**Public Meeting Room A, Delta Administration Building**
**7710 West Saginaw Highway, Lansing, MI 48917**

**TOWNSHIP BOARD REGULAR MEETING**
**AGENDA**
**Monday, March 16, 2020 - 6:00 PM**

**I. CALL TO ORDER**

**II. OPENING CEREMONIES –** Pledge of Allegiance

**III. ROLL CALL** – Members: Supervisor Kenneth R. Fletcher, Clerk Mary R. Clark, Treasurer Howard A. Pizzo, Trustee Fonda J. Brewer, Trustee Andrea M. Cascarilla, Trustee Dennis R. Fedewa, and Trustee Karen J. Mojica

**IV. PRESENTATIONS AND PROCLAMATIONS**

**V. SET/ADJUST AGENDA**

**VI. PUBLIC HEARINGS**

1. **Noise Waiver – Oldsmobile Homecoming Car Show**
   The Manager's Office recommends that the Delta Township Board approve the request by the Oldsmobile Homecoming Car Shaw for a waiver of the Noise Ordinance between the hours of 8:00 a.m. and 4:00 p.m. on June 20, 2020.

2. **Noise Waiver – St. Gerard Annual Parish Festival**
   The Manager's Office recommends that the Delta Township Board approve the request by St. Gerard Church for a waiver of the Noise Ordinance between the hours of 8:30 p.m. and 11:30 p.m. on May 2, 2020.

**VII. COMMUNICATIONS**

**VIII. PUBLIC COMMENTS FOR ITEMS NOT ON AGENDA (maximum two minutes)**

**IX. INTRODUCTION OFORDINANCES**

3. **Introduction of Proposed Amendments to Special Transitory Food Unit (Food Trucks) Ordinance**
   The Planning Department recommends that the Delta Township Board introduce amendments to Sections 44-6, 44-10, 44-12, 44-14, 44-16, 44-17, and 44-18 the Delta Township Code of Ordinances pertaining to Special Transitory Food Units.

**X. PASSAGE OF ORDINANCES**

**XI. CONSENT AGENDA –** Anyone may request item(s) to be pulled from the consent agenda for discussion. If left on the consent agenda, the items will be voted on by a roll call vote of the Board en masse. Then, the individual item(s) will be discussed and voted upon.

**4. Bills and Financial Transactions**

**a. $ 1,250,514.49**

**5. Minutes**

**a. February 17, 2020 Regular Board Meeting**

**6. Amended Commercial Rehab Language for 4300 W. Saginaw Highway**
The Assessing Department recommends that the Delta Township Board approve the amended language in the Commercial Rehabilitation Exemption Certificate Resolution for 4300 West. Saginaw Highway.

**7. St. Gerard Amusement & Entertainment Permit - May 1 & 2, 2020**
The Clerk's Office recommends the Delta Township Board grant an Amusement and Entertainment License to St. Gerard's Church to hold their annual festival.

**8. 2020 Municipal Utility Standards Revisions**
The Engineering Department recommends that the Delta Township Board adopt the revisions to the Municipal Utility Standards, and further, that said standards be used as the requirement for all future municipal water and sanitary sewer projects in Delta Township.

**9. 2020 Sidewalk Construction Standards Revisions**
The Engineering Department recommends that the Delta Township Board adopt the revisions to the Sidewalk Construction Standards, and further, that said standards be used as the requirement for all future sidewalk construction in Delta Township.

**10. Board & Commissions Appointments**
The Township Supervisor recommends that the Delta Township Board appoint the corresponding persons to their corresponding Board or Commission; and that the Clerk is hereby directed to send notification informing them of their appointment.

**11. Payment of Vouchers**
The Manager's Office recommends that the Delta Township Board give Finance Director Jeff Anderson the authority to release payment of vendor invoices approved by the Township Manager, Clerk, and Treasurer. Further, I recommend all paid vouchers between March 16, 2020 and April 13, 2020 be presented for approval at the regular Township Board meeting scheduled for April 13, 2020.

**12. Payment of Vouchers Extension Provision**
The Manager's Office recommends that the Delta Township Board give Finance Director Jeff Anderson the authority to release payment of vendor invoices approved by the Township Manager, Clerk, and Treasurer, they further recommend that the Delta Township Board give Township Manager Brian Reed the authority to determine the period of time in which the extended payment of vouchers is necessary for public health safety and that all paid vouchers following April 13, 2020 be presented for approval at the next available regular Township Board meeting scheduled after the extension period has concluded

## XII. ITEMS REMOVED FROM CONSENT AGENDA FOR DISCUSSION

## XIII. ITEMS ADDED TO AGENDA UNDER SECTION V. SET/ADJUST AGENDA

**XIV. ITEMS OF BUSINESS**

**13. Introduction of 601 North Waverly Road Rezoning Request in Case No. 3-20-1**
The Planning Department recommends that the Delta Township Board refer Emilee Galica's request to rezone the property described in Case No. 3-20-1 from O-Office, to C, Commercial, to the Planning Commission for the purposes of holding a public hearing on the matter and submitting a recommendation to the Township Board.

**XV. MANAGER'S REPORT**

**XVI. COMMITTEE OF THE WHOLE**

**14. COVID-19 Discussion**

**XVII. PUBLIC COMMENTS (maximum five minutes)**

**XVIII. CLOSED SESSION**

**XIX. ADJOURNMENT**

**CHARTER TOWNSHIP OF DELTA**

**MARY R. CLARK, TOWNSHIP CLERK**
**Phone (517) 323-8500**

*Individuals with disabilities attending Township meetings or hearings and requiring auxiliary aids or services should contact Township Manager and ADA Coordinator Brian T. Reed by email at manager@deltami.gov or calling (517) 323-8590 to inform him of the date of the meeting or hearing that will be attended. Copies of minutes may be purchased or viewed in the Clerk's Office from 8 a.m. to 5 p.m., Monday through Friday.*

Supervisor Kenneth R. Fletcher
Treasurer Howard A. Pizzo
Clerk Mary R. Clark
Manager Brian T. Reed

Trustee Fonda J. Brewer
Trustee Andrea M. Cascarilla
Trustee Dennis R. Fedewa
Trustee Karen J. Mojica

DELTA TOWNSHIP

Manager's Office

(517) 323-8590

TO: Supervisor Kenneth R. Fletcher and the Delta Township Board

DATE: March 16, 2020

FROM: Brian Reed, Township Manager

RE: Noise Waiver Request for the Oldsmobile Homecoming Car Show

The Oldsmobile Homecoming Car Show has applied for a special permit to waive the requirements of the Noise Ordinance in reference to offering music entertainment for their upcoming annual event that will take place in a parking lot near 6106 Anacapri Blvd on the property of Auto-Owners Insurance. The proposed waiver will be from 8:00 a.m. through 4:00 p.m. on Saturday, June 20, 2020.

We have notified all property owners within 300 feet of the Auto-Owners Insurance Parking Lot property line of this request. We have not received any objections from residents with regard to this event. Therefore, we offer the following:

> ***"I move that the Delta Township Board approve the request by the Oldsmobile Homecoming Car Shaw for a waiver of the Noise Ordinance between the hours of 8:00 a.m. and 4:00 p.m. on June 20, 2020."***

Delta Charter Township
7710 West Saginaw Highway
Lansing, MI 48917
517-323-8590

# NOISE WAIVER REQUEST
## Sound Amplifying Equipment (SAE)

APPLICATION FOR A WAIVER OF RELIEF FROM THE NOISE LEVEL DESIGNATED IN ARTICLE V OF CHAPTER 14 (NOISE CONTROL) OF THE DELTA CHARTER TOWNSHIP CODE OF ORDINANCES.

Date Submitted: 1-17-2020 (must be at least two (2) weeks prior to the date of request)

Name of Organization/Individual Using Equipment: R.E. Olds Chapter OCA

Address Where Equipment will be used: 6101 Anacapri Blvd, Lansing, MI

Contact Name: Judy Badgley Phone: 517-256-2336

Mailing Address: _____

Purpose of using SAE: Car Show Event

**On site (24 hour contact) Name:** Judy Badgley **Mobile #:** 517-256-2336

**On site (24 hour contact) Name:** Evan Hope **Mobile #:** 517-749-2350

Please circle one: (**Stationary**) or **Mobile**

**If mobile, license and vehicle numbers:** _____

Date(s) Waiver is needed: June 20, 2020 Hours Waiver is needed: 8am - 4pm

Maximum sound producing power of SAE, including wattage and volume in decibels of sound, which will be produced: 70 dBA @ Speaker tower with 45 dBA at outer edge

Approximate distance from which sound will be audible from SAE: See attached

**Please submit request to the Delta Township Manager's Office two weeks prior to the date of request.**

***Additional information on backside.***

Applications may be made to the Township Board or its duly authorized representatives on the basis of undue hardship. Relief may be granted as applied for if one of the following is found:

1. That additional time is necessary for the applicant to alter or modify his/her activity or operation to comply with this article; or

2. The activity, operation or noise source will be of temporary duration, and cannot be done in a manner that would comply with other subsections of this section; and

3. That no other reasonable alternative is available to the applicant.

The Township Board may prescribe any conditions or requirements deemed necessary to minimize adverse effects upon the community or the surrounding neighborhood.

Judith L. Badgley 1-17-2020

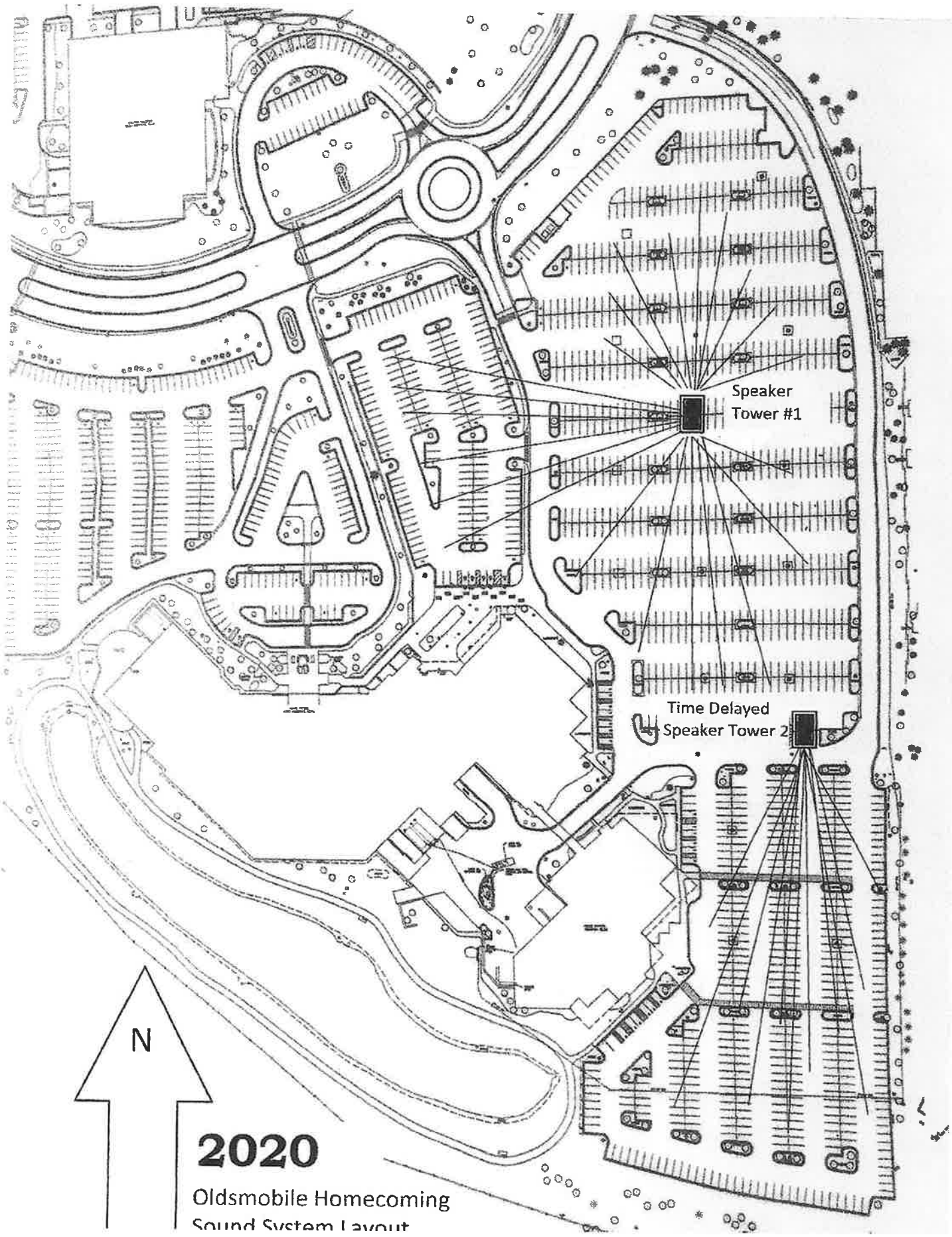
SIGNATURE OF APPLICANT DATE

## OFFICE USE ONLY

APPLICATION FEE: $50 PAID___/___/_____ RECEIPT NO. _____

APPROVED BY THE TOWNSHIP BOARD ___/___/_____

APPROVED FOR THE FOLLOWING DATES: _____




# 2020

Oldsmobile Homecoming

Sound System Layout

# VRX932LAP

## 12" Two-Way Powered Line Array Loudspeaker System

## Key Features:

- Built-in JBL DrivePack® DPC-2 amplifier module designed by Crown provides 1750 Watts of peak power. DSP-based resident input module provides system optimization and EQ.
- JBL's exclusive neodymium magnet Differential Drive® woofer for high-power capacity and light-weight.
- VRX932LAP features 3 x 2408J Annular Ring Diaphragm HF drivers. The 2408 represents the latest in JBL Professional compression driver design.
- Constant Curvature waveguide for unprecedented array coherence.
- Integral rigging hardware for simple connection of enclosures and optional array frame. Dual angle pole socket for aiming flexibility.
- Array Configuration Selector permits "array shading".

## Application:

- Music playback and sound reinforcement in mid-size venues.
- Entertainers, corporate A/V professionals and sound system hire companies.
- Permanent Installation.

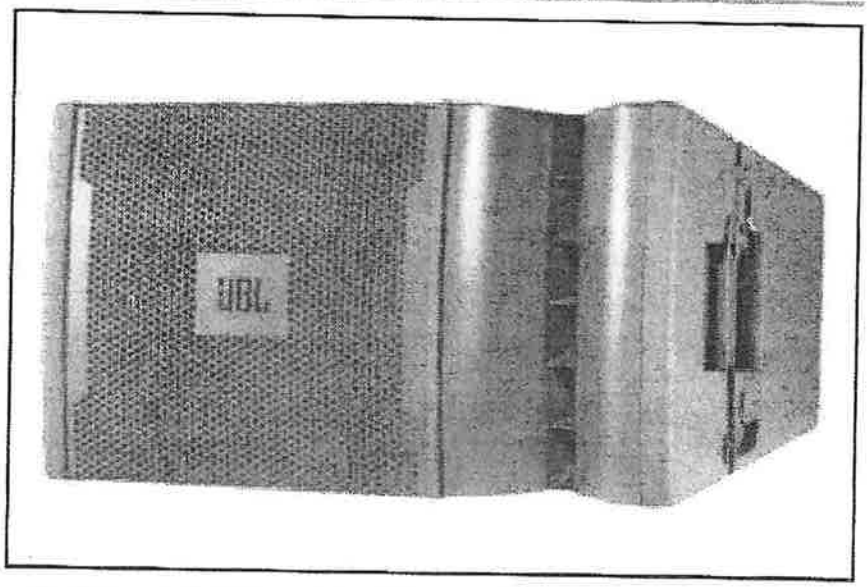
The VRX932LAP is a powered, light-weight, compact 12" two-way line-array speaker system designed for use in arrays of up to five units. VRX932LAP is the ideal choice when line-array performance is needed but the venue size doesn't call for the very long-throw characteristics of larger line-arrays and a fast and easy setup is vital.

The Constant Curvature waveguide mounts three compression drivers on a continuous arc. When additional VRX932LAP speakers are added to the array the uninterrupted arc continues. In effect, all the drivers work together as if they were a single driver on a very long waveguide. Since there are three drivers in each VRX932LAP, the combined power handling and acoustic output of the system is far greater than a single driver could achieve.

VRX932LAP uses "amplitude shading" to shape the coverage of the array. Switches on the input plate allow, for example, the upper box in an array to reach a distant balcony while the lower box is shaded back to reduce excessive level at the front of the listening area. This yields to a more coherent sound field and less feedback problems.

One or two VRX932LAP's may also be used on a tripod or over subwoofers. The integrated rigging hardware is used to securely lock the array together while the dual-angle pole socket provides aiming flexibility.

As many as five VRX932LAP speaker systems may be suspended in a single array for a nominal vertical coverage of up



The VRX932LAP is compatible with VRX918SP/VRX918S and SRX781S subwoofers.

The VRX932LAP is manufactured and sold under U.S. patents 5,748,760; 6,112,847; 6,394,223; 6,847,726; 6,768,806; 6,774,510; and D483,743

## Specifications:

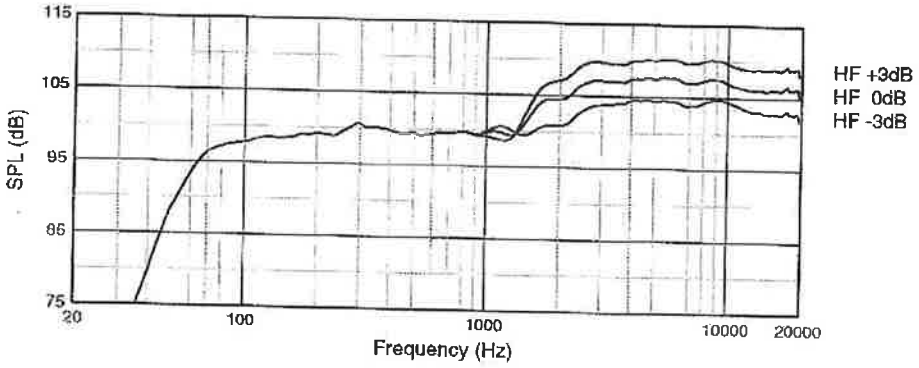
| | |
|---|---|
| Frequency Range (-10 dB): | 57 Hz - 20 kHz |
| Frequency Response (±3 dB): | 75 Hz - 20 kHz |
| Coverage Pattern: | 100° x 15° nominal |
| Maximum Peak Output: | 136 dB SPL at 1m |
| LF Driver: | 1 x JBL 2262FF 305 mm (12 in) dual voice coil Differential Drive® woofer with neodymium magnet |
| HF Driver: | 3 x JBL 2408J, 38 mm (1.5 in) voice coil neodymium compression driver |
| Bandpass Nominal Impedance: | LF: 2 x 2 ohms<br>HF: 4 ohms |
| DPC-2 Internal Amplification Output (at nominal load): | 1750 Watts Peak, 875 Watts Continuous |
| DPC-2 Output as (Continuous IEC shaped pink noise into rated load impedance): | LF: 750 Watts, HF: 125 Watts |
| DPC-2 Output Section: | LF: Dual-Bridged Technology™, Class D<br>HF: Bridged Class D |
| Audio Input Connector: | XLR with loop through |
| User Controls: | Input Attenuator (0-16 dB)<br>ACS (Array Configuration Selector),<br>HF level adjustment (+3 dB, 0 dB, -3dB) |
| Signal Processing: | DSP based, resident in Input Module |
| System Management: | DSP based limiters for mechanical and thermal protection. |
| AC Power Operating Range: | 90-132 VAC or 216-264 VAC, 50/60Hz |
| AC Line Voltage: | User selectable: 120V/240V (-15%, +10%) |
| AC Input Connector: | Neutrik PowerCon (NAC 3MPA) |
| AC loop Through Connector: | Neutrik PowerCon (NAC 3MPB) |
| AC Current Requirements: | 6A per system at 120V, 3A per system at 240V |
| Enclosure: | 25/15 mm birch plywood. |
| Suspension / Mounting: | Optional VRX-AF line-array frame kit, 10mm forged eyebolts or internal dual angle 36mm pole mount cup for pole or tripod mounting |
| Finish: | Black DuraFlex™ finish |
| Grille: | Powder coated, black, 16-gauge perforated steel with acoustically transparent foam |
| Dimensions (H x W x D): | 349 mm x 597 mm x 444 mm<br>(13.75 in x 23.5 in x 17.5 in) |
| Net Weight: | 24 kg (52 lb) |
| Optional Accessories: | VRX-AF array frame, eyebolt kit part #229-00017<br>SS2-BK tripod speaker stand<br>SS3-BK satellite speaker pole<br>SS4-BK adjustable satellite speaker pole to be used with the VRX918SP and SRX718S only |

[1] Measured with IEC shaped noise in free field conditions.

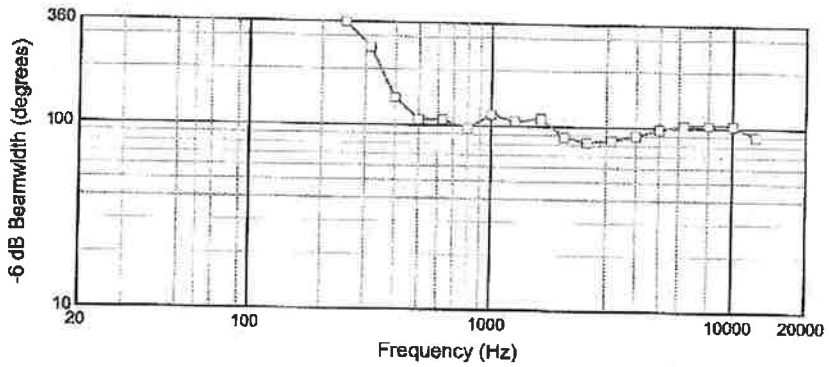
JBL continually engages in research related to product improvement. [illegible]

# VRX932LAP 12" Two-Way Powered Line Array Loudspeaker System

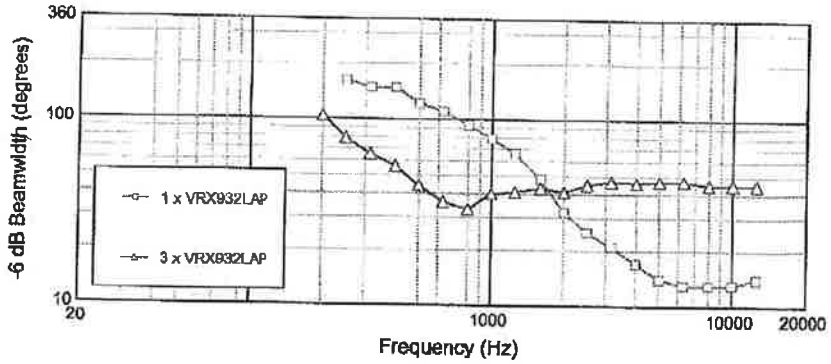
## Frequency Response




## Horizontal Beamwidth




## Vertical Beamwidth




JBL Professional
8500 Balboa Boulevard, P.O. Box 2200

Supervisor Kenneth R. Fletcher
Treasurer Howard A. Pizzo
Clerk Mary R. Clark
Manager Brian T. Reed

Trustee Fonda J. Brewer
Trustee Andrea M. Cascarilla
Trustee Dennis R. Fedewa
Trustee Karen J. Mojica

DELTA TOWNSHIP

Manager's Office

(517) 323-8590

March 4, 2020

Re: Petition by The Oldsmobile Homecoming Car Show
To Waive the Delta Township Noise Ordinance

Dear property owner/resident:

The Oldsmobile Homecoming Car Show has requested a special permit from the Charter Township of Delta to waive the requirements of the Noise Ordinance for the purpose of live music entertainment for their June 20 event at the **Auto Owners Complex located at 6101 Anacapri Blvd., Lansing, MI 48917.**

**The proposed waiver is requested to take place between 8:00 a.m. and 4:00 p.m. on Saturday, June 20, 2020.** The Township noise ordinance currently allows the proposed noise from 7:00 a.m. to 10:00 p.m., at a decibel limit of 60dB at a distance of 50 feet from the source of the sound producing equipment. The Oldsmobile Car Show has requested a special permit to allow for a festival with music that may exceed this limit but will not extend beyond the noise curfew.

**On March 16, 2020 the Delta Township Board will consider the Oldsmobile Homecoming Car Show request for a temporary waiver of the Noise Ordinance.** The meeting will be held at 6:00 p.m. in Room A of the Delta Township Administration building located at 7710 W. Saginaw Highway. The meeting room is located on the west end of the Administration Building on the second floor. Parking is also available on the west end of the building. All are welcome to attend this meeting.

If you have questions or wish to comment on this request please contact our office at (517) 323-8590, Monday through Friday between the hours of 8:00 a.m. and 5:00 p.m., or send your comments by e-mail to mworland@deltami.gov.

Sincerely,

Brian T. Reed
Township Manager

7710 West Saginaw Highway • Lansing, Michigan 48917-9712
Phone: (517) 323-8590 • Fax: (517) 327-1703
www.deltami.gov • www.facebook.com/deltatownship • www.twitter.com/deltatownship

I AM DELTA

TOWNSHIP OF Excellence MTA

**From:** Darth Novi
**To:** Mary Worland
**Subject:** Noise Wavier - Oldsmobile Homecoming
**Date:** Thursday, March 12, 2020 9:14:02 AM

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I am immediately adjacent to the Auto Owner's parking area and have owned this unit in Verndale for many years. The Oldsmobile group has always been an enjoyable distraction. I've never experienced litter or trespassers. I look forward to seeing them again this year and support the wavier.

Sincerely,
Douglas DuPerow
928 Grenoble Dr Unit D
Lansing, MI 48917
517-258-0008

Supervisor Kenneth R. Fletcher
Treasurer Howard A. Pizzo
Clerk Mary R. Clark
Manager Brian T. Reed

Trustee Fonda J. Brewer
Trustee Andrea M. Cascarilla
Trustee Dennis R. Fedewa
Trustee Karen J. Mojica

DELTA TOWNSHIP

Manager's Office

(517) 323-8590

TO: Supervisor Kenneth R. Fletcher and the Delta Township Board

DATE: March 16, 2020

FROM: Brian Reed, Township Manager

RE: Noise Waiver Request for St. Gerard Church

St. Gerard Catholic Church has applied for a special permit to waive the requirements of the Noise Ordinance in reference to offering music entertainment for their upcoming annual festival. The proposed waiver will be from 8:30 p.m. through 11:30 p.m. on Saturday, May 2, 2020.

We have notified all property owners within 300 feet of St. Gerard's property line of this request. We have not received any objections from residents with regard to this event. Therefore, we offer the following:

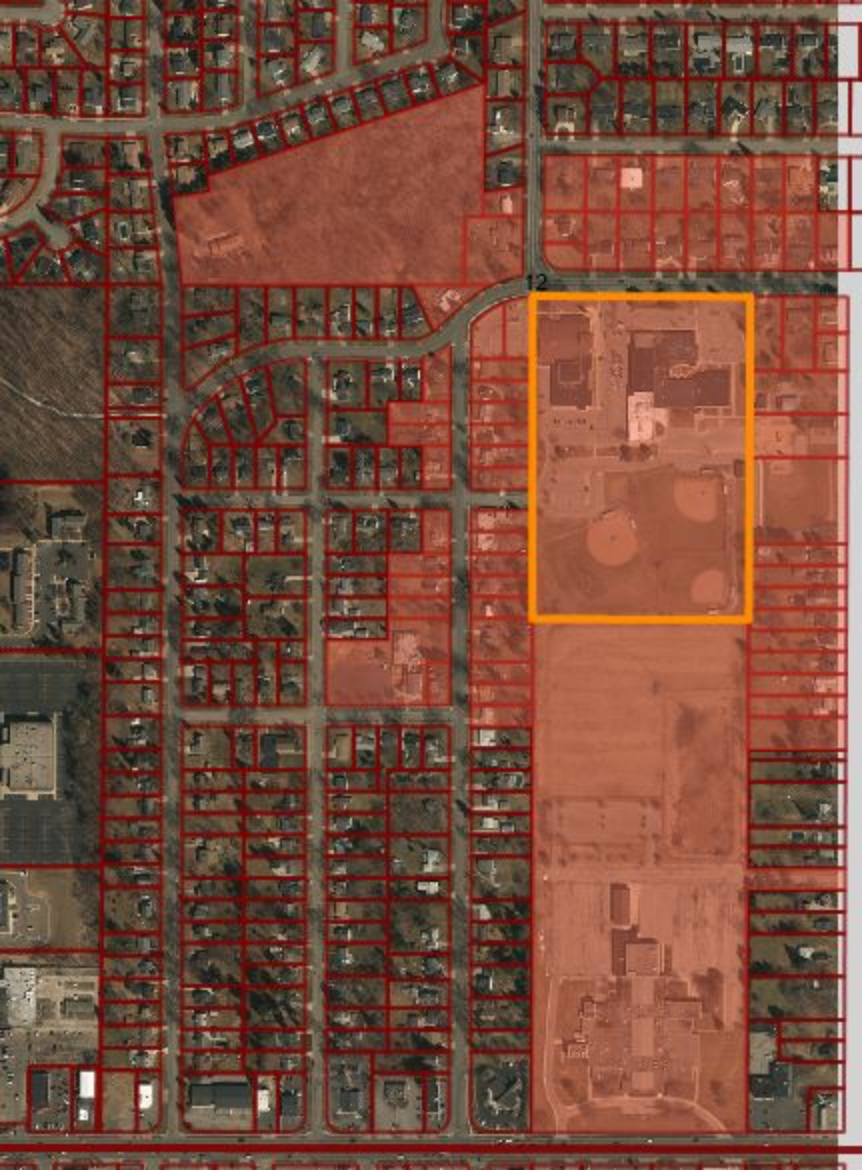
> ***"I move that the Delta Township Board approve the request by St. Gerard Church for a waiver of the Noise Ordinance between the hours of 8:30 p.m. and 11:30 p.m. on May 2, 2020.***

7710 West Saginaw Highway • Lansing, Michigan 48917-9712
Phone: (517) 323-8590 • Fax: (517) 327-1703
www.deltami.gov • www.facebook.com/deltatownship • www.twitter.com/deltatownship

I AM DELTA

Township of Excellence MTA 2012 - 2016

BACK TO AGENDA


12

Delta Charter Township
7710 West Saginaw Highway
Lansing, MI 48917
517-323-8590

# NOISE WAIVER REQUEST
## Sound Amplifying Equipment (SAE)

APPLICATION FOR A WAIVER OF RELIEF FROM THE NOISE LEVEL DESIGNATED IN ARTICLE V OF CHAPTER 14 (NOISE CONTROL) OF THE DELTA CHARTER TOWNSHIP CODE OF ORDINANCES.

Date Submitted: _____ (must be at least two (2) weeks prior to the date of request)

Name of Organization/Individual Using Equipment: St. Gerard Church

Address Where Equipment will be used:
4437 W Willow Hwy
Lansing, MI 48917

Contact Name: Brian Droste Phone: (517) 323-2379

Mailing Address: 4437 W Willow Hwy, Lansing, MI 48917

Purpose of using SAE: Parish Festival

**On site (24 hour contact) Name:** _____ **Mobile #:** _____

**On site (24 hour contact) Name:** _____ **Mobile #:** _____

Please circle one: **Stationary** or **Mobile**

**If mobile, license and vehicle numbers:** _____

Date(s) Waiver is needed: May 2, 2020 Hours Waiver is needed: _____

Maximum sound producing power of SAE, including wattage and volume in decibels of sound, which will be produced: SAME AS LAST YEAR

Approximate distance from which sound will be audible from SAE: SAME AS LAST YEAR

**Please submit request to the Delta Township Manager's Office two weeks prior to the date of request.**

***Additional information on backside.***

Applications may be made to the Township Board or its duly authorized representatives on the basis of undue hardship. Relief may be granted as applied for if one of the following is found:

1. That additional time is necessary for the applicant to alter or modify his/her activity or operation to comply with this article; or

2. The activity, operation or noise source will be of temporary duration, and cannot be done in a manner that would comply with other subsections of this section; and

3. That no other reasonable alternative is available to the applicant.

The Township Board may prescribe any conditions or requirements deemed necessary to minimize adverse effects upon the community or the surrounding neighborhood.

Brian Drost 2/20/2020

SIGNATURE OF APPLICANT DATE

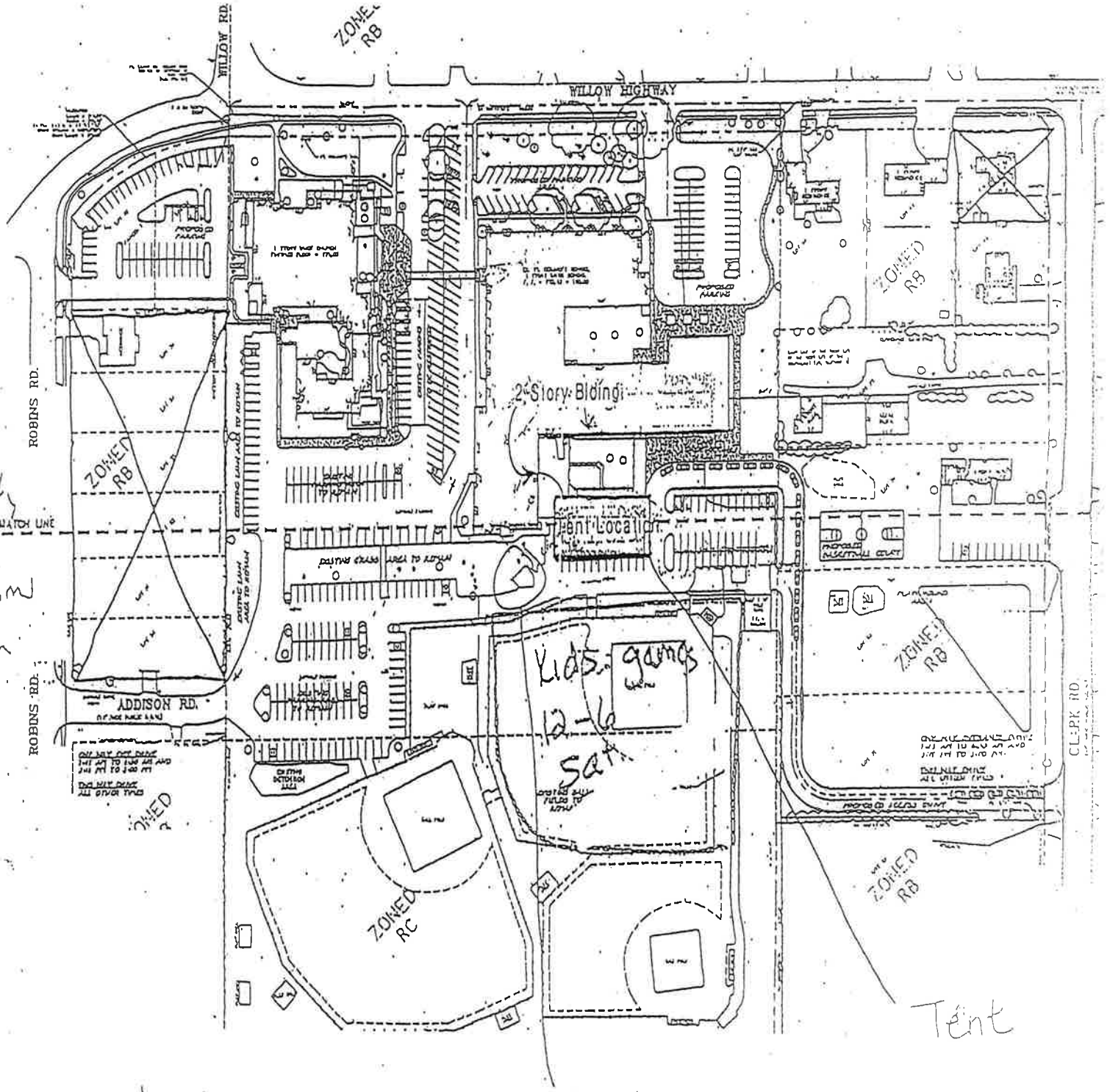
## OFFICE USE ONLY

---

APPLICATION FEE: $50 PAID____/____/_____ RECEIPT NO. _____

APPROVED BY THE TOWNSHIP BOARD ____/____/_____

APPROVED FOR THE FOLLOWING DATES: _____




☆ Parish Owned Property

☆ Lighting, water, restrooms etc. will come from School facilities.

☆ Lots of parking

Supervisor Kenneth R. Fletcher
Treasurer Howard A. Pizzo
Clerk Mary R. Clark
Manager Brian T. Reed

Trustee Fonda J Brewer
Trustee Andrea M. Cascarilla
Trustee Dennis R. Fedewa
Trustee Karen J. Mojica

DELTA TOWNSHIP

Manager's Office

(517) 323-8590

March 4, 2020

Re: Petition by St. Gerard Catholic Church
To Waive the Delta Township Noise Ordinance

Dear property owner/resident:

St. Gerard Catholic Church has requested a special permit from the Charter Township of Delta to waive the requirements of the Noise Ordinance for the purpose of live music entertainment for their May 2 festival located at **4437 W. Willow Hwy., Lansing, MI 48917.**

**The proposed waiver is requested to take place between 8:30 p.m. and 11:30 p.m. on Saturday, May 2, 2020.** The Township noise ordinance currently allows the proposed noise from 7:00 a.m. to 10:00 p.m., at a decibel limit of 60dB at a distance of 50 feet from the source of the sound producing equipment. St. Gerard Catholic Church has requested a special permit to allow for a festival with music that may exceed this limit and will go an hour and a half beyond the 10:00 p.m. noise curfew.

**On March 16, 2020 the Delta Township Board will consider St. Gerard's request for a temporary waiver of the Noise Ordinance.** The meeting will be held at 6:00 p.m. in Room A of the Delta Township Administration building located at 7710 W. Saginaw Highway. The meeting room is located on the west end of the Administration Building on the second floor. Parking is also available on the west end of the building. All are welcome to attend this meeting.

If you have questions or wish to comment on this request please contact our office at (517) 323-8590, Monday through Friday between the hours of 8:00 a.m. and 5:00 p.m., or send your comments by e-mail to mworland@deltami.gov.

Sincerely,

Brian T. Reed
Township Manager

## Mary Worland

**From:** STEVEN LAMACCHIA <stevelamacchia@comcast.net>
**Sent:** Monday, March 9, 2020 4:41 PM
**To:** Mary Worland
**Subject:** St. Gerard Noise Ordinance

To whom it may concern:

My name is Steven LaMacchia and I live at 1313 N. Willow Hwy in Delta Township. I am writing to you in reference to the request by St. Gerard Catholic Church for a special permit on May 2nd for their festival.

The home that I currently own and my parents before me is across the street from St. Gerard Church. They have been exceptional neighbors and excellent stewards of their property. Their annual Spring Festival has never caused any issues and we as a family always look forward to the festivities.

My wife and I fully support the requested special permit and hope that the Delta Township board will also support this request.

Thank you,

Steven LaMacchia

CAUTION: This email originated from outside of the Delta Township organization. Do not click links or open attachments unless you recognize the sender and know the content is safe.

Supervisor Kenneth R. Fletcher
Treasurer Howard A. Pizzo
Clerk Mary R. Clark
Manager Brian T. Reed

Trustee Fonda J. Brewer
Trustee Andrea M. Cascarilla
Trustee Dennis R. Fedewa
Trustee Karen J. Mojica

DELTA TOWNSHIP

Planning Department (517) 323-8560

MEMO

TO: Supervisor Kenneth R. Fletcher and the Delta Township Board

FROM: Gary Bozek
Planning Director

DATE: March 12, 2020

SUBJECT: Introduction of Proposed Amendments to Special Transitory Food Unit (Food Trucks) Ordinance

Delta Township's food truck ordinance went into effect in June of 2016. In administering the ordinance over the last 3 years staff has identified several necessary revisions. Presented below are proposed deletions (indicated in a red strikeout font) and additions (indicated in a green italicized font). Staff's commentary pertaining to each amendment follows the proposed amendment language.

At the January 13, 2020 Committee of the Whole, staff was directed to submit the proposed amendments to the Township Attorney for review. Having done so, the proposed amendments are now ready for introduction.

Sec. 44-6. – Definitions.

***Operating a special transitory food unit*** means serving or offering for sale food and/or beverages from a special transitory food unit. *Operating a special transitory food unit does not include any of the following: (1) operations that do not involve food preparation, cooking, heating, cooling/freezing, or processing; (2) operations that offer single service articles and serve only pre-packaged/pre-bottled, non-potentially hazardous foods or beverages; and (3) operations that offer whole, uncut fresh fruits and vegetables directly to consumers.*

Staff Comments:

This definition, coupled with that of "Special Transitory Food Unit", is overly broad. Technically, under the current language, Girl Scouts selling their packaged cookies or service clubs selling bottled water would be required to obtain a license. Staff is proposing to clarify the definition of "Operating a special transitory food unit" to exempt certain activities. Under the proposed language, if the food product being sold involves no preparation, cooking, or processing, etc., a license would not be required to sell the product. The described items were borrowed from Michigan's District #10 Health Department, which is made up of 10 northern Michigan counties. The list was developed in accordance with the Michigan Food Law, Act 92 of 2000, as amended. The Act determines which types of establishments are exempt from food service licensure in Michigan.

Sec. 44-10. - Exceptions ~~to license requirement~~.

*A.* The following operations are exempt from the license ~~requirement and the corresponding~~ fee, ~~provided they~~ *but shall still* comply with all applicable requirements of sections *44-12* and 44-16:

(1) Operating a special transitory food unit for a period of two days or less on township owned properties, including township parks, subject to the approval of the township manager.

(2) Operating a special transitory food unit for a period of two days or less on church and school properties conducted in conjunction with a special event at the church or school. The exemption shall only apply to three special events or less per year.

(3) Veterans who have been issued a license by the county clerk pursuant to Public Act 359 of 1921.

*B. The following activities are exempt from the provisions of this chapter:*

*(1) Feeding operations in response to a disaster as determined by the Delta Township Manager.*

*(2) Private closed group catered events not open to the general public and not offering food items for individual sale.*

*(3) Churches and non-profit organizations serving home prepared food in conjunction with a fundraiser.*

Staff Comments:

As originally adopted, the language in this section appears to imply that certain activities were completely exempt from the requirements of the ordinance. However, this is not the case. A closer reading shows that the activities are exempt from a fee, but all other applicable standards must be met. The proposed revisions clarify this fact.

Sections 44-12 and 44-16 are the informational and operational requirements for food trucks.

Additionally, a list of activities has been added that would be truly exempt. The first is self-explanatory. Regarding the second, we often get inquiries about invitation only private corporate events, weddings, graduation open houses, etc. that may want to have an STFU on site for catering purposes. Since these events would not be open to the general public and do not involve individualized sales, staff is proposing to exempt this activity from the obtaining a license. The third activity is exempt from food licensure by the Michigan Food Law, Act 92 of 2000, as amended.

Sec. 44-12. - License application.

A person or individual desiring to operate a special transitory food unit shall submit a license application to the administrator's office. *Applications shall be submitted at least ten business days in advance of the special transitory food unit's planned date of operation.* No application shall be processed until it is complete. The application shall contain the following information:

Staff Comments:

Staff has experienced several instances where applicants have attempted to obtain licenses the day before, or even on, the day of an event. This does not allow sufficient time to process an application and conduct the necessary inspections. The added language makes it clear that the application must be submitted at least ten business days in advance of the desired date of operation. This is consistent with the existing language in Section 44-13, which states a license shall be issued or denied by the administrator within ten days of the application being filed.

Sec. 44-14. – Enforcement *and violations.*

It shall be the responsibility of the administrator to enforce the terms of this chapter. *Violations of this chapter shall constitute a municipal civil infraction and shall be enforced as per section 1-7(c) of the Delta Charter Township Code of Ordinances.*

Staff Comments:

The proposed language makes violations of the ordinance a municipal civil infraction. If not explicitly stated as such, any violations would then be misdemeanors.

