 48864

Re: Wetland Use Permit #19-02 Application Review
Central Meridian Regional Trail Connector
Meridian Department of Parks and Recreation

Dear Mr. Kieselbach:

The Charter Township of Meridian Parks and Recreation Department (Township P&RD) is requesting to construct pathways and a fishing deck in Meridian Central Park and South Central Park. Site improvements will impact wetlands regulated by the Township.

At the request of the Township, FTCH reviewed the Township P&RD's Wetland Use Permit (WUP) request, including the following:

- A digital MDEQ/USACE Joint Permit Application (JPA) prepared by the Applicant, including revisions dated March 15, 2019, May 1, 2019, and May 24, 2019;
- A set of project design drawings prepared by Wolverine Engineers & Surveyors, Inc. (WES), dated June 24, 2019; and
- An email from Jesse Lewter of WES to Ms. Carol Valor of the Michigan Department of Environment, Great Lakes and Energy (EGLE) which provides responses to Ms. Valor's JPA review questions and comments.

Additionally, FTCH delineated wetland boundaries at the project site in Summer 2018 and summarized its findings in a report entitled *Wetland Delineation – Pathway and Bridge Replacement Project, Central Park, Charter Township of Meridian, Ingham County, Michigan*, dated September 6, 2018.

This letter provides a brief description of the resources that would be impacted by the proposed work, evaluates WUP Application #19-02, according to review standards in the Township Wetland Protection Ordinance (Article IV of Chapter 22 of the Code of Ordinances of the Charter Township of Meridian), and makes recommendations to the Township regarding issuance or denial of the WUP application.

Overview of Proposed Wetland Impacts

The proposed activities are in the southwest quarter of Section 15, Town 4 North, Range 1 West, Ingham County, Michigan. The Township wetland map for Section 15 indicates the proposed pathway crosses the southern lobe of Wetland 15-2C, an approximately 131.76 acre, forested/emergent/scrub-shrub/open water wetland complex. This wetland is regulated by the Township under Article IV (Wetland Protection) of Chapter 22 of the Township's Code of Ordinances because it is greater than two acres in size. The west end of the proposed pathway is located north of a 1.9-acre pond which has a narrow fringe of wetland along its shore. This wetland is regulated by the Township because it is contiguous with a body of water. The proposed fishing deck is located in this pond.



The Applicant has submitted a WUP application to the Township requesting the following:

- Construct a 12-foot wide, paved pedestrian pathway that is a total of 2,400-feet long. The pathway includes a 360-foot long wooden boardwalk that will cross Township Wetland 15-2C. The boardwalk will be installed on helical piers (i.e. support pilings) and will be elevated approximately 2.5 feet above the surface of the wetland. Therefore, the only permanent impact to the wetland will be installation of the helical piers, which are screwed into the soil. No soil will be excavated from the wetland or placed in it during installation of the piers. The boardwalk will cover 4,650 square feet of wetland but will not alter its vegetation (other than the clearing of woody vegetation), soils or hydrology.
 - FTCH Note: the pathway route avoids wetland impacts to the greatest extent possible. Portions of the pathway will be constructed within 40 feet of the wetland boundary. FTCH concurs avoidance of the Township's 40-foot wetland buffer is unavoidable due site constraints.
- Construct a construction route to the boardwalk that will temporarily impact 4,660 square feet of wetland on the north side of the proposed boardwalk.
- Construct a fishing deck on the pond and a connecting boardwalk that crosses associated wetland. The deck and boardwalk will be constructed through the installation of helical piers. The boardwalk will cross approximately 304 square feet of wetland (16-foot wide boardwalk x 19 linear feet of wetland crossing).
 - FTCH Note: The area of wetland crossing associated with the fishing deck boardwalk was not specified in the WUP application. However, the boardwalk will be elevated above the wetland so no permanent impact to the wetland is anticipated.
- Temporarily impact 1,000-square feet of wetland along the pond's shoreline during construction of the fishing deck.
- Install 49-linear feet of 15-inch diameter, reinforced concrete pipe in a linear emergent wetland at the east end of the project area and backfill 1,830-square feet of associated wetland. The existing wood bridge will be replaced with paved sidewalk over the enclosed drain. The total volume of fill required for the crossing is 267 cubic yards; 63 cubic yards of this fill is below the 842.1 100-year floodplain elevation, which is assumed to be the wetland boundary.
 - FTCH Note: FTCH noted an error pertaining to the wetland boundary on the design drawings at the east end of the project area. Parallel wetland boundaries should be noted near the toe of slope along the linear wetland directly east and west of the pedestrian bridge. As drawn, the southern wetland boundary west of the bridge incorrectly crosses the drainageway and connects to the northern wetland boundary west of the bridge. The southern wetland boundary east of the bridge is not noted on the plans (or it may be obscured by the 100-year floodplain elevation line in this area).
 - FTCH Note: The WUP application notes the wetland boundary closely matches the 100-year floodplain boundary. Therefore, the applicant based the wetland fill area on the 100-year floodplain fill area. FTCH concurs with this approach, which provided a reasonable method for estimating wetland fill west of the pedestrian bridge, in the area of wetland boundary confusion noted above.
- Place 11-cubic yards of riprap at the west end of the installed pipe.
- Construct a 4,100-square feet wetland mitigation area on the north side of the pond to compensate for 1,830-square feet of permanent wetland impacts resulting from this project.



- FTCH Note: The mitigation area will compensate for partially filling the linear, emergent wetland at the east end of the project area. FTCH recommends replacement of emergent wetland require construction of the same type of wetland at a 1.5:1 ratio. Therefore, the required area of mitigation wetland is 2,745-square feet (i.e. the area in which wetland hydrology and dominant wetland vegetation will establish).
- FTCH Note: The proposed wetland remediation area noted on the project design drawings (i.e. the wetland mitigation area) extends up to 9 feet into the delineated wetland. The area extending into the existing wetland does not qualify as mitigation wetland. The shaded mitigation area noted on the plans also extends up the adjacent slopes one to two feet above the wetland boundary elevation. Some of the outer northern limits of the mitigation area may be too high to achieve wetland hydrology; however, the total mitigation area noted on the drawings is larger than required to meet the 1.5:1 mitigation ratio, thereby providing some assurance that the required mitigation wetland area will be achieved.

Review of WUP Application

The review standards used to evaluate WUP applications are found in Section 22-157 of Article IV (Wetland Protection) of Chapter 22 of the Township's Code of Ordinances. WUPs are not to be issued unless the proposed activity is found to be in the public interest, the permit is necessary to realize the benefits from the activity, and the proposed activity is otherwise lawful in all respects. Section 22-157(2) lists eleven general criteria to be considered when evaluating whether or not a proposed activity is in the public interest. An evaluation of the proposed activity, according to each of the eleven criteria, is as follows:

Section 22-157(2)(a) *The relative extent of the public and private need for the proposed activity.*

- No information regarding the relative extent of the public and private need for the trail extension and fishing deck construction was provided.

Section 22-157(2)(b) *The availability of feasible and prudent alternative locations and methods to accomplish the expected benefits from the activity.*

- The WUP application's discussion of feasible and prudent alternatives was limited to the following: "Given the proposed locations for the pathway ends and given the wetlands delineation boundaries, and using the helical piers will provide the least impact to the wetlands and provide the least restriction to the floodway."
- The availability of feasible and prudent alternative locations and methods was not discussed in the WUP application.
- The pathway route appears to avoid wetland impacts to the greatest extent possible. Construction of pathway within the 40-foot wetland buffer appears unavoidable in order to meet the project goal of connecting Meridian Central Park to the South Central Park with a paved pedestrian pathway.
- FTCH concurs that use of helical piers provides the least impact to site wetlands for construction of boardwalks and the fishing deck, compared to other methods of construction.
- The No Action alternative pertaining to filling wetlands at the east end of the project area has several negative results, as indicated by the Applicant:
 - The existing linear wetland collects trash and debris from the parking lot. These items are unsightly and difficult to remove.

- The linear wetland is in a public area, has steep slopes, and is six feet lower than the surrounding landscape. The Township has safety concerns for staff that maintain this area and the public who visit the park.
- The linear wetland is not visually appealing and is located at the entrance to the Central Park South and the Meridian Historical Village.

Section 22-157(2)(c) *The extent and permanence of the beneficial or detrimental effects which the proposed activity may have on the public and private uses to which the area is suited, including the benefits the wetlands provide.*

- The project area is well suited for construction of a pathway connecting two Township parks. The pathway alignment avoids wetland impacts to the greatest extent possible. Minimal impact to wetlands will result where the pathway crosses regulated wetland due to construction of boardwalks on helical piers and elevation of the boardwalk 2.5 feet above the ground surface. No impact to wetland soil or hydrology is anticipated due to construction of boardwalks and the fishing deck on helical piers.
- There are public and private benefits to providing a pathway connection between two Township parks and constructing the fishing deck: improved recreational opportunities with resulting health benefits, and improved access to nature.
- Site wetlands provide the following functions and values: water storage, water quality improvement, groundwater recharge, wildlife habitat, and aesthetic value. No significant impacts to these functions and values are anticipated due to construction of the boardwalk and fishing deck.
- The linear wetland that will be partially filled is of low quality due to the presence of invasive species. Wetland functions lost from partially filling the linear wetland will be mitigated through construction of new wetland on the north side of the pond.

Section 22-157(2)(d) *The probable impact of each proposal in relation to the cumulative effect created by other existing and anticipated activities in the watershed.*

- There are no identified cumulative impacts of the proposed project.

Section 22-157(2)(e) *The probable impact on recognized historic, cultural, scenic, ecological, or recreational values and on the public health or safety, or fish or wildlife.*

- The project provides recreational value through providing improved pedestrian access between Meridian Central Park and South Central Park and a fishing deck on a pond. The pond is a popular fishing location where fishing is currently limited to the shore. Both the pathways and the fishing deck will improve ADA accessibility to the parks.
- The project addresses a public safety concern by partially filling a steep ditch.
- No other impacts on recognized historic, cultural, scenic, ecological or recreational values are apparent for the proposed activities. In addition, no impacts to fish and wildlife are apparent.

Section 22-157(2)(f) *Economic value, both public and private, of the proposed land change to the general township area.*

- The question of economic value associated with the proposed activity is beyond the scope of the issues FTCH was retained to address. Accordingly, FTCH offers no opinion, recommendations, or advice with respect to this criterium.



Section 22-157(2)(g) *The size and quality of the wetland being considered.*

- The proposed pathway crosses the southern lobe of Township Wetland 15-2C, a 131.76 acre, forested/emergent/scrub-shrub/open water wetland complex. Forested and emergent wetland are present along the pathway route. A utility corridor containing high voltage electrical lines is also present in the emergent wetland along the pathway route. The pathway will cross under the power lines, which run from north to south.
- The boardwalk to the fishing deck will cross a relatively narrow band of emergent wetland along the edge of the pond.
- The linear wetland which will be filled is adjacent to parking lots and appeared to be in a manmade ditch. Invasive species dominate the wetland in the proposed fill area.

Section 22-157(2)(h) *The findings of necessity for the proposed activity which have been made by other agencies.*

- FTCH is not aware of any findings of necessity for the proposed activity which have been made by other agencies.

Section 22-157(2)(i) *Amount of wetland remaining in the general area and proximity to a waterway.*

- Site wetlands are part of a large wetland complex that contains Township Wetlands 15-2A, 15-2B, 15-2C, 15-2D, 10-16, 10-17, 16-11A, 16-11B, 16-11C, and 21-1B.
- The Mud Lake Drain and the Pine Lake Drain flow through Township Wetland 15-2C. These waterways are designated county drains.

Section 22-157(2)(j) *Proximity to any waterbody.*

- Lake Lansing is located approximately 1.6 mile northeast of the proposed wetland pathway crossing.
- The proposed fishing deck is located on an approximately 1.9-acre pond.
- An approximately two-acre pond is located approximately 0.1 mile northwest of the proposed wetland fill area.

Section 22-157(2)(k) *Extent to which upland soil erosion adjacent to the protected wetland is controlled.*

- A soil erosion and sedimentation control (SESC) plan was submitted as part of the project design drawings in the WUP application (Sheets C9.0, C9.1, and C9.2).
- Proposed SESC measures include:
 - Installation of silt fence and stormwater inlet protection;
 - Maintenance of soil erosion controls weekly and after every storm event;
 - Temporary seeding of disturbed areas, as needed;
 - Permanent stabilization of soil with vegetation within five days of final grade or final activity in an area.

Recommendations

Based upon our review of the submitted materials, it is our opinion that the proposed project meets the Township's requirements for permit issuance. FTCH recommends a WUP be issued for the following activities and impacts:

- Construct a 12-foot wide, paved pedestrian pathway, including a 360-foot long wooden boardwalk that crosses Township-regulated wetland and paved pathway within the 40-foot wetland buffer. The boardwalk will be installed on helical piers and elevated approximately 2.5 feet above the surface of the wetland.
- Construct a fishing deck on a pond and a connecting boardwalk which crosses approximately 304 square feet of associated wetland. The deck and boardwalk will be constructed through the installation of helical piers and elevated approximately 2.5 feet above the surface of the wetland.
- Construct construction routes that will temporarily impact 4,660 square feet of wetland on the north side of the proposed boardwalk and 1,000-square feet of wetland along the pond's shoreline during construction of the fishing deck.
- Backfill 1,830-square feet of linear, emergent wetland at the east end of the project area with 63-cubic yards of soil below the wetland boundary elevation (267 cubic yards of total fill).
- Place 11-cubic yards of riprap at the west end of the stormwater pipe installed in the filled wetland.

The WUP permit should be issued with the following conditions:

- Construct a mitigation wetland on the north shore of the site's pond, as indicated on Sheet No. C3.0 of the project plans. The mitigation wetland (i.e. the area containing dominant wetland vegetation, wetland hydrology and wetland soil) must be at least 2,745-square feet in size to compensate for filled wetland at a ratio of 1.5:1. The mitigation wetland should consist of emergent wetland.
- Submit a wetland mitigation plan, including a grading plan, planting plan, construction methods and timing, a species list of the native, wetland seed mixture (including scientific and common names), and seeding rates.
- Submit a wetland restoration plan for the temporary wetland impact areas adjacent to the pond's fishing deck and the wetland boardwalk, including the proposed wetland seed mixture, seeding rate, seeding schedule, and seedbed preparation.
- Monitor the wetland mitigation area and the temporary wetland impact areas for five years after construction to verify the presence of wetland vegetation and hydrology. After the first full growing season, provide the Township an annual monitoring report by January 31 of the following year.
- The performance standards for the wetland mitigation and restoration areas are:
 - Sixty percent cover of native wetland plant species.
 - Ten percent cover or less of invasive species.

Mr. Mark Kieselbach
Page 7
June 28, 2019



We appreciate the opportunity to assist in the review of this file. If you have any questions or require additional information, please contact me at 616.464.3738 or ehtripp@ftch.com.

Sincerely,

FISHBECK, THOMPSON, CARR & HUBER, INC.

A handwritten signature in black ink that reads "Elise Hansen Tripp". The signature is written in a cursive, flowing style.

Elise Hansen Tripp, PWS

pmb

By email

cc: Mr. Peter Menser – Township



To: Planning Commission

From: Peter Menser, Principal Planner
Justin Quagliata, Assistant Planner

Date: July 5, 2019

Re: Special Use Permit #19-99021 (Williams Volkswagen, Inc.), amend previously approved special use permit to construct a 15,120 square foot building addition and to expand the off-street parking area at 2186 Jolly Road.

The Planning Commission held the public hearing for Special Use Permit #19-99021 at its meeting on June 24, 2019. At the meeting the Planning Commission agreed to consider a resolution to approve the special use permit request at its next meeting.

Planning Commission Options

The Planning Commission may approve, approve with conditions, or deny the special use permit. A resolution to approve is attached.