Sec. 44-16. – Requirements.

(3) ~~Special transitory food units shall be broken down and removed entirely from the site every day, no overnight storage of any kind shall be permitted. The operator shall remove all litter and debris attributable to the operation at least a daily basis.~~ *A minimum of one waste receptacle and one recycling bin shall be provided at the site of the of the special transitory food unit. The vendor shall remove all litter, debris, and other waste attributable to the operation at least on a daily basis, or more frequently as may be necessary to maintain the premises in a clean and orderly condition.*

(5) An operator shall not extend power cables, extension cords or similar devices across any street, sidewalk or pathway, *and shall not utilize any electricity or power without the prior written authorization of the power customer*.

(9) Fire and electrical inspections of the special transitory food unit shall be conducted by the appropriate township personnel. *The applicant must have the required inspections completed at least three days prior to the planned date of operation. Inspections are valid from April 1st in the*

*year of issuance until March 31st of the following year, and must be renewed each April thereafter.*

Staff Comments:

In subparagraph (3) of Section 44-6, staff is inquiring if the Board wishes to consider removing the requirement to have the unit broken down and removed from the site each day. This appears to be the primary disincentive to attracting more food trucks into the Township. It can be argued that if the site is kept clean and orderly and all other standards are met, this requirement may not be necessary. A counter argument is that the unit, if left overnight, may become an attractive nuisance attracting vandalism. In staff's research of similar ordinances it appears that there is no consistent agreement regarding overnight removal. Some communities require overnight removal and some do not. Also, subparagraph (3) is proposed to be revised to require a waste receptacle and recycling bin along with the requirement of keeping the site clean.

The additional language proposed for subparagraph (5) ensures that the operator has the permission of the power customer to connect to an on-site electrical source, if necessary.

The additional language proposed for subgraph (9) has been suggested by the Township's electrical and fire inspectors to allow sufficient lead time prior to an event to complete an initial inspection and potential re-inspection of a unit. Approved inspections would be valid for one year. The time interval of April 1st through March 31st is consistent with the county health departments' inspection intervals.

Sec. 44-17. - Sales tax license.

~~If a~~*A*n operator ~~does not~~ *shall have* a state sales tax license, *and a copy shall be provided to* the administrator. ~~shall send a notification to the registration section of the state department of treasury at the time the administrator issues the license.~~

Staff Comments:

The proposed revisions to this section properly shifts the burden to the applicant to maintain required state sale tax licensing.

Sec. 44-18. - Revocation.

The administrator shall revoke the license of any operator of a special transitory food unit who ceases to meet the requirements of this chapter; who commits fraud, misrepresentation or makes a false statement on their application or in the course of operating the special transitory food unit; who is convicted of a felony; or who creates a public nuisance or constitutes a danger to the public health, safety, and welfare. Immediately upon such revocation the license shall become null and void and the administrator shall provide written notice to the licensee and property owner by certified mail to the address provided on the application. *Upon*

*receipt of a notice of revocation, the licensee shall remove the special transitory food unit from the occupied premises.* No person whose special transitory food unit license has been revoked shall be eligible to receive another license within the township for two years from the date of license revocation.

Staff Comments:

While this paragraph indicates the circumstances under which a license would be revoked, there is no language indicating what a licensee is obligated to do. This language makes it clear that licensee must remove the unit upon license revocation.

These amendments are being presented to the Township Board for formal introduction at the March 16, 2020 regular Board meeting. The following motion is offered for the Board's consideration:

*"I move that the Delta Township Board introduce amendments to Sections 44-6, 44-10, 44-12, 44-14, 44-16, 44-17, and 44-18 the Delta Township Code of Ordinances pertaining to Special Transitory Food Units. The Township Clerk is hereby directed to advertise the introduction in local newspapers, with final consideration of the proposed Ordinance amendments scheduled for the April 13, 2020 Township Board meeting."*

/gb
Attachment
C:\USERS\GBOZEK\DROPBOX (DELTA TOWNSHIP)\DELTA PLANNING DEPARTMENT\MARK GRAHAM\RPT\AMEND\FOOD TRUCKS\CHAPTER 44 REVISIONS COMMENTARY MARCH 2020.DOC

# DELTA CHARTER TOWNSHIP
# EATON COUNTY, MICHIGAN
# ORDINANCE NO. _____

At a duly scheduled and noticed meeting of the Township Board of the Charter Township of Delta, Eaton County, Michigan, held at the Delta Township Offices on March 16, 2020 at 6:00 p.m., Township Board Member _____moved to introduce the following Ordinance, which motion was seconded by Township Board Member _____:

AN ORDINANCE TO AMEND THE PROVISIONS OF THE CODE OF ORDINANCES OF THE CHARTER TOWNSHIP OF DELTA, CHAPTER 44 – SPECIAL TRANSITORY FOOD UNITS, AND TO PROVIDE AN EFFECTIVE DATE HEREOF.

The Charter Township of Delta, Eaton County, Michigan ordains:

Parts of Sections 44-6, 44-10, 44-12, 44-14, 44-16, 44-17, and 44-18 (deletions in strikeout – additions in italics) are hereby amended to read as follows:

**SECTION I**

Sec. 44-6 Definitions.

***Operating a special transitory food unit*** means serving or offering for sale food and/or beverages from a special transitory food unit. *Operating a special transitory food unit does not include any of the following: (1) operations that do not involve food preparation, cooking, heating, cooling/freezing, or processing; (2) operations that offer single service articles and serve only pre-packaged/pre-bottled, non-potentially hazardous foods or beverages; and (3) operations that offer whole, uncut fresh fruits and vegetables directly to consumers.*

Sec. 44-10 Exceptions ~~to license requirement~~.

*A.* The following operations are exempt from the license ~~requirement and the corresponding~~ fee, ~~provided they~~ *but shall still* comply with all applicable requirements of sections *44-12* and 44-16:

*B. The following activities are exempt from the provisions of this chapter:*

*(1) Feeding operations in response to a disaster as determined by the Township Manager.*

*(2) Private closed group catered events not open to the general public and not offering food items for individual sale.*

*(3) Churches and non-profit organizations serving home prepared food in conjunction with a fundraiser.*

Sec. 44-12 License application.

A person or individual desiring to operate a special transitory food unit shall submit a license application to the administrator's office. *Applications shall be submitted at least ten business days in advance of the special transitory food unit's planned date of operation.* No application shall be processed until it is complete. The application shall contain the following information:

Sec. 44-14 Enforcement *and violations.*

It shall be the responsibility of the administrator to enforce the terms of this chapter. *Violations of this chapter shall constitute a municipal civil infraction and shall be enforced as per section 1-7(c) of the Delta Charter Township Code of Ordinances.*

44-16 Requirements.

Persons operating a special transitory food unit shall comply with the following requirements:

(3) ~~Special transitory food units shall be broken down and removed entirely from the site every day, no overnight storage of any kind shall be permitted. The operator shall remove all litter and debris attributable to the operation at least a daily basis.~~ *A minimum of one waste receptacle and one recycling bin shall be provided at the site of the of the special transitory food unit. The vendor shall remove all litter, debris, and other waste attributable to the operation at least on a daily basis, or more frequently as may be necessary to maintain the premises in a clean and orderly condition.*

(5) An operator shall not extend power cables, extension cords or similar devices across any street, sidewalk or pathway, *and shall not utilize any electricity or power without the prior written authorization of the power customer.*

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(9) Fire and electrical inspections of the special transitory food unit shall be conducted by the appropriate township personnel. *The applicant must have the required inspections completed at least three days prior to the planned date of operation. Inspections are valid from April 1st in the year of issuance until March 31st of the following year, and must be renewed each April thereafter.*

Sec. 44-17 Sales tax license.

~~If a~~*A*n operator ~~does not~~ *shall have* a state sales tax license*, and a copy shall be provided to* the administrator. ~~shall send a notification to the registration section of the state department of treasury at the time the administrator issues the license.~~

Sec. 44-18 Revocation

The administrator shall revoke the license of any operator of a special transitory food unit who ceases to meet the requirements of this chapter; who commits fraud, misrepresentation or makes a false statement on their application or in the course of operating the special transitory food unit; who is convicted of a felony; or who creates a public nuisance or constitutes a danger to the public health, safety, and welfare. Immediately upon such revocation the license shall become null and void and the administrator shall provide written notice to the licensee and property owner by certified mail to the address provided on the application. *Upon receipt of a notice of revocation, the licensee shall remove the special transitory food unit from the occupied premises.* No person whose special transitory food unit license has been revoked shall be eligible to receive another license within the township for two years from the date of license revocation.

## SECTION II

**SEVERABILITY.** If any clause, sentence, paragraph, or part of this Ordinance shall for any reason be finally adjudged by any court of competent jurisdiction to be invalid, such judgment shall not affect, impair or invalidate the remainder of this Ordinance but shall be confirmed in its operation to the clause, sentence, paragraph or part thereof directly involved in the controversy in which such judgment is rendered.

## SECTION III

**REPEAL.** All ordinances or parts of ordinances of the Charter Township of Delta inconsistent herein are hereby repealed so far as they may be inconsistent with the provisions of this Ordinance.

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## SECTION IV

**EFFECTIVE DATE.** This Ordinance shall take effect upon final publication as required by law.

## SECTION V

**Effect on Other Ordinances.** Except as expressly amended by this Ordinance, all other Delta Township Ordinances shall remain unchanged and in full force and effect.

Roll call vote taken:

YEAS: _____
NAYS: _____
ABSTAIN/ABSENT: _____

ORDINANCE DECLARED ADOPTED

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## CERTIFICATION

I hereby certify that:

1. The above is a true copy of Ordinance No. _____, adopted by the Delta Township Board at a duly scheduled and noticed meeting of that Township Board held on _____, 2020, pursuant to the required statutory procedures.

2. A summary of Ordinance No. _____ was duly published in the _____ newspaper, a newspaper that circulates within Delta Township, on _____, 2020.

3. Within 1 week after such publication, I recorded Ordinance No. _____ in a book of ordinances kept by me for that purpose, including the date of passage of the ordinance, the names of the members of the township board voting, and how each member voted.

4. I filed an attested copy of Ordinance No. _____ with the Eaton County Clerk on _____, 2020.

ATTESTED:

_____
Dated: _____, 2020
MARY R. CLARK, Delta Township Clerk

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DELTA CHARTER TOWNSHIP
FINANCE REPORT
FOR TOWNSHIP BOARD MEETING
03/16/2020

Disbursement requests listed on the following pages, totaling $1,250,514.49, have been received and reviewed by the Manager, Finance Director, and Clerk. It is recommended that all listed vouchers be approved for payment.

| | |
|---|---|
| Bond/Debt Payments | 285,300.00 |
| Payroll & Related | 378,794.98 |
| Refunds | 1,541.01 |
| Tax Distributions | 295,881.29 |
| Vendor Claims | 288,997.21 |
| Total | $ 1,250,514.49 |

Investments

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Kenneth R. Fletcher, Township Supervisor

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Mary R. Clark, Township Clerk

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Howard A. Pizzo, Township Treasurer

BACK TO AGENDA

**PAYABLES FOR DELTA CHARTER TOWNSHIP**
**BOARD AGENDA DATE 03/16/2020**

| Check Date | Check | Vendor Name | Description | Amount |
|---|---|---|---|---|
| 03/04/2020 | 315406 | BARYAMES CLEANERS INC. | FIRE & EMS UNIFORMS - LAUNDRY | 229.95 |
| 03/04/2020 | 315407 | CANON FINANCIAL SERVICES, INC. | MONTHLY COPIER CONTRACT CHARGE - MARCH 2020 | 1,064.00 |
| 03/04/2020 | 315408 | CAPITAL AREA UNITED WAY | PAYROLL WITHHOLDING | 49.23 |
| 03/04/2020 | 315409 | COMCAST | SERVICE @ MULTIPLE LOCATIONS (2/29/20 - 4/6/20) | 289.52 |
| 03/04/2020 | 315410 | CONSUMERS ENERGY | SERVICE @ MULTIPLE LOCATIONS (1/16/20 - 2/19/20) | 2,586.68 |
| 03/04/2020 | 315411 | SARAH HESS | INSTRUCTOR CHAIR EXERCISE CLASSES - JANUARY 2020 | 208.00 |
| 03/04/2020 | 315412 | ERIN INMAN | INSTRUCTOR KNITTING & CROCHETING CLASSES - WINTER SESSION #1 | 252.00 |
| 03/04/2020 | 315413 | ROSS JONES | INSTRUCTOR YOUTH BASKETBALL | 232.50 |
| 03/04/2020 | 315414 | LANSING BOARD OF WATER & LIGHT | SERVICE @ MULTIPLE LOCATIONS (1/23/20 - 2/21/20) | 39,770.14 |
| 03/04/2020 | 315415 | LOWES BUSINESS ACCOUNT | SUPPLIES & MATERIALS FOR MULTIPLE DEPTS - JANUARY 2020 | 2,571.57 |
| 03/04/2020 | 315416 | SIMMONS PLUMBING | REFUND PERMIT NOT NEEDED #PP200016 | 140.00 |
| 03/04/2020 | 315417 | K&B HEATING & COOLING | REFUND DUPLICATE PERMIT #PM200092 | 130.00 |
| 03/04/2020 | 315418 | JIM MOSES | INSTRUCTOR GENEALOGY CLASSES - FALL SESSION | 72.00 |
| 03/04/2020 | 315419 | PHYLISS BLACKBURN | REFUND SECURITY DEPOSIT COMMUNITY CENTER | 250.00 |
| 03/04/2020 | 315420 | BRUCE MOORE | REFUND UMPIRE FEE - MEN'S SOFTBALL DOUBLE HEADER | 400.00 |
| 03/04/2020 | 315421 | AUNG LWIN | REFUND SECURITY DEPOSIT COMMUNITY CENTER | 250.00 |
| 03/04/2020 | 315422 | BARBARA ROSSI | INSTRUCTOR ZUMBA GOLD, BARRE FITNESS, SENIOR CORE CLASSES - WINTER SESSION #1 | 934.00 |
| 03/04/2020 | 315423 | TDS METROCOM | TELEPHONE SERVICE (2/28/20 - 3/27/20) | 337.09 |
| 03/04/2020 | 315424 | TRACTOR SUPPLY CREDIT PLAN | STATEMENT FOR SUPPLIES & MATERIALS - FEBRUARY 2020 | 447.95 |
| 03/04/2020 | 315425 | VERIZON | TOWNSHIP CELL PHONES, TABLETS, AIR CARDS AND MACHINE TO MACHINE DEVICES - FEBRUARY 2020 | 1,929.36 |
| 03/04/2020 | 315426 | TRI COUNTY TITLE AGENCY | W/S REFUND FOR ACCOUNT: 00034793 | 3.72 |
| 03/04/2020 | 315427 | NATIONAL CAPITOL LEASING | W/S REFUND FOR ACCOUNT: 00033447 | 13.11 |
| 03/04/2020 | 315428 | HESTER, KINNELL | W/S REFUND FOR ACCOUNT: 00029854 | 12.40 |
| 03/10/2020 | EFT | EATON COUNTY TREASURER | TAX DISTRIBUTIONS 3/2/20 | 85,525.52 |
| 03/10/2020 | EFT | EATON RESA | TAX DISTRIBUTIONS 3/2/20 | 34,164.41 |
| 03/10/2020 | EFT | HOLT PUBLIC SCHOOLS | TAX DISTRIBUTIONS 3/2/20 | 310.00 |
| 03/10/2020 | EFT | LANSING COMMUNITY COLLEGE | TAX DISTRIBUTIONS 3/2/20 | 7,050.93 |
| 03/10/2020 | EFT | LANSING PUBLIC SCHOOLS | TAX DISTRIBUTIONS 3/2/20 | 667.16 |
| 03/10/2020 | EFT | WAVERLY COMMUNITY SCHOOLS | TAX DISTRIBUTIONS 3/2/20 | 107,730.15 |
| 03/11/2020 | 315443 | VA ANN ARBOR | REFUND OVERPAYMENT AMBULANCE FEES - SERVICE DATE 8/13/19 - J JORGENSON | 341.78 |
| 03/11/2020 | 315444 | COMCAST | SERVICE @ MULTIPLE LOCATIONS (3/9/20 - 4/17/20 | 289.42 |
| 03/11/2020 | 315445 | CONSUMERS ENERGY | STREET LIGHTS - FEBRUARY 2020, SERVICE @ 7419 E MT HOPE (1/27/20 - 2/25/20) | 4,607.74 |
| 03/11/2020 | 315446 | DBI BUSINESS INTERIORS | OFFICE & OPERATING SUPPLIES - FEBRUARY 2020 | 1,190.53 |
| 03/11/2020 | 315447 | FIDELITY SECURITY LIFE INS/ EYEMED | VISION INSURANCE - MARCH 2020 | 1,397.16 |
| 03/11/2020 | 315448 | LANSING BOARD OF WATER & LIGHT | STREET LIGHTS - FEBRUARY 2020, SERVICE @ MULTIPLE LOCATIONS (1/16/20 - 2/24/20) | 66,184.63 |
| 03/11/2020 | 315449 | MAURER'S | UTILITIES AND PARKS UNIFORMS - FEBRUARY 2020 | 787.80 |
| 03/11/2020 | 315450 | STATE OF MICHIGAN | WINTER IFT TAX PAYMENT (12/1/19 - 3/3/20) | 60,433.12 |
| 03/18/2020 | 315451 | ABEL PUMPS, L.P. | VALVE BALLS FOR PRESS PUMP | 1,798.52 |

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|---|---|---|---|---|
| 03/18/2020 | 315452 | THE ACCUMED GROUP | BILLING SERVICE FEE - EMS & FIRE - FEBRUARY 2020 | 8,120.55 |
| 03/18/2020 | 315453 | AIRGAS USA, LLC | MEDICAL OXYGEN, CYLINDER RENTAL | 764.22 |
| 03/18/2020 | 315454 | AMBS MESSAGE CENTER | ANSWERING SERVICE - UTILITIES, CEMETERIES, PARKS & REC - MARCH 2020 | 334.84 |
| 03/18/2020 | 315455 | AMERICAN RENTALS, INC. | PORTABLE TOILETS | 545.00 |
| 03/18/2020 | 315456 | JEFF ANDERSON | REIMBURSE GFOA ANNUAL CONFERENCE AIRFARE | 368.80 |
| 03/18/2020 | 315457 | AUTO VALUE PARTS STORE | ANTI-FREEZE, OIL, AIR FILTERS, OIL FILTERS, WHITE GREASE, SPARK PLUGS, COOLANT HOSE O-RING, ETC. | 289.02 |
| 03/18/2020 | 315458 | AUTO ZONE | HIGH TEMP GREASE | 4.88 |
| 03/18/2020 | 315459 | BEST AIRE COMPRESSOR SERVICES, INC | NEW AIR COMPRESSOR UNIT - WWTP | 12,233.37 |
| 03/18/2020 | 315460 | BLUESTONE PSYCH | POST-CONDITIONAL OFFER OF EMPLOYMENT EVALUATION | 465.00 |
| 03/18/2020 | 315461 | BOB BROOKS COMPUTER SALES | BLACK TONER | 316.75 |
| 03/18/2020 | 315462 | BOUND TREE MEDICAL, LLC | VIDEO LARYNGOSCOPE, SUCTION UNIT, CHLORAPREP IV START KITS, SHARPS CONTAINERS, GLOVES, ETC. | 4,229.34 |
| 03/18/2020 | 315463 | CAPITAL AREA TRANSIT AUTHORITY | MONTHLY BUS SALES 3/8/20 | 116.85 |
| 03/18/2020 | 315464 | CDW GOVERNMENT, INC. | ERGONOMIC WIRELESS TRACKBALL MOUSE, SCANNER STANDS & CABLES | 180.00 |
| 03/18/2020 | 315465 | CHROUCH COMMUNICATIONS, INC. | 4 NEW RADIOS W/ACCESSORIES & INSTALLATION, NEW POWER SUPPLY, MAGNET MOUNT KIT | 7,202.56 |
| 03/18/2020 | 315466 | CINTAS CORPORATION #725 | MATS FOR SUBSTATION | 70.00 |
| 03/18/2020 | 315467 | CLASSIC COFFEE CO. | COFFEE, SUGAR, CREAMER - STATIONS #1 & #3 | 325.00 |
| 03/18/2020 | 315468 | CRIPPEN | FRONT END ALIGNMENT | 100.41 |
| 03/18/2020 | 315469 | D & K TRUCK COMPANY | SIDE POD KIT | 72.01 |
| 03/18/2020 | 315470 | DARLING INGREDIENTS INC | OUTDOOR GREASE RECYCLING | 75.00 |
| 03/18/2020 | 315471 | DOXIM, INC. | PRINT, FOLD, INSERT, MAIL W/S BILLS, TURN-OFF NOTICES, 2020 PROPERTY TAX ASSESSMENT NOTICES | 5,816.91 |
| 03/18/2020 | 315472 | DELTA SIDE BUSINESS ASSOCIATION | SPONSORSHIP FOR DELTA SIDE BUSINESS ASSOCIATION COMMUNITY EXPO | 2,000.00 |
| 03/18/2020 | 315473 | DEWITT FENCE COMPANY | BARB WIRE ARMS | 27.90 |
| 03/18/2020 | 315474 | ELECTION SOURCE | NON-STUFFABLE BALLOT BOXES, TRANSPORT CARTS | 1,639.04 |
| 03/18/2020 | 315475 | ENCOMPASS EAP LLC | QUARTERLY EMPLOYEE PRODUCTIVITY SERVICES (4/1/20 - 6/30/20) | 540.00 |
| 03/18/2020 | 315476 | ETNA SUPPLY COMPANY | METER FOR MEIJER WAREHOUSE COOLING TOWERS, REPAIRED COMMAND LINK MXU PROGRAMMER | 1,275.00 |
| 03/18/2020 | 315477 | FACILITY SOLUTIONS, INC. | HAND SANITIZER, CLOROX DISINFECTANT WIPES, MICROFIBER MOPS, CAN LINERS, TOILET TISSUE, ETC. | 2,589.32 |
| 03/18/2020 | 315478 | JOHN DEERE FINANCIAL | SEAL KIT, SIDE LIGHT, LIGHT BAR, BOLTS, FUEL FILTERS, AIR FILTER, OIL FILTER | 313.65 |
| 03/18/2020 | 315479 | RACHELLE FELDPAUSCH | REIMBURSE EMS LICENSE RENEWAL | 25.00 |
| 03/18/2020 | 315480 | FIRST ADVANTAGE OCCUPATIONAL HEALTH | CLINIC COLLECTIONS | 117.27 |
| 03/18/2020 | 315481 | O'REILLY AUTO PARTS | WIPER BLADES | 60.40 |
| 03/18/2020 | 315482 | FIRST DUE FIRE SUPPLY | TFT PACKAGE - BLITZFIRE MONITOR, STORAGE BRACKET, TIPS, JUMBO BIV VALVE SEAT KITS | 3,576.81 |
| 03/18/2020 | 315483 | FLUID CONNECTIONS INC. AUTOMATION | PRESS GAUGES | 36.00 |
| 03/18/2020 | 315484 | FORESIGHT SUPER SIGN | NOTARY STAMPS - T RUIZ, H BOUCK | 70.90 |
| 03/18/2020 | 315485 | USA TODAY NETWORK | NOTARIZED ADVERTISING | 318.72 |
| 03/18/2020 | 315486 | GARAN LUCOW MILLER P.C. | LEGAL SERVICES THROUGH 1/31/20 | 4,925.45 |
| 03/18/2020 | 315487 | GORDON FOOD SERVICE, INC. | HAND SANITIZER, DISINFECTING WIPES, COFFEE, CREAMER, FOAM CUPS W/LIDS, DISH SOAP | 205.40 |
| 03/18/2020 | 315488 | GRAINGER | SEAL BEARING FOR WATER OPS BOILER, CLEANING SUPPLIES, HOSE FOR DIGESTER CLEANING, ETC. | 1,351.49 |
| 03/18/2020 | 315489 | GRAND LEDGE FORD | WATER MANIFOLD, AIR INLET HOSE, AIR FILTERS, RADIATOR, HOSE ASSEMBLY, THROTTLE, GASKET, ETC. | 1,318.22 |
| 03/18/2020 | 315490 | GRAYMONT WESTERN LIME, INC. | HIGH CALCIUM QUICKLIME | 5,120.00 |
| 03/18/2020 | 315491 | GREAT LAKES EXPRESS SERVICE, INC. | MONTHLY MAIL SERVICE - FEBRUARY 2020 | 285.00 |
| 03/18/2020 | 315492 | HALLAHAN & ASSOCIATES | PROFESSIONAL SERVICES - JANUARY 2020 - CHEDDARS, EATON SENIOR LEASING, WAL-MART TRUST | 2,251.50 |
| 03/18/2020 | 315493 | HART INTERCIVIC, INC. | PRINTER CABLES | 60.00 |
| 03/18/2020 | 315494 | HOTBEATS ENTERTAINMENT | DJ SERVICE FOR MOTHER/DAUGHTER DANCE | 200.00 |

| | | | | |
|---|---|---|---|---|
| 03/18/2020 | 315495 | HOT FLASH SELFIES | SELFIE PHOTO BOOTH FOR MOTHER/DAUGHTER DANCE | 385.00 |
| 03/18/2020 | 315496 | HOWELL RESCUE SYSTEMS, INC. | RESCUE TOOLS - KODIAK STABILIZATION KITS, E-TORCHES, BELUGA CUTTING HEADS | 6,690.30 |
| 03/18/2020 | 315497 | THE HUNTINGTON NATIONAL BANK | REFUNDING LIBRARY BONDS | 285,300.00 |
| 03/18/2020 | 315498 | I/O SOLUTIONS, INC. | NEXT GENERATION FIREFIGHTER/EMT EXAMS | 37.00 |
| 03/18/2020 | 315499 | JOHNSTONE SUPPLY | HEATER FOR SHOP | 763.43 |
| 03/18/2020 | 315500 | JONES & BARTLETT LEARNING | FIRE APPARATUS DRIVER/OPERATOR MANUALS & TEST BANK | 518.53 |
| 03/18/2020 | 315501 | AARON KEEL | PARKS, REC & CEMETERIES PER DIEM - 1ST QUARTER 2020 | 100.00 |
| 03/18/2020 | 315502 | PAUL KELSEY | PARKS, REC & CEMETERIES PER DIEM - 1ST QUARTER 2020 | 150.00 |
| 03/18/2020 | 315503 | KENDALL ELECTRIC, INC. | DRIVE FOR RAW PUMP 4A, PARTS FOR WWTP AIR COMPRESSOR INSTALLATION, ELECTRICAL TAPE | 13,535.21 |
| 03/18/2020 | 315504 | KIDS' WORLD NEWS | FULL PAGE SPONSORSHIP | 400.00 |
| 03/18/2020 | 315505 | KIMBALL MIDWEST | ASSORTED TAP SET, DRILL SET, CUTTER | 847.07 |
| 03/18/2020 | 315506 | KODIAK EMERGENCY VEHICLES | DOOR HANDLE, PUSH BUTTON LOCK - A131 | 235.08 |
| 03/18/2020 | 315507 | MARY KWAS | PARKS, REC & CEMETERIES PER DIEM - 1ST QUARTER 2020 | 100.00 |
| 03/18/2020 | 315508 | LANSING LUGNUTS | GROUP BOX TICKETS FOR YOUTH SPORTS AWARDS | 550.00 |
| 03/18/2020 | 315509 | LANSING UNIFORM CO. | WINTER HATS, ID PANELS, BLOUSE COAT, CARGO PANTS, SHIRTS, BELL CROWN HAT, BELTS, PARKA | 2,522.95 |
| 03/18/2020 | 315510 | LONNIE LEE | PARKS, REC & CEMETERIES PER DIEM - 1ST QUARTER 2020 | 100.00 |
| 03/18/2020 | 315511 | LOOMIS | ARMORED SERVICE - FEBRUARY 2020 | 554.30 |
| 03/18/2020 | 315512 | MANER COSTERISAN | PROGRESS BILL FOR AUDIT SERVICES FYE 12/31/19 | 12,482.50 |
| 03/18/2020 | 315513 | MENARDS | METAL CLAD STRANDED CABLE, DISH SOAP, WINCH STRAPS, THREADED HEIM JOINTS, SANITIZER, ETC. | 370.53 |
| 03/18/2020 | 315514 | MICHIGAN ASSOCIATION OF PLANNING | TRANSPORTATION BONANZA CONFERENCE REGISTRATION - A WEINFELD, JOB POSTING - PLANNER | 154.00 |
| 03/18/2020 | 315515 | MICHIGAN ELECTION RESOURCES | VAT BALLOT STOCK | 212.32 |
| 03/18/2020 | 315516 | MOTION INDUSTRIES, INC. | STANDARD V-BELTS, TIMING BELT | 72.00 |
| 03/18/2020 | 315517 | MYERS PLUMBING & HEATING, INC. | SEMI-ANNUAL HVAC MAINTENANCE & CSD-1 INSPECTIONS, BAG FILTERS | 1,268.36 |
| 03/18/2020 | 315518 | NCL OF WISCONSIN | GEL-FILLED EPOXY PH PROBE | 180.61 |
| 03/18/2020 | 315519 | NELSON TANK ENGINEERING | REPAIR/REPAINT - SNOW RD TANK | 2,600.00 |
| 03/18/2020 | 315520 | NORTH GRAND RIVER COOPERATIVE | DELTA FIRE MEDICAL LINENS - JANUARY 2020 | 273.47 |
| 03/18/2020 | 315521 | LAURA O'CONNOR | PARKS, REC & CEMETERIES PER DIEM - 1ST QUARTER 2020 | 150.00 |
| 03/18/2020 | 315522 | NICK OBERST | REIMBURSE FOR WIPER BLADES | 34.58 |
| 03/18/2020 | 315523 | PHOENIX SAFETY OUTFITTERS | LEATHER STRUCTURAL FIRE BOOTS, SMOKE LIQUID | 693.86 |
| 03/18/2020 | 315524 | PITNEY BOWES GLOBAL FINANCIAL SRVC | QUARTERLY BILLING - POSTAGE MACHINE (12/30/19 - 3/29/20) | 783.24 |
| 03/18/2020 | 315525 | PLEATS INTERIOR DESIGN | WINDOW BLINDS - ASSESSING DEPT | 1,390.00 |
| 03/18/2020 | 315526 | PONTEM SOFTWARE | ANNUAL SOFTWARE HOSTING - ONLINE BURIAL SEARCH | 1,350.00 |
| 03/18/2020 | 315527 | PROCESS ENGINEERING & EQUIPMENT CO. | DIAPHRAGMS FOR PUMPS | 1,528.45 |
| 03/18/2020 | 315528 | PROVIDENCE CONSULTING COMPANY | OFFICE 365 BUSINESS ESSENTIALS, CYBER SECURITY AWARENESS TRAINING ANNUAL RENEWAL | 5,724.90 |
| 03/18/2020 | 315529 | PVS TECHNOLOGIES, INC. | FERRIC CHLORIDE SOLUTION | 5,803.17 |
| 03/18/2020 | 315530 | RICOH USA, INC | PAPER TRAY ASSEMBLY - CLERK'S PRINTER | 545.68 |
| 03/18/2020 | 315531 | BRENT RILEY | REIMBURSE PRESCRIPTION LENSES NEEDED FOR SCBA MASK | 89.00 |
| 03/18/2020 | 315532 | ROSE PEST SOLUTIONS | MONTHLY PEST CONTROL - STATIONS #1 & #3 | 84.00 |
| 03/18/2020 | 315533 | SAFETY SERVICES, INC. | PARTICULATE RESPIRATORS | 50.29 |
| 03/18/2020 | 315534 | SHERWIN-WILLIAMS | PAINT | 102.78 |
| 03/18/2020 | 315535 | SPARROW OCCUPATIONAL HEALTH SERVICE | EMPLOYEE PHYSICAL EXAM, BLOOD WORK, VACCINATIONS | 630.00 |
| 03/18/2020 | 315536 | SPARTAN MOTORS USA, INC. | BRAKES LOCKED, DAMAGED COMPARTMENT DOOR BRACKET | 715.00 |
| 03/18/2020 | 315537 | STATE OF MICHIGAN | 2019 WATER USE REPORTING FEE - MT HOPE PARK | 200.00 |

| | | | | |
|---|---|---|---|---|
| 03/18/2020 | 315538 | STERICYCLE, INC. | MEDICAL WASTE DISPOSAL SERVICE - MARCH 2020 | 67.82 |
| 03/18/2020 | 315539 | STODDARD SILENCERS, INC. | FILTER ELEMENT | 164.89 |
| 03/18/2020 | 315540 | TARGET SOLUTIONS LEARNING, LLC | PREMIER MEMBERSHIP PLATFORM, SCHEDULING, CHECKIT, FIRESTATIONS CHECK | 12,366.20 |
| 03/18/2020 | 315541 | TETRA TECH, INC. | PROFESSIONAL SERVICES THROUGH 2/21/20 - WWTP EVALUATION & MASTER PLAN | 4,748.06 |
| 03/18/2020 | 315542 | THRUN LAW FIRM P.C. | LEGAL SERVICES THROUGH FEBRUARY 2020 | 2,228.91 |
| 03/18/2020 | 315543 | TRI-COUNTY REG'L PLANNING COMMISSION | PARTNER COST FOR 2020 ORTHOIMAGERY PROJECT | 1,458.00 |
| 03/18/2020 | 315544 | CARMEN TURNER | PARKS, REC & CEMETERIES PER DIEM - 1ST QUARTER 2020 | 150.00 |
| 03/18/2020 | 315545 | USA BLUE BOOK | TEMPERATURE SENSOR FOR WEATHER STATION | 221.95 |
| 03/18/2020 | 315546 | VIDCOM SOLUTIONS | REPLACED ELECTRIC STRIKE ON POLICE DOOR | 543.63 |
| 03/18/2020 | 315547 | VINCENT CORPORATION | SCREW PRESS RENTAL - FEBRUARY 2020 | 800.00 |
| 03/18/2020 | 315548 | ROBERT WELDON | PARKS, REC & CEMETERIES PER DIEM - 1ST QUARTER 2020 | 150.00 |
| 03/18/2020 | 315549 | WEST SHORE FIRE, INC. | FIRE BARRIER INHIBITOR HOODS (x46) | 4,002.00 |
| | | | PAYABLES | 871,768.74 |
| | | | PAYROLL P.E. 03/07/2020 | 378,745.75 |
| | | | | $ 1,250,514.49 |

**CHARTER TOWNSHIP OF DELTA**
Public Meeting Room A
Delta Township Administration Building
7710 West Saginaw Highway
Lansing, MI 48917

**TOWNSHIP BOARD REGULAR MEETING MINUTES FOR MONDAY, FEBRUARY 17, 2020**

## I. CALL TO ORDER

Supervisor Fletcher called the meeting to order at 6:00 PM.

## II. OPENING CEREMONIES – Pledge of Allegiance

## III. ROLL CALL

Members Present: Supervisor Kenneth R. Fletcher, Treasurer Howard A. Pizzo, Clerk Mary R. Clark, Trustee Andrea M. Cascarilla, Trustee Fonda J Brewer, and Trustee Karen J. Mojica

Members Absent: Trustee Dennis R. Fedewa

Others Present: Manager Brian T. Reed, Lt. Ross Tyrell, Engineering Director Ernie West, Assistant Fire Chief Mike Roman, Utilities Director Rick Kane, Assistant Township Manager Alannah Doak

TRUSTEE BREWER MOVED TO EXCUSE TRUSTEE FEDEWA FROM THE FEBRUARY 17, 2020 REGULAR BOARD MEETING.

TRUSTEE MOJICA SUPPORTED THE MOTION. THE MOTION PASSED 6-0.

## IV. PRESENTATIONS AND PROCLAMATIONS

### 1. MParks Awards Presentation

Chad Stevens, Professional Recognition Chair for MParks, presented the 2020 MParks design award for Mt. Hope Park. Supervisor Fletcher accepted the award on behalf of the Township.

## V. SET/ADJUST AGENDA

TRUSTEE MOJICA MOVED TO APPROVE THE AGENDA.

CLERK CLARK SUPPORTED THE MOTION. THE MOTION PASSED 6-0.

BACK TO AGENDA

## VI. PUBLIC HEARINGS

## VII. COMMUNICATIONS

## VIII. PUBLIC COMMENTS FOR ITEMS NOT ON AGENDA *(maximum two minutes)*

## IX. INTRODUCTION OF ORDINANCES

## X. PASSAGE OF ORDINANCES

## XI. CONSENT AGENDA –

TREASURER PIZZO MOVED TO APPROVE THE CONSENT AGENDA AS PRESENTED.

TRUSTEE CASCARILLA SUPPORTED THE MOTION.

ROLL CALL:

AYES: SUPERVISOR FLETCHER, CLERK CLARK, TREASURER PIZZO, TRUSTEE FEDEWA, TRUSTEE CASCARILLA, TRUSTEE BREWER, AND TRUSTEE MOJICA

NAYS: NONE

ABSENT: TRUSTEE FEDEWA

THE MOTION PASSED 6-0.

**2. Bills and Financial Transactions**

| | | |
|---|---|---|
| Payroll & Related | $ | 368,379.57 |
| Refunds | $ | 26,784.63 |
| Tax Distributions | $ | 1,170,311.02 |
| Vendor Claims | $ | 532,884.17 |
| | | |
| Total | $ | 2,098,359.39 |

TREASURER PIZZO MOVED TO APPROVE THE CONSENT AGENDA AS PRESENTED.

TRUSTEE CASCARILLA SUPPORTED THE MOTION. THE MOTION PASSED 6-0.

**3. Minutes –**

February 3, 2020 Regular Board Meeting
February 10, 2020 Committee of the Whole

TREASURER PIZZO MOVED TO APPROVE THE CONSENT AGENDA AS PRESENTED.

TRUSTEE CASCARILLA SUPPORTED THE MOTION. THE MOTION PASSED 6-0.

**4. Utility Pickup Truck Purchase**

TREASURER PIZZO MOVED THAT THE DELTA TOWNSHIP BOARD ACCEPT THE PROPOSAL FROM BERGER CHEVROLET, THROUGH THE MIDEAL BID PROGRAM, FOR THE PURCHASE OF A 2020 CHEVROLET 2500 4X2 PICKUP TRUCK AT A COST OF $27,163.00. IT WAS FURTHER MOVED THAT THE TOWNSHIP BOARD AUTHORIZE THE TOWNSHIP MANAGER TO SIGN THE PURCHASE AUTHORIZATION FORMS.

TRUSTEE CASCARILLA SUPPORTED THE MOTION. THE MOTION PASSED 6-0.

**5. Utility Pickup Truck with Plow Purchase**

TREASURER PIZZO MOVED THAT THE THAT THE DELTA TOWNSHIP BOARD ACCEPTS THE PROPOSAL FROM BERGER CHEVROLET, THROUGH THE MIDEAL BID PROGRAM, FOR THE PURCHASE OF A 2020 CHEVROLET 2500 4X4 PICKUP TRUCK WITH WESTERN PLOW PACKAGE AT A COST OF $35,151.00. IT WAS FURTHER MOVED THAT THE TOWNSHIP BOARD AUTHORIZE THE TOWNSHIP MANAGER TO SIGN THE PURCHASE AUTHORIZATION FORMS.

TRUSTEE CASCARILLA SUPPORTED THE MOTION. THE MOTION PASSED 6-0.

**6. Board Compensation**

TREASURER PIZZO MOVED THAT THE DELTA TOWNSHIP BOARD APPROVE THE BOARD COMPENSATION AND BENEFIT POLICY (ADOPTION DATE OCTOBER 7, 1991; REVISION DATE FEBRUARY 17, 2020).

TRUSTEE CASCARILLA SUPPORTED THE MOTION. THE MOTION PASSED 6-0.

## XII. ITEMS REMOVED FROM CONSENT AGENDA FOR DISCUSSION

## XIII. ITEMS ADDED TO AGENDA UNDER SECTION V. SET/ADJUST AGENDA

## XIV. ITEMS OF BUSINESS

**7. Set the Public Hearing for the 2020 Michigan Department of Natural Resources (DNR) Grants**

TRUSTEE BREWER MOVED THAT THE DELTA TOWNSHIP BOARD SET A PUBLIC HEARING FOR MONDAY, MARCH 2, 2020, FOR DISCUSSION OF THE TOWNSHIP'S 2020 GRANTS TO BE SUBMITTED TO THE MICHIGAN DEPARTMENT OF NATURAL RESOURCES. FURTHER, THE CLERK IS DIRECTED TO PUBLISH NOTICE OF THE PUBLIC HEARING IN THE NEWSPAPER.

TRUSTEE CASCARILLA SUPPORTED THE MOTION. THE MOTION PASSED 6-0.

**8. Michigan Department of Transportation (MDOT) Contract 19-5636, Job Number 130052CON; 130052PE**

TRUSTEE CASCARILLA MOVED THAT THE DELTA TOWNSHIP BOARD APPROVE THE RESOLUTION AUTHORIZING THE CONTRACT NUMBER 19-5636 BETWEEN THE MICHIGAN DEPARTMENT OF TRANSPORTATION (MDOT) AND DELTA TOWNSHIP. IT WAS FURTHER MOVED THAT THE TOWNSHIP MANAGER BE AUTHORIZED AND DIRECTED TO SIGN THE CONTRACT ON BEHALF OF THE TOWNSHIP.

CLERK CLARK SUPPORTED THE MOTION. THE MOTION PASSED 6-0.

## XV. MANAGER'S REPORT – Brian Reed, Township Manager

Manager Reed presented his updates to the Township Board:

- Township offices were closed today for the annual staff retreat
- The annual audit started today and will continue throughout the week. The Township should have the completed report in Late April/Early May.
- Mackenzie was able to repair the sinkhole at Saginaw Hwy and Renker in half a day. Road Work at the sinkhole will be completed in the spring when the asphalt plants open back up.
- Last week, Ernie and Manager Reed spoke at the Association of Planning, Transportation Bonanza for the Townships work on Old River Trail

pathway and the Waverly Road Pathway. The Township was recognized as a place for collaboration.

## XVI. COMMITTEE OF THE WHOLE

### 9. Utility Department Annual Report

Utilities Director Rick Kane presented the Utilities Department 2019 Annual Report to the Board.

A brief discussion ensued among Board members and Mr. Kane regarding the information provided in the annual report.

## XVII. PUBLIC COMMENTS

## XVIII. CLOSED SESSION

## XIX. ADJOURNMENT –

Supervisor Fletcher adjourned the meeting at 7:04 PM.

CHARTER TOWNSHIP OF DELTA

KENNETH R. FLETCHER, SUPERVISOR

MARY R. CLARK, TOWNSHIP CLERK

Supervisor Kenneth R. Fletcher
Treasurer Howard A. Pizzo
Clerk Mary R. Clark
Manager Brian T. Reed

Trustee Fonda J. Brewer
Trustee Andrea M. Cascarilla
Trustee Dennis R. Fedewa
Trustee Karen J. Mojica

DELTA TOWNSHIP

Assessing Department

(517) 323-8520

**MEMO**

**TO:** **Kenneth R. Fletcher and the Delta Township Board**

**FROM:** **Brian Thelen Deputy Assessing Director**

**DATE:** **March 16, 2020**

**SUBJECT:** **Amended Resolution to Add Language Approving a Commercial Rehabilitation Exemption Certificate Application for LPC Partners, L.C.**

On February 24, 2020 Delta Township received a request from the Department of Treasury Property Tax Exemption Section requesting that we add additional language to the resolution approving a Commercial Rehabilitation Exemption for LPC Partners, LC which was passed by this Township Board on December 16, 2019.

The written request from the Department of Treasury pertains to adding a statement regarding delinquent taxes, a commercial property definition and a time to complete date.