- **Motion to adopt the attached resolution to approve Special Use Permit #19-99021.**

Attachment

1. Resolution to approve.

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RESOLUTION TO APPROVE

**Special Use Permit #19-99021
Williams Volkswagen, Inc.
2186 Jolly Road**

RESOLUTION

At the 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 8th day of July, 2019, at 7:00 p.m., Local Time.

PRESENT: _____

ABSENT: _____

The following resolution was offered by _____ and supported by _____.

WHEREAS, Williams Volkswagen, Inc. has requested an amendment to a previously approved special use permit to construct a 15,120 square foot building addition and to expand the off-street parking area at 2186 Jolly Road, located on the north side of Jolly Road, east of Okemos Road; and

WHEREAS, additions to buildings in excess of 10 percent of an existing building over 20,000 square feet in gross floor area and expansion of a use requiring additional off-street parking spaces requires an amendment to the existing special use permit pursuant to Section 86-129(b) of the Code of Ordinances; and

WHEREAS, the Planning Commission held a public hearing regarding the special use permit amendment request at its regular meeting on June 24, 2019 and has reviewed and discussed the staff materials forwarded under a cover memorandum dated June 21, 2019; and

WHEREAS, the subject site is appropriately zoned C-2 (Commercial) which allows new car dealerships 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, the proposed development will be harmonious with the existing automobile dealership and adjacent commercial uses surrounding the site; and

WHEREAS, public water and sanitary sewer services serve the subject site; and

WHEREAS, the proposed project is consistent with Objective A of Goal 3 of the 2017 Master Plan to upgrade commercial areas.

NOW, THEREFORE BE IT RESOLVED THE PLANNING COMMISSION OF THE CHARTER TOWNSHIP OF MERIDIAN hereby approves the special use permit amendment to construct a 15,120 square foot building addition and to expand the off-street parking area at 2186 Jolly Road, subject to the following conditions:

1. Approval is granted in accordance with the site plan by Kebs, Inc. dated June 18, 2019 (revision date June 26, 2019) and received by the Township on June 27, 2019.
2. Site and building lighting shall comply with Article VII in Chapter 38 of the Code of Ordinances and are subject to the approval of the Director of Community Planning and Development.



To: Planning Commission

From: Peter Menser, Principal Planner
Justin Quagliata, Assistant Planner

Date: July 5, 2019

Re: Special Use Permit #19041 (Williams Volkswagen, Inc.), construct building greater than 25,000 square feet in size at 2186 Jolly Road.

The Planning Commission held the public hearing for Special Use Permit #19041 at its meeting on June 24, 2019. At the meeting the Planning Commission agreed to consider a resolution to recommend approval of the special use permit request at its next meeting.

Planning Commission Options

The Planning Commission may approve, approve with conditions, or deny the special use permit. A resolution to approve is attached.

- **Motion to adopt the attached resolution to recommend approval of Special Use Permit #19041.**

Attachment

1. Resolution to recommend approval.

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RESOLUTION TO RECOMMEND APPROVAL

**Special Use Permit #19041
Williams Volkswagen, Inc.
2186 Jolly Road**

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 8th day of July, 2019, at 7:00 p.m., Local Time.

PRESENT: _____

ABSENT: _____

The following resolution was offered by _____ and supported by _____.

WHEREAS, Williams Volkswagen, Inc. has submitted a request to construct a building greater than 25,000 square feet in size on 7.78 acres at 2186 Jolly Road; and

WHEREAS, the proposed project includes the construction of a 15,120 square foot building addition with total square footage of the proposed building 45,540 square feet in size; and

WHEREAS, a special use permit is required for constructing a building 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 24, 2019 and has reviewed staff material forwarded under cover a memorandum dated June 21, 2019; and

WHEREAS, the subject site is appropriately zoned C-2 (Commercial), which permits the construction of buildings greater than 25,000 square feet in floor area 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, public water and sanitary sewer services 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 #19041, subject to the following conditions:

1. Approval is in accordance with the site plan prepared by prepared by Kebs, Inc. dated June 18, 2018 (revision date June 26, 2019) and received by the Township on June 27, 2019.
2. Approval of the special use permit is subject to all conditions placed on Special Use Permit #19-99021 by the Township.
3. Any future building additions will require an amendment to the special use permit.



To: Planning Commission

From: Peter Menser, Principal Planner

Date: July 2, 2019

Re: Rezoning #19060 (Bennett Road Holding, LLC), rezone approximately 83 acres from RR (Rural Residential) and RAAA (Single Family-Low Density) to RAA (Single Family-Low Density).

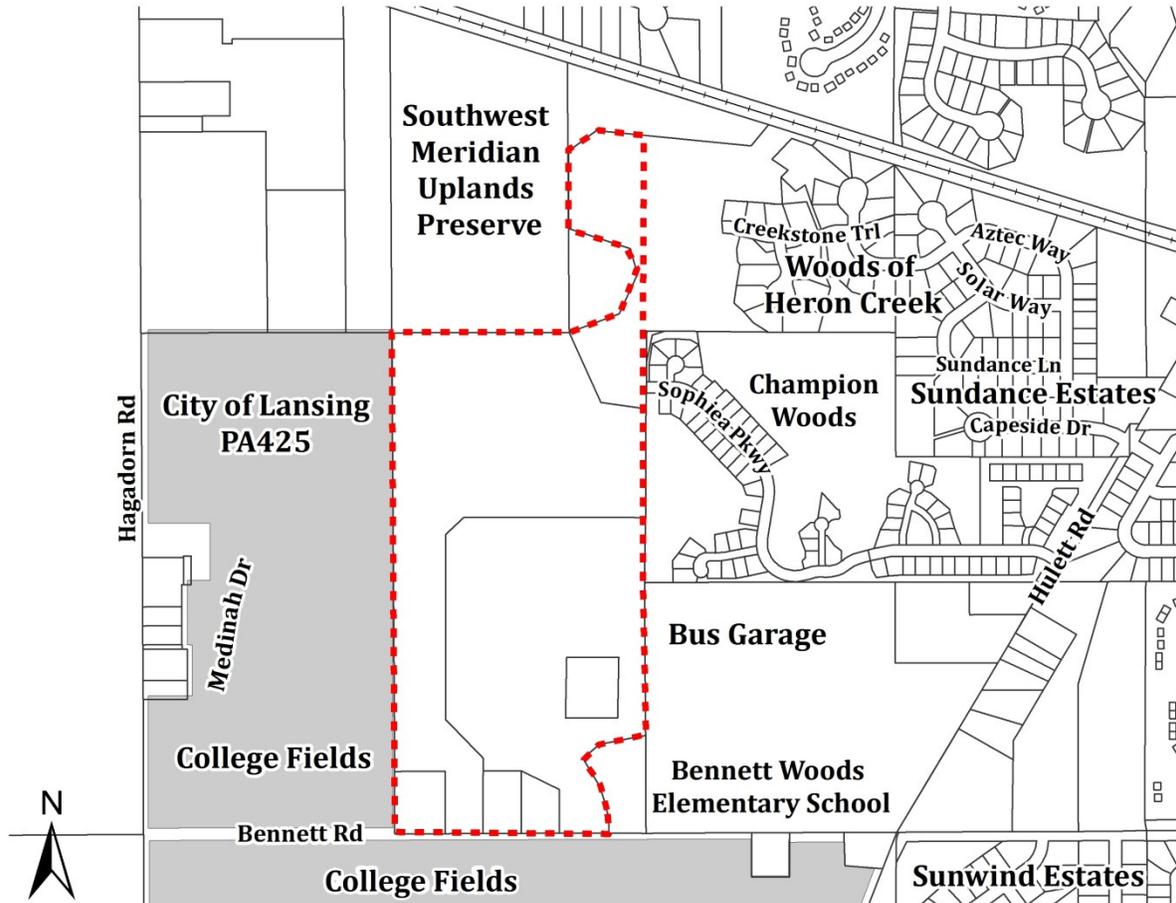
The Planning Commission held the public hearing for Rezoning #19060 at its meeting on June 10, 2019. Since the public hearing the applicant has modified the rezoning request to rezone approximately 83 acres of the site to RAA (Single Family-Low Density). The original request was to rezone the entire 96.74 acres from RR, RAA, and RAAA to RA (Single Family-Medium Density) conditioned on development of the site as a planned unit development (PUD) and a maximum of 210 units. The applicant has removed the conditions from the rezoning request. Approximately 13 acres of the site is currently zoned RAA and not proposed for rezoning.

At its last meeting on June 24, 2019 the Planning Commission requested feedback from Okemos Public Schools (OPS) related to the ability of the school to accommodate additional students. In response, the Township Supervisor reached out to the President of the OPS Board of Education. A letter from the Board President is attached to this memorandum for consideration.

The current zoning consists of approximately 13 acres of RAA zoning, 75 acres of RAAA zoning, and eight acres of RR zoning. The following table provides information on the seven parcels included in the rezoning:

Property/Parcel I.D.	Acreage	Street Frontage
2862 Bennett Road Parcel I.D. #33-02-02-29-300-008	1.8 acres	264 feet
2824 Bennett Road Parcel I.D. #33-02-02-29-300-020	1.52 acres	201 feet
2806 Bennett Road Parcel I.D. #33-02-02-29-300-021	1.28 acres	200 feet
2800 Bennett Road Parcel I.D. #33-02-02-29-300-026	2.02 acres	0 feet
Parcel I.D. #33-02-02-29-300-025	30.2 acres	263 feet
Parcel I.D. #33-02-02-29-300-023	37.6 acres	198 feet
Parcel I.D. #33-02-02-29-251-009	22.3 acres	65 feet Creekstone Ln. 60 feet Sophiea Pkwy.

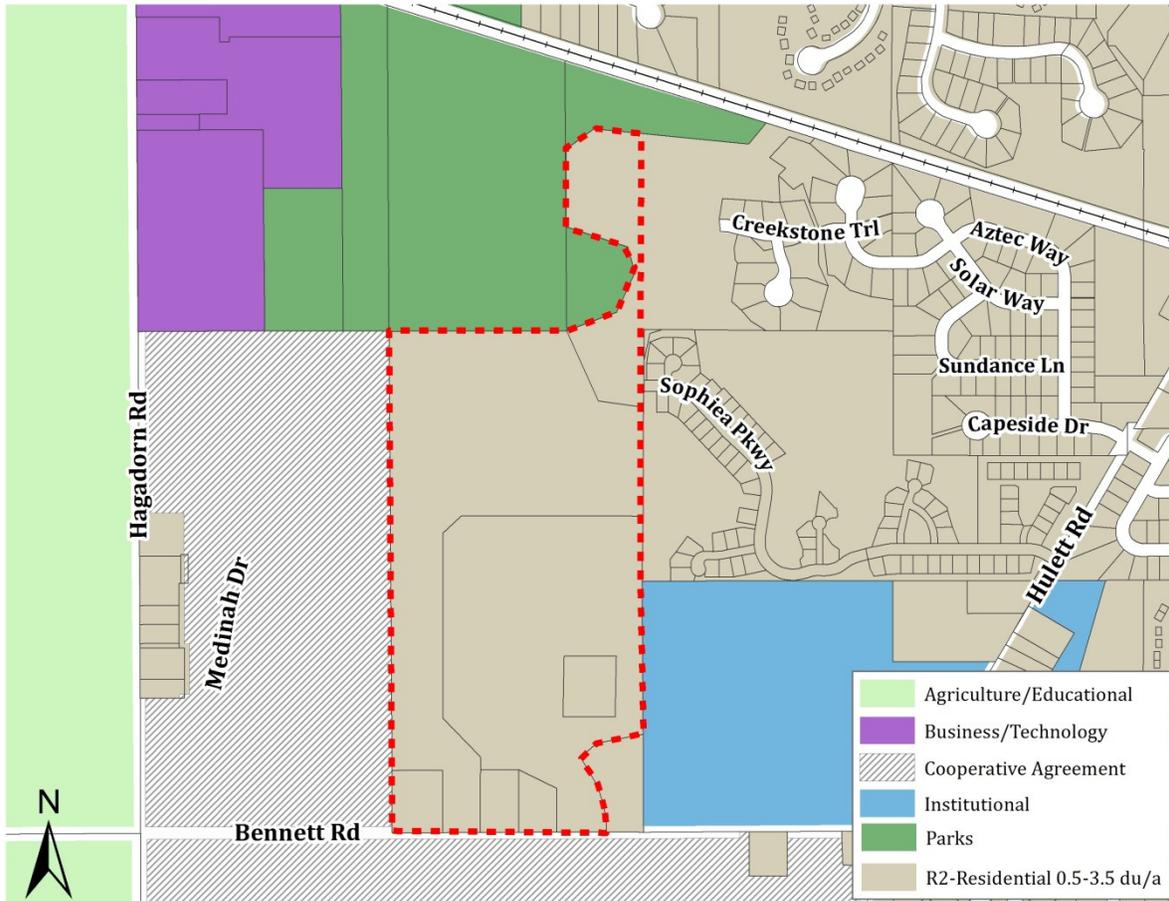
LOCATION MAP



Future Land Use Map

The Future Land Use Map from the 2017 Master Plan designates the parcels proposed for rezoning in the R-2 Residential 0.5-3.5 dwelling units per acre (du/a) category. With an estimated maximum density of approximately 2.64 dwelling units per acre (du/a), the proposed rezoning to RAA would be consistent with the R-2-Residential Future Land Use Map designation.

2017 FUTURE LAND USE MAP

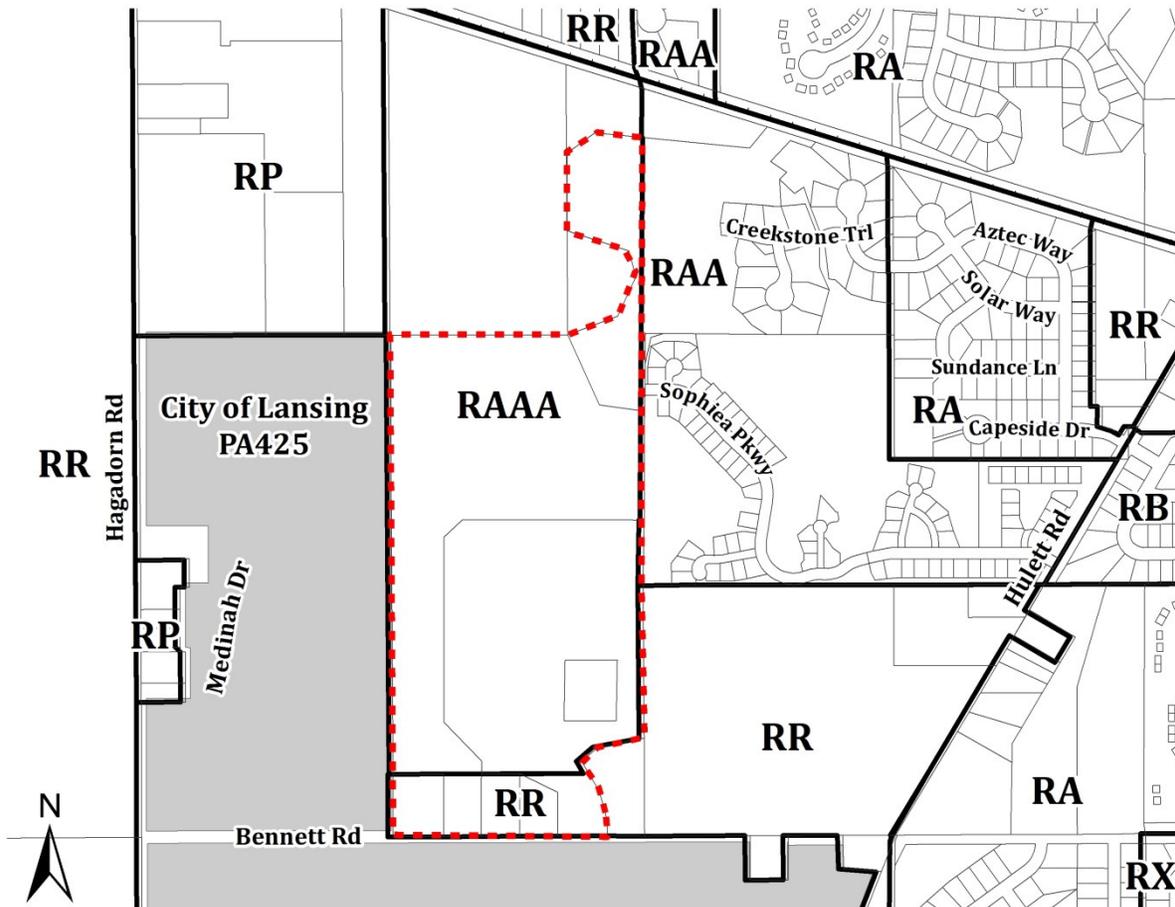


Zoning

The subject site is located in the RR (Rural Residential), RAA (Single Family-Low Density), and RAAA (Single Family-Low Density) zoning districts. The following table compares the required minimum lot width and lot area standards for the existing RR, RAA, and RAAA zoning districts with the proposed RAA zoning district:

ZONING DISTRICT	MINIMUM LOT AREA	MINIMUM LOT WIDTH
Existing RAA	13,500 sq. ft.	90 ft.
Existing RAAA	20,000 sq. ft.	100 ft.
Existing RR	40,000 sq. ft.	200 ft.
<i>Proposed RAA</i>	<i>13,500 sq. ft.</i>	<i>90 ft.</i>

ZONING MAP



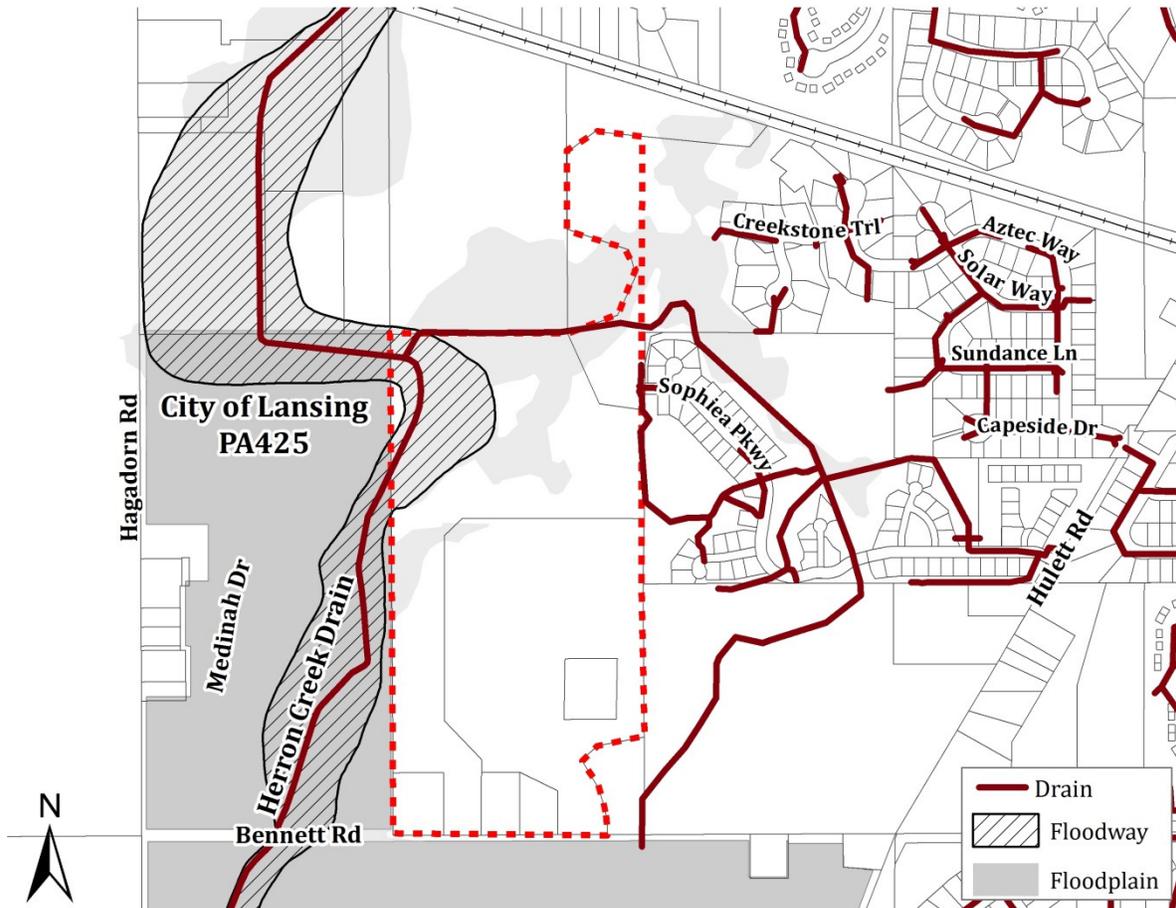
Physical Features

Three of the parcels fronting on Bennett Road are developed with single family homes and related accessory buildings. A parcel with no road frontage developed with a 7,840 square foot industrial building is also included in the proposed rezoning.

Floodplain

The Flood Insurance Rate Map (FIRM) for Meridian Township indicates there are areas of both floodway and floodway fringe on portions of the property. The Herron Creek Drain and associated floodway runs south to north on the western edge of the subject site.