The amended resolution contains the following three requested amendments:

- **WHEREAS**, LPC Partners, L.C. is not delinquent in any taxes related to the facility
- **WHEREAS,** the application is for commercial property as defined in section 2 (a) of Public Act 210 of 2005
- **WHEREAS,** the Charter Township of Delta requires that rehabilitation of the facility shall be completed by 12/31/2020

For your review the letter from the Department of Treasury requesting that Delta Township amend the original resolution has been included in this Board packet. Please note that item #1 on the letter is a request to the applicant, LPC Partners, LC and is being addressed by them and not Delta Township.

I offer the following motion:

***"I move that the Delta Township Board adopt the amended resolution approving the Commercial Rehabilitation Exemption Certificate Application for LPC Partners, L.C."***

**CHARTER TOWNSHIP OF DELTA**

**EATON COUNTY, MICHIGAN**

**COMMERCIAL REHABILITATION EXEMPTION CERTIFICATE**

**RESOLUTION**

At a regular meeting of the Township Board of the Charter Township of Delta, Eaton County, Michigan (the "Township"), held on December 16, 2019 and amended on March 16, 2020 at 6:00 p.m.:

PRESENT: Trustees:

ABSENT: Trustees:

The following resolution was offered by Trustee _____ and seconded by Trustee _____:

**WHEREAS,** pursuant to P.A. 210 of 2005 after a duly noticed public hearing held on December 16, 2019 this Township Board by resolution established the 4300 West Saginaw Highway Commercial Rehabilitation District; and

**WHEREAS**, LPC Partners, L.C. has filed an application for a Commercial Rehabilitation Exemption Certificate with respect to real property investments located within the 4300 West Saginaw Highway Commercial Rehabilitation District; and

**WHEREAS**, the applicant, the Assessor, and a representative of the affected taxing units were given written notice of the application and were offered an opportunity to be heard on said application at 6:00 p.m. on December 16, 2019 at the regular scheduled business meeting of the Charter Township of Delta Board located at 7710 W. Saginaw Hwy. Lansing MI 48917; and

**WHEREAS**, LPC Partners, L.C. has substantially met all the requirements under P.A. 210 of 2005 for the Commercial Rehabilitation Exemption Certificate; and

**WHEREAS**, LPC Partners, L.C. is not delinquent in any taxes related to the facility; and

**WHEREAS,** the application is for commercial property as defined in section 2 (a) of Public Act 210 of 2005; and

**WHEREAS,** the Charter Township of Delta requires that rehabilitation of the facility shall be completed by 12/31/2020; and

**WHEREAS**, the commencement of the rehabilitation of the facility did not occur more than six months prior to the filing of the application for exemption; and

**WHEREAS,** completion of the qualified facility is calculated to, and will at the time of issuance of the certificate, have the reasonable likelihood to create employment, retain employment and increase commercial activity in which the facility is situated; and

**WHEREAS**, the application relates to a rehabilitation program that when completed constitutes a qualified facility within the meaning of P. A. 210 of 2005 and that is situated within a Commercial Rehabilitation District established under P.A. 210 of 2005; and

**WHEREAS**, the aggregate SEV of real and personal property exempt from ad valorem taxes within the Charter Township of Delta, after approving this certificate, will not exceed 5% of an amount equal to the sum of the SEV of the unit, plus the SEV of personal and real property thus exempted; and

**WHEREAS**, the rehabilitation includes improvements aggregating 10% or more of the true cash value of the property at commencement of the rehabilitation as provided by section 2 (k) of P.A. 210 of 2005.

**NOW, THEREFORE, BE IT RESOLVED BY** the Township Board of the Charter Township of Delta that:

1. The Township Board finds and determines that the granting of the Commercial Rehabilitation Exemption Certificate considered together with the aggregate amount of certificates previously granted and currently in force under Act No. 198 of the Public Acts of 1974 and Act No. 255 of the Public Acts of 1978, and Public Act 210 of 2005 shall not have the effect of substantially impeding the operation of the Charter Township of Delta, or impairing the financial soundness of a taxing unit which levies ad valorem property taxes in the Charter Township of Delta.

2. The application from LPC Partners, L.C. for a Commercial Rehabilitation Exemption Certificate with respect to real property situated within the 4300 West Saginaw Highway Commercial Rehabilitation District described as follows:

THE W 1/4 OF THE SE 1/4 SEC 12 ALSO THE N 1/2 OF LOT 15 SUNSHINE GARDENS SUB EXCEPT THE N 1,018 FT. CONT 24.03 AC'S MORE OR LESS T4N R3W DELTA TOWNSHIP

Be and the same is hereby approved.

3. The Commercial Rehabilitation Exemption Certificate when issued shall remain in force for a period of 10 years after completion of the qualified facility with an approved completion date of 12/31/2020 pursuant to the provisions of P.A. 210 of 2005, as amended.

AYES: Trustees:

NAYS: Trustees:

RESOLUTION DECLARED ADOPTED.

_____

Mary R. Clark

Delta Township Clerk

STATE OF MICHIGAN )

) ss:

COUNTY OF EATON )

I hereby certify that the foregoing is a true and complete copy of a resolution adopted by the Township Board of the Charter Township of Delta, Eaton County, Michigan, at a regular meeting held on December 16, 2019 the original of which resolution is on file in my office.

_____

Mary R. Clark

Delta Township Clerk

4177 (Rev. 01-19)

GRETCHEN WHITMER
GOVERNOR

STATE OF MICHIGAN
DEPARTMENT OF TREASURY
LANSING

RACHAEL EUBANKS
STATE TREASURER

February 24, 2020

LPC Partners, LC
Mr. Jeff Bertuleit
One Morley Plaza
Saginaw, MI 48603

Re: File No C2020-001

We are in receipt of a Commercial Rehabilitation Tax Exemption application that is missing the following items:

☒ Detailed itemized costs that match the investment amount, i.e. contractor's bid for each location.
☒ Several required statements are missing from the resolution approving the application. Specifically, the resolution must state that: (a) the applicant is not delinquent in any taxes, (b) the application is for commercial property as defined in 2(a), and (c) the time period authorized by the township for construction.

Please submit the missing and/or incomplete requirements within 60 days to pte-section@michigan.gov. The application may be dismissed as inactive at the December 15, 2020 State Tax Commission meeting if the information is not received within the timeframe allotted.

If you have any questions, concerns, or require additional information, please contact Emily Leik, at (517) 335-7461.

Sincerely,

Emily Leik

Emily I. Leik
Property Tax Exemption Section
Property Services Division

Fax Number: (517) 335-7457
E-Mail: leike@michigan.gov
State of Michigan
Property Tax Exemption Section
P.O. Box 30471
Lansing, MI 48909-7971

Supervisor Kenneth R. Fletcher
Treasurer Howard A. Pizzo
Clerk Mary R. Clark
Manager Brian T. Reed

Trustee Fonda J. Brewer
Trustee Andrea M. Cascarilla
Trustee Dennis R. Fedewa
Trustee Karen J. Mojica

DELTA TOWNSHIP

Clerk's Office

(517) 323-8500

# MEMO

TO: Delta Township Board

DATE: March 6, 2020

FROM: Mary R. Clark, Township Clerk

RE: Amusement & Entertainment Permit – May 1 & 2, 2020

We are in receipt of an application from St. Gerard's Church for an Amusement & Entertainment permit for May 1 & 2, 2020. Attached is their letter of application for a Amusement & Entertainment Permit; the diagram of the layout of festival, the certificate of insurance, bond, and any staff comments submitted.

The applicant has complied with all information requested in the Ordinance for the permit. St. Gerard's has operated this festival at this location for dozens of years. St. Gerard's has in the past employed extra security with no incidents and will continue with the extra security as noted in their application.

Therefore, I recommend the Township Board adopt the following resolution:

"THE DELTA TOWNSHIP BOARD GRANT AN AMUSEMENT AND ENTERTAINMENT LICENSE TO ST. GERARD'S CHURCH TO HOLD THEIR ANNUAL FESTIVAL. THE FESTIVAL WILL RUN BETWEEN THE HOURS OF 12:00 P.M., SATURDAY, MAY 1, 2020, AND CONCLUDING AT 12:00 A.M., SUNDAY, MAY 2, 2020, AND FURTHER

THE PERMIT IS GRANTED SUBJECT TO THE FOLLOWING STIPULATIONS:

1) THAT ALL OTHER TOWNSHIP ORDINANCES AND REGULATIONS BE ADHERED TO.

2) THAT THE FIRE MARSHALL AND ELECTRICAL INSPECTOR WILL PERFORM INSPECTIONS AS REQUIRED AFTER FESTIVAL SET UP.

3) APPLICANT MUST ADHERE TO THE 2015 INTERNATIONAL FIRE CODE REGARDING TENTS.

4) APPLICANT MUST ADHERE TO THE 2014 TENT DISPLAY ORDINANCE.

5) THE REQUIRED INSURANCE CERTIFICATE AND BOND SHALL BE ON FILE WITH THE CLERK PRIOR TO ISSUANCE OF PERMITS.

6) SECURITY FOR THE FESTIVAL MUST BE CERTIFIED THROUGH THE MASSACHUSETTS CROWD MANAGER COURSE PER DELTA TOWNSHIP FIRE DEPARTMENT. CERTIFICATION IS VALID FOR THREE YEARS.

7) FURTHER, THAT THE FEE FOR THE AMUSEMENT & ENTERTAINMENT LICENSE HAS BEEN WAIVED.

8) THE APPLICANT OF THE FESTIVAL SHALL BE RESPONSIBLE FOR ALL OPERATIONAL REQUIREMENTS STATED IN SECTION 6-16 OF THE AMUSEMENT & ENTERTAINMENT ORDINANCE.

9) THE APPLICANT OF THE FESTIVAL SHALL BE RESPONSIBLE FOR CONTAINING ALL PARKING FOR THE FESTIVAL WITHIN THE CHURCH PROPERTY.

## APPLICATION FOR A ENTERTAINMENT AND PERFORMANCE LICENSE

The undersigned hereby applies for a license to sponsor, operate, exhibit, perform or cause to be operated, exhibited or performed any public amusement, entertainment, bingo game, exhibition, circus, carnival, sporting event or religious service under canvas or in the open air, within the Charter Township of Delta, Michigan. This listing is illustrative only and is not meant to be all inclusive.

### APPLICATION/LICENSE FEES

**$500.00 Non-Refundable Application Fee due at time of submittal of application:**

**License Fee set by Township Board at Township Board Meeting. $200.00 per day.**

### GENERAL INFORMATION:

FULL LEGAL NAME OF APPLICANT: St. Gerard Church

ADDRESS OF APPLICANT: 4437 W. Willow Hwy., Lansing, MI 48917

APPLICANT PHONE NUMBER: (517) 323-2379

APPLICANT(S) DATE OF BIRTH: N/A

FULL LEGAL NAME OF OWNER(S): St. Gerard Church

ADDRESS OF OWNER(S): 4437 W. Willow Hwy., Lansing, MI 48917

OWNER(S) PHONE NUMBER: (517) 323-2379

OWNER(S) DATE OF BIRTH: N/A

FULL LEGAL NAME OF OPERATOR(S): St. Gerard Church

ADDRESS OF OPERATOR: 4437 W. Willow Hwy., Lansing, MI 48917

OPERATOR(S) PHONE NUMBER: (517) 323-2379

OPERATOR(S) DATE OF BIRTH: N/A

FULL LEGAL NAME OF SPONSOR(S): N/A

ADDRESS OF SPONSOR(S): N/A

SPONSOR(S) PHONE NUMBER: N/A

**EVENT INFORMATION:**

LOCATION OF PROPOSED EVENT: 4437 W. Willow Hwy., Lansing, MI 48917

DATES OF PROPOSED EVENT: May 1 & 2, 2020

PROPOSED HOURS OF OPERATION: 12:00pm to 12:00am

CHARGES FOR ADMISSION: $10.00 (tent in the evening only)

IF NO ADMISSION CHARGE, OTHER MANNER(S) IN WHICH MONEY OR OTHER CONSIDERATION IS RECEIVED:

BRIEF DESCRIPTION OF PROPOSED TYPE OF ACTIVITY(S) INCLUDING TIMES:

Parish Festival 12:00pm to 12:00am

BRIEF DESCRIPTION OF APPLICANT AND OPERATOR(S) EXPERIENCE WITH PROPOSED EVENT AND ACTIVITY(S):

We have run this event for over 40 years.

BRIEF STATEMENT WHETHER APPLICANT HAS APPLIED FOR A SIMILAR LICENSE OTHER THAN DESCRIBED IN THIS APPLICATION, AND THE DISPOSITION OF SUCH APPLICATION:

No

**INSURANCE INFORMATION:**

INSURED BY: Michigan Catholic Conference

$500,000.00, in the event of injury or death of any one person, and for the payment up to $1,000,000.00 in the event of injury or death of more than one person, and for the payment up to $500,000.00, for property damage. **The Charter Township of Delta must appear as an additional insured and receive a 30-day cancellation notice.**

POLICY#: copy enclosed DATE ISSUED: _____ EXPIRATION DATE: _____

BONDED BY: Travelers

(In the Penal Sum of $10,000.)

BOND#: copy enclosed DATE ISSUED: _____ DATE EXPIRES: _____

**REQUIREMENTS:**

Applicant understands full compliance with any and all Township Ordinances is required, including but not limited to, the:
Delta Township Fire Code,
Delta Township Zoning Ordinance,
Delta Township Building Code,
Delta Township Utility Ordinance,
Delta Township Traffic Ordinance,
Delta Township Sign Ordinance,
Delta Township Nuisance Ordinance,
Delta Township Noise Ordinance,
Delta Township Offenses Ordinance.
Delta Township Tent Ordinance

Applicant understands full compliance with any and all Township Ordinances, County Ordinances, State Statutes, and Federal Statutes is required.

**IMPORTANT:** applicant is required to provide, along with this application, items necessary to show how and where the license (if granted) is to be utilized, which shall describe adequate off-street parking, lighting, refuse disposal facilities, water facilities, restroom facilities, medical facilities, seating, trespass containment, and adequate plans for screening and noise control. This listing is illustrative only, and is not meant to be all inclusive.

Applicant understands all required fees, utility bills, and taxes must be paid in full before a license will be granted. Applicant is required to provide written permission from the property owner, of the property upon which the event or activity is intended to take place. A fee for each license shall be in an amount determined by resolution of the Township Board.

Such other information as deemed reasonably necessary and proper, for the full protection of the Charter Township, as well as the applicant in order to effectuate the purposes of the Ordinance and determine whether the terms of the Ordinance and State Statutes are being complied with, may be required to be provided by applicant.

Should your request for a license be denied by the Township Clerk, applicant may file an Appeal to the Township Board. To file an appeal, the form is available from the Township Clerk, a fee is required and set by resolution of the Township Board and applicant has five days from the date of denial in which to file such appeal.

"I, the undersigned, hereby acknowledge my understanding of this application and its requirements. I have received and read a copy of the Township Ordinance, and understand and will comply with the regulations contained within the Township Ordinance. Further, I understand that a false statement on this application may result in either a denial of this application or subsequent revocation if this license is granted."

APPLICANT SIGNATURE: Brian Dust

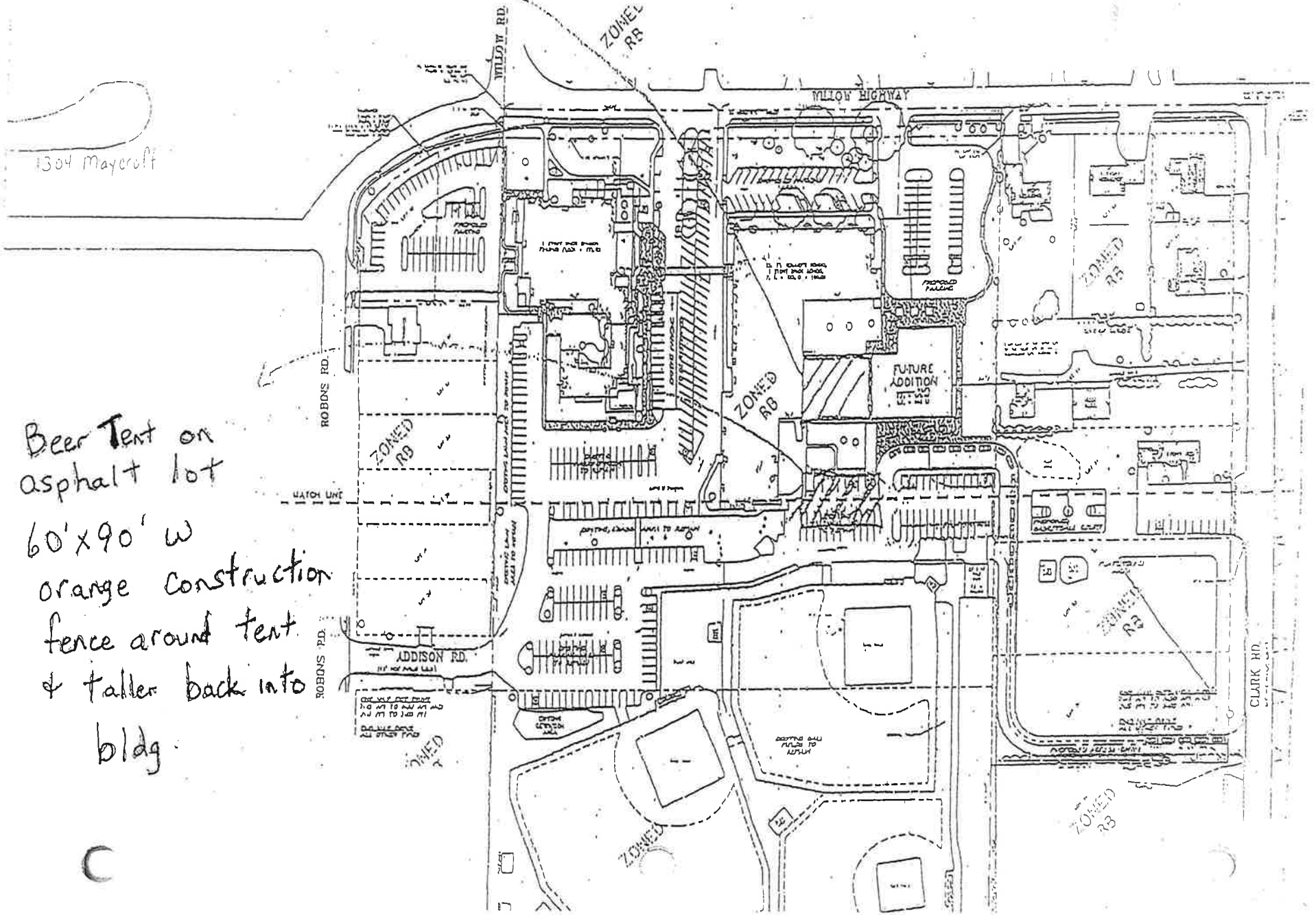
DATE: 2/25/2020

---

Delta Township Official use only below this line.

| Reviewed and approved by the following: | Date | Initials |
|---|---|---|
| Delta Township Clerk's Office: | 2-25-20 | |
| Eaton County Sheriff Department: | 2-26-20 | |
| Delta Township Fire Department: | | |
| Delta Township Planning Department: | 2-26-20 | GB |
| Delta Township Building Department: | 2-26-20 | |
| Delta Township Treasurer: | 2-26-20 | |
| Fee Established: | N/A | |
| Delta Township Board of Trustees: | | |
| Application Fee Paid (receipt no.): | | |
| License Fee Paid (receipt no.): | | |
| Date of Acceptance/Denial: | | |

Weather backup 60'x100' Weber Hall




Beer Tent on asphalt lot 60'x90' w orange construction fence around tent & taller back into bldg.

C

# CERTIFICATE OF LIABILITY INSURANCE

DATE (MM/DD/YYYY): 2/10/2020

THIS CERTIFICATE IS ISSUED AS A MATTER OF INFORMATION ONLY AND CONFERS NO RIGHTS UPON THE CERTIFICATE HOLDER. THIS CERTIFICATE DOES NOT AFFIRMATIVELY OR NEGATIVELY AMEND, EXTEND OR ALTER THE COVERAGE AFFORDED BY THE POLICIES BELOW. THIS CERTIFICATE OF INSURANCE DOES NOT CONSTITUTE A CONTRACT BETWEEN THE ISSUING INSURER(S), AUTHORIZED REPRESENTATIVE OR PRODUCER, AND THE CERTIFICATE HOLDER.

IMPORTANT: If the certificate holder is an ADDITIONAL INSURED, the policy(ies) must have ADDITIONAL INSURED provisions or be endorsed. If SUBROGATION IS WAIVED, subject to the terms and conditions of the policy, certain policies may require an endorsement. A statement on this certificate does not confer rights to the certificate holder in lieu of such endorsement(s).

**PRODUCER**
Arthur J. Gallagher Risk Management Services, Inc.
300 Ottawa NW, Suite 301
Grand Rapids MI 49503

**CONTACT NAME:**
**PHONE (A/C, No, Ext):** 616-233-0910 **FAX (A/C, No):** 616-233-0923
**E-MAIL ADDRESS:**

| INSURER(S) AFFORDING COVERAGE | NAIC # |
|---|---|
| INSURER A : Princeton Excess & Surplus Lines Ins Co | 10786 |
| INSURER B : Safety National Casualty Corporation | 15105 |
| INSURER C : | |
| INSURER D : | |
| INSURER E : | |
| INSURER F : | |

**INSURED**
Michigan Catholic Conference
ST GERARD PARISH, LANSING 5094
510 S. Capitol Ave.
Lansing MI 48933

**COVERAGES** **CERTIFICATE NUMBER:** 1080542425 **REVISION NUMBER:**

THIS IS TO CERTIFY THAT THE POLICIES OF INSURANCE LISTED BELOW HAVE BEEN ISSUED TO THE INSURED NAMED ABOVE FOR THE POLICY PERIOD INDICATED. NOTWITHSTANDING ANY REQUIREMENT, TERM OR CONDITION OF ANY CONTRACT OR OTHER DOCUMENT WITH RESPECT TO WHICH THIS CERTIFICATE MAY BE ISSUED OR MAY PERTAIN, THE INSURANCE AFFORDED BY THE POLICIES DESCRIBED HEREIN IS SUBJECT TO ALL THE TERMS, EXCLUSIONS AND CONDITIONS OF SUCH POLICIES. LIMITS SHOWN MAY HAVE BEEN REDUCED BY PAID CLAIMS.

| INSR LTR | TYPE OF INSURANCE | ADDL INSD | SUBR WVD | POLICY NUMBER | POLICY EFF (MM/DD/YYYY) | POLICY EXP (MM/DD/YYYY) | LIMITS | |
|---|---|---|---|---|---|---|---|---|
| A<br>A | X COMMERCIAL GENERAL LIABILITY<br>CLAIMS-MADE X OCCUR<br>X Add'l Ins Form#<br>X PESFG1161L 01/05<br>GEN'L AGGREGATE LIMIT APPLIES PER:<br>X POLICY PRO-JECT LOC<br>OTHER: | | | N2-A3-EX-0000006-06<br>R2A3FF000000916 | 7/1/2019<br>7/1/2019 | 7/1/2020<br>7/1/2020 | EACH OCCURRENCE<br>DAMAGE TO RENTED PREMISES (Ea occurrence)<br>MED EXP (Any one person)<br>PERSONAL & ADV INJURY<br>GENERAL AGGREGATE<br>PRODUCTS - COMP/OP AGG<br>$ | $ 10,000,000<br>$<br>$<br>$ Included<br>$ 10,000,000<br>$ 10,000,000<br>$ |
| A<br>A | AUTOMOBILE LIABILITY<br>X ANY AUTO<br>OWNED AUTOS ONLY<br>HIRED AUTOS ONLY<br>SCHEDULED AUTOS<br>NON-OWNED AUTOS ONLY | | | N2-A3-EX-0000006-06<br>R2A3FF000000916 | 7/1/2019<br>7/1/2019 | 7/1/2020<br>7/1/2020 | COMBINED SINGLE LIMIT (Ea accident)<br>BODILY INJURY (Per person)<br>BODILY INJURY (Per accident)<br>PROPERTY DAMAGE (Per accident)<br>$ | $ 10,000,000<br>$<br>$<br>$<br>$ |
| | UMBRELLA LIAB OCCUR<br>EXCESS LIAB CLAIMS-MADE<br>DED RETENTION $ | | | | | | EACH OCCURRENCE<br>AGGREGATE<br>$ | $<br>$<br>$ |
| B | WORKERS COMPENSATION AND EMPLOYERS' LIABILITY<br>ANYPROPRIETOR/PARTNER/EXECUTIVE OFFICER/MEMBER EXCLUDED? (Mandatory in NH) Y/N: N / N/A<br>If yes, describe under DESCRIPTION OF OPERATIONS below | | | SP4060572 | 7/1/2019 | 7/1/2021 | X PER STATUTE OTH-ER<br>E.L. EACH ACCIDENT<br>E.L. DISEASE - EA EMPLOYEE<br>E.L. DISEASE - POLICY LIMIT | <br>$ 1,000,000<br>$ 1,000,000<br>$ 1,000,000 |
| A<br>A | Misc Professional Liability<br>Dir & Off/Counselors E&O<br>Claims Made Retro Date | | | N2-A3-EX-0000006-06<br>R2A3FF000000916 | 7/1/2019<br>7/1/2019 | 7/1/2020<br>7/1/2020 | Occ/Claims Made<br>Aggregate<br>7/1/1985 | $10,000,000<br>$10,000,000 |

**DESCRIPTION OF OPERATIONS / LOCATIONS / VEHICLES (ACORD 101, Additional Remarks Schedule, may be attached if more space is required)**
**LIMITS ARE INCLUSIVE OF DEFENSE & INSURED RETENTION**
CERTIFICATE HOLDER NAMED ADDITIONAL INSURED REGARDING GENERAL LIABILITY PER FORM PESFG1161L 01/05 FOR

OPERATIONS PERTAINING TO THE PARISH FESTIVAL ON MAY 1 & 2, 2020. INCLUDING HOST LIQUOR LIABILITY.

**CERTIFICATE HOLDER**

THE CHARTER TOWNSHIP OF DELTA
7710 W SAGINAW HWY
LANSING MI 48917

**CANCELLATION**

SHOULD ANY OF THE ABOVE DESCRIBED POLICIES BE CANCELLED BEFORE THE EXPIRATION DATE THEREOF, NOTICE WILL BE DELIVERED IN ACCORDANCE WITH THE POLICY PROVISIONS.

**AUTHORIZED REPRESENTATIVE**

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The ACORD name and logo are registered marks of ACORD

TRAVELERS

Travelers Casualty and Surety Company of America
Hartford, CT 06183

# CONTINUATION CERTIFICATE
# FIDELITY OR SURETY BONDS/POLICIES

License No. _____

In consideration of $100.00 dollars renewal premium, the term of Bond/Policy No. 105887606 in the amount of $10,000.00, issued on behalf of SAINT GERARD PARISH, whose address is 4437 W. WILLOW LANSING, MI 48917, in favor of CHARTER TOWNSHIP OF DELTA, whose address is 7710 W. SAGINAW HIGHWAY LANSING, MI 48917, in connection with License or Permit Bond - Definite Term is hereby extended to May 04, 2021, subject to all covenants and conditions of said bond/policy.

This certificate is designed to extend only the term of the bond/policy. It does not increase the amount which may be payable thereunder. The aggregate liability of the Company under the said bond/policy together with this certificate shall be exactly the same as, and no greater than it would have been, if the said bond/policy had originally been written to expire on the date to which it is now being extended.

Signed, sealed and dated February 04, 2020

Travelers Casualty and Surety Company of America

By: _____

Robert L. Raney, Senior Vice President

F-58-M (2/95)

# DELTA TOWNSHIP COMMUNITY DEVELOPMENT DEPARTMENT, PLANNING DIVISION

◆ 7710 West Saginaw Highway ◆ Lansing, Michigan 48917 ◆ (517) 323-8560 ◆
Township Website: www.deltami.gov Email: planning@deltami.gov

# TENT PERMIT APPLICATION

**ALL ITEMS SHALL BE FILLED OUT**

**Tent Permit Number (completed by Township)**

_____

**Tent Event of the year (completed by Township)**

_____

## I. TENT INFORMATION

**Today's Date**_____

| Name of Business/School/Church | Street Address (tent location) |
|---|---|
| St. Gerard Church | 4437 W Willow Hwy |
| Tent Purpose (eg. fireworks display) | |
| Parish Festival | |
| Dimensions of Tent | Dates of Display |
| 60' X 90' | May 1 & 2, 2020 |
| Phone number | Email address |
| (517) 323-2379 | bpdroste@stgerard.org |

## II. TENT INSTALLER (if not done by owner)

| Tent Installer's Name | | |
|---|---|---|
| Delux Tents and Events | | |
| Address | | |
| 6000 Lansing Rd | | |
| City | State | Zip Code |
| Lansing | MI | 48917 |
| Phone Number | | |
| (517) 322-2900 | | |
| E-mail Address | | |

Site plan and sketch of tent (with dimensions) is required with the application

**FEES:**
**$30 – events with tents under 200 square feet**
**$50 – events with tents 200 square feet and over**

Fees changed 5-5-14 Form Rev. 6-26-14

## III. TENT DISPLAY REGULATIONS

1. A maximum of five (5) permits authorizing a tent display for nine (9) consecutive days shall be issued in any calendar year for any property. Permits may be issued back to back.
2. Tents 200 square feet and over require review & approval by the Fire Department
3. Tent displays shall not be erected in a road right of way, over a sidewalk, or obstruct a barrier-free parking space.
4. Tent displays shall be maintained in a clean and sanitary condition and all litter & debris removed at the cessation of the tent display.
5. The tent display permit shall be attached to the tent and in public view at all times.
6. The Zoning Administrator or his/her designee may impound any tent display which has been erected in violation of this chapter.
7. Tent permits only required for church and school properties and parcels zoned office (O), business (B1, B2) and industrial (I1, I2).
8. Tents over 200 square feet must be set back 20 feet from any property line.

## IV. APPLICANT SIGNATURE

I do hereby agree to comply with the terms and requirements of Chapter 43 of the Delta Township Code of Ordinances, Tent Displays

| Applicant (print) | Applicant (signature) | Date |
|---|---|---|
| Brian Droste | Brian Droste | 2/25/2020 |
| Property Owner (print) | Property Owner (signature) | Date |
| | | |
| Zoning Administrator Approval (Competed by Township) | | Date |
| | | |

# Delux Tents and Events

6000 Lansing Road
Lansing, MI

www.DeluxTents.com
517-322-2900 Phone

**Status: Reservation**
Contract #: 33906-2

Event Beg: Sat 5/ 2/2020 8:00AM
Event End: Sat 5/ 2/2020 5:00PM
Operator: Stacy Hart

Customer #: 9847

**St. Gerard's** 517-323-2379 Phone

**4437 West Willow Hwy**
**Lansing, Mi 48917**

| Qty | Items Rented | Each | Price |
|---|---|---|---|
| 1 | 40w Frame Tent - Gable End, 40'x90' | $2,700.00 | $2,700.00 |
| 2 | 40w Gable Ends, White | $0.00 | $0.00 |
| 6 | Frame Top, 40x15, White | $0.00 | $0.00 |
| 4 | Weight, 700 pounds, Install on Asphalt | $40.00 | $160.00 |
| 1 | ..... | $0.00 | $0.00 |
| 260 | Sides, 8' High, Window Wall | $0.00 | $0.00 |
| 1 | ..... | $0.00 | $0.00 |
| 25 | TABLE, 8' Banquet | $8.50 | $212.50 |
| 20 | TABLE, Round 36" Top | $8.00 | $160.00 |
| 20 | Column, Cocktail Table, BAR - 42" (LW) | $0.00 | $0.00 |
| 20 | Base, Coctail Table (LW) | $0.00 | $0.00 |
| 200 | CHAIR, Folding - Black | $1.25 | $250.00 |
| 1 | ..... | $0.00 | $0.00 |
| 4 | Lights - canopy - 90' (8-Globe) | $35.00 | $140.00 |
| 1 | ..... | $0.00 | $0.00 |
| 1 | ..... | $0.00 | $0.00 |
| 3 | Heater, Tent - Propane 80k btu | $110.00 | $330.00 |
| 3 | Extension Cord 100' (Tents) | $5.00 | $15.00 |
| 1 | ..... | $0.00 | $0.00 |

| Qty | Items | Each | Price |
|---|---|---|---|
| 45 | Set Up and Take Down - Table | $0.00 | $0.00 |
| 200 | Set Up and Take Down - Chair | $0.00 | $0.00 |
| 3 | Propane - 100 Pound Tank | $115.00 | $345.00 |
| 1 | Delivery to 48917 | $25.00 | $25.00 |
| | The delivery and pickup service is a door-to-door service. Our delivery crew will deliver your items to the closest point our truck can safely park. Delux Tents will not deliver inside your home and will not climb stairs to deliver rental equipment.<br><br>The delivery and pickup of rental equipment requires a four hour window.<br><br>Delivery times can not be changed the week of the delivery. | | |
| 1 | Pickup | $25.00 | $25.00 |

**Delivery Fri 5/ 1/2020 12:00PM - 5:00PM**
Brian Droste 517-323-2379

4437 West Willow Hwy
Lansing, Mi 48917

**Pickup Sun 5/ 3/2020 12:00PM - 5:00PM**
Brian Droste 517-323-2379

4437 West Willow Hwy
Lansing, Mi 48917

Event: Annual Parish Festival

Event Date: Saturday, 5/2/20

Delivery Date: Friday, 5/1/2020; 12-5 pm

Delivery Address: St. Gerard Church/School - 4437 W. Willow Hwy., Lansing, MI 48917

Pick Up Date; Sunday, 5/3/20; 12-5

Ordered by: Brian Droste

Telephone Number: 517 323-2379

Tent Surface: Asphalt

Payment: Check

## Rental Contract

Please note the following important notes about this rental agreement

- A cleaning charge will be assigned to all items returned dirty.
- The customer is responsible for all counts on the contract. Double check all counts upon receipt.
- Replacement cost will be charged to customers for missing, damaged or broken items.
- Refunds are not given for unused items.
- We charge for all time out. Your prompt return will save you money.

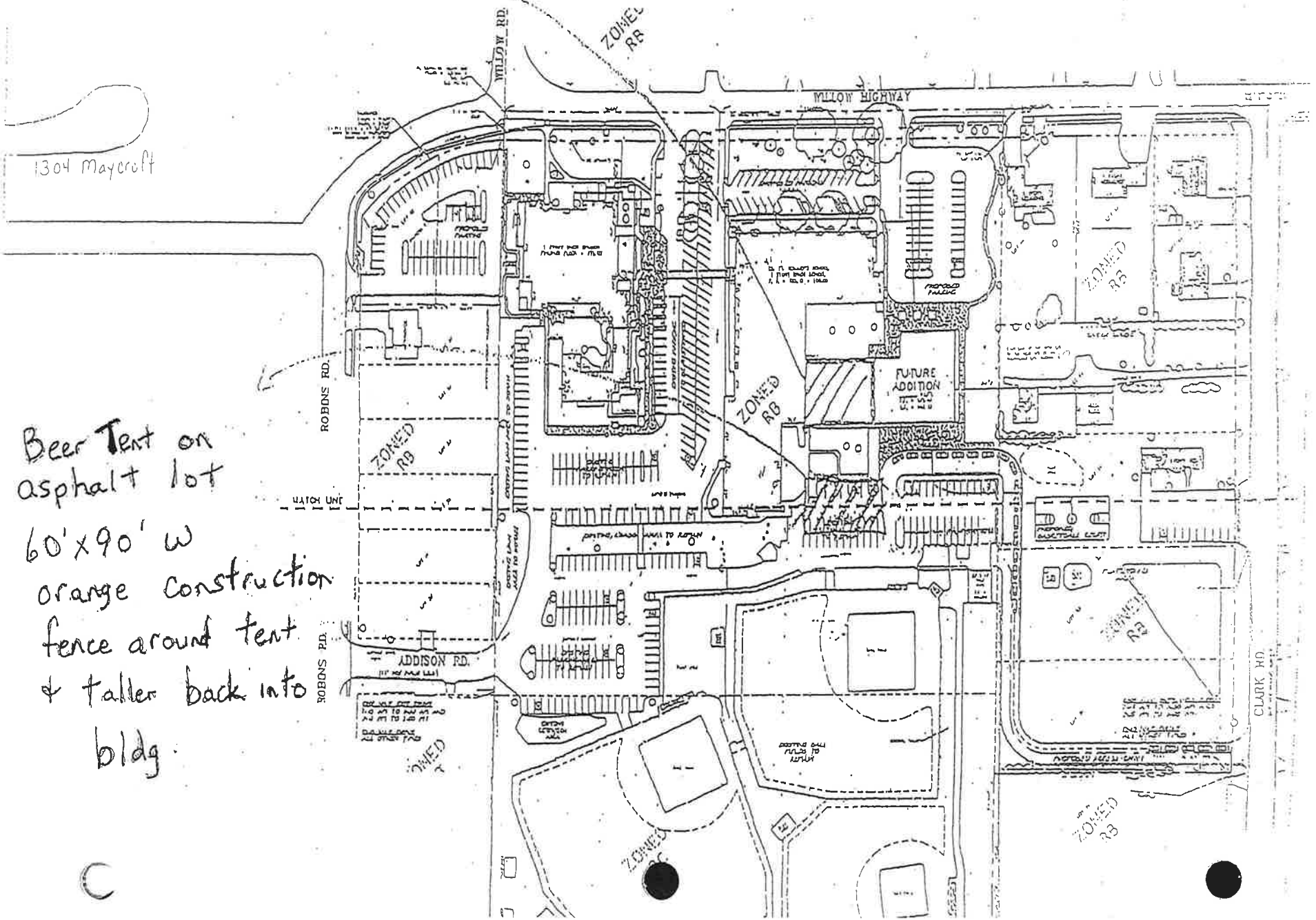
I certify that I have read and agree to all terms of this contract.

**Signature:**

**St. Gerard's**

| | |
|---|---|
| **Rental:** | **$3,967.50** |
| **Sales:** | **$345.00** |
| **Delivery Charge:** | **$50.00** |
| **Subtotal:** | **$4,362.50** |
| | |
| **Total:** | **$4,362.50** |
| **Paid:** | **$0.00** |
| **Amount Due:** | **$4,362.50** |

Weather backup 60'x100' Weber Hall




Beer Tent on asphalt lot

60'x90' w orange construction fence around tent & taller back into bldg.

## Tracy Ruiz

**From:** Gary Bozek
**Sent:** Friday, February 28, 2020 8:38 AM
**To:** Tracy Ruiz
**Subject:** RE: St. Gerard's Festival - May 1/2, 2020

Tracy,

In response to the application filed for the St. Gerard Church's Festival scheduled for May 1 & 2, 2020 --- I've reviewed the information provided with the application, and it appears that the event will be conducted in much the same manner as it has been in the past. The Planning Department has not received any complaints regarding the Church's festival in years past. There is adequate parking for the event. The Church has made arrangements to hold the event in Weber Hall in the event of inclement weather. Thank you for providing the Planning Department an opportunity to comment.

Gary

DELTA TOWNSHIP

**Gary M. Bozek, AICP**
**Planning Director**
**Delta Charter Township**
**7710 West Saginaw Highway**
**Lansing, Michigan 48917-9712**

**Phone: 517.323.8560**
**Fax: 517.323.8599**
**E-mail: gbozek@deltami.gov**
**Web: www.deltami.gov**

---

**From:** Tracy Ruiz
**Sent:** Thursday, February 27, 2020 6:01 PM
**To:** Brian Reed <BReed@deltami.gov>; Gary Bozek <GBozek@deltami.gov>; Gregg Ginebaugh <GGinebaugh@deltami.gov>; Mike Roberts <MRoberts@deltami.gov>; Ted Droste <TDroste@deltami.gov>; Dave Williams <DWilliams@deltami.gov>; Jeffrey Anderson <JAnderson@deltami.gov>; rtyrell@eatoncounty.org
**Cc:** Mary Clark <mclark@deltami.gov>; Mary Worland <MWorland@deltami.gov>
**Subject:** St. Gerard's Festival - May 1/2, 2020

**DATE:** February 27, 2020

**TO:** Brian Reed, Township Manager
Gary Bozek, Planning Development Director
Chief Greg Ginebaugh, Fire Dept.
Mike Roberts, Fire Dept. Inspector
Ted Droste, Assessing/Building Director
Dave Williams, Electrical Inspector
Lt. Ross Tyrell, Eaton County Sheriff's Dept.
Jeff Anderson, Finance Director

**Tracy Ruiz**

**From:** Ted Droste
**Sent:** Friday, February 28, 2020 8:49 AM
**To:** Tracy Ruiz
**Subject:** RE: St. Gerard's Festival - May 1/2, 2020

Tracy: we would only caution that they get the proper permits...in particular for any temporary wiring that will [likely] be in the tent.

Ted L Droste, Township Assessor MMAO
Director of Assessing & Building Department
Delta Township | 7710 West Saginaw Hwy. | Lansing, MI 48917
http://www.deltami.gov | Phone 517.323.8520

I AM DELTA

---

**From:** Tracy Ruiz
**Sent:** Thursday, February 27, 2020 6:01 PM
**To:** Brian Reed <BReed@deltami.gov>; Gary Bozek <GBozek@deltami.gov>; Gregg Ginebaugh <GGinebaugh@deltami.gov>; Mike Roberts <MRoberts@deltami.gov>; Ted Droste <TDroste@deltami.gov>; Dave Williams <DWilliams@deltami.gov>; Jeffrey Anderson <JAnderson@deltami.gov>; rtyrell@eatoncounty.org
**Cc:** Mary Clark <mclark@deltami.gov>; Mary Worland <MWorland@deltami.gov>
**Subject:** St. Gerard's Festival - May 1/2, 2020

**DATE:** February 27, 2020

**TO:** Brian Reed, Township Manager
Gary Bozek, Planning Development Director
Chief Greg Ginebaugh, Fire Dept.
Mike Roberts, Fire Dept. Inspector
Ted Droste, Assessing/Building Director
Dave Williams, Electrical Inspector
Lt. Ross Tyrell, Eaton County Sheriff's Dept.
Jeff Anderson, Finance Director

**FROM:** Tracy L. Ruiz, Deputy Clerk

**RE:** St. Gerard Church – Festival – Saturday, May 1 & Sunday, May 2, 2020

Please be aware that we have received an application to conduct a festival on the property of St. Gerard Church on May 1 & 2, 2020. St. Gerard Church has also applied for waiver of Noise Ordinance which is being processed by the Manager's Office and has submitted application tent permit through Planning Department.

I have attached all the information submitted with the application. Please review the packet of information and submit your responses regarding pros/cons of this event to be submitted to the Township Board. This same event has been approved for several years and set-up/event is essentially the same.

**Tracy Ruiz**

**From:** Ross Tyrell <RTyrell@eatoncounty.org>
**Sent:** Friday, February 28, 2020 9:07 AM
**To:** Tracy Ruiz
**Subject:** RE: St. Gerard's Festival - May 1/2, 2020

I have no issue with the event. We have not had any reported public safety problems with this event in the past.

---

**From:** Tracy Ruiz <TRuiz@deltami.gov>
**Sent:** Thursday, February 27, 2020 6:01 PM
**To:** Brian Reed <BReed@deltami.gov>; Gary Bozek <GBozek@deltami.gov>; Gregg Ginebaugh <GGinebaugh@deltami.gov>; Mike Roberts <MRoberts@deltami.gov>; Ted Droste <TDroste@deltami.gov>; Dave Williams <DWilliams@deltami.gov>; Jeffrey Anderson <JAnderson@deltami.gov>; Ross Tyrell <RTyrell@eatoncounty.org>
**Cc:** Mary Clark <mclark@deltami.gov>; Mary Worland <MWorland@deltami.gov>
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**DATE:** February 27, 2020

**TO:** Brian Reed, Township Manager
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Chief Greg Ginebaugh, Fire Dept.
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The Township Board **MUST** approve this license. Therefore, I am requesting your emailed responses to this event by Wednesday, March 4, 2020, so that I can prepare the information and recommendation for the Township Board

If you have any questions, please feel free to contact me at Ext. 8204

Tracy L. Ruiz, Deputy Clerk
Delta Charter Township
7710 W. Saginaw Highway

**Tracy Ruiz**

**From:** Jeffrey Anderson
**Sent:** Friday, February 28, 2020 9:22 AM
**To:** Tracy Ruiz
**Subject:** RE: St. Gerard's Festival - May 1/2, 2020

I do not see any cons to this event.