FLOODPLAIN MAP

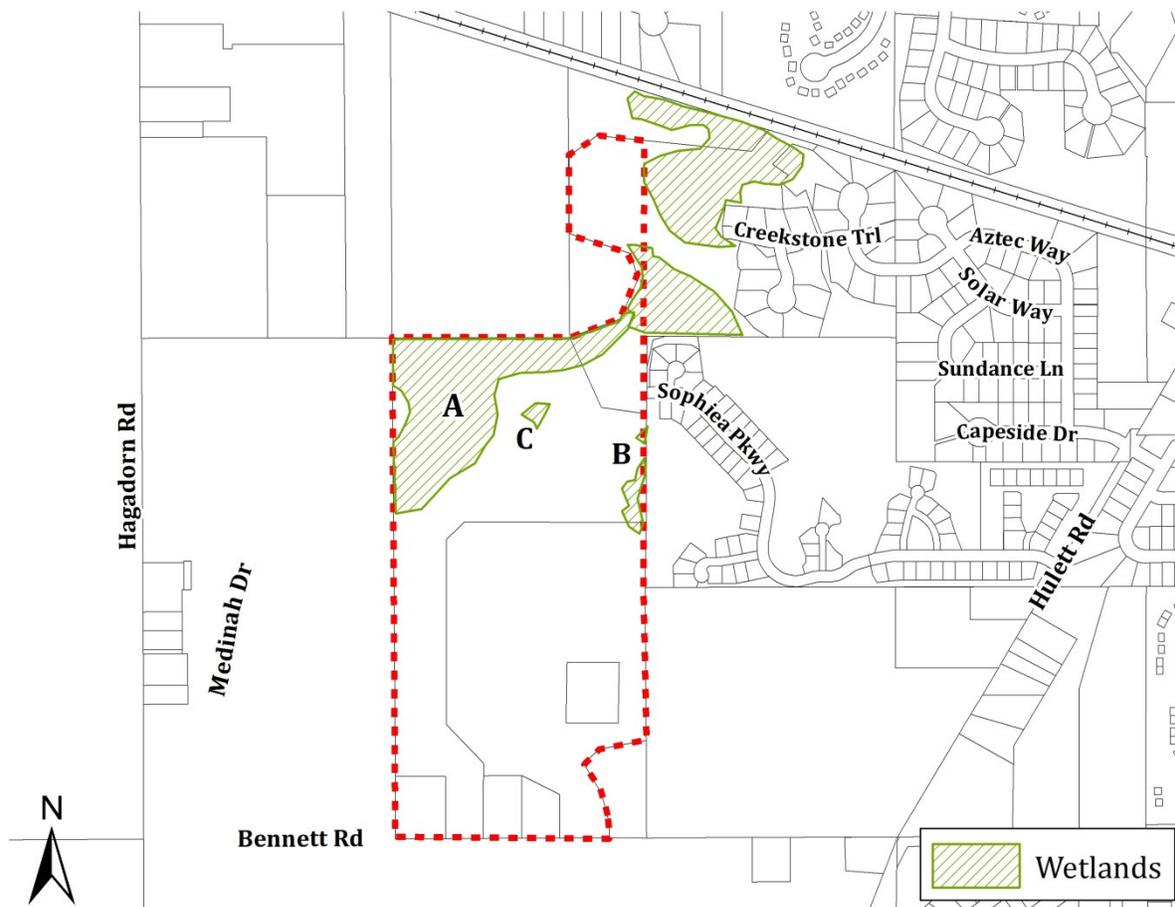


Wetlands

Wetlands on a portion of the property proposed for rezoning were delineated by the Township's wetland consultant in 2017. The delineation identified three wetlands, designated by letters A, B, and C. Two other wetland areas are shown on the Township's wetland map, which were not included in the delineation provided by the applicant. Of the three wetlands delineated, only Wetland A is regulated by the Michigan Department of Environment, Great Lakes, and Energy (EGLE) and Meridian Township based on its size (9.06 acres) and the distance from a regulated water body (river, stream/drain, or inland lake). Regulated wetlands equal to or greater than two acres in size require a 40 foot setback from the delineated boundary and wetlands greater than one quarter acre but smaller than two acres require a 20 foot setback.

Wetland B (0.83 acre) is not regulated by EGLE but could be regulated by Meridian Township if it is determined by the Township Board to be essential to the preservation of the natural resources of the Township. Wetland C (0.16 acre) is not regulated by the Township or EGLE as it is below the 0.25 acre standard established for regulation in the Wetland Protection ordinance.

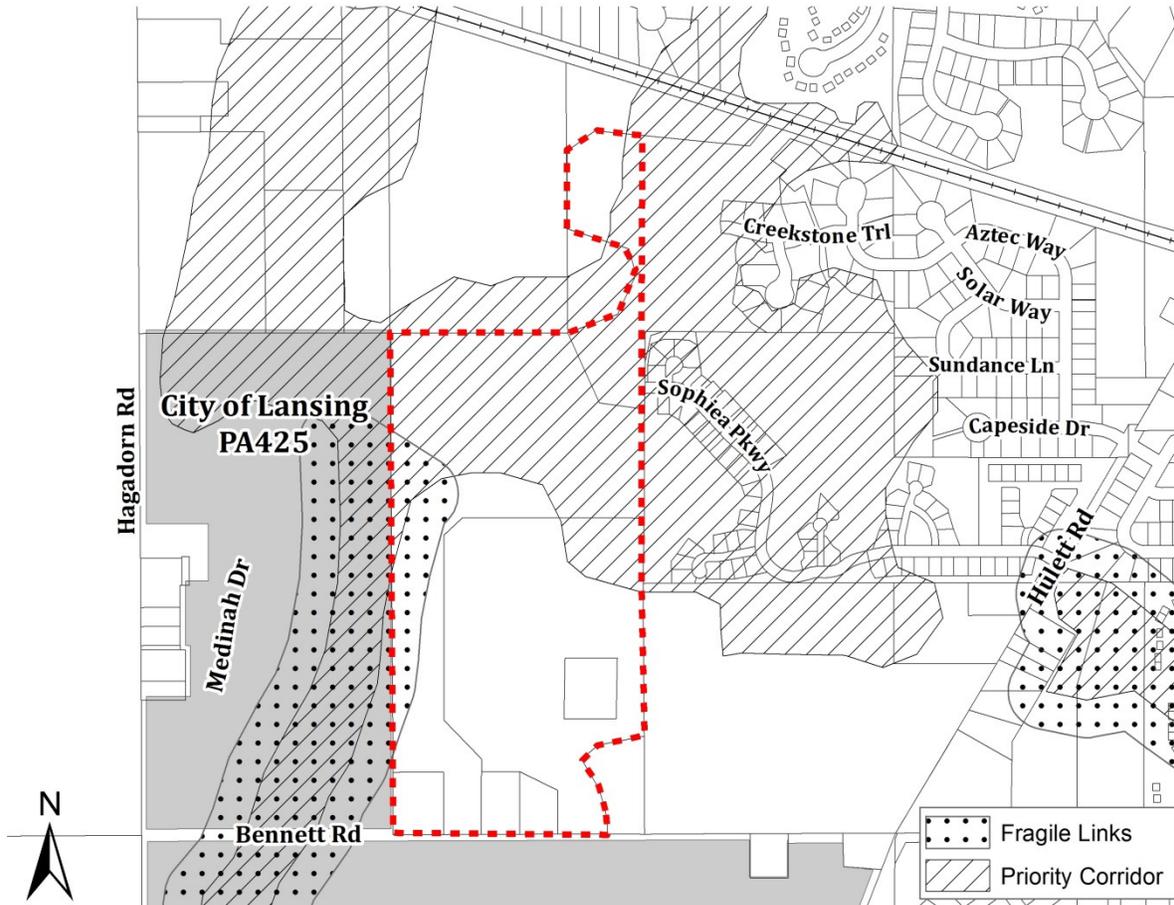
WETLAND MAP



Greenspace Plan

The Township Greenspace Plan shows a Priority Conservation Corridor (PCC) and Fragile Link on portions of the property. A PCC is a network of ecologically significant open spaces. A Fragile Link describes an area where the PCC is exceptionally narrow or fragmented. The Greenspace Plan is a guide used by staff to identify areas of potential environmental features but was not adopted as a Township ordinance.

GREENSPACE MAP



Streets & Traffic

The subject site is located on the north side of Bennett Road. Bennett Road is a two-lane road designated as a Collector Street on the Street Setbacks and Service Drives Map in the zoning ordinance. The most recent (2010) traffic count information from the Ingham County Road Department (ICRD) for Bennett Road between Hulett Road and Hagadorn Road showed a total of 6,010 vehicles in a 24 hour period.

The 2017 Master Plan shows a proposed seven foot wide pathway along the north side of Bennett Road. The applicant will be required to construct the portion of the pathway located along the Bennett Road property frontage should development be proposed for this site.

A traffic study is required for rezonings which would generate over 100 vehicle trips during the peak hours of traffic on adjacent roadways. The applicant has submitted a revised traffic study comparing the estimated change in traffic as a result of the proposed rezoning. The table below compares estimated traffic generation under the existing RR, RAA, and RAAA zoning and proposed RAA zoning. It estimates future traffic using data from the highest potential traffic generator allowed in each zoning district, which in this case is single family housing. Traffic generation was analyzed using the estimated maximum number of dwelling units that could be developed on the property under the existing RR, RAA, and RAAA and proposed RA zoning districts, as identified by the applicant’s traffic consultant but using the Township’s method of estimating maximum density. The study estimated traffic from 177 homes for the existing zoning and 255 homes for the proposed RAA zoning.

	Existing RR, RAA, & RAAA zoning, (177 homes)	Proposed RAA zoning, (255 homes)	Change
Peak Hour trips	130 (a.m.) 176 (p.m.)	186 (a.m.) 250 (p.m.)	+56 +74
Weekday trips	1,758	2,460	+702

The findings of the revised traffic study note that the intersection sight distance for the proposed new roadway intersection on Bennett Road should be checked and verified by the site engineer for compliance with the Ingham County Road Department sight distance standards for intersections. This information will be required to be provided if a development project is proposed for the site.

Utilities

Municipal water and sanitary sewer is available in the vicinity of 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 proposal.

Staff Analysis

The applicant has requested the rezoning of approximately 83 acres from RR and RAAA to RAA. 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.