Jeff

---

**From:** Tracy Ruiz
**Sent:** Thursday, February 27, 2020 6:01 PM
**To:** Brian Reed <BReed@deltami.gov>; Gary Bozek <GBozek@deltami.gov>; Gregg Ginebaugh <GGinebaugh@deltami.gov>; Mike Roberts <MRoberts@deltami.gov>; Ted Droste <TDroste@deltami.gov>; Dave Williams <DWilliams@deltami.gov>; Jeffrey Anderson <JAnderson@deltami.gov>; rtyrell@eatoncounty.org
**Cc:** Mary Clark <mclark@deltami.gov>; Mary Worland <MWorland@deltami.gov>
**Subject:** St. Gerard's Festival - May 1/2, 2020

**DATE:** February 27, 2020

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Gary Bozek, Planning Development Director
Chief Greg Ginebaugh, Fire Dept.
Mike Roberts, Fire Dept. Inspector
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Jeff Anderson, Finance Director

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Tracy L. Ruiz, Deputy Clerk

Supervisor Kenneth R. Fletcher
Treasurer Howard A. Pizzo
Clerk Mary R. Clark
Manager Brian T. Reed

Trustee Fonda J. Brewer
Trustee Andrea M. Cascarilla
Trustee Dennis R. Fedewa
Trustee Karen J. Mojica

DELTA TOWNSHIP

Engineering Department

(517) 323-8540

TO: Supervisor Kenneth R. Fletcher and the Delta Township Board

FROM: Ernest A. West, P.E.
Township Engineer

DATE: March 3, 2020

SUBJECT: 2020 Sidewalk Construction Standards Revisions

## Background

**November 1, 1993:** Delta Township Sidewalk Construction Standards issued.

**December 18, 2006:** First revision to the 1993 standards to addresses changes to referenced MDOT standards for ADA ramp construction.

**July 12, 2017:** Second revision to the 1993 standards to update the standard to meet current process, procedure and best practice technical requirements.

**February 26, 2020:** Township Engineering Department proposes third revision to the 1993 standards. These revisions primarily address minor technical items to reflect current best practices, but also addresses the issue of sidewalk construction zone signage, detours and temporary routes to maintain pedestrian routes in high traffic areas during construction of or repairs to sidewalks.

## Proposed Revisions

The proposed revisions to the Sidewalk Construction Standards include the following:

1. Minor grammatical, formatting and reference changes.
2. Add requirement for sidewalk closure and detour signage during construction.
3. Add requirement to use crushed aggregate under ramps and areas where water movement may cause the loss of sand base under the sidewalk.
4. Added references to running slope requirements.
5. Added vertical alignment requirements.
6. Add requirement to maintain minimum of two feet clearance to obstructions along each side of sidewalk.
7. Updated joint requirements for current best practices.
8. Defined concrete surface finish requirement.
9. Added minimum specifications for turf restoration adjacent to sidewalk construction.

7710 West Saginaw Highway • Lansing, Michigan 48917-9712
Phone: (517) 323-8540 • Fax: (517) 327-1760
www.deltami.gov • www.facebook.com/deltatownship • www.twitter.com/deltatownship

I AM DELTA

Township of Excellence MTA 2012 - 2016

BACK TO AGENDA

Motion

**Staff Recommendation**

Staff recommend adopting the proposed revisions to the Sidewalk Construction Standards. The following motion is offered for your consideration:

> ***"I move that the Delta Township Board adopt the revisions to the Sidewalk Construction Standards, and further, that said standards be used as the requirement for all future sidewalk construction in Delta Township."***

Staff will attend the March 16, 2020 Board meeting to answer any questions or address any concerns the Board had.

If there any questions in the interim, please let us know. Thank you.

# DELTA TOWNSHIP CONCRETE SIDEWALK CONSTRUCTION STANDARDS

## Original Adoption: November 1, 1993
## Revision #1: December 18, 2006
## Revision #2: July 17, 2017
## Revision #3: _____

**1.01 GENERAL**

A. All concrete sidewalks hereafter constructed, repaired or rebuilt in Delta Township shall be constructed, repaired or rebuilt in accordance with applicable MDOT Standard Plans and Specifications and the following specifications.

B. A Delta Township Sidewalk Construction Permit is required prior to beginning construction, removal or repair of a sidewalk as required by Sec. 34-26 of the Delta Township Code of Ordinances, as amended. Permittee shall obtain a form inspection from Township staff prior to placing concrete sidewalks.

C. The Contractor shall obtain any applicable permits from the Eaton County Road Commission and the Michigan Department of Transportation to work within the road right-of-way. A copy of said permit(s) shall be submitted by the Contractor to the Township Engineer.

D. During construction, the Contractor shall provide traffic control on adjacent streets in compliance with the Michigan Manual of Uniform Traffic Control Devices (MMUTCD), as amended.

1. When construction occurs along county primary roads or MDOT routes or at the direction of the Township Engineer, the Contractor shall provide sidewalk closure and detour signage in accordance with the MMUTCD, Chapter 6D, Figure 6H-28 and Figure 6H-29, as applicable.

E. For protection of underground utilities and in conformance with Public Act 53, the Contractor shall dial 1-800-482-7171 a minimum of three (3) full working days, excluding Saturdays, Sundays and holidays prior to beginning each excavation in areas where public utilities have not been previously located. All "Miss Dig" participating members will thus be routinely notified. This does not relieve the Contractor of the responsibility of notifying utility owners who may not be part of the "Miss Dig" alert system.

**1.02 MATERIALS**

A. All workmanship and materials used in sidewalks shall conform to the most recent Standard Specifications of the Michigan Department of Transportation, Section 803 Concrete Sidewalk, Sidewalk Ramps and Steps and the following sections, as amended.

| | |
|---|---|
| Concrete, Grade P1 | 601 |
| Cement | 901 |
| Coarse Aggregate | 902 |
| ***Limestone aggregate required*** | |
| Granular Material Class II | 902 |
| Concrete Admixtures | 903 |
| Concrete Curing Materials | 903 |
| ***Calcium Chloride prohibited*** | |
| Steel Reinforcement | 905 |
| Turf Establishment Materials | 917 |

**1.03 PREPARATION OF SUBGRADE**

A. The subgrade shall be prepared by excavating or filling to the required elevation of the bottom of the concrete sidewalk. The subgrade shall be well drained and free of all sod and organic material.

B. Any material found to be unsuitable by the Township Engineer, such as muck, peat, marl, soft clay and other such materials subject to frost heaving, differential frost action, or unable to provide adequate support for surface improvements, shall be excavated and removed from the job site. Any material so removed shall be replaced with MDOT Class II granular material.

C. Where necessary for the construction of ramps, existing curb and gutter shall be saw cut and removed, for its full depth.

D. Furnish, place and compact any additional embankment material required to establish the line and grade of the proposed sidewalk in accordance with MDOT Standard Specifications. All fills shall be thoroughly compacted to the required grade. The width of all cuts and fills shall be such that they conform to the final grading requirements as hereinafter stated.

E. A minimum of four (4) inches of compacted MDOT Class II material shall be provided under the concrete sidewalk. A minimum of four (4) inches of compacted MDOT 21AA crushed stone or crushed concrete shall be provided under all ramps and in other areas where erosion of a sand base may occur, as determined by the Township Engineer.

**1.04 LINES, GRADES, SLOPE, WIDTH, THICKNESS**

A. At the time of site plan and plat reviews the Township Engineer, in cooperation with the Eaton County Road Commission and/or the Michigan Department of Transportation, shall approve all proposed lines and grades.

B. The surface of all sidewalks and subgrade shall have a cross slope of at least one (1) percent (%) toward the curb line for drainage. The surface of all sidewalks shall have a cross slope of no greater than two (2) percent (%).

C. The surface of all sidewalks and subgrade shall have a running slope less than five (5) percent (%) unless otherwise approved by the Township Engineer. Running slopes of eight (8) percent (%) may be used if level landings are provided at thirty (30) foot intervals or less.

D. All new concrete sidewalks shall have a minimum width of five (5) feet.

E. All concrete sidewalks, except at driveways, shall be at least four (4) inches thick. All driveway approaches shall be at least six (6) inches thick. All curb ramps shall be six (6) inches thick. The Township Engineer may mandate a concrete thickness in excess of six (6) inches when special conditions warrant such as truck entrances, access to solid waste units, etc.

**1.05 VERTICAL ALIGNMENT**

A. Sidewalks shall be aligned vertically to drain surface water off the sidewalk and avoid ponding on the surface of the sidewalk.

B. In areas where vertical sidewalk alignment will create a sudden transition from the surface of the sidewalk to existing turf, integral lateral curbs up to twelve (12) inches in height shall be provided. Provide sloped transitions at each end of lateral curb at least five (5) feet in length.

**1.06 PLACEMENT**

A. Sidewalks shall be placed a minimum of ten (10) feet back from the edge of the travel lane of the road and one (1) foot in from the street right-of –way line, except as otherwise approved by the Township Engineer.

B. Maintain a minimum of two (2) feet clearance to obstructions along the route, unless otherwise approved by the Township Engineer.

**1.07 RAMPS**

A. Unless otherwise approved by the Township Engineer, sidewalk ramps shall be installed at all street

intersections and constructed in accordance with the most current version of plan R-28 entitled "Sidewalk Ramp and Detectable Warning Details" contained in the Michigan Department of Transportation Standard Plans, as amended.

B. Truncated dome panels shall be asphalt coated, cast iron as manufactured by EJ, TufTile or approved equal.

**1.08 DRIVEWAY OPENINGS & APPROACHES**

A. Sidewalks shall be installed across driveways in accordance with Michigan Department of Transportation Standard Plan R-29 entitled "Driveway Openings & Approaches and Concrete Sidewalk", as amended.

**1.09 FORMS**

A. The forms shall be of such design of steel or wood as to insure the accurate maintenance of lines and grades and provide the minimum sidewalk thickness specified. Flexible strips may be used where necessary on curves. After forms are completely set in place, the Owner/Contractor shall contact the Township Engineering Department to schedule a form inspection before any concrete is poured.

**1.10 JOINTS**

A. Expansion Joints
   1. Transverse expansion joints one-half (1/2) inch thick shall be placed at every fifty (50) linear feet of sidewalk and between the backs of curbs and sidewalks or driveway approaches.
   2. Place expansion joints at driveway openings per MDOT Standard Plan R-29, except place an additional expansion joint on the backside of sidewalk in locations where driveways are concrete behind the sidewalk, such that the portion of sidewalk crossing a concrete driveway is isolated by expansion joints on four (4) sides.
   3. Expansion joint material shall be closed-cell, polyethylene foam with removable strip for joint sealant application, and shall be placed at right angles to the centerline of the sidewalk and perpendicular to the surface. When removal strip is removed, the expansion joint material shall be recessed ½ inch below the surface of the concrete and material shall extend to the subgrade.
   4. Expansion joints shall be sealed with Sikaflex-1c SL or approved equal.

B. Contraction Joints
   1. Unless otherwise approved by the Township Engineer, contraction joints shall be placed at intervals matching the width of the sidewalk. They may be formed by sawcutting or tooling after floating. Joints shall have a depth of not less than one-quarter (1/4) of the thickness of the sidewalk. They shall be straight, perpendicular, and at right angles to the centerline of the sidewalk.

C. Special Joints
   1. When the sidewalk abuts buildings, utility structures or any other special structures, joint details shall be approved by the Township Engineer.

**1.11 PLACING AND FINISHING**

A. The subgrade shall be thoroughly moistened and the concrete shall be deposited to the proper depth.

B. The concrete shall be consolidated and struck off until all voids are eliminated and the surface has the required grade and cross section.

C. The surface shall be floated and troweled just enough to produce a smooth dense surface, free from irregularities.

D. Provide a medium-textured broom finish, perpendicular to the direction of traffic.

E. All joints and edges shall be rounded to a radius of one-quarter (1/4) inch with an approved finishing tool.

**1.12 CURING AND PROTECTION**

A. All concrete surfaces shall be treated as per the current Standard Specifications of the Michigan Department of Transportation, Section 602.03 and 903.
B. Curing compound shall be white.
C. The sidewalk shall be properly protected from the elements and travel for the first 72 hours, except that pedestrian traffic may be permitted after 48 hours.
D. The contractor shall be responsible for the strength and quality of the concrete laid during cold weather and concrete damaged by freezing temperatures shall be removed and replaced at the contractor's expense.

**1.13 FINAL GRADING AND CLEANUP**

A. After the concrete has set sufficiently, the forms shall be removed and the spaces shall be back filled.
B. The areas disturbed by construction of the sidewalk shall be graded and leveled to drain and as required for turf restoration. These areas shall be left free of all rocks, concrete, roots or other debris.

**1.14 TURF RESTORATION**

A. All turf areas disturbed during sidewalk construction shall be restored to existing or better condition after construction of the sidewalk.
B. Restoration shall include placing four (4) inches (minimum) of topsoil, seed, fertilizer, mulch and mulch adhesive or mulch blanket.
    1. All materials used shall meet MDOT specifications.
C. Topsoil shall be used to shape the finish grade from the edges of the sidewalk to the existing adjacent grade and all other disturbed areas.
    1. Topsoil must be weed and weed seed free and friable prior to placing seed. Remove any stones greater than 1/2 inch in diameter or other debris. Apply seed mixture and fertilizer to prepared soil surface. Incorporate seed into top 1/2 inch of topsoil.
D. Seed, fertilizer and mulch shall be applied as required to establish growth and prevent soil erosion and control mud and dust. Areas that do not establish suitable growth, as determined by the Township Engineer, shall be corrected.

Supervisor Kenneth R. Fletcher
Treasurer Howard A. Pizzo
Clerk Mary R. Clark
Manager Brian T. Reed

DELTA TOWNSHIP

Trustee Fonda J. Brewer
Trustee Andrea M. Cascarilla
Trustee Dennis R. Fedewa
Trustee Karen J. Mojica

Engineering Department

(517) 323-8540

TO: Supervisor Kenneth R. Fletcher and the Delta Township Board

FROM: Ernest A. West, P.E., Township Engineer

DATE: March 3, 2020

SUBJECT: 2020 Municipal Utility Standards Revisions

## Background

**June 1975:** The original Delta Township Water/Wastewater Installation Standards are issued.

**June 1975 - August 1995:** There were eight (8) revisions/amendments made to the document via resolutions of the Township Board.

**March 4, 2013:** A complete overhaul of the original 1975 standards was developed by the Engineering Division, entitled Municipal Utility Standards, Charter Township of Delta and was adopted by the Township Board.

**July 12, 2017:** First revision to the 2013 standards proposed by the Engineering Department and adopted by the Township Board.

**February 2020:** Township Engineering Department proposes second revision to the 2013 standards. These revisions are driven primarily by the requirements of the Michigan Department of Environment Great Lakes and Energy (EGLE) Drinking Water and Environmental Health Division.

## Proposed Revisions

The proposed revisions to the Municipal Utility Standards include the following:

1. Minor grammatical, formatting and reference changes.
2. Change references to Michigan Department of Environmental Quality to Department of Environment, Great Lakes, and Energy (EGLE).
3. Require Developer's Engineer to provide AutoCAD files for private development projects for use by Engineering Department in updating GIS system.
4. Add sixty-day deadline for Developers to submit as-built drawings upon completion of new utility construction.
5. Clarified public vs private ownership of water and sanitary sewer lines serving multiple buildings or multiple parcels.
6. Updated water main construction standards to address EGLE requirements/updates. Specifically:
   a. Added reference to materials be certified to ANSF/ANSI Standard 372: Drinking Water System Components: Lead Content in addition to the previously referenced NSF/ANSI Standard 61: Drinking Water System Components: Health Effects.

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I AM DELTA

TOWNSHIP OF Excellence MTA 2012 - 2016

BACK TO AGENDA Motion

b. Added requirement for de-chlorination of chlorinated waters that will be discharged to groundwater or surface waters of the State.
c. Added specifications and installation requirements for high-density polyethylene pipe (HDPE) pipe.
d. Added specifications for materials used on sites with soil or groundwater contamination.
e. Added requirement for corrosion protection coating on hardware.
f. Updated specifications for pipe locating materials and standard details.
g. Added requirement to pig all new water mains in lieu of flushing.
h. Added restrictions to water service interruptions during construction.
i. Updated testing and disinfection requirements.

7. Minor updates to standard construction details.
8. Added adopted date and last revision date to all standard construction details.

**Staff Recommendation**

Staff recommend adopting the proposed revisions to the Municipal Utility Standards. The following motion is offered for your consideration:

> ***"I move that the Delta Township Board adopt the revisions to the Municipal Utility Standards, and further, that said standards be used as the requirement for all future municipal water and sanitary sewer projects in Delta Township."***

Staff will attend the March 16, 2020 Board meeting to answer any questions or address any concerns the Board had.

If there any questions in the interim, please let us know. Thank you.

# MUNICIPAL UTILITY STANDARDS

# CHARTER TOWNSHIP OF DELTA
# EATON COUNTY, MICHIGAN

**Adopted: March 4, 2013**
**Revisions Adopted: July 17, 2017**
**Revisions Adopted: _____**

TABLE OF CONTENTS
MUNICIPAL UTILITY STANDARDS

CHARTER TOWNSHIP OF DELTA
EATON COUNTY, MICHIGAN


DEFINITIONS ..... D-1

ADMINISTRATIVE PROCEDURES

- COORDINATION OF REGULATIONS AND RULES ..... AP-1
- DEVELOPMENT REVIEW AGENCIES ..... AP-2 TO AP-6
- PRELIMINARY UTILITY PLAN SUBMITTAL ..... AP-7 TO AP-8
- FINAL UTILITY PLAN SUBMITTAL ..... AP-9
- TOWNSHIP/DEVELOPER UTILITY AGREEMENTS ..... AP-10 TO AP-14
- SUBMITTAL AND APPROVAL FLOW CHART ..... AP-15

GENERAL CONDITIONS ..... GC-1 TO GC-8

DESIGN STANDARDS FOR UTILITIES ..... DS-1 TO DS-4

SPECIAL PROVISIONS

- AUDIO-VISUAL ..... 1 TO 2
- SPECIAL CONTROLS ..... 1
- DEWATERING ..... 1 TO 4
- TEMPORARY BYPASS PUMPING ..... 1 TO 4
- STEEL CASING PIPE, BORED AND JACKED IN PLACE ..... 1 TO 2
- SLOPE RESTORATION ..... 1
- WATER MAIN ..... 1 TO 13
- SANITARY SEWER ..... 1 TO 6
- SEWER LINE CLEANING AND TELEVISING PACP ..... 1 TO 4
- CONCRETE UTILITY MANHOLES ..... 1 TO 3
- POLYMER CONCRETE SANITARY MANHOLES ..... 1 TO 3
- SEWAGE FORCEMAINS ..... 1 TO 6
- HORIZONTAL DIRECTIONAL DRILLING ..... 1 TO 7

STANDARD DETAILS

SANITARY SEWER DETAILS

| | REVISION DATE |
|---|---|
| SANITARY SEWER MANHOLE | 6/2017 |
| EXTERNAL DROP PIPE | 3/2013 |
| INTERNAL DROP PIPE | 3/2013 |
| SANITARY SERVICE CONNECTIONS | 3/2013 |
| SEWER SECTION REPLACEMENT | 3/2013 |
| MANHOLE ABANDONMENT | 6/2017 |
| SANITARY SEWER ABANDONMENT | 3/2013 |
| SEWER BULKHEAD | 3/2013 |
| MANHOLE CASTING ADJUSTMENT | 3/2020 |
| HDPE TO D.I. PIPE CONNECTION | 3/2013 |
| FORCEMAIN AIR RELEASE MANHOLE | 6/2017 |
| AIR RELEASE MANHOLE VENT | 6/2017 |
| FORCEMAIN IN-LINE CLEANOUT | 3/2013 |
| FORCEMAIN CLEAN-OUT AT BEND | 3/2013 |
| GRINDER PUMP CONNECTION | 3/2013 |
| GRINDER PUMP FORCEMAIN FLUSHING CONNECTION | 3/2013 |

WATER SYSTEM DETAILS

| | |
|---|---|
| STANDARD HYDRANT ASSEMBLY | 3/2020 |
| TRACER WIRE ACCESS AT VALVE BOX | 3/2020 |
| WATER SERVICE CONNECTION | 6/2017 |
| WATER VALVE MANHOLE | 6/2017 |
| WATER MAIN OFFSET | 3/2020 |
| GUARD POST | 3/2013 |

UTILITY DETAILS

| | |
|---|---|
| BORE AND JACK CONSTRUCTION | 3/2013 |

APPENDIX A - MDOT UTILITY TRENCH STANDARD DETAILS

# DEFINITIONS

# DEFINITIONS

## MUNICIPAL UTILITY STANDARDS
## CHARTER TOWNSHIP OF DELTA
## EATON COUNTY, MICHIGAN

The following definitions shall apply to the interpretation of these standards:

Contractor – The person, firm, or corporation engaged by the Developer for construction services in conjunction with the proposed land development.

Developer: A natural person or persons, firm, association, partnership, corporation, or combination of any of them, which may hold any ownership interest in properties within the Charter Township of Delta and who proposes subdivision or other land development and/or municipal utility improvements.

Drain Commissioner: The Drain Commissioner of Eaton County, Michigan.

Engineer (or Township Engineer): The Township Engineer for the Charter Township of Delta or his designated representative.

Road Commission: The Board of County Road Commissioners of Eaton County, Michigan.

Standards: Municipal Utility Standards, Charter Township of Delta, Eaton County, Michigan.

Ten States Standards: As used in these "Standards", Ten States Standards refers to Recommended Standards for Water Works, and for Sewage Works, as recommended by the Great Lakes – Upper Mississippi River Board of State and Provincial Public Health and Environmental Managers.

Township: The Charter Township of Delta, Eaton County, Michigan

Township Board (or Board, or Board of Trustees): The governing body of the Charter Township of Delta, Eaton County, Michigan.

Utility Agreement: The written agreement between the Township and the Developer which outlines the requirements for constructing extensions/additions to the Township water and sanitary sewer infrastructure.

# ADMINISTRATIVE PROCEDURES

ADMINISTRATIVE PROCEDURES
COORDINATION OF REGULATIONS AND RULES

CHARTER TOWNSHIP OF DELTA
EATON COUNTY, MICHIGAN

In addition to these Municipal Utility Standards, the Developer shall also reference, as applicable, the following ordinances, regulations, rules and standards.

Charter Township of Delta Web Site (www.detlami.gov): Refer to the Planning and Zoning page for information on the Township requirements for land development; page includes links to Planning Department Forms

Charter Township of Delta Code of Ordinances, including but not limited to the following:

| | |
|---|---|
| Chapter 12 | Community Development |
| Chapter 18 | Land Divisions and Subdivisions |
| Chapter 34 | Streets, Sidewalks and Public Places |
| Chapter 40 | Utilities |

Delta Township Fire Department Supplemental Rules & Regulations; This document sets forth Fire Department requirements associated with the development of residential and commercial properties in the Township. Developers/property owners are encouraged to contact the Fire Department to secure a copy of the current edition of this document.

A summary of the agency contacts involved in the land development review process within the Charter Township of Delta is provided on the following pages. An Administrative Procedures Flow Chart illustrating the submittal and approval process is provided on page AP-15.

ADMINISTRATIVE PROCEDURES
DEVELOPMENT REVIEW AGENCIES

CHARTER TOWNSHIP OF DELTA
EATON COUNTY, MICHIGAN

This is a general description of the various agencies involved in the development review process within Delta Township:

**STREETS:**

Trunklines & Expressways: All expressways (I-96, I-495, and I-69) and trunklines (Saginaw Highway, M-43) are under the jurisdiction of the Michigan Department of Transportation (MDOT). Inquiries regarding these facilities should be addressed to:

Utilities Permit Engineer
Michigan Department of Transportation
Lansing Transportation Service Center
2700 Port Lansing Road
Lansing, Michigan 48906
Phone: (517) 335-3754

County Roads: All public roads in Delta Township, with the exception of expressways and MDOT trunklines, are under the jurisdiction of the Eaton County Road Commission. Inquiries regarding these roads should be addressed to:

Engineer - Manager
Eaton County Road Commission
1112 Reynolds Road
Charlotte, Michigan 48813
Phone: (877) 883-2866, Ext. #205

**STREET NAMING & ADDRESSING:**

Street names and addresses are issued in conjunction with Eaton County's Central Dispatch 911 Office. Inquiries should be addressed to:

Eaton County Central Dispatch 911
1067 Independence Boulevard
Charlotte, Michigan 48813
Phone: (517) 543-3510, Ext. #391

**STORM DRAINAGE:**

Public storm drains in Delta Township are under the jurisdiction of the Eaton County Drain Commissioner's Office. On-site stormwater detention is required in most areas of the Township.

Section 40-545 of the Delta Township Code of Ordinances requires the installation of storm drains for all new construction, including, but not limited to single-family homes, duplexes, triplexes and condominium units not requiring engineered site plans. Refer to the ordinance for installation standards.

Enforcement of Michigan's Soil Erosion and Sedimentation Act in Eaton County is also the responsibility of the Eaton County Drain Commissioner's Office. Inquiries regarding storm drainage Soil Erosion and Sedimentation permits should be addressed to:

Eaton County Drain Commissioner
Eaton County Courthouse
1045 Independence Boulevard
Charlotte, Michigan 48813
Phone: (517) 543-3809

**PUBLIC WATER SERVICE:**

General System: Delta Township provides public water service to many areas of the Township. The Township Engineering Department has maps of the water system, hydrant locations, available fire flow data and as-built utility drawings. Inquiries should be addressed to:

Delta Township Engineering Department
7710 West Saginaw Highway
Lansing, Michigan 48917
Phone: (517) 323-8540

System Details: The Water Division of the Township Utilities Department can provide assistance regarding connections, modifications, and additions to the existing water system. Inquiries should be addressed to:

Distribution System Supervisor
Delta Township Utilities Department - Water Division
7000 West Willow Highway
Lansing, Michigan 48917
Phone: (517) 323-8570

**FIRE PROTECTION:**

The Delta Township Fire Department if responsible for providing fire protection to Township residents and businesses. Questions relating to fire hydrants, alarm systems, sprinklers, emergency vehicle access requirements, etc. should be addressed to:

Delta Township Fire Department
811 N. Canal Road
Lansing, Michigan 48917
Phone: (517) 321-6622

**SANITARY SEWER SERVICE:**

General System: The Charter Township of Delta provides public sanitary sewer service to many areas of the Township. For general system information contact:

Delta Township Engineering Department
7710 West Saginaw Highway
Lansing, Michigan 48917
Phone: (517) 323-8540

System Details: The Wastewater Treatment Plant Division of the Township's Utilities Department can provide assistance regarding details such as waste discharge requirements, pre-treatment regulations, surcharge costs, the Sewer Use Ordinance, and the operation of the sanitary sewer system. Inquiries should be addressed to:

Utilities Director
Delta Township Utilities Department
7000 West Willow Highway
Lansing, Michigan 48917
Phone: (517) 323-8570

**SIDEWALKS:**

Section 34-21 of the Charter Township of Delta Code of Ordinances requires all owners of lots and parcels abutting dedicated public streets or private streets to construct sidewalks at the time of construction of any new principal buildings or at the time of alteration of existing principal buildings on such lots or parcels. This requirement is administered by the Township's Planning Department within the site plan approval process. The Township Engineering Department will assist with plan review for proposed sidewalks.

All sidewalks must be constructed in accordance with the most current Delta Township Concrete Sidewalk Construction Standards. Prior to constructing sidewalks a Sidewalk Permit must be obtained from the Township Building Department. Forms must be inspected by the Township Engineering Department prior to placing concrete.

Sidewalk Permits: Delta Township Building Department
7710 West Saginaw Highway
Lansing, Michigan 48917
Phone: (517) 323-8530

Sidewalk Inspections: Delta Township Engineering Department
7710 West Saginaw Highway
Lansing, Michigan 48917
Phone: (517) 323-8540

**BUILDING & SIGN REGULATIONS:**

The Charter Township of Delta operates under the Uniform Building Code as administered by the Township's Building Department. The Delta Township Sign Ordinance is also administered by the Building Department. Inquiries should be addressed to:

Delta Township Building Department
7710 West Saginaw Highway
Lansing, Michigan 48917
Phone: (517) 323-8530

**POLICE PROTECTION:**

The Charter Township of Delta contracts with the Eaton County Sheriff's Department for police protection. The Sheriff's Department has a sub-station located within the Township on Administration Drive across from the Township Administration Building. Inquiries should be made to:

Eaton County Sheriff's Department, Delta Sub-Station
7108 Administration Drive
Lansing, Michigan 48917
Phone: (517) 323-8480
(517) 372 – 8217 (County Non-Emergency Line)

**LAND DIVISIONS:**

Splitting off parcels for sale or development require the issuance of a Certificate of Land Division by the Charter Township of Delta Assessing Department. Land divisions, if required, must be reviewed and approved prior to receiving a building permit. Inquiries regarding the land division application, review, and approval process, or the number of divisions a parcel may qualify for, should be directed to:

Delta Township Assessing Department
7710 West Saginaw Highway
Lansing, Michigan 48917
Phone: (517) 323-8520

## ZONING AND SUBDIVISION REGULATIONS:

Copies of the Delta Charter Township Zoning Ordinance and Subdivision Regulations may be obtained from the Delta Township Planning Department. The Planning Department is responsible for processing site plan reviews, re-zonings & special land use permits, variance requests, and subdivision plats. Inquiries should be addressed to:

Delta Township Planning Department
7710 West Saginaw Highway
Lansing, Michigan 48917
Phone: (517) 323-8560

## EATON COUNTY HEALTH DEPARTMENT

The Barry-Eaton District Health Department is responsible for on-site water well and septic system permits, enforcement of the Time of Sale/Transfer program for the sale of properties served by on-site water and septic systems and restaurant inspections.

Barry-Eaton District Health Department
1033 Health Care Drive
Charlotte, Michigan 48813
Phone: (517) 485-7110

ADMINISTRATIVE PROCEDURES
PRELIMINARY UTILITY PLAN SUBMITTAL PACKAGE

CHARTER TOWNSHIP OF DELTA
EATON COUNTY, MICHIGAN

A Developer desiring to construct municipal sanitary sewer and water main utilities within Delta Township shall submit to the Township Engineer a Preliminary Plan Submittal outlining the proposed utility construction.

The Preliminary Plan Submittal package shall have been prepared by and contain the seal of a Professional Engineer, licensed to practice in the State of Michigan and shall be transmitted to the Township Engineer under letterhead and signature of the Developer. The preliminary submittal shall include the following elements.

1. PRELIMINARY SITE PLANS/UTILITY CONSTRUCTION PLANS

   A. The construction plans shall be prepared on 24" x 36" sheet format. Plans shall be drawn to a scale no greater than 1" = 50'.

   B. Each sheet of the plans shall include a title block in the lower right hand corner. This title block shall include the caption of the work specifying sanitary sewer or water, location and the wording "CHARTER TOWNSHIP OF DELTA". A revision block shall be situated near the title block.

   C. Plan sheets shall be indexed on the first or cover sheet.

   D. Both the sanitary sewer and water infrastructure to be constructed shall be depicted in plan and profile. The profiles shall include the finished grade over the respective utility. All elevations shall be based on NAVD88 datum. The drawings shall indicate all existing and proposed utilities and topographic features.

   E. Preliminary plans shall indicate existing sanitary sewer and water infrastructure and the proposed sewer and water infrastructure to serve the proposed structures and shall include proposed sewer and water infrastructure to serve future developments as may be applicable.

   F. Location of all buildings and related structures, roadways, driveways and parking areas existing or proposed under the current phase shall be shown on the plans.

   G. Identification of the sewer and water facilities which are to be owned by the Township shall be indicated, including any easements or rights-of-way that are to be granted to the Township.

   H. The requirements of these Municipal Utility Standards shall be referenced by a note on the construction plans. Supplemental specifications and requirements applicable to the Township's interests may also be noted on the construction plans, or included by reference to another document.

I. Two (2) sets of preliminary site plans/utility construction plans on paper and one in electronic PDF format shall be submitted to the Township Engineering Department for review by the Township Engineer.

2. GEOTECHNICAL REPORT: Unless otherwise approved by the Township Engineer, a geotechnical report summarizing the soil and ground water conditions along the proposed utility construction shall be submitted to the Township as part of the Preliminary Plan Submittal package. The geotechnical report shall be prepared by a qualified geotechnical firm and signed by a Professional Engineer licensed to practice in the State of Michigan. At a minimum, the geotechnical report shall comply with the following requirements:

   A. Soil borings shall be secured at a maximum spacing of 250 feet along the proposed utility alignment.

   B. Soil borings shall extend a minimum of five (5) feet below the bottom of the proposed utility.

   C. Soil borings shall provide split-spoon samples at 2.5 foot intervals for the first 10 feet of depth and at 5 foot intervals for depths greater than 10 feet. Soil borings shall be completed in accordance with ASTM D1586-11.

3. MAINTAINING TRAFFIC PLAN: In the event that the proposed utility construction will impact vehicular or pedestrian traffic, the Developer shall submit a Maintaining Traffic Plan to the Township Engineer for review and comment. The Maintaining Traffic Plan shall meet the requirements of the Michigan Manual of Uniform Traffic Control Devices (MMUTCD), the Eaton County Road Commission and/or the Michigan Department of Transportation and shall be approved by the applicable agency prior to commencement of construction.

ADMINISTRATIVE PROCEDURES
FINAL UTILITY PLAN SUBMITTAL

CHARTER TOWNSHIP OF DELTA
EATON COUNTY, MICHIGAN

1. Final plan submittals shall be made in accordance with the requirements of the Township Planning Department. The final plan submittal shall be reviewed by the Township Engineer and, upon approval by the Township Engineer; the Township will prepare and forward to the Developer a Utility Agreement to be executed by the Developer. Upon receipt of an executed Utility Agreement from the Developer, the Township Engineering Department staff will present to the Township Board the Developer-executed Utility Agreement for consideration.

2. In addition to the final plans required for submittal to the Township Planning Department, the Developer shall submit four (4) sets of utility construction plans sealed by the Developer's engineer and a separate basis of design for each proposed utility (water and/or sanitary sewer). The Township Engineer will prepare and submit the applicable construction permit applications forms to the Department of Environment, Great Lakes, and Energy (EGLE) for issuance of the utility construction permits. Any additional permits required for the construction shall be secured by the Developer.

3. To facilitate construction observation by the Township Engineering Department, the Developer shall furnish the Township an electronic copy of the utility construction plans in AutoCAD and PDF format. The electronic copy shall be furnished after the plans have been approved by the Township and the other applicable governmental agencies, but prior to the commencement of construction.

ADMINISTRATIVE PROCEDURES
FOR
TOWNSHIP/DEVELOPER UTILITY AGREEMENTS

CHARTER TOWNSHIP OF DELTA
EATON COUNTY, MICHIGAN

1. Conditions of the Utility Agreement shall reflect the unique circumstances of each project. The following items, while not to be all inclusive, shall be considered as applicable and appropriate for most utility agreements:

   A. Developer shall arrange for the procurement of the necessary material, labor, and equipment to cause the construction of the sewer and/or water facilities to be performed in a manner consistent with this agreement, the plans and specifications and all applicable statutes, ordinances, and rules and regulations (unless otherwise specifically agreed to herein).

   B. The cost of the improvements including sewer and water facilities to be owned by the Township, as well as charges incurred by the Township for administrative, legal, planning, and engineering services, including review of the construction plans and specifications, preparation of any easements, construction observation, review of "as-built" data, updates to Township's utility mapping and the preparation of the deed of grant, shall be borne by Developer (unless otherwise specifically agreed to herein).

   C. The approved final plan submittal shall be plans of record as to the sewer and water utilities to be constructed and same may be revised to incorporate changes in the development plan and any new phases thereof, subject to obtaining prior approval of the Township Engineer and the revising of the final plan. Subject to other applicable considerations, necessary building permits may be issued upon the final execution of the Utility Agreement. Sewer and/or water connection permits are subject to satisfactory completion of the proposed mains and related appurtenances as later herein agreed.

   D. The parties agree a commitment is hereby made on the part of the Developer to build the facilities herein indicated, and on the part of the Township to own, operate and maintain these facilities henceforth.

   E. Sureties in the form of cash, certified check, or irrevocable bank letter of credit running to the Charter Township of Delta whichever the Developer selects, may be required by applicable statutes and/or ordinances or by the Board, and shall be posted reflecting the cost of utility construction as estimated by the Township Engineer prior to start of construction or approval of a final plat.

   F. The parties agree the facilities indicated herein to be built may be phased, or staged. (A time factor, or deadline, shall be included). Developer agrees that it will furnish the Township with construction plans and specifications for any current phase of the work covered by this agreement, which plans shall be prepared by a Professional Engineer, licensed to practice in the State of Michigan, to show the proposed utility facilities to become the property of the Township. The plans and specifications shall be consistent with the Municipal Utility Standards. All construction plans and specifications in connection therewith shall be subject to approval by the Township Engineer. The Township Engineer shall forward all such plans for approval to the appropriate State

agency and the issuance of necessary permits. When a permit is granted by the appropriate State agency same shall constitute approval by the appropriate State agency and the Township Engineer. Developer shall furnish Delta an electronic copy (in PDF format) of the plans for use by the Township Engineer during construction.

G. Construction shall not commence until the Township Engineer has issued written authorization to Developer. Prior to starting construction work Developer shall have:

1) Caused his contractor to furnish current certificates of insurance noting the Township as an additional insured (see General Conditions of these Municipal Utility Standards).

2) Posted any required sureties.

3) Conducted the pre-construction meeting (see General Conditions of these Municipal Utility Standards).

4) Caused his contractor to have obtained proper permits from the Eaton County Road Commission, the Office of the Eaton County Drain Commissioner and other governmental agencies as may be applicable.

H. The Developer shall be responsible for costs incurred by the Township in conjunction with the utility construction proposed by the Developer. Engineering services shall include plan review, preparation of construction permit applications, construction observation, review of as-built data, updating of Township Utility Mapping and preparation of easements. Developer shall pay the actual hourly rate of the personnel employed to perform the engineering services plus time and one-half for overtime and double time for Sunday or Holiday work, plus 70% of the actual hourly rates of personnel to cover fringes, transportation, equipment, and overhead costs. The Township Engineer shall provide Developer a monthly accounting of the cost of engineering services. The Township will invoice the Developer monthly for the above noted costs.

I. All layouts, staking, full-time construction observation, gathering necessary data and preparing record drawings in AutoCAD format and gathering necessary data and preparing legal descriptions for easements shall be provided by Developer's Engineer (unless otherwise specified herein). Part-time observation of the construction, reviewing record drawings, reviewing easement legal descriptions shall be done by the Township.

J. It is agreed between the parties that the Township Utility Department shall have jurisdiction and control of the water valves in the Township water distribution system and that any time the water valves must be turned on or off in order to facilitate the construction of the new water main, same shall be done under the jurisdiction of representatives of the Township Utility Department. Water meters shall not be installed until after the Township Engineer has certified the satisfactory completion of the work; however, temporary meters can be installed at the expense of Developer for water to be used during construction. Temporary water meters shall be installed by Township Utility Department personnel only after the pressure testing and "safe" water sampling is complete, and with the affirmation of the Township Engineer.

K. The Township Engineer shall certify in writing the satisfactory completion of the work provided for hereunder which certificate shall be filed with the Township Clerk. The following items shall be completed before final certification can be made:

1) A satisfactory high pressure hydrostatic testing of the water main facilities shall be completed.

2) Receipt of tests of water taken from the water main facilities showing same to have been tested “safe”.

3) A satisfactory air test, deflection tests and CCTV inspection of the sanitary sewer mains shall be completed.

4) Developer shall complete clean-up of construction site within the road right-of-way.

5) Developer shall execute and deliver a deed of grant from Developer to the Township covering all utility installation which is to be owned by Delta.

6) Final construction Waivers of Lien on the project shall be filed with the Township Engineering Department.

7) Easement grants, of Delta’s Township’s standard form, suitable for recording, granting to Delta access to the utility mains and appurtenances to be owned by Delta for construction, operation and maintenance purposes, including the right to make future hook-ups or connections to any of said lines shall have been delivered for such mains not constructed in public rights-of-way. The easement grants shall hold Developer responsible for costs of repair to any landscaping or other improvements that may exist within the easements and may become damaged or destroyed in the initial construction of the utilities. Upon acceptance of the utility by the Township, the Township shall be responsible for returning all seeded surface area, driveways and parking areas to substantially the same condition after repairs and/or maintenance are completed by the Township. Developer’s Surveyor/Engineer shall prepare legal description(s) and easement exhibit drawing(s) based upon the final installed location of the Sanitary Sewer and Water Main Facilities.

8) Within sixty (60) days of final inspection, and prior to final acceptance of the facilities, the Developer’s Engineer shall prepare record drawings for the Sanitary Sewer Facilities and the Water Main Facilities. Record drawings shall be provided electronically in AutoCAD and .pdf formats. Record drawings shall update the construction drawings to accurately reflect the installed location, elevation and conditions of final utility installation based upon field measurements incorporated into the CAD file(s). AutoCAD files shall be based upon Michigan South Zone (2113) State Plane Coordinate System NAD83 (2011) Epoch date of 2010.00 realization and the 1988 North American Vertical Datum (NAVD88) to an accuracy of +/- 0.01 feet vertically and +/- 0.1 feet horizontally.

9) Such additional reasonable requirements as the Township Board, in its sole discretions, shall require.

L. The parties may agree to allow the Township Engineer to authorize partial utilization of the systems as conditioned in the General Conditions of these Municipal Utility

Standards. Such authorization may require the posting of a Surety Bond with the Township Clerk in the amount deemed necessary to complete the work.

M. No permits for utilities to be connected to any buildings shall be either requested or issued until after the facilities which are to become the property of the Township have been certified as satisfactorily complete by the Township Engineer.

N. It is further agreed by the parties that no building shall be occupied nor an occupancy permit be issued until after an access road shall be completed to assure access by emergency vehicles such as light axle ambulance, and the Township Engineer has certified the satisfactory completion of the work.

O. The Township agrees that when certification of final approval has been made by the Township Engineer, subject to a final financial accounting, and any other applicable considerations which may arise, the Township Board shall accept the facilities which are to be a part of the Township water or sanitary sewer system.

P. The Developer shall indemnify and hold harmless the Township and its agents and employees from and against any and all claims for damages or losses and expenses arising out of the construction operations in connection with this development.

Q. The Developer guarantees the materials and workmanship in the facilities for a period of not more than two (2) years from the date of partial utilization but at least one (1) year from the date of final acceptance of said facilities by the Township Board.

2. Upon satisfactory review of the conditions of the Utility Agreement, Developer shall execute same and return it to the Township Engineering Department for submittal to the Township Board of Trustees. Upon his satisfactory review of the final plan submittal, the Township Engineer shall sign same and submit the signed final plan drawing(s) to the Township Board.

3. The Township Board shall consider the utility Agreement concurrently with the final plans and shall either approve or disapprove the proposal. The reasons for disapproval of the proposal shall be given in writing to the Developer allowing further negotiations if applicable.

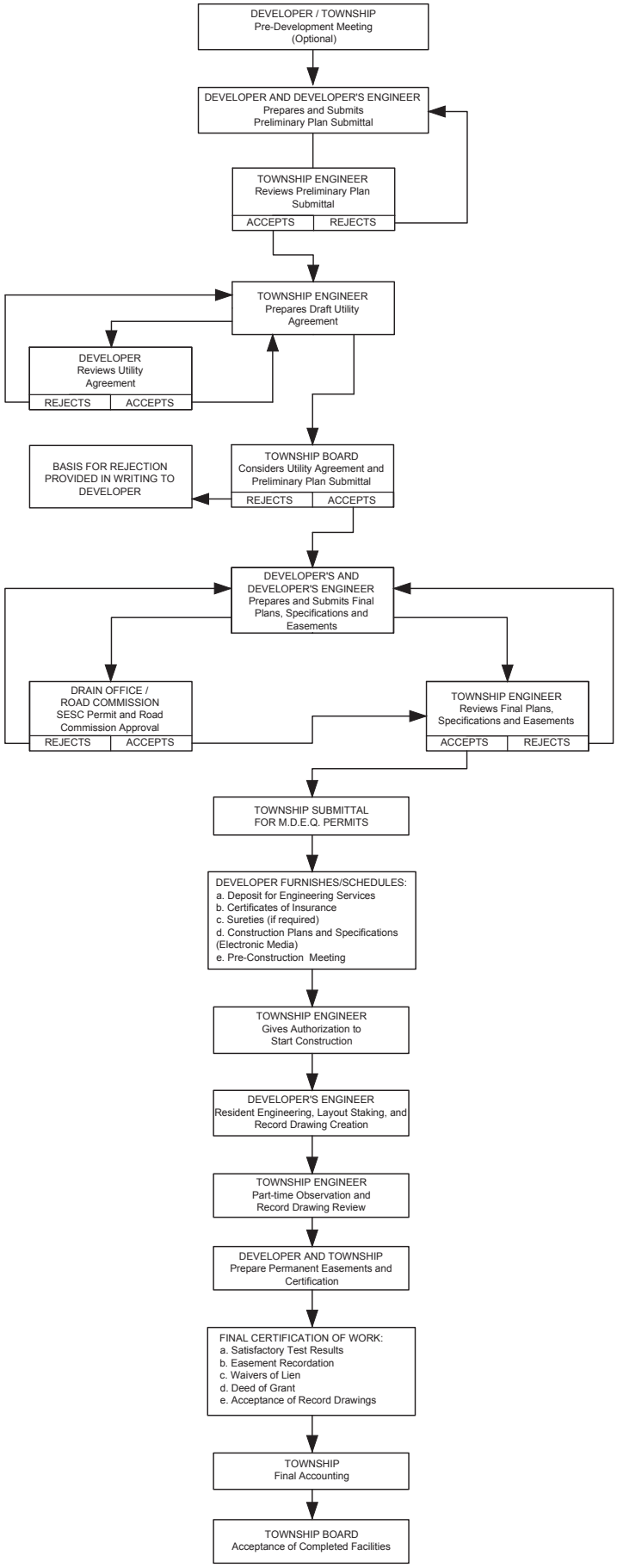
4. Upon approval of the Utility Agreement and the preliminary plan submittal by the Township Board, the Developer shall cause his engineer to proceed with the final plans in accordance with these Municipal utility Standards. The construction specifications shall meet the conditions of the General Conditions and the Municipal Utility Standards as applicable. The final engineering plans and specifications shall be reviewed by the Township Engineer as to conformity with these Municipal Utility Standards and with sound engineering practices.

5. If the Township Engineer should disapprove the final plans, the reasons for disapproval shall be given in writing to the Developer and the Developer's Engineer. When the Township Engineer approves the final plans he shall so advise the Developer and the Developer's Engineer, and the Developer's Engineer shall furnish the required "sealed" prints of the final plans and specifications, as well as written approval of the plans by the Road Commission, the Drain Commissioner and a copy of the Soil Erosion and Sedimentation Control Permit as may be applicable, to the Township Engineer for submittal to the appropriate State agencies.

6. The Developer shall furnish the Township Engineer an electronic copy (in PDF format) of the final plans and specifications for use during construction. Revisions to final plans during construction shall be subject to the approval of the Township Engineer.

7. As conditioned by the Utility Agreement, the parties involved shall timely complete the work of preparing acceptable easements. It shall be the intent of these Municipal Utilities Standards to encourage the location of the sewer and water facilities within the public road rights-of-way, insomuch as practical.

8. Upon written certification of final approval by the Township Engineer, and subject to a final accounting of Township-incurred expenses by the Township as may be applicable, and any of the applicable considerations which may arise, as may be applicable, and any of the applicable considerations which may arise, the Township Board shall accept the facilities which are to be a part of the Township's water or sanitary sewer systems or ownership and responsibility of operation and maintenance.

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**Delta Charter Township**
**ENGINEERING DEPARTMENT**
7710 West Saginaw Highway
Lansing, MI 48917-9712
(517) 323-8540


# ADMINISTRATIVE PROCEDURES

## SUBMITTAL AND APPROVAL FLOW CHART

# GENERAL CONDITIONS

# GENERAL CONDITIONS

## MUNICIPAL UTILITY STANDARDS
## CHARTER TOWNSHIP OF DELTA
## EATON COUNTY, MICHIGAN

1. TOWNSHIP'S STATUS DURING CONSTRUCTION.

The Developer shall at all times provide the Township and its representatives access and construction observation rights to the work wherever it is in preparation or progress. The Township shall have the right to make visual inspections, take physical tests, witness testing and require special inspections or testing whether or not the work is fabricated, installed or completed. The Township shall have the right to reject or disapprove work or materials which are defective or does not conform to specifications. Work or materials which are rejected or disapproved shall be satisfactorily corrected or removed from the site by the Developer. If the Developer does not correct such rejected or disapproved work within a reasonable time, fixed by written notice, the Township may cause to have it removed or repaired and charge the cost thereto to the Developer.

If during the progress of the work, conditions arise which merit changes to the originally planned work, the Developer shall cause such alteration as agreed to by the Township to be documented by revisions to the plans and specifications. Under such conditions and upon written notice to the Developer, the Township shall have the right to halt the work until proper revisions to the plans and specifications are complete.

The Developer may arrange for regular progress meetings during the course of the work. The Developer shall arrange for any special meeting of the various parties involved upon request of any of the parties.

Township construction observation personnel shall be afforded every opportunity to maintain a harmonious day-to-day working relationship with the Developer and his Contractor. Any objections on the part of the Township which do not appear to be satisfied by the day-to-day working relationship with the Developer and his contractor shall be stated in writing to the Developer. The Developer shall at once act upon the objection, making every reasonable effort to mutually resolve such objection.

No oral order, objection, claim or notice by any party to the others shall affect or modify any of the terms or obligations contained in any of the documents, and none of the provisions of the documents shall be held to be waived or modified by reason of any act whatsoever, other than by a definitely agreed waiver or modification thereof in writing, and no evidence shall be introduced in any proceeding of any other waiver or modification.

The Developer shall be responsible for all construction staking and layout work. During construction, Developer shall collect the necessary data for the preparation of record drawings upon completion of the work. Record drawings shall be completed in accordance with the requirements of the Utility Agreement and are subject to review and acceptance by the Township Engineer.

2. CONTRACTOR'S QUALIFICATION, SUPERINTENDENCE AND WORKMEN, AND DEVELOPER'S SUPERINTENDENT.

The Developer shall take all necessary measures to assure that the Contractor selected to do the work is qualified and capable of performing the work. The Developer shall advise the Township of the name of the Contractor and the Contractor's superintendent, as well as their respective mailing addresses, cell and telephone numbers, fax numbers and email addresses.

The Developer shall require that the Contractor give his personal superintendence to the work or employ a competent superintendent on the work at all times during performance of the work. The Developer shall require that the Contractor employ competent laborers and mechanics for the work, and comply with all applicable regulations of the U. S. Department of Labor and other agencies having jurisdiction.

The Developer shall stipulate an individual who will represent the Developer during the process of the construction work; the Developer shall advise the Township of this individual's name, mailing address, cell phone number and email address.

3. INSURANCE AND INDEMNIFICATION.

The Developer shall not allow commencement of the work until his Contractor has furnished the Township with a current copy of certificates of insurance noting the Township as an additional insured.

The Developer's Contractor shall be solely responsible for any and all claims arising out of the Contractor's operations, or any subcontractor, supplier, or any agent, servant or employee of the several. The Developer shall require that his Contractor, subcontractors and suppliers shall indemnify and hold harmless the Township and its agents and employees from and against all claims, damages, losses and expenses including attorney's fees arising out of or resulting from the performance of the work.

The Contractor shall procure and maintain during the life of the Contract the following insurance coverages:

(a) Workmen's Compensation – Insurance affording coverage in accordance with the Workmen's Compensation Laws in the State of Michigan.

(b) Comprehensive General Liability – Insurance affording coverage for Bodily Injury Liability of not less than $1,000,000 per Occurrence, $2,000,000 aggregate and Property Damage Liability of not less than $1,000,000 per occurrence, $2,000,000 aggregate or a Single Limit Liability of not less than $1,000,000per occurrence with an aggregate of $2,000,000. This policy shall also include coverage for Products Liability and/or Completed Operations. Coverage for the hazards or explosion, collapse and underground. Broad form Contractor's Property Damage, Independent Contractor's Coverage and Contractual Liability.

(c) Comprehensive Auto – Insurance affording Fleet Automatic coverage on all Owned, Non-Owned or Hired Vehicles with limits of not less than $1,000,000 Per Accident for Bodily Injury Liability and $1,000,000 per Accident for Property Damage Liability, or a Single Limit of Liability of $1,000,000 for Bodily Injury and Property Damage combined.

(d) Notice of Cancellation – All policies affording coverage by this Article shall be endorsed to provide for a thirty (30) day prior written notice to be delivered to the Owner before any of the coverages afforded by these policies are reduced or cancelled.

4. COMPLIANCE WITH THE LAW AND PERMITS.

The Developer shall, and shall require his Contractor and all subcontractors and suppliers, to comply with all applicable Federal, State, County, and Township laws, regulations, rules and ordinances. The Developer shall arrange for receiving and paying for permits and licenses required for prosecution of the work.

5. PRECONSTRUCTION CONFERENCE.

The Township Engineer will schedule and conduct a preconstruction conference to be held prior to the commencement of work. The Township Engineer will include the following, not all inclusive, persons or parties at said conference:

- Developer and his Superintendent or coordinator
- Contractor and his Superintendent
- Township Engineer and Township Engineering Division Staff
- Developer's Engineer
- Township Utilities Director
- Township Water Distribution Supervisor
- Utility Company Representatives
- Eaton County Road Commission Representatives
- Eaton County Drain Commissioner's Representatives

6. CONNECTIONS TO EXISTING PUBLIC SANITARY SEWER AND/OR WATER SYSTEM.

The Developer shall not connect to the existing Township Utility Systems without prior written approval of the Township Engineer and in the presence of a Township representative. The methods used to connect to existing Township utility systems shall be approved by the Township Engineer in writing prior to the commencement of the work. The Township Engineer may require the temporary bulkheading of the existing sanitary sewer system to preclude storm water or groundwater from entering the existing system during construction of the new facilities.

7. MATERIALS, TESTS, SHOP DRAWINGS AND SAMPLES.

Prior to the start of any of the work, the Developer's Engineer shall prepare a schedule of shop drawings and product data sheets to submitted for the Township Engineer's approval. Shop drawings and product data sheets shall be submitted to the Township Engineer in an editable electronic (PDF) format. Developer shall make notations relative to the project on the submittals in a color other than red. Township Engineer shall return a reviewed copy in PDF format with comments annotated in red and bearing review stamp.

The Township Engineer's review of materials and equipment shall constitute a general review and it is not intended that this review shall enter into every detail of the work. No work shall be undertaken until the Township has reviewed the shop drawings and product data sheets required to be checked and returned same to the Developer.

Township review shall not relieve the Developer of responsibility for errors in the shop drawings and in the work. If requested by the Township, the Developer shall furnish satisfactory evidence that materials and equipment furnished are in compliance with the reviewed shop drawings.

Substitute materials or equipment shall be specifically approved by the Developer, or his Engineer, and the Township Engineer prior to installation of the materials and equipment. All materials and equipment shall be new and conform to specifications. All materials and equipment shall be applied, installed, connected, erected, used, cleaned, and conditioned in accordance with the instructions of the applicable manufacturer, fabricator, or processor, except as otherwise specifically provided in the technical or supplemental specifications.

All materials and equipment proposed to be used in the work may be inspected and tested at any time and at any place during their preparation, storage and use. Unless otherwise stipulated, any and all tests shall be in accordance with the methods prescribed by the American Society for Testing and Materials. Any of the work which fails to meet the requirements shall be considered defective. The rejected or disapproved work or materials shall be subject to the requirements noted under "Township Status During Construction", herein.

Unless otherwise stipulated in the Utility Agreement, the Developer shall pay the cost of all inspection, tests and approval. Any work required to be inspected, tested, or approved, which is covered up prior to the application inspection, test or approval, shall be uncovered by the Developer and at the Developer's expense. The Developer, at his expense, shall remove any trench backfill as requested by the Township, to test, or re-test, if backfill material is known not to be up to specification requirements.

8. USE OF PREMISES.

The Developer shall confine his operations, including storage and spoil disposal, to areas permitted by law. The Developer shall obtain written approval for use of any premises which he does not own, for any purpose including storage and spoil disposal. Such written approvals shall clearly state that the Developer takes full responsibility for any liabilities arising from the use thereof, and that the Developer shall assure the

fulfillment of any applicable laws, or agreed to conditions. Further, copies of such written approvals shall be furnished to the Township Engineer.

9. PERMITS

The Developer shall not commence work without the applicable permits from the following agencies. The Developer shall furnish the Township Engineer a copy of all permit (s) secured for the work.

- Eaton County Road Commission (ECRC)
- Office of the Eaton County Drain Commissioner (ECDO)
- Department of Environment, Great Lakes, and Energy (EGLE)
- Michigan Department of Transportation (MDOT)
- Delta Charter Township Building Department
- Delta Township Manager (for earth changes over existing Township utilities)

10. SAFETY AND PROTECTION OF WORK.

Safety shall be the sole responsibility of the Developer and his Contractor(s). The Contractor shall comply with the current, applicable requirements of Federal and State of Michigan Occupational Health and Safety regulations during construction of the proposed development.

The Contractor shall continuously maintain adequate protection of all his work from damage and shall protect adjacent property from injury arising in connection with his construction, and shall be responsible for any damage and/or injury caused by or arising out of his operations.

11. TRAFFIC CONTROL.

The Developer shall post traffic control devices required for the protection of the work and for the protection and maintenance of traffic as it may be affected by the operations of this work and in accordance with the Maintaining Traffic Plan prepared for the project. The Developer shall closely coordinate with the Eaton County Road Commission, the Michigan Department of Transportation (as applicable), the Eaton County Sheriff Department, ETRAN, applicable school district transportation departments and the Delta Township Fire Department.

12. MAINTENANCE OF PUBLIC ROADS DURING CONSTRUCTION

The Developer shall keep the existing roads free of dust and soil material and shall minimize dust from his off-road operations so as to minimize the nuisance therefrom. The Developer shall require the site of the work and other premises where storage, disposal and other construction-related work is in progress to be maintained in a clean and orderly fashion which will promote safety and minimize nuisance. Open burning shall be subject to authorization by the Township Fire Department.

13. WORK BY OTHERS

Prior to the start of work, the Developer shall investigate the likelihood of other parties performing work in the vicinity of his proposed operations, and every precaution shall be taken to reasonably afford all parties the opportunity to do their work.

14. REPORTS, RECORDS AND DATA.

The Developer shall, and shall require of his Contractor and all subcontractors the submission to the Township of such schedule of quantities, progress schedules, payrolls, reports, estimates, records and other data as the Township may request concerning work performed or to be performed under the Utility Agreement.

The location of sanitary sewer wyes, manholes and the intersection of service lateral and the respective property line and the location of water system valves and the intersection of the water service lead and the respective property line shall be witnessed from at least two permanent topographical features or the location shall be established by surveying methods to identify the coordinate of the location.

Upon completion of the project and prior to acceptance by the Township, the Developer's Engineer shall prepare and deliver to the Township Engineer, record drawings for the Sanitary Sewer Facilities and the Water Main Facilities. Record drawings shall be provided electronically in AutoCAD and .pdf formats. Record drawings shall update the construction drawings to accurately reflect the installed location, elevation and conditions of final utility installation based upon field measurements incorporated into the CAD file(s).

AutoCAD files shall be based upon Michigan South Zone (2113) State Plane Coordinate System NAD83 (2011) Epoch date of 2010.00 realization and the 1988 North American Vertical Datum (NAVD88) to an accuracy of +/- 0.01 feet vertically and +/- 0.1 feet horizontally.

15. CERTIFICATION OF PROGRESS OF WORK.

Prior to the Township Engineer certifying to the completion of the facilities, the Developer may request a certification of the progress of the work. Normally such requests as to progress may not be made more frequently than once a month. Requests for certification of the progress of the work shall be directed to the Township Engineer, and the Township Engineer shall respond within ten (10) working days. The Developer shall furnish the necessary records and data as may be requested by the Township. The certificate of the progress of the work shall be used to assist the Developer in his general financing and to meet any applicable requirements that may exist in the Utility Agreement.

16. SUBSTANTIAL COMPLETION.

Substantial completion shall be recognized as completion of that phase of the work which is not subject to other items of work required by the total development project; i.e., the water mains shall be complete, including testing, the manholes finished to the level of the castings, water valves installed boxes not finally adjusted, hydrants installed but still subject to final adjustment, stub-ins complete and other work required for final completion. The effective date of substantial completion shall be taken as that date which the Township Engineer certifies to the substantial completion.

17. PARTIAL UTILIZATION.

The Developer shall not allow connections of individual buildings and partial utilization of the proposed systems prior to receiving certification to the substantial completion of the work. As may be set by the Utility Agreement, the Developer may request authorization to use all or part of the proposed system prior to final acceptance of the work. Such request shall be directed to the Township Engineer and shall include a letter from the Developer to satisfy his intention to complete all the work per specifications and to assume full responsibility for maintaining and cleaning the incomplete work until final acceptance.

The Township Engineer may authorize partial utilization of the proposed system subsequent to affirmation by the Township Building Department and the Utility Department Director. As a condition of authorization of partial utilization, the Township Engineer may require temporary staking of valves and manholes to minimize damage to the facilities during the completion of the work. Partial utilization shall not be allowed for any facilities not situated within either a dedicated public right-of-way or recorded easement acceptable to Delta. The Township may require the posting of surety to assure the completion of the work, as may be conditioned by the Utility Agreement.

18. FINAL ACCEPTANCE

The Developer shall make application to the Township Engineer for final acceptance. The application shall include a certificate by the Developer that all work is complete as conditioned by the Utility Agreement and final waivers of all claims from the Developer, his contractor, any subcontractors and all suppliers.

19. SOIL EROSION AND SEDIMENTATION CONTROL

The Developer shall secure the Soil Erosion and Sedimentation Control (SESC) Permit from the Office of the Eaton County Drain Commissioner and shall be responsible for all soil erosion and sedimentation which may be caused by his operations in accordance with Public Act 347 of 1972. The conditions of any applicable SESC Permit shall be strictly adhered to.

20. NORMAL WORK DAY AND WORK HOURS

In order to properly and adequately schedule the presence of the Township Engineer or his representative, the Developer shall require his Contractor to notify the Township Engineer as far as possible in advance of his intentions to carry on the work. The Contractor shall meet the requirements related to times of operation and decibel levels outlined in the Delta Township Noise Control Ordinance.

21. CONFINED SPACE ENTRY

Entry into any portion of the existing sanitary sewer collection system or water system valve manholes or those structures under construction for any reason shall be made in accordance with the MIOSHA Safety Standards. The Contractor shall contact the Township prior to any confined space entry and submit a copy of their confined space entry plan for review by Township Utility Department staff. After entry has been granted, the following will be documented and a copy provided to the Township to be kept on file. The following shall be documented:

(a) Initial air quality testing results

(b) Date & time of entry and exit

(c) Any hazards encountered

(d) Exiting air quality testing results

(e) Name of Entrant and Foreman/Supervisor

# DESIGN STANDARDS

# FOR

# WATER AND SANITARY SEWER UTILITIES

DESIGN STANDARDS FOR TOWNSHIP-OWNED
WATER AND SANITARY SEWER UTILITIES

CHARTER TOWNSHIP OF DELTA
EATON COUNTY, MICHIGAN

## A. GENERAL REQUIREMENTS:

1. All proposed sanitary sewers which would serve more than one parcel, or which would serve one or more buildings of multiple ownership on a single parcel, shall be constructed as a public sewer and shall be owned by the Township.

2. All proposed water mains which would serve more than one parcel, or which would serve one or more buildings of multiple ownership on a single parcel shall be constructed as a public water main and shall be owned by the Township, including all fire hydrants.

3. The Township, at its option, may require sanitary sewers and/or water mains to be owned by the Township if said utilities may potentially serve properties beyond those properties proposed to be served.

4. Sanitary sewers, sewage lift stations and force mains and water mains may be required to be oversized or placed at greater depths if it is determined to be necessary for future extensions to the systems. The cost of oversizing or construction to greater depths may be borne or shared in part by the Township, subject to formal action by the Township Board.

## B. WATER MAIN DESIGN: Shall comply with the following requirements:

1. Recommended Standards for Water Works (Ten States Standards), Delta Township Fire Department Supplemental Rules & Regulations and these Municipal Utility Standards.

2. Medium and high density residential, office and commercial developments shall be served by no less than 8–inch diameter water mains, and industrial developments by no less than 12-inch diameter water mains.

3. Water lines used as feeder mains, the mile loops or other arterial mains, shall be sized by the Township Engineer.

4. Fire hydrants shall be installed in accordance with the Delta Township Fire Department Supplemental Rules & Regulations. The face of the hydrant pumper connection shall be no closer than 3.0 feet from the back of curb.

5. Fire hydrants shall be 6-inch diameter and provided with a gate valve to isolate the hydrant from the water distribution system. Six (6) inch diameter hydrant leads shall not exceed 40 feet in length; hydrant leads exceeding 40 feet in length shall be 8- inch diameter.

6. For new residential developments, water mains shall be located nine (9) feet from the property line on the north side of roads in an east-west orientation and on the west side of roads in a north-south orientation.

7. Main line water valves shall be spaced in accordance with Ten States Standards, unless otherwise approved in writing by the Township Engineer. Main line valves shall be located near each tee or cross at property lines extended, at the terminus of mains to accommodate future extensions, or as determined by the Engineer. Main line valves shall, generally, be located behind the back of curb or outside the roadway shoulders, and not within the paved surface of the roadway.

8. Two (2) main line valves shall be provided at each tee and three (3) main line valves at each cross.

9. Water system valves larger than 12-inch diameter may be required to be installed in a precast concrete vault or manhole structure, as determined by the Township Engineer.

10. A minimum of five (5) feet of cover shall be provided over the top of the water main pipe. Ductile iron water main and fittings and joint restraint systems exposed to soils shall be encased in an approved polyethylene tube as specified in these Standards.

11. Connection to the Township Water System shall be by a "dead tap" connection, unless otherwise approved by the Township Engineer.

12. Water service leads shall be extended to a minimum of ten (10) feet past the property line and marked with a 4x4 treated post. The top of the post shall extend at least 12 inches above final grade and painted blue. Water service leads shall be located at or near the center of the lot, and provide a minimum of ten (10) feet separation from the sanitary sewer and storm laterals.

13. The minimum easement width for water main located outside of the public right-of-way shall be 20 feet.

**C. <u>SANITARY SEWER DESIGN:</u> Shall comply with the following requirements:**

1. The Ten States Standards for Sewage Works and these Municipal Utility Standards.

2. For new residential developments, sanitary sewer mains shall be located within the dedicated road right-of-way seven (7) feet east of the road centerline for north-south streets and 7 feet south of the road centerline for east-west streets.

3. Manholes shall be positioned so that straight lines of mains between manholes shall not exceed 400 feet unless approved in writing by the Township Engineer.

4. Top of manhole castings shall be so positioned as to be above any potential surface flooding or ponding.

5. Grades shall be established so all basements may be served by a gravity sewer unless otherwise approved by the Township Engineer. The plans shall show the proposed

location and elevation of each sewer stub-in at the applicable right-of-way line or easement line.

6. Sanitary sewer manholes shall be located such that maintenance vehicles shall have access to the manholes for maintenance purposes. Where easements are involved, the manholes shall be located near drives, parking lots or other vehicular access points. All weather maintenance drives shall be provided for access to all Township sanitary sewer manholes within easements or other areas not readily accessible to Township sewer system maintenance vehicles.

7. Sanitary service laterals shall be constructed to a minimum of ten (10) feet past the property line and shall be constructed to a depth of at least nine (9) feet below final grade at its terminus. The end of the lateral shall be marked with a 4 x 4 treated post extended at least 12 inches above final grade and shall be painted brown. Sanitary service laterals shall be located at or near the center of the lot, and provide a minimum of ten (10) feet separation from the water service lead and the storm sewer lateral.

8. The minimum easement width for sanitary sewer located outside of the public right-of-way shall be 30 feet or a width of two times the maximum depth of the sanitary sewer, whichever is greater.

9. The minimum requirements for invert drops through manhole structures shall be 0.10 feet. Manhole structures with horizontal alignment deflections (from straight through) of greater than 45 degrees shall include a 0.2 foot drop between inlet and outlet. For changes in pipe diameters, additional drop through the manhole is required based on matching at 0.8 times the diameter of the inlet and outlet pipes. Flow channel width shall match the diameter of the pipe on the downstream side of the manhole.

10. Existing manholes and concrete pipes that are designed to receive discharges from sewage force mains shall be lined to protect the structures from corrosion. Lining materials and methods shall be approved by the Township Engineer. The concrete pipe lining shall be completed for a distance of 1,000 feet or three stretches of sewer between manholes, whichever is greater or as directed by the Township Engineer. All downstream manholes within the 1,000 foot lining limits shall also be lined. For force main discharges into new manholes, the manholes shall be polymer concrete units meeting the requirements of the Special Provision for Polymer Concrete Sanitary Manholes.

11. Industrial users or designated commercial users, as determined by the Township Utilities Director, shall provide a sanitary sewer manhole on their lateral for sampling purposes at or near the site property line/right-of-way or other location approved by the Township Engineer. The sampling manhole shall be constructed such that the sanitary sewer is constructed straight-through the manhole. Easements or ingress/egress agreements shall be granted by the Developer to the Township if the manholes are located on private property.

12. The Township will provide the design and construction documents for the sewage lift station and the sizing of the discharge force main. The Developer shall be responsible for the force main design from the lift station site to the proposed discharge manhole. The Developer shall provide to the Township Engineer a basis of design for the

wastewater flow tributary to the lift station and a topographic survey along the proposed force main route.

a. Lift station design will address general aesthetics, compatibility with the surrounding environment and the incorporation of low maintenance landscaping and decorative/screening fencing.

b. Paved access roads to the lift station shall be provided; roads shall be HMA or concrete capable of supporting Township sewer maintenance equipment.

c. In general, stations will consist of duplex submersible pump lift stations with precast wet well chamber, exterior valve and flow meter chambers and a fixed set, natural-gas or diesel fueled emergency generator.

d. The Township will provide the electrical power/control panel for the lift station and install the panel(s) on the pads provided by the Developer. The Developer shall coordinate the installation of the electrical panel(s) with the Township Utility Director prior to commencement of construction.

e. Lift station drawings and related technical specifications prepared by the Township will be provided to the Developer for inclusion in the Developer's bid package. The cost of the lift station design and the electrical power/control panel furnished by the Township will be the responsibility of the Developer. The Township will invoice the Developer for the lift station design and power/control panel costs and payment shall be received by the Township prior to the commencement of construction.

f. The Developer shall arrange for a technical representative of the pump manufacturer to inspect the equipment installation, supervise mechanical adjustments, conduct startup of the equipment, supervise testing and instruct Township staff in the operation and maintenance of the lift station.

g. Sixty (60) days after successful startup of the lift station, the Developer shall conduct a wet well drawdown test to verify the capacity and head conditions of the lift station. The Developer shall provide all required testing equipment and personnel and tests shall be conducted in the presence of Township Utility Department staff.

# SPECIAL PROVISIONS

INDEX OF SPECIAL PROVISIONS

MUNICIPAL UTILITY STANDARDS

CHARTER TOWNSHIP OF DELTA
EATON COUNTY, MICHIGAN

Projects shall be constructed in accordance with the latest version of Standard Specifications for Construction, Michigan Department of Transportation, and the following Special Provisions.


| | | REVISION DATE |
|---|---|---|
| AUDIO-VISUAL | 1 TO 2 | 3/2020 |
| SPECIAL CONTROLS | 1 | 5/2012 |
| DEWATERING | 1 TO 4 | 5/2012 |
| TEMPORARY BYPASS PUMPING | 1 TO 4 | 5/2012 |
| STEEL CASING PIPE, BORED AND JACKED IN PLACE | 1 TO 2 | 5/2012 |
| SLOPE RESTORATION | 1 | 5/2012 |
| WATER MAIN | 1 TO 13 | 3/2020 |
| SANITARY SEWER | 1 TO 6 | 3/2020 |
| SEWER LINE CLEANING AND TELEVISING PACP | 1 TO 4 | 3/2020 |
| CONCRETE UTILITY MANHOLES | 1 TO 3 | 6/2017 |
| POLYMER CONCRETE SANITARY MANHOLES | 1 TO 3 | 6/2012 |
| SEWAGE FORCE MAINS | 1 TO 6 | 6/2017 |
| HORIZONTAL DIRECTIONAL DRILLING | 1 TO 7 | 3/2020 |

SPECIAL PROVISION
FOR
**AUDIO-VISUAL RECORD**



**a. Description.** If required by the Township Engineer, the Contractor shall provide an audio-visual record of the public rights-of-way and dedicated easements that may be disturbed by construction. The work of **Audio-Visual Record** shall include providing an audio-visual recording of physical, structural and aesthetic conditions of public rights-of-way and dedicated easements as they exist prior to the beginning of any construction activities. The audio-video record shall be professional quality, providing a clear and accurate visual record of existing conditions.

1. Prior to commencing any work, a continuous color audio-visual record shall be made of the area and delivered to the Township Engineer.

   A. Deliver the audio-video recording of the project area to the Township Engineer in an acceptable portable media format. The videos shall be produced one (1) week prior to placement of materials or equipment in the construction area.

2. The audio-visual record shall be color utilizing the DVD format or other format acceptable to the Township.

3. The audio-video record shall be done by professional electrographers actively engaged in pre-construction color audio-video recording. The audio-video firm shall be acceptable to the Owner.

**b. Methods of Construction**

1. When conventional wheeled vehicles are used, the distance from the camera lens to the ground shall not be less than 10 feet to ensure proper perspective. In some instances, audio-video coverage shall be required in areas not accessible on conventional wheeled vehicles. Such coverage shall be obtained by walking or by special conveyance approved by the Township.

2. The camera(s) shall be a color video camera and shall have a horizontal resolution of at least 300 lines at center. The camera shall be a professional quality camera acceptable to the Township Engineer.

3. Each record segment shall begin with the current date, project name, project number and municipality, and be followed by the general location, e.g., name of the street or location of the “cross country” line, viewing side and direction of progress.

4. All video recordings shall, by electronic means, display continuously and simultaneously generated transparent digital information to include the date and time of recording, as well as the corresponding engineering station numbers.

A. Time and Date Information: Shall appear on the upper left-hand third of the viewing screen. The time information shall consist of hours, minutes and seconds, separated by colons, e.g., 11:25:14. The date information shall consist of month, day and year, e.g., 1/1/02, and shall be placed directly below the time information.

B. Engineering Station Numbers: Shall be continuous, accurate, correspondent to the project stationing and shall include the standard engineering symbols, e.g., 1+25. This information shall appear on the lower half of the viewing screen.

C. Additional Information: Below the engineering station, periodic transparent alpha numeric information consisting of the name of the project, name of the area covered, direction of travel, viewing side, etc. shall appear.

5. All recording shall be done during times of good visibility. Auxiliary lighting may be required to fill in shadow areas and/or when recording inside a building. The lighting shall be sufficient to illuminate all details in the area. Lighting shall be furnished upon the request of the Engineer.

6. Audio description shall be made simultaneously with video coverage.

A. Coverage: Shall include, but not be limited to, all existing driveways, sidewalks, curbs, ditches, streets (including condition of pavement for full width), landscaping, trees, culverts, catch basins, manholes, head walls, retaining walls, fences, visible utilities, and all buildings located within such zone of influence. Of particular concern are any existing defects exhibited by above mentioned surface features.

B. Houses and Buildings: Shall be identified visually by house or building number, when possible, in such a manner that the progress of the record and the proposed construction may be located by reference to the houses and buildings.

C. General: Recording shall not be done during periods of visible precipitation or when more than 10% of the ground area is covered with snow, leaves, flood waters or debris.

7. The rate of speed in the general direction of travel of the conveyance used during recording shall not exceed 50 feet per minute. Panning rates and zoom-in/zoom-out rates shall be controlled sufficiently such that the rate will produce clarity of the object viewed during playback of the record.

8. Recordings shall be properly identified by number, location and project name in a manner acceptable to the Township Engineer. Records of the contents of each portable media device shall be supplied by a sheet identifying each segment in the record by location, e.g., roll number, street or road viewing, counter number, viewing side, point starting from, traveling direction and ending destination point.

SPECIAL PROVISION
FOR
**SPECIAL CONTROLS**



**a. Description.** It is the responsibility of the Contractor to take such measures as may be necessary and to comply with all federal, state, and local laws and regulations for the protection of the public health, safety, welfare, and environment in the performance of the work.

The following are specific requirements with regard to environmental protection matters:

1. Control of Air Pollution

   A. Dust Control: During the construction of any project, adequate dust control measures shall be maintained by the Contractor so as not to cause detriment to the safety, health, welfare, or comfort of any person or cause damage to any property, residence or business. Dust control shall be at the Contractor's expense.

   B. Open Burning: At the site of land clearing operations, the burning of trees, logs, brush, or stumps is not allowed.

2. Control of Water Pollution and Siltation: Construction operations shall be conducted in such a manner as to prevent sedimentation of watercourses, streams, lakes or wetlands, and in accordance with the Part 91 of Act 451, P.A. 1994, as amended, A Soil Erosion and Sedimentation Control permit shall be secured from the office of the Eaton County Drain Commissioner prior to the commencement of construction.

3. Control of Hazardous Materials: All hazardous materials, hazardous waste, toxic materials, or polluting materials shall be used, stored, and disposed of according to applicable federal, state, and local laws and regulations.

4. Noise Pollution: The Contractor shall comply with the requirements of the Township Noise Ordinance.

5. Housekeeping: The project work area shall be maintained in a neat and clean condition and all debris and waste materials shall be removed from work areas.

6. Hauling on Local Roads and Streets: The Contractor is advised that the hauling of construction materials over local roads and streets must be with the approval of the Eaton County Road Commission and Delta Charter Township. To the greatest extent possible, the Contractor shall utilize Township designated truck routes as defined in the Township Code of Ordinances. The Contractor is responsible for preventing the tracking of material onto local roads and streets. If any material is tracked onto local roads or streets, it shall be removed.

7. Additional Requirements: The Contractor shall comply with the requirements of the Township's Construction Impacts Abatement Ordinance include in the Township Code of Ordinances.

SPECIAL PROVISION
FOR
**DEWATERING**



**a. Description.** This Special Provision applies to all work related to installation, operation, and removal of dewatering systems necessary for construction.

1. Performance Requirements

   A. Dewatering Performance: Design, furnish, install, test, operate, monitor, and maintain dewatering system of sufficient scope, size, and capacity to control ground-water flow into excavations and permit construction to proceed on dry, stable subgrades.

      1) Maintain dewatering operations to ensure erosion control, stability of excavations and constructed slopes, that excavation does not flood, and that damage to subgrades and permanent structures is prevented.

      2) Prevent surface water from entering excavations by grading, dikes, or other means.

      3) Accomplish dewatering without damaging existing buildings adjacent to excavation.

      4) Remove dewatering system if no longer needed.

2. Submittals

   A. Shop Drawings for Information: Show arrangement, locations, and details of wells and well points; locations of headers and discharge lines; and means of discharge and disposal of water.

      1) Include layouts of piezometers and flow-measuring devices for monitoring performance of dewatering system.

      2) Include a written report outlining control procedures to be adopted if dewatering problems arise.

      3) Include Shop Drawings signed and sealed by the qualified professional engineer responsible for their preparation.

   B. Qualification Data: Dewatering contractor shall have a minimum of 10 years of work experience involving projects of similar scope and complexity.

   C. Photographs or videotape, sufficiently detailed, of existing conditions of adjoining construction and site improvements that might be misconstrued as damage caused by dewatering operations.

   D. Record drawings at project closeout identifying and locating capped utilities and other subsurface structural, electrical, or mechanical conditions performed during dewatering.

1) Note locations and capping depth of wells and well points.

3. Quality Assurance

A. Regulatory Requirements: Comply with water disposal requirements of authorities having jurisdiction.

4. Project Conditions

A. Survey adjacent structures and improvements, employing a qualified professional engineer or land surveyor, establishing exact elevations at fixed points to act as benchmarks. Clearly identify benchmarks and record existing elevations.

1) During dewatering, regularly resurvey benchmarks, maintaining an accurate log of surveyed elevations for comparison with original elevations. Promptly notify Engineer if changes in elevations occur or if cracks, sags, or other damage is evident in adjacent construction.

**b. Construction**

1. Preparation

A. Protect structures, utilities, sidewalks, pavements, and other facilities from damage caused by settlement, lateral movement, undermining, washout, and other hazards created by dewatering operations.

1) Prevent surface water and subsurface or groundwater from entering excavations, from ponding on prepared subgrades, and from flooding site and surrounding area.

2) Protect subgrades and foundation soils from softening and damage by rain or water accumulation.

B. Install dewatering system to ensure minimum interference with roads, streets, walks, and other adjacent occupied and used facilities.

1) Do not close or obstruct streets, walks, or other adjacent occupied or used facilities without permission from the Township Engineer and authorities having jurisdiction. Provide alternate routes around closed or obstructed traffic ways if required by authorities having jurisdiction.

2. Installation

A. Install dewatering system utilizing wells, well points, or similar methods complete with pump equipment, standby power and pumps, filter material gradation, valves, appurtenances, water disposal, and surface-water controls.

B. Before excavating below ground-water level, place system into operation to lower water to specified levels. Operate system continuously until drains, sewers, and structures have been constructed and fill materials have been placed, or until dewatering is no longer required.

C. Provide an adequate system to lower and control ground water to permit excavation, construction of structures, and placement of fill materials on dry subgrades. Install sufficient dewatering equipment to drain water-bearing strata above and below bottom of foundations, drains, sewers, and other excavations.

1) Do not permit open-sump pumping that leads to loss of fines, soil piping, subgrade softening, and slope instability.

D. Reduce hydrostatic head in water-bearing strata below subgrade elevations of foundations, drains, sewers, and other excavations.

1) Maintain piezometric water level a minimum of 24 inches below surface of excavation.

E. Dispose of water removed by dewatering in a matter that avoids endangering public health, property, and portions of work under construction or completed. Dispose of water in a manner that avoids inconvenience to others. Provide sumps, sedimentation tanks, and other flow-control devices as required by authorities having jurisdiction.

F. Provide standby equipment on-site, installed and available for immediate operation, to maintain dewatering on continuous basis if any part of system becomes inadequate or fails. If dewatering requirements are not satisfied due to inadequacy or failure of dewatering system, restore damaged structures and foundation soils at no additional expense to the Township.

1) Remove dewatering system from project site on completion of dewatering. Well abandonment shall be in accordance with Part 127, Act 368, PA 1978 and all State of Michigan requirements.

G. Damages: Promptly repair damages to adjacent facilities caused by dewatering operations.

3. Electrical Power Service

A. Contractor shall be responsible for coordinating with Lansing Board of Water and Light or Consumers Energy for a temporary power drop for dewatering equipment.

B. Generators used to provide the electrical service shall be housed in sound attenuating enclosures with critical-area-type silencers. The use of generators shall comply with the Township Noise Ordinance.

4 Observation Wells

A. Provide, take measurements, and maintain two (2) observation wells or piezometers and additional observations wells as may be required by authorities having jurisdiction.

B. Observe and record daily elevation of ground water and piezometric water levels in observation wells.

C. Repair or replace, within 24 hours, observation wells that become inactive, damaged, or destroyed. Suspend construction activities in areas where observation wells are not functioning properly until reliable observations can be made. Add or remove water from observation-well risers to demonstrate that observation wells are functioning properly.

1) Remove from project site on completion of dewatering. Well abandonment shall be in accordance with Part 127, Act 368, PA 1978 and all State of Michigan requirements.

SPECIAL PROVISION
FOR
**TEMPORARY BYPASS PUMPING**



**a. Description**. The work of **Temporary Bypass Pumping** shall consist of furnishing all labor, supervision, tools, equipment, appliances, and materials to perform all operations in connection with **Temporary Bypass Pumping** of raw sewage.

1. Performance Requirements.

   A. Design, furnish, install, test, operate, monitor, and maintain temporary bypass pumping system to prevent sewage overflows and provide reliable sewer service to the users of the sanitary sewer at all times. Contractor shall be responsible for all damages caused by temporary bypass pumping.

      1) Install and test the bypass pumping system and all components prior to commencing the proposed work.

      2) Maintain bypass pumping in a manner that will not cause surcharging of sewers, damage to sewers, and protect public and private property from damage and flooding.

      3) Prevent sewage spills from overflowing existing flow channels, splashing or leaking pipe or equipment.

      4) Accomplish bypass pumping without damaging existing buildings or structures.

      5) Remove the temporary bypass pumping system upon substantial completion of the Work.

   B. The Contractor shall provide, maintain and operate all temporary facilities such as dams, plugs, pumping equipment (both primary and back-up units), conduits, all power, and all labor required for bypass pumping. No interruption in the flow of the sewage will be allowed.

2. Design Requirements.

   A. Pumps must be capable of passing a minimum of a 3” solid.

   B. Pumps utilized in the bypass shall be electric driven, end suction, centrifugal or submersible pumps, capable of priming and re-priming automatically, without assistance. Trash pumps utilizing foot-valves will not be permitted. All pumps must be constructed to allow dry running for long periods to accommodate the cyclical nature of effluent flows.

   C. Provide all controls required for automatic operation of each pump and automated pump watch.

D. Discharge piping shall be constructed of rigid pipe and fittings with positive, restrained joints. Piping shall have a pressure rating equal to 1.5 times the working pressure at peak flow.

E. Bypass pumping shall have sufficient capacity to pump all sewage flows up to the peak flow as determined by the Township Engineer. The Contractor shall provide all pipeline plugs, pumps of adequate size to handle peak flow, and temporary discharge piping to ensure that the total flow can be safely diverted around the section of work. Bypass pumping system will be required to operate continuously until the proposed Work completed. Contractor shall provide an automated pump watch.

F. The Contractor shall have adequate standby equipment available and ready for immediate operation and use in the event of an emergency or breakdown. The system shall be designed with back up pumping equipment installed and ready for immediate use in the event that the primary system should fail. Providing one pump on standby, equal to the largest pump in the bypass pumping system, shall constitute the redundancy.

G. The maximum water level in the influent sewer cannot exceed the crown of the existing influent sewer.

H. Contractor shall have designated personnel and equipment for on-call maintenance and operation of the bypass pumping facility 24 hours a day, 7 days a week during bypass pumping operations. Contractor shall assign a service truck outfitted with the appropriate equipment to ensure that the bypass can be maintained in the event of mechanical failures. Contractor shall an emergency contact list to the Township.

3. Electrical Power Service

A. Contractor shall be responsible for coordinating with the applicable electrical service provider for a temporary power drop.

B. Generators used to provide the electrical service shall be housed in sound attenuating enclosures with critical-area-type silencers. The use of generators shall comply with the Township Noise Ordinance.

C. Back up electrical power supply shall be provided. The back up power supply must be installed and ready for immediate use, including all cabling, disconnect panels, and switch gear.