Future development of the land would likely utilize either the Township's planned unit development (PUD) ordinance or the State of Michigan/Meridian Township Land Division Act to create a platted subdivision. The PUD ordinance would allow a developer to propose a residential project with diverse housing types and different lot dimensions and yard setbacks as those prescribed in the underlying zoning district. Lot size, yards, frontage requirements, setbacks, building height, and type and size of dwelling unit restrictions are generally waived in a PUD. In exchange for the flexible standards, a minimum of 50% of the project area, excluding wetlands and floodplains, must be preserved as open space. A platted subdivision would not allow for any waivers and would require the installation of public roads, which are often wider than private roads.

Township staff estimates the potential density of any proposed residential zoning district by calculating the minimum lot sizes permitted in the zoning district and adding a percentage reduction for road rights-of-way. The number of units produced using this calculation is just a guide to help identify potential future density and do not factor in wetland areas, floodplain, topography, soils, utilities, site layout, or any other factors that may limit buildable area. The following offers an estimate of potential density under the current RR, RAA, and RAAA zoning arrangement and proposed rezoning to RAA:

Development under current zoning

8 acres of RR zoning x 0.98 maximum dwelling units per acre (du/a) = 8 total lots
13 acres of RAA zoning x 2.64 maximum dwelling units per acre (du/a) = 34 total lots
75 acres of RAAA zoning x 1.79 maximum dwelling units per acre (du/a) = 134 total lots
Total estimated lots under current zoning: 176 lots

Development under originally proposed RA zoning

96.74 acres of RA zoning x 3.57 du/a = 345 total lots

Development under current request to RAA zoning

96.74 acres of RAA zoning x 2.64 du/a = 255 total lots

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 will be provided at a future meeting.

Attachments

1. Revised traffic study prepared by Traffic Engineering Associates, Inc. dated July 2019.
2. Rezoning criteria.
3. Letter from Dean Bolton, President, Okemos Board of Education.



Updated

TRAFFIC ASSESSMENT

For the

Proposed Rezoning of

96.74 Acres on Bennett Road

Meridian Charter Township, Ingham County, MI

July 2019

Prepared by:

**Traffic Engineering
Associates, Inc.**

PO Box 100 • Saranac, Michigan 48881
517/627-6028 FAX: 517/627-6040

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PROJECT DESCRIPTION

This rezoning request is for a parcel of land located on the north side of Bennett Road between Hulett Road and Hagadorn Road in Meridian Charter Township, Ingham County, Michigan. The purpose of this study is to determine the difference between the potential traffic that could be generated by the existing zoning to the potential traffic that could be generated by the proposed future zoning on the same parcel.

The entire parcel consists of approximately 96.74 acres, with 75.55 acres currently zoned One-Family Low-Density Residential (RAAA), approximately 12.91 acres currently zoned One-Family/Low-Density Residential (RAA), approximately 8.28 acres is currently zoned One-Family Rural Residential (RR)

The rezoning request for the entire parcel is a One-Family Low/Density Residential (RAA) zoning.

For comparison purposes, the trip generation for the existing zoning was based on the most appropriate trip generator that Meridian Township will allow under the One-Family Low-Density Residential (RAAA) zoning, One-Family/Low-Density Residential (RAA) and One-Family Rural Residential (RR). The trip generation for the future zoning was determined by the most appropriate trip generator use allowed by Meridian Township under the proposed One-Family Low/Density Residential (RAA) zoning.

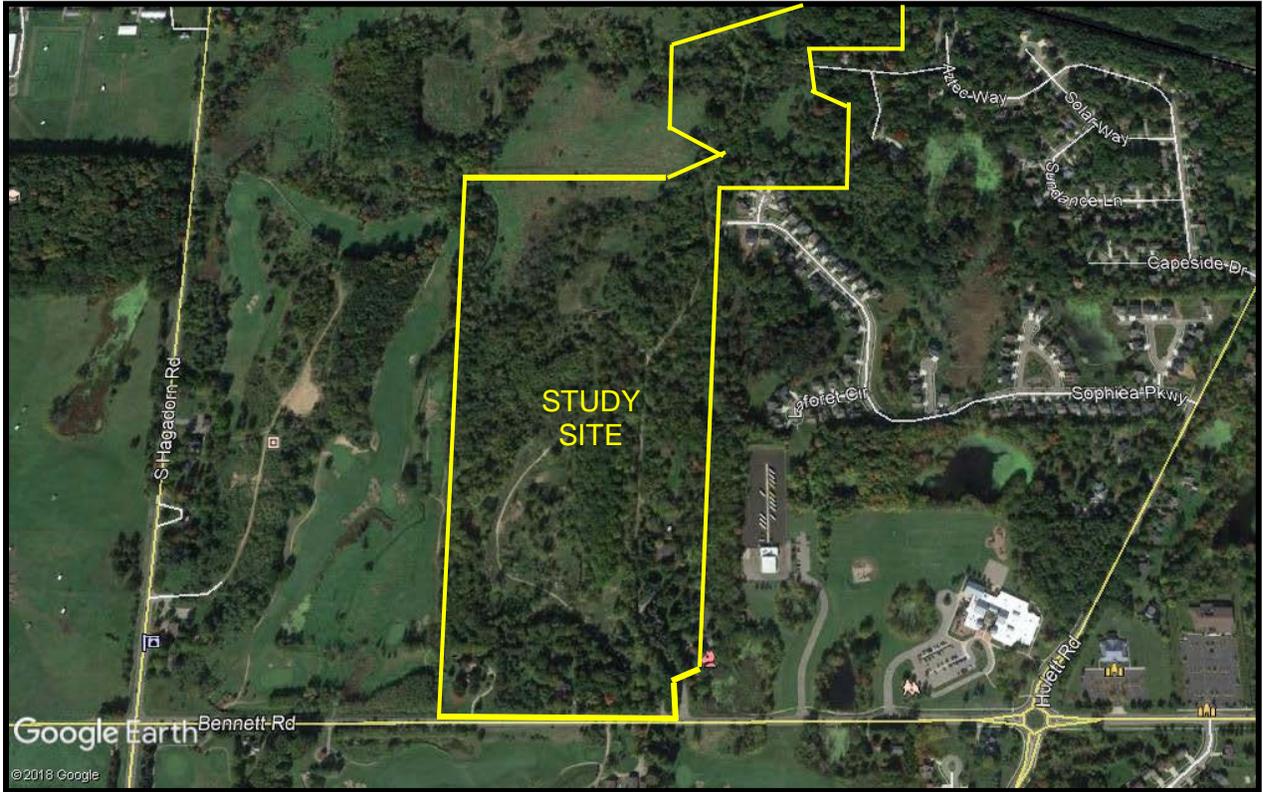
As all three (3) zoning categories are residential, the difference in each zoning district is the density of residential units.

The traffic analysis consists of the following items:

- Comparison of the proposed trips generated by the existing residential zoning to the proposed residential zoning.
- Discussion of any potential sight distance issues.

This study was conducted in accordance with the guidelines set forth in “Evaluating Traffic Impact Studies, A Recommended Practice for Michigan Communities,” sponsored by the Tri-County Regional Planning Commission and the Michigan Department of Transportation, and the Meridian Charter Township Zoning Ordinance.





Aerial Photo



EXISTING CONDITIONS

Bennett Road is an east-west roadway at the proposed site. The roadway is paved with four (4) foot paved shoulders on each side and there are no sidewalks at the proposed parcel. Bennett Road is under the jurisdiction of the Ingham County Road Department (ICRD) with a posted speed limit of 45 MPH.

LAND USE

Surrounding land uses consist of residential to the south, Bennett Woods Elementary School to the immediate east, the College Fields golf course to the immediate west and the College Fields golf course with residential homes to the south.



TRAFFIC GENERATION

Trip generation rates were derived from the ITE TRIP GENERATION MANUAL (10th edition). To determine the land use that would generate the maximum number of vehicle trips under each zoning category, the Meridian Charter Township zoning guidelines were utilized to determine the density of each residential zoning district based on the minimum lot size. In addition, a comparison was conducted utilizing the Meridian Township multipliers, which considers minimum lot sizes and a right-of-way reduction factor to account for roadways.