4. Submittals

A. Pumping Submittals: Detailed plans and descriptions outlining all provisions and precautions to be taken by the Contractor regarding the temporary bypass pumping of the existing wastewater flows. Include schedules, locations, elevations, capacities of the equipment, materials, and all other incidental items necessary and/or required to insure proper protection of the facilities, including protection of the access and bypass pumping locations from damage due to the discharge flows, and compliance with the requirements specified in the contract documents. Include the following:

1) Staging areas for temporary pumps.

2) Number, size, material, location, and method of installation of suction piping.

3) Number, size, material, method of installation and location of discharge piping.

4) Bypass pump sizes, capacity, and quantity of each size pump to be on site as well as the power requirements.

5) Calculations of pump capacity and Total Dynamic Head, including the calculations that are used to derive the system TDH. Data shall include calculation determining the Net Positive Suction Head available and Net Positive Suction Head required by each pump. Pump curves shall be submitted.

6) Standby power generator size and location.

7) Thrust and restraint block sizes and locations.

8) Method of noise control for each pump and/or generator.

9) Any temporary pipe supports and anchoring required.

10) Operating weights for equipment to be supported on existing structures.

11) Scheduling for installation of and maintenance of bypass pumping lines.

12) Emergency contact list.

B. Qualification Data: Provide at least five (5) references of projects of a similar size and complexity as this project performed within the last five years.

5. Quality Assurance

A. Regulatory Requirements: The bypass system shall comply with the requirements of all codes and regulations of authorities having jurisdiction.

B. Pre-installation Conference: Conduct conference at project site with the Township Utility Department staff and the Township Engineer prior to installation of bypass pumping equipment.

6. Project Conditions

A. Existing Utilities: Do not interrupt utilities serving facilities occupied by the Township or others unless permitted in writing by the Township Engineer and then only after arranging to provide temporary utility services according to requirements indicated.

B. Confined Space Entry: Confined Spaces: The Contractor shall comply with MIOSHA Part 90 and Part 490 (325.63001) and all state and federal requirements associated with confined spaces.

**b. Construction Method**

1. Preparation - Install temporary bypass pumping system to ensure minimum interference to Township's operation of the existing facilities. Keep driveways and entrances serving premises clear and available to Township staff and emergency vehicles at all times.

2. Installation

   A. The Contractor shall construct temporary bypass pumping at locations required to maintain wastewater flows in the Township sanitary sewer system.

   B. Provide standby equipment on-site, installed and available for immediate operation, to maintain bypass pumping on continuous basis if any part of system becomes inadequate or fails. If bypass pumping requirements are not satisfied due to inadequacy or failure of the bypass pumping system, restore damage at no additional expense to the Township.

   C. Damages: Promptly repair damages to adjacent facilities caused by bypass pumping operations.

   D. Demonstrate that the pumping system is in good working order and is sufficiently sized to successfully handle flows by performing a test run for a period of 24 hours prior to beginning the bypass pumping operation.

3. Bypass Pumping

   A. Contractor shall have designated personnel and equipment for on-call maintenance and operation of the bypass pumping facility 24 hours a day, 7 days a week during bypass operations.

   B. Contractor shall provide all maintenance and operation to maintain bypass pumping operation until completion of the Work.

   C. When plugging or blocking is no longer needed for performance and acceptance of work, it is to be removed in a manner that permits the sewage flow to slowly return to normal without surge, to prevent surcharging or causing other major disturbances downstream.

SPECIAL PROVISION
FOR
# STEEL CASING PIPE, BORED AND JACKED IN PLACE



**a. Description**.

1. General

   A. This work shall be in accordance with Section 401.03.G of the 2012 MDOT Standard Specifications for Construction, and shall consist of constructing access pits, bored and jacked in place steel casing pipe, removal of the access pit soil support system, and backfilling of access pits.

   B. The Contractor shall be responsible for the design of the soil support for the access pits. Submit sheeting and bracing plans for the jacking pits to the Township Engineer for record purposes only.

   C. The Developer shall secure all necessary approvals and permits from the agency owning or responsible for the land/facilities across which the proposed utility is to be constructed via bored and jacked construction.

**b. Materials**.

1. Steel Casing Pipe

   A. Steel casing pipe material, shall be ASTM A-139, Grade B steel pipe. Casing pipe wall thickness shall be a minimum of 0.250-inches for casing pipe diameters through 24-inch and 0.312-inches for 30 and 36-inch casing pipe, or as required by the controlling agency.

2. Grout

   A. Materials shall meet the requirements specified in, Section 702 of the 2012 Standard Specifications. The mixture shall consist of 100 lbs/cy Portland cement lbs/cy fly ash (Class F) and approximately 80 gal/cy water to produce the desired flowability.

**c. Construction Methods.**

1. Steel Casing Pipe Bored and Jacked in Place - The steel casing pipe shall be jacked and bored in reasonably close conformance to line and grade as shown on the construction drawings. The line and grade of the steel casing pipe shall be such that the carrier pipe can be placed within tolerance of the line, grade, and inverts as shown on the construction drawings. If indicated on the drawings, casing pipe shall be provided with casing vents on each end.

2. Access Pits - Access pits shall be constructed using methods that minimize group vibrations.

Sheet piling, if used, shall be in accordance with MDOT Specification Section 704, Steel Sheet Piling and Cofferdams. Soil support system shall be removed to the bottom of the access pit; mud mat and piling below this elevation may be left in place. Access pit shall be backfilled in accordance to the applicable sewer specification.

3. Grouting - Annular space between the casing pipe and the carrier pipe shall be sealed grouted to preclude movement and maintain the alignment of the carrier pipe. As an option, manufactured spacers may be used in lieu of grouting.

4. Rock Removal - Rock obstructions which prohibit the advancement of the boring shall be removed. The Contractor shall notify the Township Engineer immediately upon encountering an obstruction which prohibits the advancement of the boring.

SPECIAL PROVISION
FOR
**SLOPE RESTORATION**

DCT 1 of 1 5/2012

**a. Description.** The work of **Slope Restoration** shall consist of preparing for turf establishment all right-of-way and easement areas disturbed by construction, and applying topsoil, fertilizer, seed, and mulch to those areas.

**b. Materials.** The materials and application rates specified in Sections 816 and 917 of the 2012 MDOT Standard Specifications for Construction apply unless modified by this special provision or otherwise directed by the Township Engineer.

**c. Methods of Construction.** Begin this work as soon as possible after final grading of the areas designated for turf establishment but no later than the maximum time frames stated in Subsection 816.03 of the MDOT Standard Specifications. It may be necessary, as directed by the Engineer, to place materials by hand.

Prior to placing topsoil, shape and compact all areas to be seeded. Place topsoil to the minimum depth indicated above, to meet proposed finished grade. If the area being restored requires more than the minimum depth of topsoil to meet finished grade, this additional depth must be filled using topsoil or, at the Contractor's option, embankment. Furnishing and placing this additional material is included in this item of work.

If an area washes out after this work has been properly completed and approved by the Township Engineer, the Contractor shall make the required corrections to prevent future washouts and replace the topsoil, fertilizer, seed and mulch. The cost for replacement of the slope restoration shall be paid for as extra work.

If an area washes out for reasons attributable to the Contractor's activity or failure to take proper precautions, replacement shall be at the Contractor's expense.

SPECIAL PROVISION
FOR
**WATER MAIN**



**a. Description.** The work of **Water Main** shall consist of furnishing all labor, equipment, and materials required for the installation of all water main and appurtenances as shown on the plans and specified herein, including testing and disinfection.

**b. Materials**

1. General

   A. Unless otherwise noted, all work, equipment and materials shall conform to these specifications, the requirements of the American Water Works Association (AWWA), the most current Michigan Department of Transportation (MDOT) Standard Specifications for Construction, and the following.

   B. All materials shall be new and Certified to NSF/ANSI Standard 61: Drinking Water System Components: Health Effects and ANSF/ANSI Standard 372: Drinking Water System Components: Lead Content.

   C. Detailed material lists, specifications and shop drawings for all water system materials shall be submitted to the Engineer for review.

2. Pipe Bedding: Bedding and backfill material placed within 12 inches of the water main shall be MDOT Class IIIA granular material. Stone bedding or other material that could damage polyethylene wrap shall not be used.

3. Ductile Iron Water Main: Shall be Ductile-Iron (D.I.) in accordance with ANSI/AWWA C151/A21.51 Ductile-Iron Pipe, Centrifugally Cast, for Water or Other Liquids and the following:

   A. Pressure Class: Pipe shall be Pressure Class 350, unless otherwise approved by the Township Engineer.

   B. Pipe Markings: All pipes delivered to the job site shall bear the marks required by ANSI/AWWA C151/A21.51.

   C. Exterior Coating: Shall be bituminous, 1 mil thick.

   D. Cement-Mortar Lining: Shall be in accordance with ANSI/AWWA C104/A21.4, Cement-Mortar Lining for Ductile-Iron Pipe and Fittings for Water.

   E. Mechanical Joints and Push-on Joints: Shall be in accordance with ANSI/AWWA C111/A21.11 Rubber-Gasket Joints for Ductile-Iron Pressure Pipe and Fittings.

1) Un-restrained Joint Gaskets: Gaskets shall be Fastite Joint by American Ductile Iron Pipe, Tyton Joint by U.S. Pipe and Foundry Company; or approved equal.

2) Restrained Joint Gaskets: Locking gaskets shall be installed on push-on joint type water main and fittings at locations and intervals required for thrust restraint. Gaskets shall be rated for a maximum working pressure of at least 250 psi and they shall be a boltless, integral restraining system. Gaskets shall be Fast Grip by American Ductile Iron Pipe; Field Lok by U.S. Pipe and Foundry Company; or approved equal.

3) Gaskets for Contaminated Sites: Restrained, un-restrained and mechanical joint gaskets used in areas of contaminated soils shall be Fluoroelastomer FKM Barracuda, FKM or FKM MJ or by Specification Rubber Products or approved equal. Gaskets shall be printed with “Fluoro V”.

4) Tee-head bolts and hexagonal nuts shall be corrosion-resistant, high-strength, low-alloy steel in accordance with ANSI/AWWA C111/A21.11 with blue, ceramic-filled, baked-on PTFE fluorocarbon resin coating for corrosion resistance.

F. Fittings: Shall be in accordance with ANSI/AWWA C153/A21.10 Ductile-Iron Compact Fittings. Fittings shall be Ductile Iron Class 350. All fittings shall be cement-lined and coated inside and outside with a bituminous seal, or epoxy coated.

G. Polyethylene Encasement: Shall be 8 mil polyethylene tube to be conforming to ANSI/AWWA C105/ A21.5.

1) Polyethylene Encasement for contaminated sites: Shall be V-Bio Enhanced Polyethylene.

4. Polyvinyl Chloride (PVC) Water Main: Shall be in accordance with ANSI/AWWA C909 Molecularly Oriented Polyvinyl Chloride Pressure Pipe and the following:

A. Pressure Class: Shall be Pressure Class 235, unless otherwise approved by the Township Engineer.

B. Pipe Markings: All pipes delivered to the job site shall bear the marks required by ANSI/AWWA C909 and shall be marked with NSF 14 certification.

C. Joint Restraint: Refer to paragraph b.8.B of this Special Provision.

D. Fittings: Refer to paragraph b.3.F of this Special Provision.

E. Polyethylene Encasement of Fittings and Exposed Joint Restraints: Refer to b.3.G of this Special Provision.

F. PVC Water Main shall not be used on sites with suspected or known soil or groundwater contamination.

G. The use of PVC Water Main shall be limited to water mains 12 inches or less in diameter.

5. High Density Polyethylene (HDPE) Pipe and Fittings: Shall be in accordance with ANSI/AWWA C906 Polyethylene (PE) Pressure Pipe and Fittings, 4 In. Through 65 In., for Waterworks, MDEQ Water Bureau Suggested Practice for Water Works Design, Construction and Operation for Type I Public Water Supplies and the following:

   A. Pipe shall be manufactured with virgin PE 4710 resin

   B. Pressure Rating: 200 psi

   C. Pipe shall be ductile iron pipe size (DIPS) with a Dimension Ratio (DR) of 11

   D. Pipe Markings: Ensure that the HDPE pipe is marked in accordance with AWWA Standard C906 with the following data:

      1) Nominal Size and Outside Diameter base
      2) Standard Material Code Designation (PE 4710)
      3) Standard Dimension Ratio
      4) AWWA Pressure Class
      5) AWWA Standard Designation Number (AWWA C906)
      6) Manufacturer's identification
      7) NSF International Standard 61 and 14 approvals
      8) “NSF International-potable water” designation

   E. Fittings: Fittings shall be molded construction and joined to pipe by thermal fusion or electrofusion. Fittings shall be of same material and pressure rating as pipe.

   F. HDPE Water Main shall not be used on sites with suspected or known soil or groundwater contamination.

6. Valves and Valve Boxes

   A. General Requirements

      1) Working Pressure: 250 psi minimum.

      2) Joints: Shall be mechanical joints in accordance with ANSI/AWWA C111/A21.11 Rubber-Gasket Joints for Ductile-Iron Pressure Pipe and Fittings. End flanges, if specified, shall be ANSI B16.1 Class 125.

      3) Direction of Opening: Left.

   B. Resilient Seated Gate Valves (Through 12-inch Diameter): Shall be NSF 61 Certified and in accordance with ANSI/AWWA C515 Resilient-Seated Gate Valves for Water Supply Service and the following:

1) Body Construction: ASTM A536 ductile iron (C515) with fusion bonded epoxy coating on all internal and external surfaces complying with AWWA C550. All assembly hardware shall be stainless steel.

2) Operator: 2-inch square nut, unless otherwise noted on the plans or in the valve schedule**;** open left.

3) Manufacturer: American Flow Control Series 2500, EJ Flowmaster or approved equal.

C. Valves over 12-inch Diameter: As required by Township Engineer.

D. Valve Boxes: Cast iron, 5-1/4-inch shaft, screw type, three-piece, asphaltic coated, heavy duty, designed for highway loads; Tyler Union 6860 Series or EJ 8560 Set. Cast iron lids shall be marked “Water”.

7. Hydrants: Shall be in accordance with ANSI/AWWA C502 Dry-Barrel Fire Hydrants and the following:

A. Type and Size: Breakaway traffic flange; 6-inch main valve seat.

B. Connections: Two 2-½ inch hose connections and one 5-inch pumper with Storz connection. 2-½ inch hose connections shall be National Standard threads, 4 threads per inch.

C. Direction of Opening: Left.

D. Operating Nut: 1-1/2-inch pentagon.

E. Color: Yellow.

F. Depth of Bury: 5 feet 6 inches.

G. Inlet Connection: Mechanical Joint.

H. Drain Plug: Removed.

I. Manufacturer: Waterous Pacer Traffic Model WB67-250 or EJ 5BR 250 with breakaway flange.

8. Joint Restraint: Shall be provided as outlined in paragraph c.1.F of this Special Provision utilizing the following materials. Both mechanical joints at fittings and push-on joints of adjacent pipes must be restrained as required by this Special Provision.

A. Ductile Iron Pipe Restraints

1) Push-on Joints: Locking Gaskets for Ductile Iron Pipe: Shall be in accordance with paragraph b.2.F of this Special Provision

2) Mechanical Joints: EBAA Iron, Inc Series 1100 “Mega-Lug” or Engineer approved equal. Provide with with Mega-Bond coating system, applied to all exposed metal components of the joint restraint system.

B. C909 PVC Pipe Restraints

1) Push-on Joints: EBAA Iron, Inc Series 1900 Restraint Harness for C909 Joints or Engineer approved equal. Restraint must be rated for full pressure of the pipe.

2) Mechanical Joints: EBAA Iron, Inc Series 19MJ00 Mechanical Joint Restraint for C909 PVC or Engineer approved equal. Restraint must be rated for full pressure of the pipe.

C. HDPE Pipe Restraints

1) Mechanical Joints: Molded PE MJ Adapter, DIPS, DR 11, PE 4710, AWWA C906, NSF 61, 200 psi pressure rating

2) HDPE to DI Pipe Connections: Electrofusion Flex Restraint, PE 4710, Georg Fischer Central Plastics or approved equal

9. Service Lead Pipe, Corporation Stop, Curb Valve, Curb Box

A. Service Lead Pipe: ASTM B88 type K annealed seamless copper water tube. Fittings shall be compression type.

B. Corporation Stops: Ball valve, NSF 61 Certified, 300 psi working pressure with compression outlet connection for Type K copper

Ford FB1000-4-TW-Q-NL for 1-inch or approved equal.
Ford FB1000-6-TW-Q-NL for 1-1/2-inch or approved equal.
Ford FB1000-7-TW-Q-NL for 2-inch or approved equal.

C. Curb Stops: Ball valve, NSF 61 Certified, 300 psi working pressure, Minneapolis pattern with compression connections for Type K copper, provide with connection lugs for tracer wires

Ford B44-444-M-Q NL for 1-inch or approved equal.
Ford B44-666-M-Q NL for 1-1/2-inch or approved equal.
Ford B44-777-M-Q NL for 2-inch or approved equal.

D. Curb Boxes: All curb boxes shall be coated cast iron, Minneapolis pattern, tap sized for curb stop, 5’-6” box length extended, with brass plug and lid marked “WATER”, without stationary rod.

E. Service Lead Unions and Reducers: NSF 61 Certified

Ford C44-44-Q NL for 1-inch or approved equal.
Ford B44-66-Q NL for 1-1/2-inch or approved equal.
Ford B44-77-Q NL for 2-inch or approved equal.

F. Service Saddles

1) Ductile Iron Water Main: Ford 202B bronze saddle with double bronze straps or approved equal.

2) PVC Water Main: Ford 202BSD bronze saddle with double stainless-steel straps or approved equal.

10. Tapping Sleeves: Shall meet the requirements of ANSI/AWWA C223-07.

A. Tapping sleeves shall be stainless steel with ductile iron flange outlet, Romac Industries, Inc. SST, Smith Blair 665, Dresser Style 630 approved equal.

11. Meter Pits: Meter pits are allowed only under special circumstances as approved by the Township Engineer.

Ford Plastic Pit Setter

PD-BB-488-20-60-NL w/ W3-TT cover for 1-inch
PM-BB-688-36-66-NL w/ MC-36-MB-T cover, no HB bypass for 1-1/2-inch
PM-BB-788-36-66-NL w/ MC-36-MB-T cover, no HB bypass for 2-inch

12. Tracer Wire and Locator Stations

A. Open cut installation, tracer wire shall be Copperhead #1430B-HS

B. Directional drill installation, tracer wire shall be Copperhead #1245B-EHS

C. Utilize Copperhead Industries Twist-on Connector or Mainline-to-Service Connectors

D. Tracer Wire Access Points

1) Cobra Hydrant Flange Package #T1-B-FLPKG at each hydrant

2) At all other required locations, outside of roadway pavement, utilize Copperhead Industries SnakePit LD14BTP access points

13. Pipe Swabs/Pigs

A. Pipe swabs/pigs shall be low-density, bare foam type of the appropriate size to thoroughly clean the interior of the water main

B. Contractor may request the use of an alternate swab/pig type but must submit for approval by Township Engineer prior to use

**c. Methods of Construction**

1. Water System Installation, including water mains and their appurtenances, shall be in accordance with ANSI/AWWA C600 Installation of Ductile-Iron Water Mains and their Appurtenances, ANSI/AWWA C605 Underground Installation of Polyvinyl Chloride (PVC) and Molecularly Oriented Polyvinyl Chloride (PVCO) Pressure Pipe and Fittings or AWWA M55 Manual of Supply Practices, PE Pipe – Design and Installation. For installation of water main by horizontal directional drilling, refer to the Special Provision for Horizontal Directional Drilling.

   A. Location, Grade and Alignment: Water main shall be constructed to maintain at least a ten (10) foot horizontal separation from any sewer, sewer manholes, inlet or structures. A minimum depth of cover of five (5) feet shall be provided, unless otherwise required and/or approved by the Township Engineer. All water mains installed deeper than 6 feet below final grade must be approved by the Township Engineer. Water main shall also be constructed to maintain a minimum vertical clearance of 18 inches between the water main and any sewer.

   B. Laying Pipe: Pipe shall be laid with the bell ends facing the direction of laying, unless otherwise directed or allowed by the Township Engineer.

   C. Wet Trench Laying: When the trench contains water, open ends of the pipe shall be closed by a watertight plug. This provision shall apply during the noon hour as well as overnight.

   D. Pipe Bedding and Backfill: Shall be in accordance with the Michigan Department of Transportation Standard Plan R-83 (Series), Utility Trenches and the respective pipe manufacturer.

   E. Pipe Encasement: Polyethylene encasement shall be placed on each section of ductile iron pipe, and on all fittings and valves, valve boxes, and hydrant barrels in compliance with ANSI/AWWA C105/A21.5 requirements, Method "A", so that there are no voids in the coverage, with the exception of a drainage hole at each hydrant panel.

   F. Joint Restraint: Where water pressure exerts a disjoining force, at all pipe deflections over 20 degrees, and all tee, hydrants and dead ends, joints shall be restrained. Details of the proposed joint restraint, showing the type shall be submitted to The Township Engineer for approval. All pipe and fitting restrained joints shall be rated for a minimum of 250 psi. The restraint shall be applied to joints in each direction from the deflection an adequate distance to resist the axial thrust of the test pressure as shown in the Pipe Restraint Schedule Table below.

TABLE 1: PIPE RESTRAINT SCHEDULE TABLE
GROUND BURIED PRESSURE PIPE
Length (in feet) of Pipe Restraint from Each Direction of Fitting

| Pipe Diameter | Tee, 90º Bend | 45º Bend | 22-½º Bend | Dead End |
|---|---|---|---|---|
| 4” | 14 | 6 | 3 | 39 |
| 6” | 40 | 15 | 10 | 50 |
| 8” | 40 | 20 | 15 | 65 |
| 12” | 60 | 25 | 25 | 95 |
| 16” | 75 | 35 | 30 | 123 |

G. Tracer Wire and Locator Stations:

1) Provide and install tracer wire and locator stations for all water system installations in accordance with standard details and as directed by the Township Engineer.
2) Install tracer wire in water main trench; affix tracer wire to pipe with zip ties or other approved method. At corporation locations, install tracer wire connection from copper service pipe to mainline pipe tracer wire with direct bury wire connectors; coat or wrap exposed wire connections as recommended by tracer wire manufacturer.
3) Install tracer wire access points at all fire hydrant locations, at all mainline valves and as directed by the Township Engineer.
4) Tracer wires shall be extended from the main to the riser inside the building for all fire protection services (4-inch diameter and larger).

2. Valve and Valve Box Installation: Shall be in accordance with ANSI/AWWA C111/A21.11 Rubber-Gasket Joints for Ductile-Iron Pressure Pipe and Fittings, ANSI/AWWA C515 Reduced-Wall and Resilient-Seated Gate Valves for Water Supply Service.

A. Valves Larger Than 12-Inch Diameter: Shall be installed in a precast concrete valve manhole; refer to the Standard Detail for Water Valve Manhole.

3. Hydrant Installation

A. Hydrant: Shall be in accordance with ANSI/AWWA C502 Dry-Barrel Fire Hydrants and the Standard Details in these Municipal utility Standards.

B. Depth of Cover: Hydrant leads shall be installed to provide a minimum depth of cover of 5 feet for ductile iron pipe including crossings through ditch sections.

C. Hydrant Drain Ports: Hydrant plugs shall be removed unless otherwise required by the Township Engineer. On sites with contaminated soil or groundwater, the drain ports shall be plugged, unless otherwise directed by the Township Engineer.

D. Hydrant Thrust Restraint: Shall be restrained from the main line to the hydrant in accordance with paragraph c.1.F of this Special Provision.

E. Hydrant Guard Posts: A hydrant guard post shall consist of a painted, cement-concrete filled, 6-inch diameter by 8 foot length of standard weight steel pipe. Guard posts shall be placed at all hydrants located within areas subject to high volume vehicular traffic and any other area determined as necessary by the Township Engineer. Guard posts shall be set no closer than 3 feet to the closest point of the hydrant. Hydrant guard posts shall be embedded in concrete and positioned as shown on the approved construction plans. The guard posts shall be painted “Safety Yellow”.

F. Newly installed hydrants shall be bagged until the new water system is accepted placed into use.

4. Service Lead Installation

A. General: Open cutting of existing hard surfaced pavement will not be allowed. Service leads may be bored, drilled or jacked; jetting of water or air will not be allowed. Under normal conditions, casings will not be required except where probable damage to the roadbed or the service lead exists. Service leads shall be installed to provide a depth of cover of 5 feet.

B. Installation Without Casing: In stable soils, the diameter of the auger head shall not exceed the diameter of the service lead by more than one inch. Service lead pipe shall be pushed or pulled through after the hole has been augured. Pipe ends shall be examined after installation for damage. If damaged, the service pipe shall be replaced.

C. Installation With Casing: In unstable soils, as determined by the Township Engineer, the combination of boring and jacking simultaneously shall be utilized providing the cutting edge of the auger does not advance ahead of the casing. Casing diameter shall not exceed the diameter of the service lead by more than two (2) inches. Boring installation: Shall be in accordance with the requirements outlined in the Special Provision for Steel Casing Pipe, Bored and Jacked In Place.

D. Connection to Existing Services: Connections to existing water services with like material shall be made with standard couplings; connections of dissimilar materials shall be made with appropriate couplings complete with Nylon dielectric bushings.

E. The Contractor shall maintain water service to existing water system customers while installing the new water main. Any damage to existing utilities by the Contractor shall be repaired at their expense.

F. Water Service Interruptions

1) The Contractor shall not schedule a water main or water service shutdown prior to 9:00 a.m. or after 5:00 p.m. in a primarily residential area, without authorization from the Township.

2) For commercial, industrial, government and institutional properties, and apartment complexes, water service interruptions will be coordinated with the affected customers. Water main or water service shutdowns will not be

allowed during normal business hours, without approval from the Township. Scheduled shutdowns in these areas may require nighttime and/or weekend work.

3) The Contractor shall notify the Township of all required water main shutdowns a minimum of three (3) working days in advance of the shutdown.

4) In the event of an unscheduled water main shut down the Contractor shall immediately notify the Township Utilities Department and Engineer. The Contractor shall immediately begin repairs to the water main and reestablish the water service at the direction of the Township Utilities Department.

**G. The operation of existing valves shall be done by Township personnel only.**

H. The Contractor shall uncover existing utilities sufficiently in advance of the water main installation so that potential elevation conflicts between the water main and other utilities, including existing sewer mains and sewer house leads, can be determined, and adjustments to the elevation of the water main can be made.

1) In order to avoid such conflicts, the water main shall be lowered by deflecting at a rate not to exceed the pipe manufacturer's recommendations, or a vertical/horizontal offset constructed. Clearance between existing utilities and the proposed water mains shall be no less than 18 inches, unless otherwise directed by the Township Engineer.

5. Connections to the Active Distribution System

A. No permanent connections shall be made to the active distribution system prior to disinfection and the receipt of satisfactory bacteriological sampling results.

B. All new materials that are to be connected to the active distribution system, such as sleeves, valves, tapping sleeve, etc. are required to be disinfected prior to installation by swabbing. Swabbing is only acceptable on connections less than 20 feet in length.

C. Temporary connections to the active distribution system for the purposes of filling, pressure testing, flushing or disinfecting shall incorporate a tested and approved backflow prevention device (provided by Contractor).

6. Pigging

A. All new water mains longer than 50 feet and fire protection services shall be pigged using a low-density bare swab of the appropriate size prior to commencing hydrostatic testing. Pigging shall be witnessed by Township Engineering or Utilities Department staff.

7. Preliminary Flushing

A. If required by the Engineer, in lieu of or in addition to pigging, and prior to pressure testing and disinfecting, new mains, hydrant leads and domestic or fire protection service lines 4 inches and larger shall be flushed in accordance with

current AWWA Standard C651, with flushing velocity of 3 feet per second. Obtain the following flow rates:

| Pipe Diameter | Flow Rate |
|---|---|
| 4-inch | 118 gpm |
| 6-inch | 265 gpm |
| 8-inch | 470 gpm |
| 10-inch | 735 gpm |
| 12-inch | 1,058 gpm |

8. Hydrostatic Testing Requirements

   A. General: Upon completion of installation of the water main and appurtenances, the Contractor shall furnish all apparatus, materials, labor and water required to perform the pressure tests in accordance with ANSI/AWWA C600 Installation of Ductile-Iron Water Mains and Their Appurtenances, ANSI/AWWA C605 Underground Installation of Polyvinyl Chloride (PVC) and Molecularly Oriented Polyvinyl Chloride (PVCO) Pressure Pipe and Fittings or AWWA M55 Manual of Supply Practices, PE Pipe – Design and Installation.

   B. Pre-Test Procedures: Contractor shall open all valves, including hydrant auxiliary valves, and completely fill the line with water to remove all air from the pipe, valves or hydrants. If necessary, the Contractor shall install additional corporation stops at high points to allow the air to be expelled.

   C. Preliminary Test: A preliminary pressure test shall be accomplished by the Contractor. Any leaks encountered shall be corrected and the test shall be rerun until results are satisfactory.

   D. Final Pressure and Leakage Test: Shall be conducted in the presence of the Township Engineer, who shall receive 24-hours' notice prior to testing. If it is necessary for the Township Engineer to observe more than one test on any section of mainline, the Contractor shall be liable for the additional cost involved for observation of subsequent tests.

   E. Leak Repair: The Contractor shall provide all labor and materials, etc. as required to repair leaks, or otherwise required to meet these tests. Any leakage over the allowable design calculations in AWWA C600, ANSI/AWWA C605 Underground Installation of Polyvinyl Chloride (PVC) and Molecularly Oriented Polyvinyl Chloride (PVCO) Pressure Pipe and Fittings or AWWA M55 Manual of Supply Practices, PE Pipe – Design and Installation shall be repaired. Water damage resulting from flushing or testing procedures shall be the responsibility of the Contractor.

9. Disinfection Requirements

   A. General: Shall be in accordance with ANSI/AWWA C651 Disinfecting Water Mains and the following. Disinfection shall follow pressure testing.

B. Chlorination Method: Shall be the Continuous Feed method as outlined in AWWA C651 Disinfecting Water Mains. The form of chlorine to be used shall be sodium hypochlorite conforming to ANSI/AWWA B300 in liquid form.

C. The new water piping shall be fitted with taps to facilitate disinfection, sampling and flushing as directed by the Township.

D. Chlorine shall be applied such that a uniform concentration of at least 50 mg/L of free chlorine is present.

E. After a 24-hour holding period in the main, there shall be a free chlorine residual of not less than 25 mg/L.

F. All new valves shall be operated to ensure that the discs seats are fully open to chlorinated water.

G. Final Flushing

1) Final flushing to remove heavily chlorinated water shall flush a minimum of 3 volumes of the line.

2) Heavily chlorinated water shall be flushed from the pipe to a location where damage to the environment is minimized. The preferred location is to a sanitary sewer main upon prior approval of the Township Utility Department.

3) Where approved by the Township Engineer, heavily chlorinated water may be discharged to land surfaces that will absorb and/or minimize the impact of the chlorine.

4) **Dechlorination of chlorinated waters will be required for discharges to groundwater or surface waters of the State.** De-chlorination procedures shall be approved by the Township Engineer prior to commencing any discharge to the waters of the State of Michigan.

H. Bacteriological Sampling

1) Shall be collected by the Township, in accordance with ANSI/AWWA C651 Disinfecting Water Mains. The initial round of sampling shall not occur until at least 24 hours after final flushing has been completed.

2) Samples shall be taken from corporation stops installed by the Contractor as directed by the Township. Sample points shall be spaced a maximum of 1,200 feet apart along the route of the water main. If mains dead end at hydrants, with no adjacent valve the Contractor shall install an additional corporation stop for sampling.

3) One set of samples shall be taken from each water main end point location. Two (2) successive safe tests taken 24 hours apart are required.

4) Analysis will be completed by the Lansing Board of Water and Light Laboratory or other testing facility selected by the Township.

5) Failing Tests: If the initial disinfection fails the bacteriological testing, the pipe may be re-flushed and resampled. If the second set of samples fail, the pipe must be re-chlorinated until acceptable bacteriological samples are obtained.

6) Corporation stops installed by the Contractor for sampling purposes shall be removed and replaced with bronze plugs. The Township will inspect all plugs under normal main pressure prior to backfilling.

SPECIAL PROVISION
FOR
**SANITARY SEWER**



**a. Description.** The work of **Sanitary Sewer** shall consist of furnishing all labor, equipment, and materials required for the installation of all sanitary sewers and appurtenances as shown on the plans and specified herein, including testing.

**b. Materials.**

1. Detailed material lists and specifications for all sanitary sewer system materials shall be submitted to the Engineer for review. All sanitary sewer system materials shall be new and shall meet the requirements of the standard specifications, and the following.

2. Sanitary Sewer: Sanitary sewer shall be Polyvinyl Chloride (PVC) or Ductile-Iron (D.I.) in accordance with the following.

   A. Pipe: Mainline Sewer and Service Laterals to Property Line

      1) Polyvinyl Chloride (PVC): Shall be in accordance with ASTM D3034 and F679.

         a. Minimum pipe wall thickness shall be SDR 35 or PS 46 for pipe larger than 15-inch diameter.
         b. All pipe shall have a “home” mark.
         c. Pipe joints shall be of the elastomeric gasket push-on type conforming to ASTM D3212.

      2) Ductile-Iron (D.I.): Shall be in accordance with ANSI A21.51.

         a. Pipe shall be Class 52.
         b. All pipe shall have a “home” mark.
         c. Pipe joints shall be mechanical joints or push-on joints meeting ANSI A21.11.
         d. Pipe lining shall meet the following requirements.
            1. Ceramic Epoxy: Shall be Protecto 401 Ceramic Epoxy Lining, 40 mil thickness, factory applied.
            2. Polyethylene: Shall be Polybond Lining, 40 mil thickness, ANSI/ASTM D1248, or equal.
         e. Exterior Coating: Shall be bituminous, 1 mil thick.
         f. Polyethylene Encasement: Shall meet ANSI/AWWA C105/ A21.5.

   B. Pipe: Sewer Laterals from Property Line to Structure

      1) Polyvinyl Chloride (PVC): Shall meet the requirements of ASTM D1785 or D3034. Pipe wall thickness shall be SDR 35 or Schedule 40 for laterals 8 inches in diameter or smaller.

C. Vitrified Clay Pipe (VCP) (For Repairs to Existing Vitrified Clay Pipe Only): Shall be extra strength vitrified clay pipe meeting ASTM C-700, except as upgraded by the National Clay Pipe Institute specification NCPI-ER-4 for extra strength pipe. Pipe bells shall be clay, fiberglass (FIBURLOC) as manufactured by UNICON, PVC meeting ASTM D-1784, Class 12454-B (NO BELL) as manufactured by Clow Corporation, or approved equal. All joint shall meet the requirements of ASTM C-425.

D. Fittings: All pipe connections and pipe type, size, and/or direction changes shall be made with standard manufactured fittings in accordance with the following.

1) Polyvinyl Chloride (PVC): Service lateral connections shall be made with standard wye fittings; tees or tee-wyes shall not be used. Wye fittings shall be Multi-Planed Reinforced (MPR) fittings as manufactured by Vassallo, or approved equal. Riser adapter fittings used on deep sewer vertical risers shall be as manufactured by Vassallo, or approved equal. Saddles may be used to live tap existing sanitary sewers, as approved by the Township Engineer.

2) Ductile-Iron Fittings: Shall be standard manufactured fittings of ductile iron or cast iron meeting the requirements of ANSI A21.10 for mechanical joints and push-on joints. Fittings shall be provided with Polybond Lined, 40 mil thickness, ASTM D1248 or Protecto 401 interior coatings and shall have the standard exterior bituminous coating. Service lateral fittings shall be wyes with appropriate fitting or a tee rolled as required. Plugs shall be iron or plastic suitable for air testing.

3) Sewer Saddles: With the approval of the Township Engineer, new sewer lateral connections to existing VCP sewers may be made utilizing Romac Industries Style CB sewer saddles.

E. Connections of Dissimilar Pipe Materials: Shall be made utilizing one of the following:

1) Standard Adapters: Shall be a manufacturer's standard adapter with joints conforming to the above specifications.

2) Couplings: Shall be an elastomeric coupling complete with 300 series stainless steel tension bands conforming to ASTM C425. Couplings shall be Fernco Flexible Couplings or equal.

F. Changes in Pipe Sizes (Sanitary Sewer Laterals): Shall be made using standard smooth flow increasers or reducers.

G. Lubricants: All lubricants for the making of pipe joints shall strictly conform to the recommendations of the pipe manufacturer.

3. Precast Concrete Manholes: Shall conform to the Special Provision for Concrete Utility Manholes

4. Polymer Concrete Sanitary Manholes: Shall confirm to Special Provision for Polymer Concrete Sanitary Manholes.

5. Chemical Grout: For sealing minor joint leaks shall be an EPA approved type.

6. Marking: All pipe, fittings and appurtenant items furnished to the job site shall be marked in accordance with the applicable specification. Any unmarked materials are subject to rejection by the Township Engineer.

7. Pipe Bedding and Backfill Materials: Shall be in accordance with the Michigan Department of Transportation Standard Plan R-83 (Series) Utility Trenches, for ductile iron pipe. MDOT 6A crushed aggregate bedding shall be used for PVC pipe bedding.

**c. Methods of Construction**

1. Sanitary Sewer System Installation, including sanitary sewers and their appurtenances, shall be in accordance with the following.

   A. General: Handling, storage, installation, and the making of joints shall strictly follow the manufacturer's recommendations. Plastic and rubber materials affected by ultraviolet rays including all PVC products shall be protected from direct sunlight. Material handling during cold weather shall take into account increased brittleness of plastic materials. Pipe which is warped or bowed due to temperature variations such that the deviation from straightness is greater than one inch shall not be installed.

   B. Grade and Alignment: All sewer shall be laid utilizing an "in- line" laser for vertical and horizontal control. Vertical and horizontal alignment of the invert shall, at any point, be within plus or minus 0.04 feet (1/2 inch) of plan elevation and line.

   C. Cutting of Pipe: Full lengths of pipe shall be used whenever feasible. Cutting of pipe where required shall be done only using methods as recommended by the manufacturer, utilizing tools and equipment as required to provide a neat, perpendicular cut without damage to the pipe or coatings. All burrs shall be removed. Spigot ends of cut pipe shall be beveled similar to factory beveling. If field cutting or coring of pipes exposes any bare metal surface, the surface shall be covered with an epoxy coating.

   D. Laying of Sewer: Each pipe shall be inspected before being placed in the trench. Joint surfaces shall be free of earth or frozen matter. Pipe shall be laid with bell ends upgrade to line/grade as called for on the plans. The line/grade of each pipe as laid shall be checked by the Contractor. Pipe shall be laid from the low end of the sewer upgrade. The use of brick, lumps of clay, wood, etc., to bring the pipe to grade will not be permitted.

      1) Joints: Shall be made in strict accordance with the manufacturer's recommendations utilizing the recommended lubricant. Wood blocks or other approved materials shall be used to protect the pipe and fitting ends from pry bars, chains, etc. with particular care taken with plastic materials. Pipe shall be pushed closed to the "home" position and if joints do not remain tightly closed, the pipes shall be replaced.

      2) Final Line and Grade: After the pipe is laid, care in backfilling and other operations shall be taken so as not to disturb its line, grade, or joint. Misalignment shall be cause for rejection of the sewer.

E. Pipe Encasement: Ductile iron pipe shall be encased in a polyethylene encasement.

F. Connections to Live Sewers: When connections are made with sewers carrying sewage or water, special care must be taken that no part of the work is built underwater; a flume or dam must be installed and pumping maintained as if necessary and the new work kept dry until completed and any concrete or grout has set.

G. Connections to Existing Sanitary Manholes: Shall be made by coring the existing manhole structure and installation of a flexible boot connection, Kor-N-Seal or equal.

2. Manhole Installation: Shall be in accordance with the Special Provisions for Concrete Utility Manholes and Polymer Concrete Sanitary Manholes.

3. Service Lateral Installation:

A. General: Shall be installed to ten (10) feet past (inside) the property line. The location of the service lateral shall be as shown, or when serving an existing building, to the location designated by the building owner. Where an existing service lead is to be connected, the Contractor shall be responsible for locating the lead.

B. Marking: The Contractor shall mark the end of each service lateral with a 4 x 4 wolmanized post of sufficient length to extend from the service lateral to 12 inches above grade.

C. Record of Locations: The Contractor shall record and submit to the Township Engineer a location sketch of the service lateral fitting measured upstream from the nearest manhole and shall record the location of the terminus of the service lateral with a minimum of two witness measurements to permanent physical features. Any services not readily located within one year after date of final payment due to inaccurate record measurements shall be field located by the Contractor at no expense to the Township.

D. Risers: Where sanitary sewers are constructed deeper than 15 feet, service risers shall be constructed as shown in the standard detail. PVC wyes shall be encased in MDOT 6A crushed aggregate. Six (6) inch diameter service laterals shall be constructed at a minimum slope of 1.00%. Lateral fittings shall be installed with the branch connection tilted 45° up.

E. Service Lateral Inspection: All service lateral pipes shall be left with at least the top of the pipe exposed until inspected by the Township Engineer or his representative and authorization for backfill given.

4. Removal of Unsuitable Material: Whenever any pipe section, fitting or appurtenance is found to be unsuitable for installation due to specification non-conformance, poor workmanship, damage, or any other reason, it shall be removed from the construction site during that working day by the Contractor. Any material not so removed shall be painted or otherwise marked by the Township Engineer to prevent its subsequent use.

5. Sanitary Sewer Testing:

A. General: Upon completion of installation of the sanitary sewer and appurtenances, the Contractor shall furnish all apparatus, materials, and labor required to perform the tests in accordance with the following.

1) Pre-test Procedures: Contractor shall clean new sanitary sewers to be tested and verify that all wyes, tees and laterals are suitably capped and blocked to withstand the air test pressures.

2) Preliminary Tests: Prior to final testing, the pneumatic plugs to be used in the testing shall be tested to ensure their integrity. On one length of sewer pipe, the plugs shall be inserted in each end of the length of pipe, inflated to seal the ends of the pipe. The plugs shall hold against a pressure of 15 psi without bracing or loss of pressure.

3) Final Tests: Shall be conducted in the presence of the Township Engineer, who shall receive 24 hours notice prior to testing. If it is necessary for the Township Engineer to observe more than one test on any section of sanitary sewer, the Contractor shall be liable for the additional cost involved for observation of subsequent tests.

B. Air Testing: Shall be the Time-Pressure Drop Method in accordance with the following:

1) Polyvinyl Chloride (PVC): ASTM F1417

2) Ductile Iron (D.I.): ASTM F1417

C. PVC Deflection Testing: The Contractor shall provide all equipment, materials, labor and do all work necessary to conduct a pipe deflection test on all PVC sewer pipe installed. The maximum limits of out-of-round deflection shall be 5% of the base inside diameter based upon the following table:

| Nominal Pipe Size | Base Inside Diameter | Diameter of 5% Deflection Probe |
|---|---|---|
| 8” | 7.76” | 7.37” |
| 10” | 9.71” | 9.22” |
| 12” | 11.56” | 10.98” |
| 15” | 14.14” | 13.43” |

If the average inside diameter of the pipe differs from that in the table above, the diameter of the 5% deflection probe shall be adjusted accordingly.

All pipe installed shall be measured for out-of-round deflection no sooner than 30 days after completion of the backfill. The Contractor shall furnish the required deflection mandrels which shall be manufactured in accordance with A.S.T.M. specifications.

D. CCTV Inspection: All new sanitary sewers shall be visually inspected in accordance with the Special Provision for Sewer Line Cleaning and Televising (PACP) after all services leads are constructed, manhole flow channels are poured, manhole castings are adjusted to final grade, and all other work which connects to the sewer is completed. The inspection shall verify that the sewer is clear of all debris and that no damage has occurred to the sewer. All debris shall be removed by the Contractor and the reach shall be inspected again at no additional cost to the Township.