The ITE trip generation rates for Single-Family Detached Housing, Land Use Code 210, were selected as representing both the existing zoning and the proposed zoning. The ITE description of Single-Family Detached Housing is as follows:

Single-family detached housing includes all single-family detached homes on individual lots. A typical site surveyed is a suburban subdivision.

Calculation by Minimum Lot Size

The 75.55 acres currently zoned One-Family Low-Density Residential (RAAA) has a minimum lot size of 20,000 square feet; therefore, the maximum number of dwelling units under this zoning that could be built are 165 units.

The 12.91 acres currently zoned One-Family/Low-Density Residential (RAA) has a minimum lot size of 13,500 square feet and the maximum number of dwelling units under this zoning that could be built are 42 units.

The 8.28 acres currently zoned One-Family Rural Residential (RR) has a minimum lot size of 40,000 square feet. The maximum number of dwelling units under this zoning that could be built are 9 units.

The maximum total number of residential units that could be built on the 96.74 acres under the existing zoning is 216 units.

The proposed new zoning for the entire 96.74 acres is One-Family Low/Density Residential (RAA) which has a minimum lot size of 13,500 square feet. The maximum number of dwelling units under this zoning that could be built are 312 units.

The comparison of trip generation between the existing zoning and the proposed zoning utilizing the minimum lot size is summarized in **Table 1**. There is projected to be an increase during the AM peak hour of 68 vehicle trips, an increase during the PM peak hour of 90 vehicle trips, and a weekday total increase of 850 vehicle trips.

Calculation by Meridian Township Multiplier

The Meridian Charter Township planning department provided TEA with the multipliers they utilize to determine the maximum buildable number of units. A multiplier takes into account



minimum lot sizes, as well as accounting for the reduction in buildable acreage due to the right-of-way and the roadways in the development.

The 75.55 acres currently zoned One-Family Low-Density Residential (RAAA) has a multiplier of 1.79 units/acre. The maximum number of dwelling units using the township multiplier that could be built are 135 units.

The 12.91 acres currently zoned One-Family/Low-Density Residential (RAA) has a multiplier of 2.64 units/acre. The maximum number of dwelling units using the township multiplier that could be built are 34 units.

The 8.28 acres currently zoned One-Family Rural Residential (RR) has a multiplier of 0.98 units/acre. The maximum number of dwelling units using the township multiplier that could be built are 8 units.

The maximum total number of residential units that could be built on the 96.74 acres using the township multipliers is 177 units.

The proposed new zoning for the entire 96.74 acres is One-Family Low/Density Residential (RAA) which has a multiplier is 2.64 units/acre. The maximum number of dwelling units under this zoning that could be built utilizing the township multiplier are 255 units.

The comparison of trip generation between the existing zoning and the proposed zoning utilizing the township multipliers is summarized in **Table 2**. There is projected to be an increase during the AM peak hour of 56 vehicle trips, an increase during the PM peak hour of 74 vehicle trips, and a weekday total increase of 702 vehicle trips.



Table 1
Comparison Between
Existing and Proposed Zoning
Based on Minimum Lot Size

Land Use	Size	AM Peak Hour			PM Peak Hour			Weekday
		In	Out	Total	In	Out	Total	
Existing Zoning (RAAA, RAA & RR)	216 Units	40	118	158	134	79	213	2,112
Proposed Zoning (RAA)	312 Units	57	169	226	191	112	303	2,962
Difference		+17	+51	+68	+57	+33	+90	+850

Table 2
Comparison Between
Existing and Proposed Zoning
Based on Township Multipliers

Land Use	Size	AM Peak Hour			PM Peak Hour			Weekday
		In	Out	Total	In	Out	Total	
Existing Zoning (RAAA, RAA & RR)	177 Units	33	97	130	111	65	176	1,758
Proposed Zoning (RAA)	255 Units	47	139	186	158	92	250	2,460
Difference		+14	+42	+56	+47	+27	+74	+702



FINDINGS

The total trips generated by rezoning of the 96.74 acres of One-Family Low-Density Residential (RAAA) zoning, One-Family/Low-Density Residential (RAA) and One-Family Rural Residential (RR) to One-Family/Low-Density Residential (RAA) zoning is expected to increase the total vehicle trips for this property.

SIGHT DISTANCE

A field review of the location for the proposed new roadway for the development on Bennett Road revealed that there could be an issue with sight distance for eastbound traffic on Bennett Road. It is recommended that the site engineer provide a centerline profile of Bennett Road which shows the existing intersection sight distance, and the safe sight distance, and compare these with the Ingham County Road Department sight distance table in their "Rules, Standards and Procedures for Driveways, Banners and Parades Upon or Over Ingham County Road Commission Right of Way".

CONCLUSIONS

A summary of the findings of this study are listed as follows:

- The traffic volumes generated by the proposed rezoning of 96.74 acres to One-Family/Low-Density Residential (RAA) compared to the trips generated by the existing 96.74 acres, which consist of 75.55 acres of One-Family Low-Density Residential (RAAA); 12.91 acres of One-Family/Low-Density Residential (RAA); and 8.28 acres of One-Family Rural Residential (RR), are expected to increase the total vehicle trips for this property.
- The intersection sight distance for the proposed new roadway intersection on Bennett Road should be checked and verified by the site engineer. The sight distance should comply with the Ingham County Road Department sight distance standards for intersections.



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: _____

From: Dean Bolton <bolton2@comcast.net>

Date: June 25, 2019 at 4:44:09 PM EDT

To: "ronstyka@gmail.com" <ronstyka@gmail.com>, "john.hood@okemosk12.net" <john.hood@okemosk12.net>

Subject: RE: Enrollment

Ron,

No, the OPS Board of Education has not taken a position opposing more development or more students. Over the last two years, the district has conducted a very careful process to address the possibility of enrollment growth and at no time was there ever a recommendation to the board that it take such a position nor has any individual board member proposed such a position.

Rather than attempt in any way to prevent growth in enrollment, the district has been actively planning over the last two years for potential enrollment growth. In 2017, the Superintendent formed a committee to research and explore facility/site capacity and utilization. In the fall of 2018, the Interim Superintendent presented her recommendations based on the committee's work and they were approved by the Board in November, 2018. This included the addition of 4 classrooms and one "specials" classroom to Bennett Woods Elementary and funding for this was part of the bond approved by Okemos voters in May. This addition is planned to be completed by the start of the 2020-2021 school year.

The approved recommendations also included a process for the district to follow after 2021 if enrollments continue to grow. Here are pertinent excerpts:

Should enrollments continue to increase significantly over time, it is recommended that the district engage in a systematic, comprehensive, transparent and inclusive process that includes:

- Data collection – enrollment trends, neighborhood composition (children), other
- Review of research – educational programming and impacts
- Consider the following in the comprehensive analysis (not in priority order):
- Grade level configurations
- Build a new school - Powell Rd; Wardcliff property
- Open Wardcliff
- Repurpose Edgewood
- Add additional classrooms to existing buildings
- Make additional renovations to existing buildings
- Other Recommendation – continued
- Develop models: assigning neighborhoods; consider various grade level configurations
- Develop positives, challenges and associated costs
- Engage in community conversations: educate and seek feedback

Notes:

- This process (as described above) could take up to one year before a final Board decision.
- The bond proposal and building process could take up to 2 years.
- The district may not have to engage in this process if enrollments stabilize.

The 2019-2020 budget that the Board passed last night includes an assumption that our enrollments will increase by 50 students. Okemos is one of the few districts in the state that is seeing enrollment growth and this presents opportunities to benefit the district because, as you know, it can result in increased revenue that can offset the inadequate increases in the per-pupil funding provided by the state. While increased enrollments can result in challenges in terms of classroom space, rather than consider increasing class sizes, as our planning represents, we will continue to look at increasing the capacity of our facilities to address enrollment growth. The Board and the district are fully committed to ensuring that enrollment growth will not result in a compromise of the quality of education Okemos provides for its student.

Thank you for your inquiry and please don't hesitate to follow-up with any questions!

Dean Bolton, President

Board of Education

Okemos Public Schools

bolton2@comcast.net

517-896-4436