E. Correction of Defective Work: Whenever any of the above test or inspections indicate defective material or installation, the Contractor shall repair and retest the section to the satisfaction of the Township Engineer at no cost to the Township. The use of chemical grouts shall be limited to the repair of minor joint leaks and shall not be used without the specific written approval of the Township Engineer. Any pipe or fitting having structural damage shall be removed and replaced. Any PVC sewer with deflection in excess of the 5.0% limitation shall be re-excavated, inspected for structural damage, and then rebedded and backfilled and retested.

F. Project Acceptance

1) Acceptance of sanitary sewer system is contingent upon but not limited to satisfactory completion of all work including materials tests, CCTV inspections, service lead records, and Record Drawings. A review of the grade and alignment will be completed by the Township Engineer based on the Record Drawings. Sewer grades and the drops between manhole inlets and outlets will be checked against the design grades and elevations.

2) A tolerance for measurement of 0.04 vertical feet will be applied for each stretch of sewer between manholes. Grades that are outside of a ten percent difference are not acceptable and the sewer shall be replaced

3) Manholes with back fall (opposite to the flow direction) are not acceptable and shall be replaced.

6. Sanitary Sewer Spot Repairs:

A. General: Shall be as shown on the plans and/or specified herein. Sawcutting the existing pipe at the removal limits, as well as removal of the existing pipe shall be included in the spot repair.

B. Bedding for Spot Repairs: Shall be MDOT 6A crushed stone from 6 inches below the pipe invert to 12 inches above the top of the pipe.

C. Connection of the repair to the existing sanitary sewer shall be constructed such that the joint is not offset by more than 1 inch in the horizontal and vertical direction and the joint gap is less than 1 inch. Care shall be used in placing the bedding and backfill to prevent displacement of the pipe outside of the noted tolerances.

SPECIAL PROVISION
FOR
**SEWER LINE CLEANING AND TELEVISING - (PACP) ©**



**a. Description.** This work shall include cleaning, dewatering or diverting of flow in sewers to the degree necessary, and inspection by closed circuit television as shown on the contract drawings or as directed by the Engineer. This work shall be in accordance with Section 402.03.K of the MDOT 2012 Standard Specifications for Construction except as herein modified.

**b. Construction**

1. Sewer Cleaning: Sewer cleaning shall include all work required to clean sewers for inspection by closed circuit television. Work included in cleaning of sewers shall include providing necessary equipment and personnel for dislodging material from the sewer pipe, removal of the debris from the system and the transport and disposal of debris removed. A disposal site will not be provided by the Township.

   The intent of the sewer line cleaning is to remove foreign materials from the lines and restore the sewer to a minimum of 95% of the original carrying capacity or as required for proper seating of internal pipe joint sealing packers. It is recognized that there are some conditions such as broken pipe and major blockages that prevent cleaning from being accomplished or where additional damage would result if cleaning were attempted or continued. Should such conditions be encountered, the Contractor will not be required to clean those specific sewer sections. If in the course of normal cleaning operations, damage does result from preexisting and unforeseen conditions such as broken pipe, the Contractor will not be held responsible.

   A. Cleaning Equipment

      1) Hydraulically Propelled Equipment: The equipment used shall be of a movable dam type and be constructed in such a way that a portion of the dam may be collapsed at any time during the cleaning operation to protect against flooding of the sewer. The movable dam shall be equal in diameter to the pipe being cleaned and shall provide a flexible scraper around the outer periphery to insure removal of grease. If sewer cleaning balls or other equipment which cannot be collapsed is used, special precautions to prevent flooding of the sewers and public or private property shall be taken.

      2) High-Velocity Jet (Hydrocleaning) Equipment: All high-velocity sewer cleaning equipment shall be constructed for ease and safety of operation. The equipment shall have a selection of two or more high-velocity nozzles. The nozzles shall be capable of producing a scouring action from 15 to 45 degrees in all size lines designated to be cleaned. Equipment shall also include a high-velocity gun for washing and scouring manhole walls and floor. The gun shall be capable of producing flows from a fine spray to a solid stream. The equipment shall carry its own water tank, auxiliary engines, pumps, and hydraulically driven hose reel.

3) Mechanically Powered Equipment: Bucket machines shall be in pairs with sufficient power to perform the work in an efficient manner. Where bucket machines and buckets are to be used, caution should be taken that a proper sized flexible cable be used so that cable breakage will not occur. Machines shall be belt operated or have an overload device. Machines with direct drive that could cause damage to the pipe will not be allowed. A power rodding machine shall be either a sectional or continuous rod type capable of holding a minimum of 1,000 feet of rod. The rod shall be specifically heat treated steel. To insure safe operation, the machine shall be fully enclosed and have an automatic safety clutch or relief valve.

4) Large Diameter Cleaning: For cleaning large diameter sewer (sewer ranging 27" to 108" in diameter), storm or combination pipes, consideration should be given to a combination hydraulic high volume water and solids separation system. The flow from the sewer will provide water for the pump operation so no potable water is necessary and treatment costs are not a factor. Water volume of up to 250 GPM at 2000 PSI+ will move solids to the downstream manhole in high flow conditions. The separation system will dewater solids to 95% (passing a paint filter test) and transfer them to a dump truck for transport to a sewage treatment plant or approved landfill. Sewer water will be filtered to a point where it can be used in the pump for continuous cleaning. No by-passing of sewer flows will be necessary. The unit shall be capable of 24 hour operation and the unit shall not leave the manhole until a section is fully cleaned. Equipment must be able to clean the length with vehicular access to one manhole only.

B. Cleaning Precautions: During sewer cleaning operations, satisfactory precautions shall be taken in the use of cleaning equipment. When hydraulically propelled cleaning tools (which depend upon water pressure to provide their cleaning force) or tools which retard the flow in the sewer line, are used, precautions shall be taken to insure that the water pressure created does not damage or cause flooding of public or private property being served by the sewer. All damages to the private property, which result from backflushing sewer laterals, shall be the sole responsibility of the Contractor. When additional water from fire hydrants is necessary to avoid delay in normal work procedures, the water shall be conserved and not used unnecessarily. Contractor shall obtain water from the Township Utility Department; the Contractor shall be responsible for coordinating his water requirements with the Township staff. Under no circumstances will the Contractor be allowed to obtain water from or operate fire hydrants. No fire hydrants shall be obstructed in case of a fire in the area served by the hydrant.

C. Sewer Cleaning Methods: The designated sewer sections shall be cleaned using hydraulically propelled, high-velocity jet, or mechanically powered equipment. Selection of the equipment used shall be based on the conditions of lines at the time the work commences. The equipment and methods selected shall be satisfactory to the Township Engineer. The equipment shall be capable of removing dirt, grease, rocks, sand, and other materials and obstructions from the sewer lines and manholes. If cleaning of an entire section cannot be successfully performed from one manhole, the equipment shall be set up on the other manhole and cleaning again attempted.

D. Removal and Disposal of Debris: All sludge, dirt, sand, rocks, grease, roots and other solid or semisolid material resulting from the cleaning operation shall be removed at the

downstream manhole of the section being cleaned. Passing material from sewer section to sewer section shall not be permitted. All material shall be removed from the site no less often than at the end of each workday. Under no circumstances will the Contractor be allowed to accumulate debris, etc., on the site of work beyond the stated time, except in totally enclosed containers and as approved by the Township. Contractor shall follow “Sanitary Sewer Cleanout Waste” disposal criteria from EGLE. The waste management guidance requirements can be located at the end of this special provision.

E.. Acceptance of Sewer Cleaning: Acceptance of sewer line cleaning shall be made upon the successful completion of the television inspection and shall be to the satisfaction of the Township Engineer. If the television inspection shows the cleaning to be unsatisfactory, the Contractor shall be required to re-clean and re-inspect the sewer line, at no cost to the Township, until the cleaning is shown to be satisfactory.

2. Television Inspection

A. The television camera used for the inspection shall be one specifically designed and constructed for such inspection. The Pan/Tilt/Rotate features shall be used to inspect all service lateral connections to determine whether the lateral is active or plugged and to inspect the structural integrity of the lateral and connection to the sewer main. The Pan/Tilt/Rotate feature shall also be used where practical to provide additional information such as wide joints, holes in pipe, etc. Lighting for the camera shall be suitable to allow a clear picture of the entire periphery of the pipe. The camera shall be operative in 100% humidity conditions. The camera, television monitor, and other components of the video system shall be capable of producing picture quality to the satisfaction of the Township Engineer; and if unsatisfactory, equipment shall be removed and no payment will be made for an unsatisfactory inspection.

B. The camera shall be moved through the line in either direction at a moderate rate, stopping when necessary to permit proper documentation of the sewer’s condition. In no case will the television camera be pulled at a speed greater than 30 feet per minute. Manual winches, power winches, TV cable, and powered rewinds or other devices that do not obstruct the camera view or interfere with proper documentation of the sewer conditions shall be used to move the camera through the sewer line. If, during the inspection operation, the television camera will not pass through the entire manhole section, the Contractor shall set up his equipment so that the inspection can be performed from the opposite manhole. If, again, the camera fails to pass through the entire manhole section, the inspection shall be considered complete and no additional inspection will be required.

C. The camera lens shall be positioned looking along the axis of the sewer and within 10% of the vertical centerline of the pipe.

D. When manually operated winches are used to pull the television camera through the line, telephones or other suitable means of communication shall be set up between the two manholes of the section being inspected to ensure good communications between members of the crew. In the event the camera becomes trapped in the sewer, the Contractor shall notify the Township Engineer immediately. The Contractor shall monitor adjacent and private properties to avoid flooding until the camera is freed.

E. The importance of accurate distance measurements is emphasized. Measurement for location of defects shall be above ground by means of a meter device. Marking on the cable, or the like, which would require interpolation for depth of manhole, will not be allowed. Accuracy of the distance meter shall be checked by use of a walking meter, roll-a-tape, or other suitable device, and the accuracy shall be satisfactory to the Township's Representative. All measurements shall be made from the wall of the structure per NASSCO's Pipeline Assessment Certification Program (PACP)© guidelines.

3. Reporting

A. The Contractor shall provide the Township Engineer with two (2) copies of the televising video in a digital format (MPEG1 or DVD / exported PACP Microsoft Access Database), and a paper report of the televising activities. The Contractor shall provide the Township Engineer with the televising data (televising videos and paper reports) on a weekly basis until the completion of the project.

B. Television Inspection Report: Printed location records shall be kept by the Contractor and will clearly show the location in relation to an adjacent manhole for each defect observed during inspection. Structural defects, operational and maintenance defects, construction observations, or miscellaneous feature observations shall be in accordance with NASSCO's Pipeline Assessment Certification Program (PACP)© guidelines. The report should also show the date of televising, manhole numbers, location, direction of flow, pipe diameter/size, pipe material, name of operator, report number, and the length of sewer televised.

C. Video Recordings: The purpose of video recordings shall be to supply a visual and audio record of problem areas of the lines that may be replayed. Video recording playback shall be at the same speed that it was recorded. Slow motion or stop-motion playback features may be supplied at the option of the Contractor. The Contractor shall have all video and necessary playback equipment readily accessible for review by the Township during the project. Video recordings shall be performed in NASSCO certified PACP© software. Videos shall be formatted MPEG1. The date of televising, manhole numbers, location, direction of flow, pipe diameter/size, pipe material, name of operator, and the report number must appear transparent in the middle of the viewing screen at the start of the televising video. The manhole numbers and location must appear transparent throughout the televising and displayed in the bottom left or right quadrant without obstruction to viewing the condition of the pipe.

D. All CCTV Inspections shall be performed by CCTV personnel who are trained and certified in the use of NASSCO's Pipeline Assessment and Certification Program (PACP)©.

SPECIAL PROVISION
FOR
# CONCRETE UTILITY MANHOLES



**a. Scope –** The work covered by this section of the specifications consists in furnishing all plant, labor, equipment and materials in connection with concrete utility manholes.

**b. General**

1. Requirements – All concrete utility manholes, including valve vaults, shall be installed in accordance with the Standard Details and this Special Provision.

2. Specifications by Reference – Whenever reference is made to specifications other than those contained within this document, said specifications shall apply and be binding as if fully repeated herein. If a specification publication date is not listed herein, it shall be taken to be the most recent published edition.

3. Shop Drawings, Product Data Sheets and Material Lists – The Contractor shall submit detailed shop drawings, product data sheets and material lists to the Township Engineer for approval of all materials furnished under this specification.

**c. Materials**

1. Precast Sections:

   A. Integral Base – Manholes shall consist of integral cast base and riser sections conforming to ASTM C478.

   B. Pipe Connections – Manhole pipe connections shall be furnished with an integrally cast seal system, equal to “Press Wedge 11”, “Kor-N-Seal” or “Lock Joint Flexible Manhole Sleeve”, or equal. Pipes shall generally be flush with the interior manhole wall, but protruding no more than 2 inches. Sanitary manholes shall have integral concrete manhole bottoms. Manhole section joints shall be of the O-ring rubber joint type. All pipe openings shall be cast in the precast section or cored in the finished wall. Broken and patched connections will not be accepted.

2. Manhole Adjusting Rings – Shall be standard precast reinforced concrete rings or substitute approved by Township Engineer.

   A. Provide a double row of butyl rubber sealant at all joints between rings, manhole and casting

3. Exterior Joint Sealer – All joints between precast manhole sections shall be sealed with Cretex Wrap, Infi-Shield Seal Wrap, Wrapid Seal, or approved equal.

4. Exterior Chimney Seal – The exterior of the casting adjustment shall be sealed with Infi-

Shield Unibank, Wrapid Seal, or approved equal. The seal shall extend from the precast cone section to the casting.

5. Manhole Steps – Steel reinforced polypropylene manhole steps shall be furnished.

6. Cast Iron Frames And Covers – Shall be EJ 1040A.

   A. Provide HDPE manhole cover insert/debris catcher equal to Sealing Systems, Inc. or approved equal at each manhole.

7. Non-Shrink Grout – Non-shrink gout shall be used to fill lifting holes and patching authorized by the Township Engineer. Grout shall not be used for chimney construction.

8. Flow Channel Concrete – Concrete for poured manhole flow channels shall be designed to resist hydrogen sulfide related corrosion and shall contain Type I Portland Cement (ASTM 150) supplemented with Fly Ash, Type F (ASTM C618). Limit the percentage, by weight, of Fly Ash to 25%. Limit water-soluble, chloride-ion content in hardened concrete to 0.15 percent by weight of cement. The concrete shall have a minimum compressive strength of 3,000 psi and a maximum water-cement ratio of 0.45. Alternate mix designs shall be approved by the Township Engineer.

**d. Installation.** Utility manholes shall be constructed of precast concrete sections including risers, grade rings, and precast tops of eccentric cone, or flat slab type, as indicated below:

1. Manhole – Precast integral bases shall be set on uniform bedding of 8 inches of compacted sand or existing granular material as approved by the Township. When water is encountered in the trench, bases shall be set on a minimum of 12 inches of crushed stone that meets the grading requirements of MDOT 6A.

2. Precast Concrete Risers – Shall be set plumb. Joints between manhole sections shall utilize rubber O-rings. Top sections shall be eccentric unless otherwise indicated on the drawings. External joint seals shall be installed on all joints.

3. Castings – Shall be installed as specified below:

   A. Sanitary Sewer Manholes and Valve Vaults – Castings shall be set on adjusting rings with a minimum of adjustment of 2 inches and a maximum of 12 inches. Utilize the fewest number adjusting rings possible. Casting and concrete rings shall be set on a double row of butyl rubber sealant. Casting adjustment details shall be shown on the shop drawings.

   B. Casting elevations – Where castings are to be flush with permanent pavements, the contractor shall adjust the frame to the proper grade. For all new projects, the manhole castings will be set at the road base surface, with the final adjustment to be made at the time of construction of the final course of bituminous surfacing. Where castings are on flat slab tops in non-paved areas, they shall extend approximately 1 inch above finish earth grade unless shown otherwise.

4. Drop Pipes – Shall be constructed at sanitary manholes wherever the difference in elevation between any inlet and outlet sewer is more than 2 vertical feet. Drop pipe shall be Internal or External as directed by the Township Engineer. External drop pipes shall

be encased in MDOT 6A crushed aggregate and shall conform to the Standard Details of these Municipal Utility Standards.

5. Flow Channels shall be constructed in manhole bottoms with mechanically mixed concrete. Precast flow channels shall not be used unless approved by the Township Engineer. Prior to placement of concrete, a bonding compound, Sealtight INTRALOCK, Sika SIKABOND, ACRYL 60 or equal, shall be applied per manufacturers' recommendations to the manhole base. Flow channel depth shall not exceed ½ the pipe diameter and concrete thickness shall be a minimum of 4 inches measured from the top of the base to the bottom of the flow channel. Where the grade of sewer is continuous through the manhole, the Contractor may lay the pipe through the manhole, fill around the pipe with concrete, and carefully cut out the top of the sewer pipe.

SPECIAL PROVISION
FOR
# POLYMER CONCRETE SANITARY MANHOLES



**a. Description.** The work of **Polymer Concrete Sanitary Manholes** shall consist of furnishing all plant, labor, equipment, and materials required for the installation of polymer concrete sanitary manholes manufactured in accordance with ASTM D 6783 (latest edition).

1. References

   A. ASTM D 6783 Standard Specification for Polymer Concrete Pipe

   B. ASTM F 477 Specification for Elastomeric Seals (Gaskets) for Joining Plastic Pipe

   C. ASTM C 579 Standard Test Method for Compressive Strength of Chemical Resistant Mortars, Grouts, Monolithic Surfacing, and Polymer Concretes.

   D. ASTM C 33 Standard Specification for Concrete Aggregates.

**b. Materials.**

1. Resin – The manufacturer shall use only polyester resin systems designed for use with this particular application.

2. Filler – All aggregate, sand, and quartz powder shall meet the requirements of ASTM C 33, where applicable.

3. Additives – Resin additives, such as curing agents, pigments, dyes, fillers, and thixotropic agents, when used, shall not be detrimental to the manhole.

4. Elastomeric Gaskets – Gaskets shall be suitable for the service intended. All gaskets shall meet the requirement of ASTM F 477.

5. Manufacturing and Product Construction

   A. Manholes – Manhole components shall be manufactured by the vibratory vertical casting process resulting in a dense, non-porous, corrosion-resistant, homogenous, composite structure.

   B. Joints – The manhole components shall be connected with a compatible epoxy bonding agent or an elastomeric sealing gasket as the sole means to maintain joint water-tightness. Joints at pipe tie-ins may use flexible elastomeric couplings, fiberglass overlay, or a compatible epoxy material for bonding manhole components directly to the adjoining pipe. Epoxy bonding shall require a flexible pipe joint within one pipe diameter from the manhole's external wall. Epoxy bonding material shall be approved by the manhole manufacturer.

C. Exterior Joint Sealer – All field joints between manhole sections shall be sealed with Cretex Wrap, Infi-Shield Seal Wrap, Wrapid Seal, or approved equal.

D. Exterior Chimney Seal – The exterior of the casting adjustment shall be sealed with Infi-Shield Uniband, Wrapid Seal, or approved equal. The seal shall extend from the precast cone section to the casting.

E. Fittings – Cones, reducer slabs, base slabs, and adjusting rings shall be of the same material as adjoining riser sections. Fittings shall be manufactured elastomeric gaskets, epoxy bonding, or fiberglass overlay.

F. Acceptable Manufacturers – U.S. Composite Pipe, Inc. or approved equal.

6. Design – Manholes shall be designed to withstand all live loads and dead loads as described in project plans and specifications. Dead loads shall include overburden load, soil side pressure, and hydrostatic loading conditions. Manholes shall also be designed to resist buoyancy for the project conditions.

7. Testing

   A. Pipes – Pipe shall be manufactured in accordance with ASTM D 6783.

   B. Joints – Joints shall meet the requirements of ASTM D 4161.

   C. Three-Edge Bearing Strength – Pipe shall be designed to meet D-load requirements of external soil and hydrostatic loads. Design strength shall be tested in accordance with the three-edge bearing test method of ASTM D 6783.

   D. Compressive Strength – Pipe shall have a minimum unconfined compressive strength of 13,000 psi when measured in accordance with ASTM C 579.

   E. Manhole Leakage – Manhole shall be tested in accordance with ASTM C 1244 Standard Test Method for Concrete Sewer Manholes by the Negative Air Pressure (Vacuum) Test.

8. Packaging, Handling, and Shipping – Packaging, handling, and shipping shall be performed in accordance with the manufacturer's instructions.

**c. Installation.**

1. Installation – The installation of manholes shall be in accordance with the project plans and specifications and the manufacturer's recommended practices.

2. Pipe Handling – Textile slings, union anchor lifting devices or other suitable materials and/or a forklift are recommended.

3. Castings – Manhole castings shall be in accordance with the project plans.

4. Jointing

   A. Sealing surfaces and joint components shall be inspected for damage and cleaned of all debris.

   B. Apply joint lubricant to elastomeric seals. Use only lubricants approved by the pipe manufacturer.

   C. Use suitable equipment handle and set manholes.

   D. Placement and compaction of surrounding backfill material shall be applied so as to provide sufficient and equal side pressure on the manhole.

SPECIAL PROVISIONS
FOR
# SEWAGE FORCE MAINS



**a. Description.** The work of **Sewage Force Mains** consists of furnishing all plant, labor, equipment, and materials in connection with installation of sewage force mains and appurtenant work.

1. General**.** All items herein specified shall be adjusted to be compatible with the standard units used by the Township in its present system. The items must be of a quality level specified herein, and may be modified as called for herein or on the plans.

2. References

   A. ASTM A 126 Standard Specification for Gray Iron Castings for Vaults, Flanges, and Pipe Fittings.

   B. ASTM A 743 Standard Specification for Castings, Iron-Chromium, Iron-Chromium-Nickel, Corrosion Resistant, for General Application.

   C. ASTM D16 Standard Terminology for Paint, Related Coatings, Materials, and Applications.

   D. ASTM D1248 Standard Specification for Polyethylene Plastics, Extrusion Materials for Wire and Cable.

   E. ASTM D2657 Standard Practice for Heat Fusion Joining of Polyolefin Pipe and Fittings.

   F. ASTM D3350 Standard Specification for Polyethylene Plastics Pipe and Fittings Material.

   G. ANSI/AWWA C110/A21.51 Ductile Iron Pipe Centrifugally Cast, for Water.

   H. ANSI/AWWA C111/A21.11 Rubber Gasket Joints for Ductile Iron Pressure Pipe and Fittings.

   I. ANSI/AWWA C153/A21.10 Ductile Iron Compact Fittings

3. Material Approvals **-** Submit material details and specifications to the Township Engineer for approval of all materials furnished under this specification. Include the type and class of pipe, type of joint, and type of bedding. Include manufacturer's bulletins and records of performance.

**b. Materials**.

1. Pipes And Joints - Must be of the type as listed herein meeting the specifications noted. Unless specifically shown on the plans to be a specific material, the Contractor may

   select to utilize any of the following materials subject to specifications and size limitations herein specified. Unless specifically approved by the Township Engineer, a single material must be used for the total of each size main in the contract.

   A. 3 inch Diameter and Smaller - HDPE pipe.

   B. 4 Inch Diameter and Larger - HDPE or ductile iron pipe.

   C. Bedding - Conform to MDOT Standard Plan R-83(Series), Utility Trenches.

   D. Pipe - All pipe delivered to the job site must bear the marks required by the AWWA specification.

      (1) High Density Polyethylene (HDPE) Pipe and Fittings - Manufacture from a high density, high molecular weight polyethylene base resin conforming to ASTM D3550 Type III, Class C, Category 5, Grade P34.

         (a) Minimum Cell Classification Values - As referenced to ASTM D-3350, 345464C with a minimum pipe wall thickness of SDR 11.0, Ductile Iron Pipe (DIPS), rated at not less than 150 psi.

         (b) Joints – Made by thermal butt-fusion in accordance with ASTM D-2657.

         (c) Joint and Equipment Testing - Prior to the installation of the pipe, submit a specimen of a butt-fusion pipe joint, made with the joining equipment to be used on the project, to an independent testing laboratory selected by the Engineer and tested in accordance with ASTM D-638.

      (2) Ductile Iron (D.I.) – Conform to ANSI/AWWA C151/A21.51 unless otherwise noted on the plans, pipe wall thickness must be a minimum of Class 52. Pipe shall have the standard exterior bituminous coating and interior lining, Protecto 401 or equal, subject to approval of the Township Engineer.

         (a) Flanged Joints - Conform to ASA Class 125.

         (b) Mechanical Joints and Push-On Joints - Conform to ANSI/AWWA C111/ A21.11. Bolts and nuts must be of high strength corrosion resistant alloy with hex head nuts.

         (c) Fittings and Specials - Conform to ANSI/AWWA C110/A21.10, and may be either ductile or cast iron. Pipe must be either Polybond Lined, 40 mil thickness, ASTM D1248; or Polythane lined, 40 mil thickness ASTM D16 or equal.

2. Valves - Resilient Seated Gate Valves: Shall be in accordance with ANSI/AWWA C515 Resilient-Seated Gate Valves for Water Supply Service and the following:

A. Body Construction: ASTM A536 ductile iron, with fusion bonded epoxy coating on all internal and external surfaces complying with AWWA C550, mechanical joint end connection.

B. Operator: 2-inch square nut; open left.

C. Manufacturer: American Flow Control Series 2500 or approved equal.

3. Valve Boxes - Cast iron, screw type, three piece, consisting of the base, extension, top section and blank cover. The base must be 5 ¼ inch and have a range of extension of 51-82 inches.

4. Air Release/Vacuum Valves: Shall operate under pressure and open to vent entrapped air and gases from the sewage force main. After entrapped air and gases are vented, the valve must close to prevent clogging of the valve mechanism. The body and cover must be stainless steel or plastic with all internal parts of stainless steel or other acceptable material to prevent corrosion. The valve must be complete with accessories necessary for installation including an inlet shut off valve, 1 inch clean out valve, and a 1/2 inch shut off valve for back flushing with quick disconnect couplings and back flushing hose. The inlet must be 2 inches unless otherwise noted on the plans. Valves must be rated for not less than 150 psi working pressure. Valves shall be A.R.I. USA Inc. or approved equal.

5. Air Release-Vacuum Valve Manholes: Shall conform to the Special Provisions for Concrete Utility Manholes and the Standard Detail Force Main Air Release Manhole of these Municipal Utility Standards.

6. Retainer Glands: Restrain mechanical joint pipe with EBAA Iron “Mega-Lug Series 1100” restrainers or approved equal. Provide with Mega-Bond coating system, applied to all exposed metal components of the joint restraint system. Restrain push-on joint pipe with American Lok-Ring, Flexing or Fast-Grip Gaskets, U.S. Pipe TR Flex, Field Lok Gasket, or equal.

7. Tracer Wire and Locator Stations: Provide tracer wire and locator stations on all sewage force main installations.

A. Open cut installation, shall be Copperhead #1430B-HS

B. Directional drill installation, shall be Copperhead #1045B-EHS

C. Utilize Copperhead Industries SnakeBite DryConn 3-way Direct Bury Lugs for buried connections

D. Locator Station Boxes: Shall be Copperhead SnakePit, LD14BTP

**c. Construction.**

1. Open Cut Trench Construction -

A. Grade and Alignment – Install all force mains to provide an overall cover of 5 feet,

unless otherwise indicated on the drawings. Special care must be taken to avoid any potential for the creation of air pockets within the force main.

B. Laying of Mains – Use proper and suitable tools and appliances for the safe and careful handling, conveying, and laying of the pipe. Take care to prevent the coating of pipe from being damaged. Dropping material directly from a truck or platform will not be permitted. Examine all pipes and castings and test for defects. Remove any defective materials from the site.

C. Cleaning Pipe and Fittings – Remove all lumps, blisters, and excess coal tar, or other material from the bell and spigot end of each pipe and fitting. The outside of the spigot and the inside of the bell must be brushed and wiped clean, dry, and free from oil or grease prior to laying. Brush the inside of the pipe in order to remove all dirt and debris. Repair any damage to exterior pipe coating with an approved coating before the pipe is laid.

D. Laying Pipe – Lay pipe with the bell ends facing the direction of laying, unless otherwise directed by the Engineer. Under no circumstances can pipe be dropped directly into the trench. Take precautions to prevent foreign material from entering the pipe while it is being placed. After placing a length of pipe in the trench, center the spigot end in the bell and force the pipe home to correct line and grade. At all times, cover the open ends of the pipe to prevent foreign matter from entering. If cuts of full lengths of pipe are required, the cut end must be trimmed, beveled or otherwise prepared for jointing as recommended by the pipe manufacturer. Only lubricants recommended by the pipe manufacturer can be used. After each joint is set brass wedges will be inserted per Engineer's recommendations.

E. Wet Trench Laying - Conform to current OSHA/MIOSHA standards. When the trench contains water, close the open ends of pipe by a watertight plug. This provision applies during the noon hour as well as overnight. If water is in the trench, the seal must remain in place until the trench is pumped completely dry.

F. Pipe Bedding and Backfill - In accordance with MDOT Standard Plan R-83(Series), Utility Trenches. Encase ductile iron pipe bedded in an area of aggressive soil such as peat in a polyethylene encasement.

G. Pipe Deflection - Where curved lines, laid without fittings, are shown on the plans, or are necessary to avoid obstructions, the pipe may be deflected horizontally or vertically at each joint within the published recommended limits recommended by the pipe manufacturer. Deflections in excess of the allowable deflection must be made by using standard fittings.

H. Joint Restraint: Where water to air pressure exerts a disjoining force, at all pipe deflections over 11-1/4 degrees, and all tees and dead ends, joints must be restrained, tied or harnessed in a manner approved by the Engineer. Apply the restraint to joints in each direction from the deflection an adequate distance to resist the axial thrust of the test pressure as shown in Table 1: Pipe Restraint Schedule. Submit details of the proposed joint restraint, showing the type and location, to the Engineer for approval. All pipe and fitting restrained joints must be rated for a minimum of 250 psi.

TABLE 1: PIPE RESTRAINT SCHEDULE TABLE
GROUND BURIED PRESSURE PIPE – DUCTILE IRON
Length (in feet) of Pipe Restraint from Each Direction of Fitting

| Pipe Diameter | Tee, 90° Bend | 45° Bend | 22-½° Bend | Dead End | Reducer (One Size Reduction) | Reducer (Two Size Reduction) |
|---|---|---|---|---|---|---|
| 4” | 11 | 5 | 2 | 28 | -- | -- |
| 6” | 16 | 7 | 3 | 41 | 21 | -- |
| 8” | 21 | 9 | 4 | 52 | 21 | 49 |
| 12” | 30 | 12 | 6 | 75 | 40 | 81 |

2. Horizontal Directional Drilling Construction – Shall conform to the Horizontal Directional Drilling Special Provision of these Municipal Utilities Standards.

3. Air Release and Clean-out Structures - Install air release and clean-out structures in locations indicated on the plans and conforming to the Standard Details of these Municipal Utility Standards.

4. Restoration and Clean-up - In accordance with the Slope Restoration Special Provision.

5. Pressure and Leakage Testing. Furnish all apparatus and water required to perform the pressure and leakage tests.

   A. Pre-test Procedures - Provide any temporary plugs and blockings as required for the test, and then completely fill the line with water with a special emphasis upon removing all air from the pipe.

   B. Preliminary Test – Conduct a preliminary pressure test to ascertain if there are any major leaks. After any leaks are corrected, re-run the test until results are satisfactory.

   C. Final Pressure Test – Conduct in the presence of the Township Engineer, who must receive 24 hours notice prior to testing. The test pressure must be at least 1.5 times the design pump discharge pressure or 100 psi, whichever is greater, measured at the lowest point in the line. If it is necessary for the Engineer to observe more than one test, the Contractor will be liable for the additional cost involved. Pressure must not drop more than 5 psi in a period of 2 hours.

   D. Leakage Test - In no case shall the leakage exceed the following gallons of water in a 2 hour period:

| Pipe Diameter | 4" | 6" | 8" | 10" | 12" | 14" | 16" | |
|---|---|---|---|---|---|---|---|---|
| Allowable leakage | 0.25 | 0.60 | 1.0 | 1.3 | 2.5 | 2.8 | 3.3 | (HDPE) |
| Per 1000 L.F. | 0.55 | 0.80 | 1.1 | 1.4 | 1.6 | 1.9 | 2.2 | (Ductile Iron) |

E. General - Provide all labor and materials, etc. as required to repair any leaks, or otherwise required to meet these tests. All visible leaks must be repaired, regardless of the amount of leakage. Any excavation or construction required must be done as previously required herein.

SPECIAL PROVISION
FOR
**HORIZONTAL DIRECTIONAL DRILLING**

DCT 1 of 7 3/2020

**a. Description.** The work of **Horizontal Directional Drilling** consists of furnishing all labor, equipment, and materials required for the installation of water mains and sewage force mains and appurtenances contained in this Special Provision.

1. References

   A. ASTM F1962 – Standard Guide for use of Maxi-Horizontal Directional Drilling for Placement of Polyethylene Pipe or Conduit under Obstacles, including River Obstacles.

2. Contractor Qualifications

   A. The Horizontal Directional Drilling Contractor shall have successfully completed the installation of at least 20,000 feet of similar sized utilities and have been actively engaged in horizontal directional drilling for a minimum of five years.

   B. Field supervisory personnel: Experienced in the performance of the work and tasks as stated herein for a minimum of three years.

   C. Fusion Technician Requirements: Fully qualified by the pipe supplier to install pipe of the type(s) and size(s) being used. Qualification must be current as of the actual date of fusion performance on the project.

3. Submittals. Submit the following Contractor's Drawings:

   A. Contractor qualification data, including name of the field supervisor and fusion technician name(s) and certification.

   B. Size, capacity and arrangement of equipment.

   C. Location and size of drilling and receiving pits.

   D. Dewatering and methods of removing spoils material.

   E. Method of installing locator wire and pipe and locator wire attachment detail.

   F. Type, location, and method of installing locator station.

   G. Method of fusion pipe segment and type of equipment.

   H. Type of cutting head.

   I. Method of monitoring and controlling line and grade, guidance system data sheets,

and operating instructions.

J. Detection of surface movement.

K. Bentonite drilling mud for information only:

(1) Products information, material specifications, and handling procedures.

(2) Material safety data sheet and special precautions required.

(3) Method of mixing and application.

L. Frac out remediation procedures.

4. Site Conditions

A. Complete directional drilling so as not to interfere with, interrupt, or endanger surface and activity thereon.

B. Do not use directional drilling in rock stratum or subsoil consisting of boulders and underground obstructions that impede the process.

C. Comply with applicable ordinances, codes, statutes, rules, and regulations of State of Michigan, MIOSHA, applicable county building codes, and applicable regulations of Federal Government, OSHA 29CFR 1926, and applicable criteria of ANSI A10.16-1995 (R2001), “Safety Requirements for Tunnels, Shafts, and Caissons.”

5. Record Drawings. Submit record drawings in duplicate within five days after completing the pull back. Include a plan, profile, and all information recorded during the progress of the work in the record drawings. Work will not be accepted without record drawings.

**b. Materials**

1. Water Main Piping and Appurtenances: Refer to Special Provision for Water Main.

2. Sewage Force Main Piping and Appurtenances: Refer to Special Provision for Sewage Force Mains.

3. Tracer Wire and locator stations: Refer to Special Provisions for Water Mains and Sewage Force Mains.

4. Equipment

A. Drilling System.

(1) Drilling Rig. Consists of a hydraulically powered system to rotate, push, and pull hollow drive pipe into the ground at a variable angle while delivering a pressurized fluid mixture to a guidable drill (bore) head. Anchor the rig to the ground to withstand the pulling, pushing and rotating pressure required to complete the bore. The hydraulic power system must be self-contained with sufficient pressure and volume to power drilling operations. Rig must have a system to monitor and record maximum pull-back pressure during pull-back operations; Record information and

provide copy to Engineer.

(2) Drill Head. Steerable by changing its rotation and provides the necessary cutting surfaces and drilling fluid jets.

(3) Drill Pipe. High quality 4130 seamless tubing, grade D or better, with threaded box and bins. Tool joints should be hardened to 32-36 RC.

B. Guidance System. Use a Magnetic Guidance System (MGS) or proven gyroscopic system to provide a continuous and accurate determination of the location of the drill head during the drilling operation. The guidance must be capable of tracking at all depths up to eighty feet and in any soil condition, including hard rock and enable the driller to guide the drill head by providing immediate information on the tool face, azimuth (horizontal direction), and inclination (vertical direction). The guidance system must be accurate to ± 2% of the vertical depth of the bore hole at sensing position at depths up to one hundred feet and accurate within 5 feet horizontally.

The guidance system must be of a proven type and operated by personnel trained and experienced with this system. The Operator must be aware of any magnetic anomalies on the surface of the drill path and consider such influences in the operation of the guidance system if using a magnetic system.

(1) Bore Tracking and Monitoring. At all times during the pilot bore, provide and maintain a bore tracking system that is capable of accurately locating the position of the drill head in the x, y, and z axis. Record these data at least once per drill pipe length or every twenty five (25) feet, whichever is most frequent.

(2) Downhole and Surface Grid Tracking System. Monitor and record x, y, and z coordinates relative to an established surface survey bench mark. Continuously monitor and record the data at least once per drill pipe length or at twenty five (25) feet, whichever is more frequent.

(a) Demonstrate a viable method to eliminate error. Submit calibration results showing that the equipment is within tolerance. Follow the manufacturer's recommended calibration sequence and calibration time schedule.

(b) The guidance system must be capable of generating a plot of the bore hole survey for the purpose of an as-built drawing.

(c) Use a locating and tracking system capable of ensuring that the proposed horizontal and vertical alignment is installed as intended.

(3) Drilling Fluid Pressures and Flow Rates. Continuously monitor and record drilling fluid pressures and flow rates. Make these measurements during pilot bore drilling, reaming, and pullback operations.

C. Drilling Fluid System.

(1) Mixing System. Self-contained, closed drilling fluid mixing system of sufficient size to mix and deliver drilling fluid and continually agitate the drilling fluid during drilling operations.

(2) Drilling Fluid. Bentonite drilling mud compatible with the environment; waste oil or environmentally non-compatible polymers cannot be part of the composition.

(3) Delivery System. Capacity to provide adequate flow rate and pressure.

D. Rollers – Sufficient size to fully support the weight of the pipe during pullback operations. Use a sufficient number of rollers to prevent excess sagging of pipe. The pipe cannot be dragged across the surface.

**c. Construction.**

1. Preparation

A. Excavate pits following drawings, related specifications and SESC plan.

B. Provide equipment to guard against electrocution and an alarm system on drilling equipment capable of detecting electrical current as it approaches electric lines.

C. Exploratory trenching of underground utility crossings before directional drilling operation is required. Determine utility location and elevation.

2. General

A. Determine drilling length and equipment pull strength for type of soil encountered.

B. Provide method to control line and grade.

(1) Provide and maintain instrumentation that accurately locates pilot hole.

(2) Drill pilot hole along path following Drawings to these tolerances:

(a) Vertical alignment plus or minus 5% of the depth to the top of the pilot hole. Vertical path of the pilot hole must not establish new high points not shown on approved construction plans. Maintain constant slopes as shown on the drawings.

(b) Horizontal alignment plus or minus 1.0 foot.

(3) Deviations between the recorded and design bore path must be calculated and reported on the daily log. If the deviations exceed the specified tolerances, report such occurrences immediately to the Township Engineer. Undertake all necessary measures to correct deviations and return to design line and grade.

(4) Include electronic monitoring of the horizontal and vertical drilling head location. Obtain an accuracy range within 1 inch of actual position of the pipeline. Record position readings at a maximum of 25 foot intervals.

(5) At completion of pilot hole drilling, furnish Township Engineer tabulations of horizontal and vertical alignment.

C. When water is encountered, provide dewatering in accordance with the Special Provision for Dewatering and as follows:

(1) Provide and maintain a dewatering system of sufficient capacity to remove water.

(2) Keep excavation free of water until backfill operation is in progress.

(3) Perform dewatering in such a manner that removal of soils particles are held to a minimum.

(4) Dewater into a sediment trap following SESC plans and specifications.

D. Maintain close observation to detect settlement or displacement of surface and adjacent facilities.

(1) Notify Township Engineer immediately if settlement or displacement is detected.

(2) Act to maintain safe conditions and prevent damage.

3. Drilling Operation

A. Drilling Fluids

(1) Maintain drilling fluid in bore hole to increase stability of the surrounding soil and reduce drag on pulled pipe.

(2) Dispose of drilling fluid and other spoils at location following laws, ordinances, rules, and regulations of local jurisdiction.

(3) Transport excess fluids and other spoils to the disposal site.

(4) Minimize drilling fluid at locations other than entry and exit points. Immediately clean up any drilling fluids that inadvertently surface.

(5) Provide clean water for drilling.

B. Pilot Hole Drilling

(1) Angle entry hole so that curvature of pilot hole does not exceed allowable bending radius of pipe.

(2) Be able to make a turn of up to 90 degrees and maintain a curvature not to exceed allowable bending radius of pipe.

(3) Alignment Adjustment and Restarts

(a) Follow pipeline alignment on approved construction plans within tolerances specified herein. Before adjustments, notify Engineer for approval.

(b) Notify Engineer when forward motion of operation is stopped by an obstruction.

(i) Abandon in place with drilling fluid, unless Engineer directs otherwise.

(ii) Upon Township Engineer’s approval, attempt a second installation at approved location. Alternatively, outside of sensitive areas identified on

the Drawings, excavate at the point of difficulty and install the pipe by open cut method.

(4) Withdrawals, abandonments, and restarts are at no additional cost to the Township.

(5) Exercise caution including, but not limited to, locating utilities, drilling downholes (test pits) to observe drill stems or reamer assembly to clear other existing utilities.

4. Pipe Installation

A. Provide a swivel to reaming assembly and pull section of pipe to minimize torsional stress on pull section after drilling pilot hole.

B. Hold reaming diameter to the following limits:

(1) Smaller than 8 inches: outside diameter of pipe plus 4 inches

(2) 8 inches to 24 inches: 1.5 times the outside diameter of pipe being installed

(3) Larger than 24 inches: outside diameter of pipe plus 12 inches

C. Protect pull section as it proceeds during pull back so that it moves freely and is not damaged.

D. Ensure that the minimum bending radius and maximum pulling force recommended by the pipe manufacturer are not exceeded.

E. Pull locator wire along with pipe. Extend wire into locator station at each end of pipe. At a structure (cleanouts, air release valve, etc.), leave enough slack in the wire so that it can run to the top of the structure for connection. Install locator stations in locations shown and detail on the drawings.

(1) Perform continuity tests on locator wire. If the locator wire fails the continuity test, locate the cause of the failure and repair using connections which are suitable for underground/underwater use, or pull new locator wire.

(2) Perform locating tests using the upstream and downstream locator stations. For the test to be successful, the force main must be able to be located at the third points when connected to the downstream locator station and again when connected to the upstream locator station.

F. When connecting to adjacent pulled or non-pulled section of pipe, allow pull section of pipe to extend past termination point. Make tie-ins the next day after pullback of pipe. Expose sufficient length of pipe at connection point to verify that no high points were constructed at the connection points.

G. Construct force main air release structures on high points of the main in locations noted on the drawings. Construct air release structures in accordance with the details on the drawings.

H. Construct sewage force main cleanouts in locations noted on the drawings. Construct cleanouts in accordance with the details on the drawings.

I. Test pit pipe installation to verify horizontal and vertical alignment.

(1) One test pit for every 500 feet along length of pipeline.

(2) Township Engineer may order additional test pit for each test pit that reveals pipeline installation is not in compliance with the approved construction plans at no additional cost to the Township.

J. Replace portions of the pipeline not in compliance with the approved construction plans at Township Engineer's direction and at no additional cost to the Township.

K. Pump Test: Conduct a pump test of sewage force mains utilizing the existing pump station, if available, or temporary pumps provided by the Contractor.

(1) Measure static head (pressure), flow rate, and dynamic head (pressure) of the force main.

(2) The pump flow rate should be equal to the flow rate developed by the pump station with a single pump running at a duplex station, or the largest pump running at a station with more than two pumps. The Contractor is responsible for providing and disposing of water required for the test.

(3) The force main will be acceptable if the results of the pump test demonstrate that the measured dynamic head at the design flow rate is within five percent of the calculated design dynamic head.

(4) If the measured dynamic head is in excess of five percent of the calculated dynamic head, locate and correct the cause of the increased dynamic head and re-run the pump test until the results are acceptable.

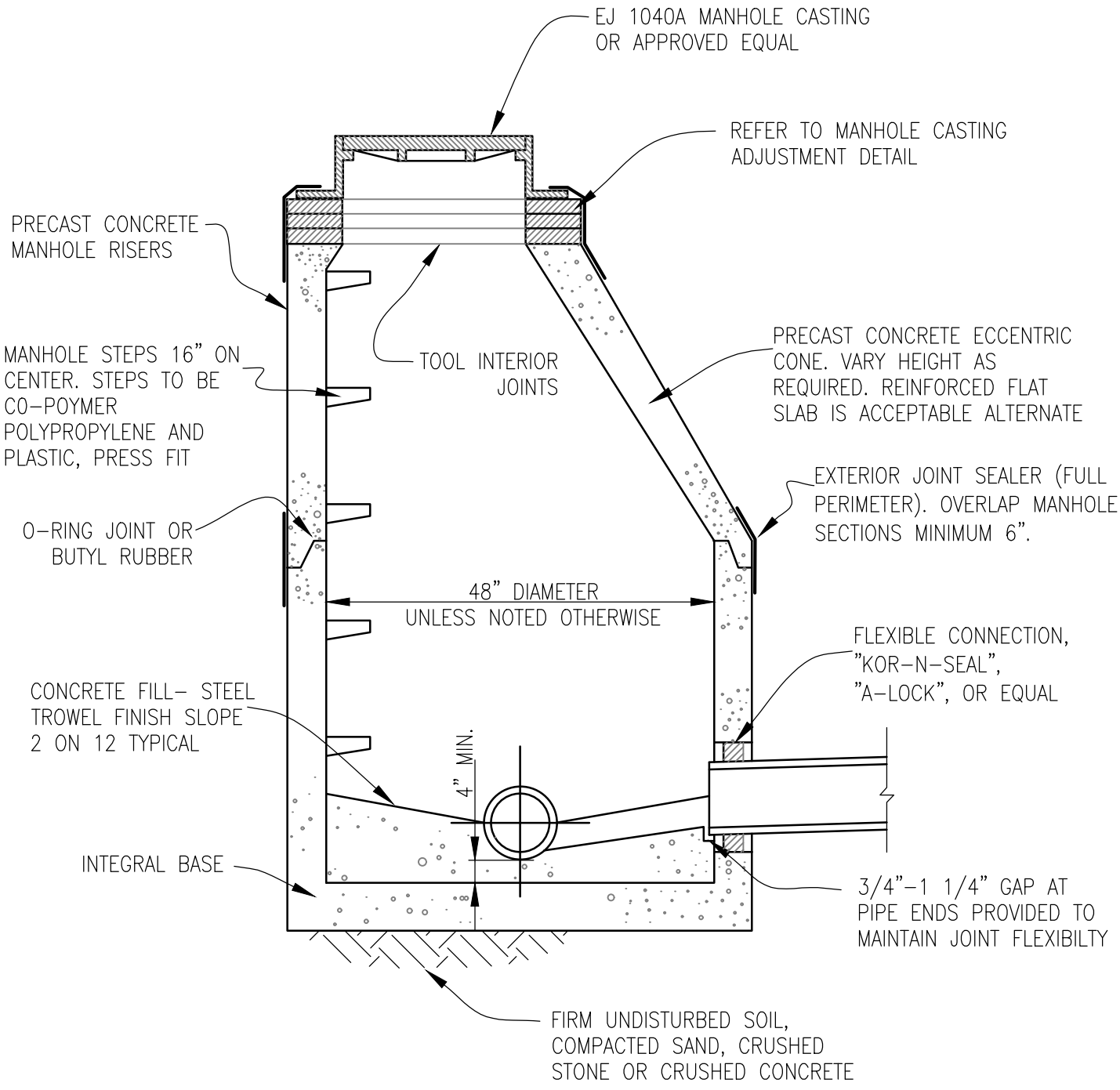
5. Pressure and leakage testing. Conform to the requirements of the Special Provision for Water Mains or Sewage Force Mains.

# STANDARD DETAILS

INDEX OF STANDARD DETAILS
MUNICIPAL UTILITY STANDARDS

DELTA CHARTER TOWNSHIP
EATON COUNTY, MICHIGAN


| STANDARD SANITARY SEWER DETAILS | REVISION DATE |
|---|---|
| SANITARY SEWER MANHOLE | 6/2017 |
| EXTERNAL DROP PIPE | 3/2013 |
| INTERNAL DROP PIPE | 3/2013 |
| SANITARY SERVICE CONNECTIONS | 3/2013 |
| SEWER SECTION REPLACEMENT | 3/2013 |
| MANHOLE ABANDONMENT | 6/2017 |
| SANITARY SEWER ABANDONMENT | 3/2013 |
| SEWER BULKHEAD | 3/2013 |
| MANHOLE CASTING ADJUSTMENT | 3/2020 |
| HDPE TO D.I. PIPE CONNECTION | 3/2013 |
| FORCEMAIN AIR RELEASE MANHOLE | 6/2017 |
| AIR RELEASE MANHOLE VENT | 6/2017 |
| FORCEMAIN IN-LINE CLEANOUT | 3/2013 |
| FORCEMAIN CLEAN-OUT AT BEND | 3/2013 |
| GRINDER PUMP CONNECTION | 3/2013 |
| GRINDER PUMP FORCEMAIN FLUSHING CONNECTION | 3/2013 |
| STANDARD WATER SYSTEM DETAILS | |
| STANDARD HYDRANT ASSEMBLY | 3/2020 |
| TRACER WIRE ACCESS AT VALVE BOX | 3/2020 |
| WATER SERVICE CONNECTION | 6/2017 |
| WATER VALVE MANHOLE | 6/2017 |
| WATER MAIN OFFSET | 3/2020 |
| GUARD POST | 3/2013 |
| STANDARD UTILITY DETAILS | |
| BORE AND JACK CONSTRUCTION | 3/2013 |

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| Last Revision | 06/2017 |
| Adopted | 03/2013 |

**NO SCALE**


**Delta Charter Township**
**ENGINEERING DEPARTMENT**
7710 West Saginaw Highway
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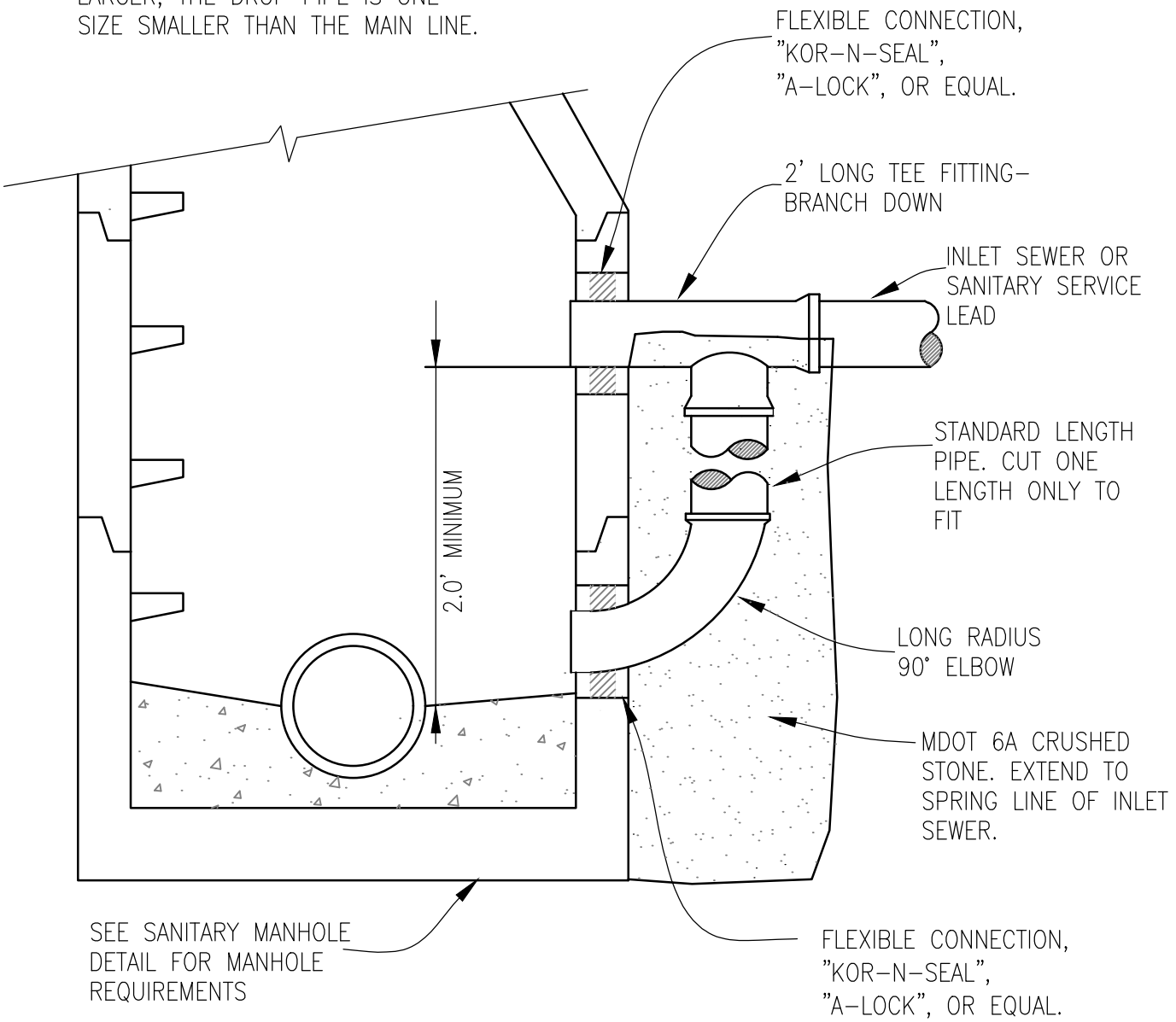
(517) 323-8540


# STANDARD SANITARY SEWER DETAILS

## SANITARY SEWER MANHOLE

NOTES:

1. FOR 8" DIAMETER SEWERS WITH DROP CONNECTION, THE DROP PIPE IS 8" DIAMETER.
2. FOR 10" DIAMETER SEWERS AND LARGER, THE DROP PIPE IS ONE SIZE SMALLER THAN THE MAIN LINE.

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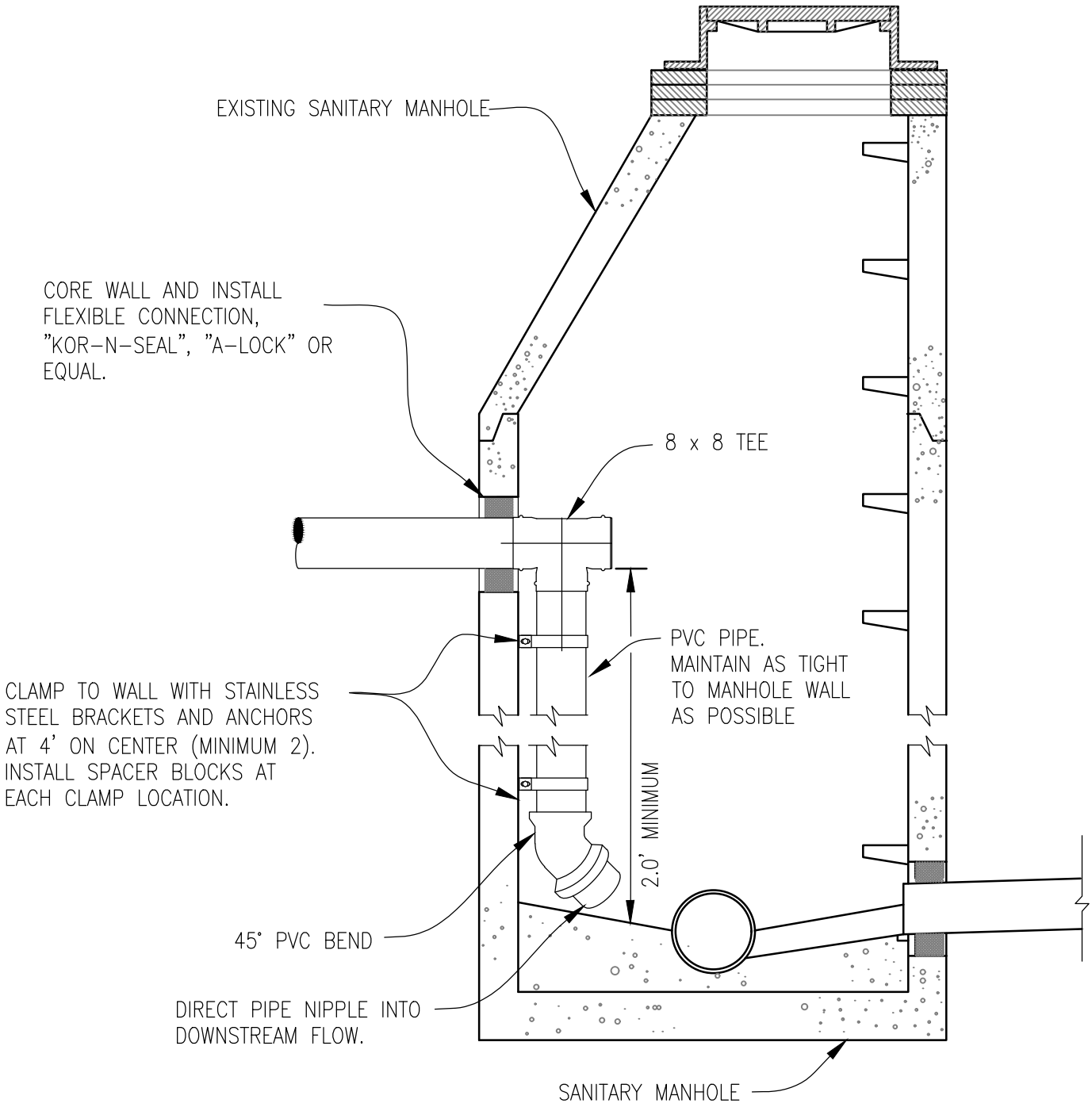
## STANDARD SANITARY SEWER DETAILS

# EXTERNAL DROP PIPE

INTERNAL DROP PIPE SHALL BE USED ON A CASE BY CASE BASIS BY PERMISSION OF TOWNSHIP ENGINEER ONLY.

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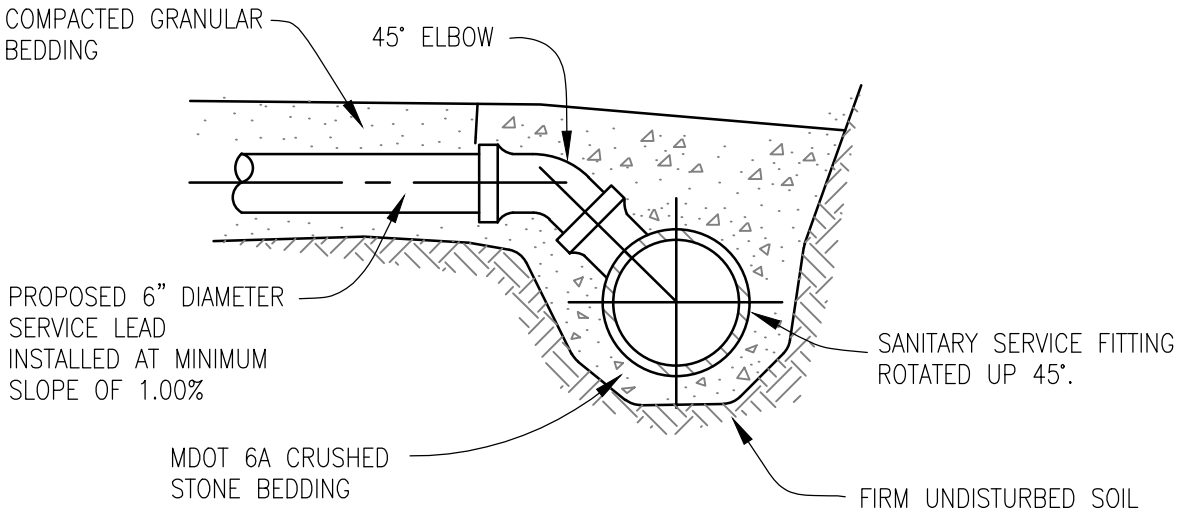
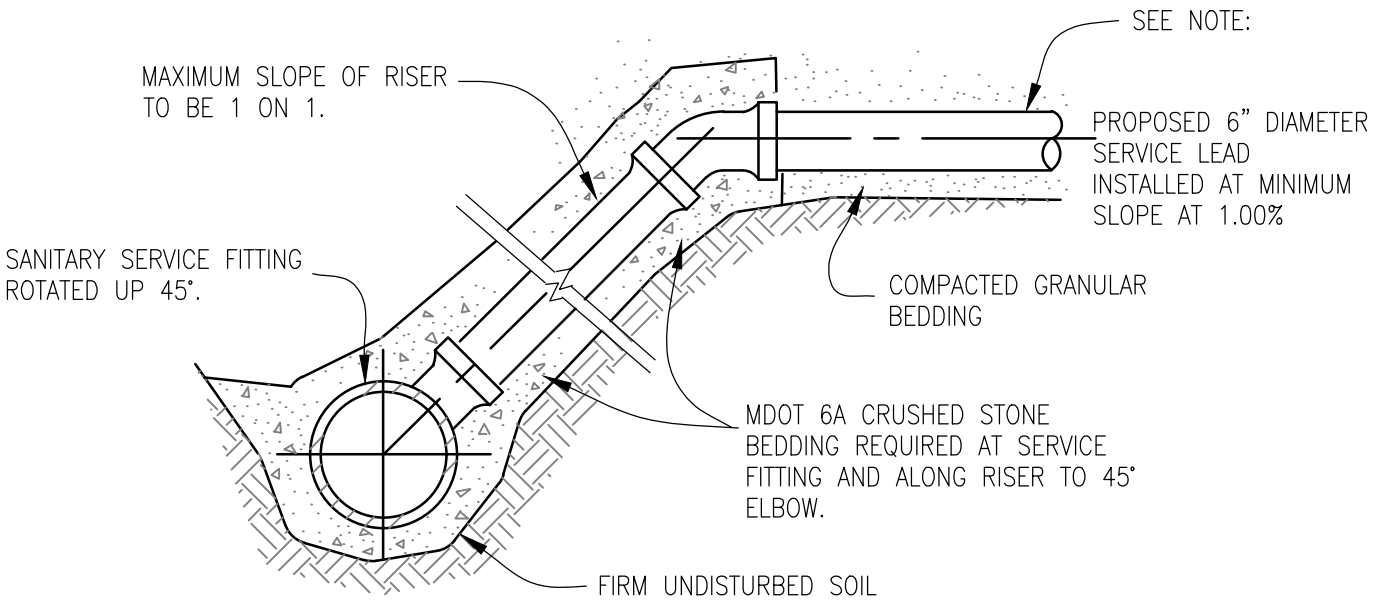
## SANITARY SEWER DETAILS

# INTERNAL DROP PIPE




## HORIZONTAL CONNECTION




## RISER CONNECTION

NOTE:
FOR RESIDENTIAL DEVELOPMENTS, SERVICE LEAD SHALL BE NINE (9) FEET BELOW FINAL GRADE AT THE PROPERTY LINE UNLESS OTHERWISE APPROVED BY THE TOWNSHIP ENGINEER.

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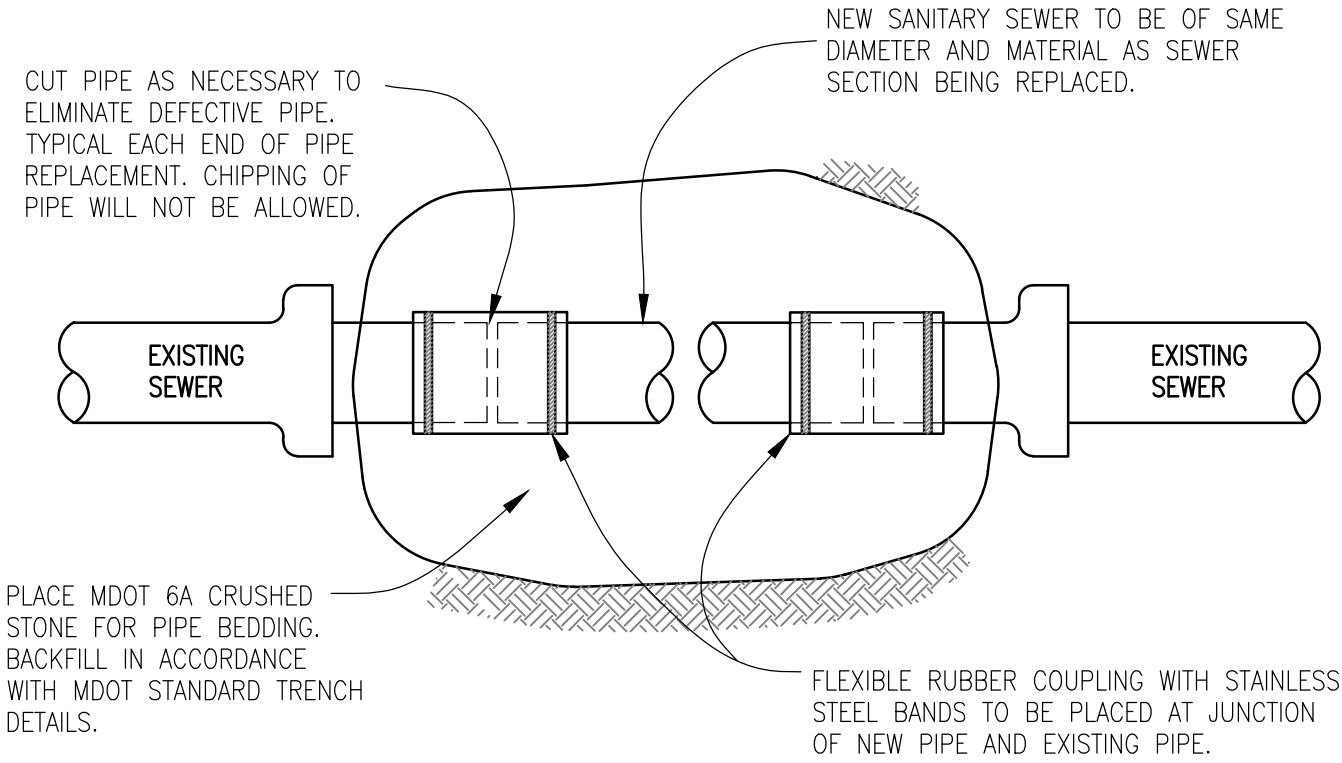
**STANDARD SANITARY SEWER DETAILS**

# SANITARY SERVICE CONNECTIONS

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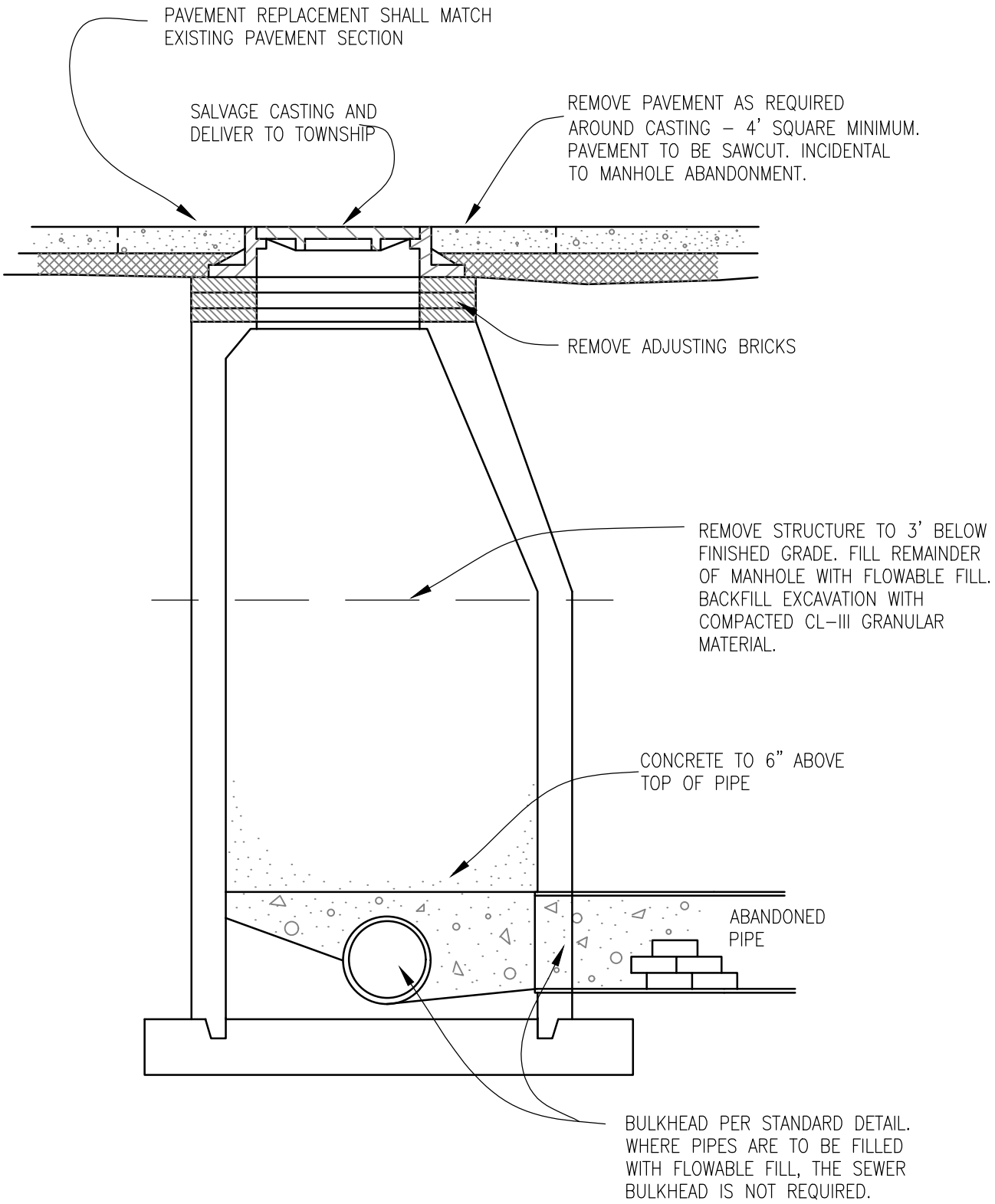
# STANDARD SANITARY SEWER DETAILS

# SEWER SECTION REPLACEMENT

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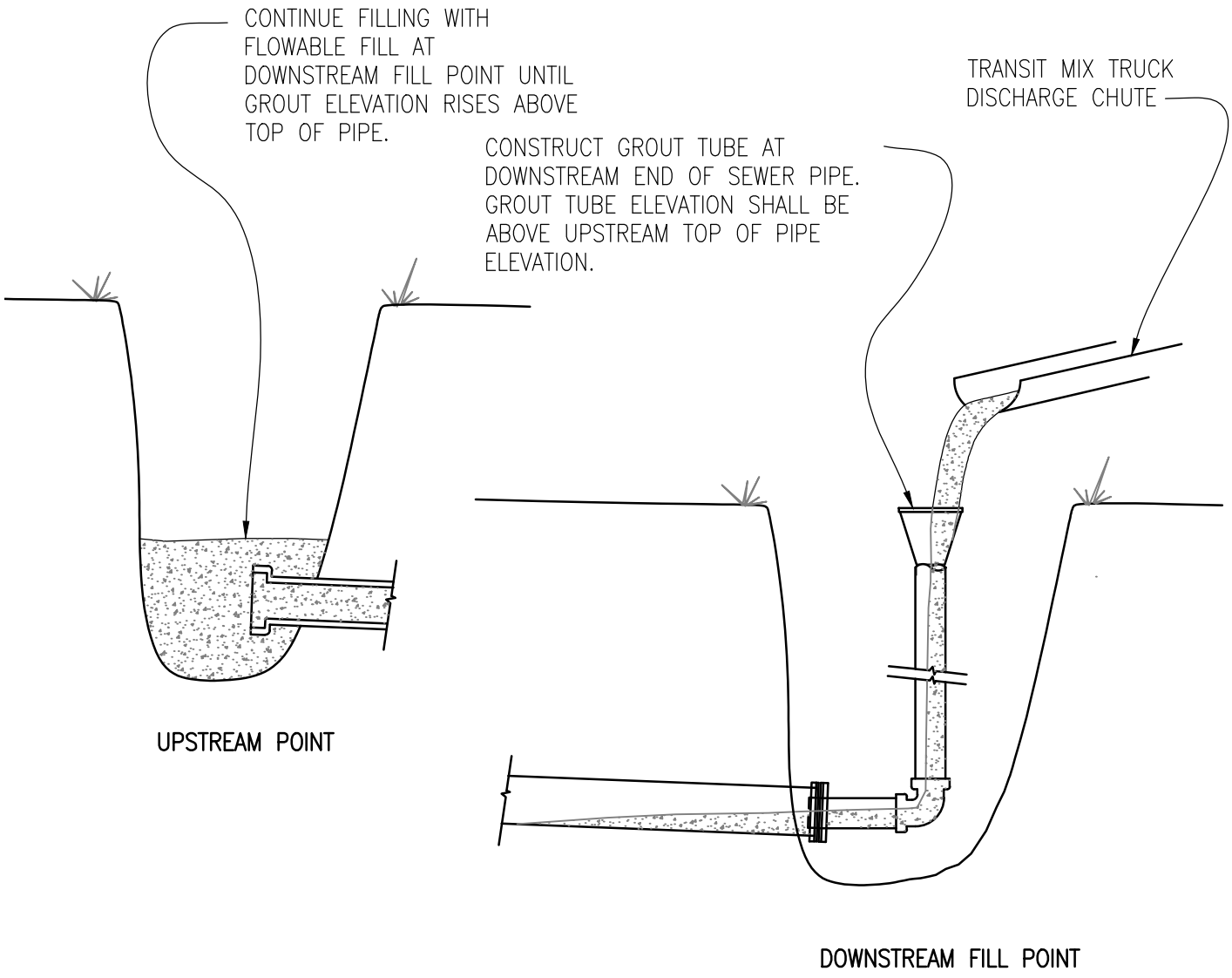
## STANDARD SANITARY SEWER DETAILS

# MANHOLE ABANDONMENT DETAIL

NOTE:

1. ALLOW GROUT TO CURE 24 HOURS, THEN SAWCUT AND REMOVE GROUT TUBE AND BACKFILL EXCAVATION.

2. USE OF TRENCH EXCAVATION AS GROUT TUBE IS ACCEPTABLE, PROVIDED DISCHARGE CHUTE EXTENDS TO PIPE TO BE ABANDONED.

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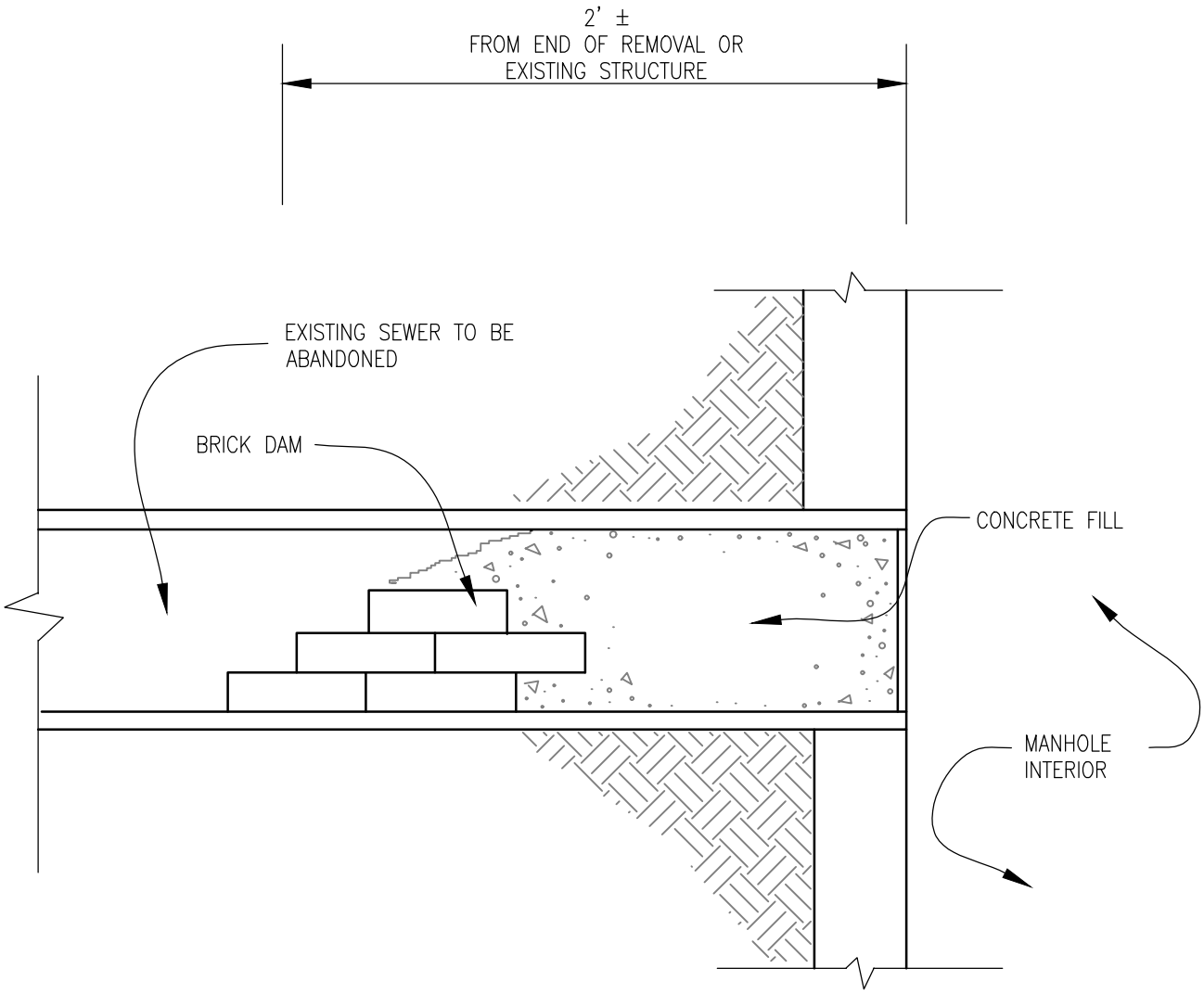
**STANDARD SANITARY SEWER DETAILS**

# SANITARY SEWER ABANDONMENT

NOTES:

1. WHEN PIPE TERMINATES IN AN EXISTING MANHOLE, APPLY A MINIMUM 1/2" OF CEMENT PLASTER FLUSH WITH SURFACE.

2. OTHER METHODS OF BULKHEADING PIPES MUST BE APPROVED BY THE TOWNSHIP ENGINEER PRIOR TO CONSTRUCTION.

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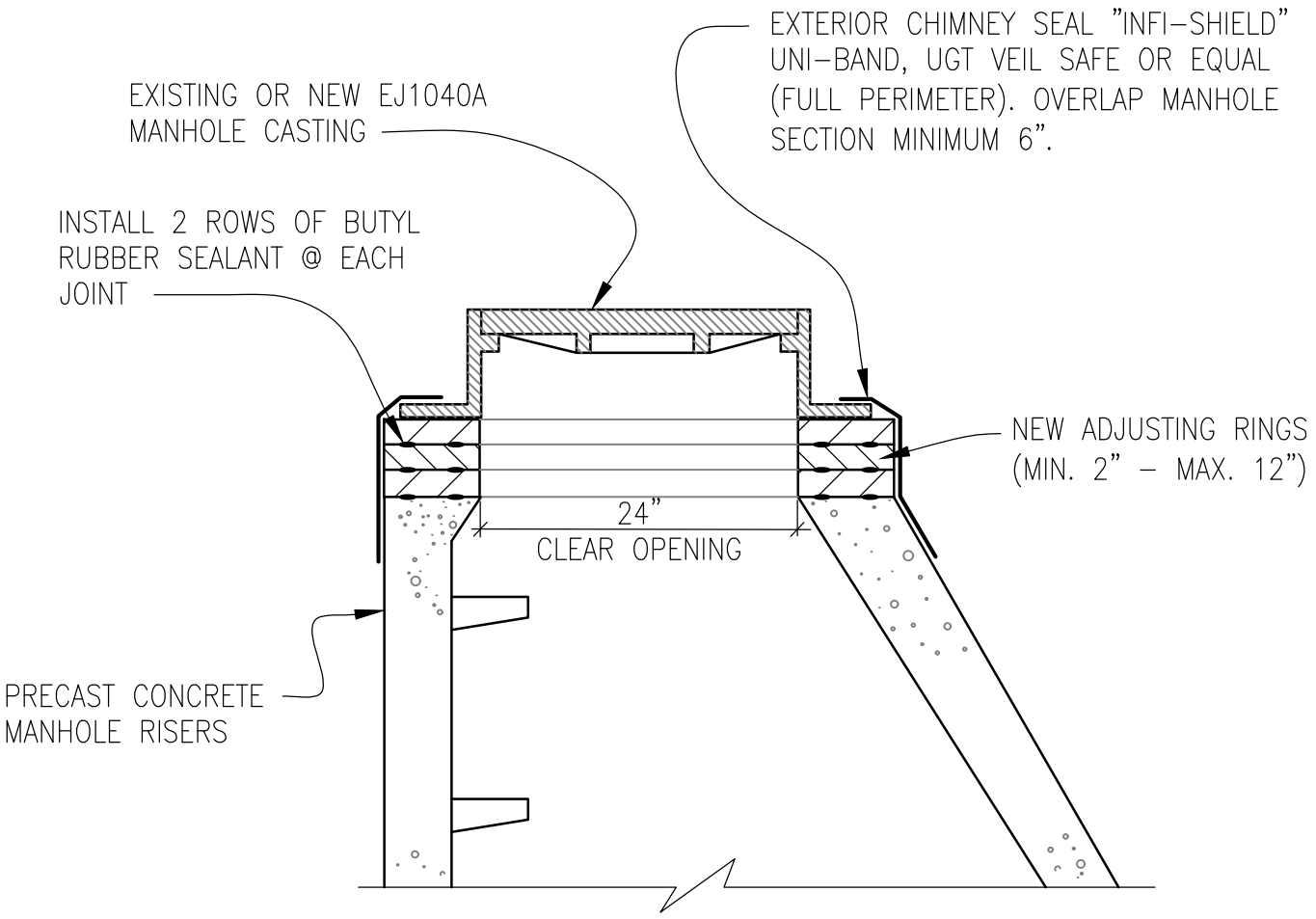
## STANDARD SANITARY SEWER DETAILS

# SEWER BULKHEAD DETAIL

NOTE: AT EXISTING INSTALLATIONS, REMOVE EXISTING CASTING AND ADJUSTING BRICK/RINGS. INSTALL ADJ. RINGS AND CHIMNEY SEAL. RE-INSTALL EXISTING OR NEW MANHOLE CASTING.




NOTE: The use of insert steel or cast iron riser adjusting rings in lieu of following this standard detail is prohibited.

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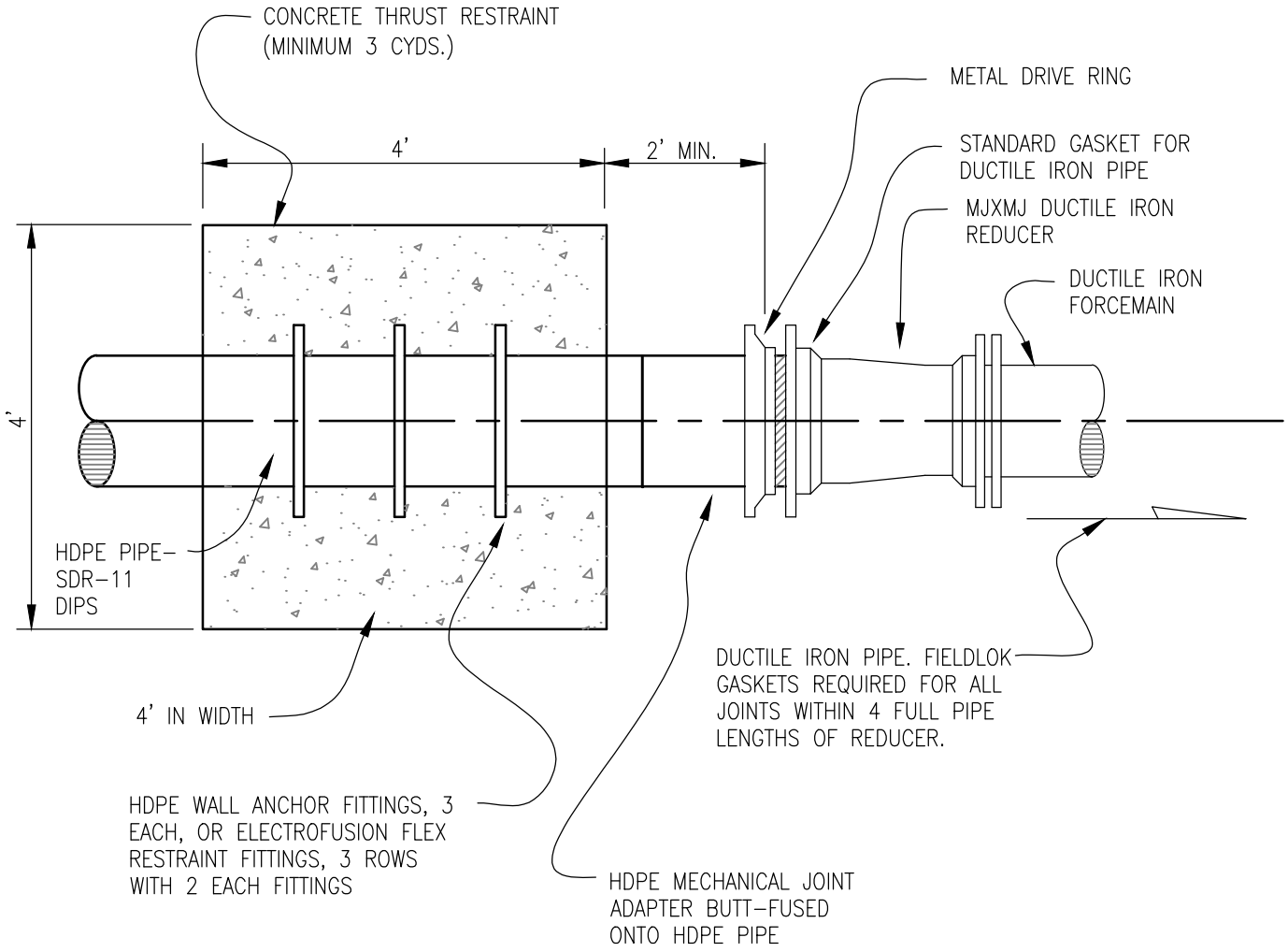
**STANDARD SANITARY SEWER DETAILS**

# MANHOLE CASTING ADJUSTMENT

NOTES:

1. HDPE PIPE TO BE SDR 11 DIPS, AWWA C906 BLUESTRIPE NSF 61 DUCTILE IRON SIZE.

2. DO NOT CONSTRUCT CONNECTION FOR A MINIMUM 2 DAYS AFTER COMPLETION OF DIRECTIONAL BORE.




| REVISIONS | DATE |
|---|---|
| Last Revision | N/A |
| Adopted | 03/2013 |

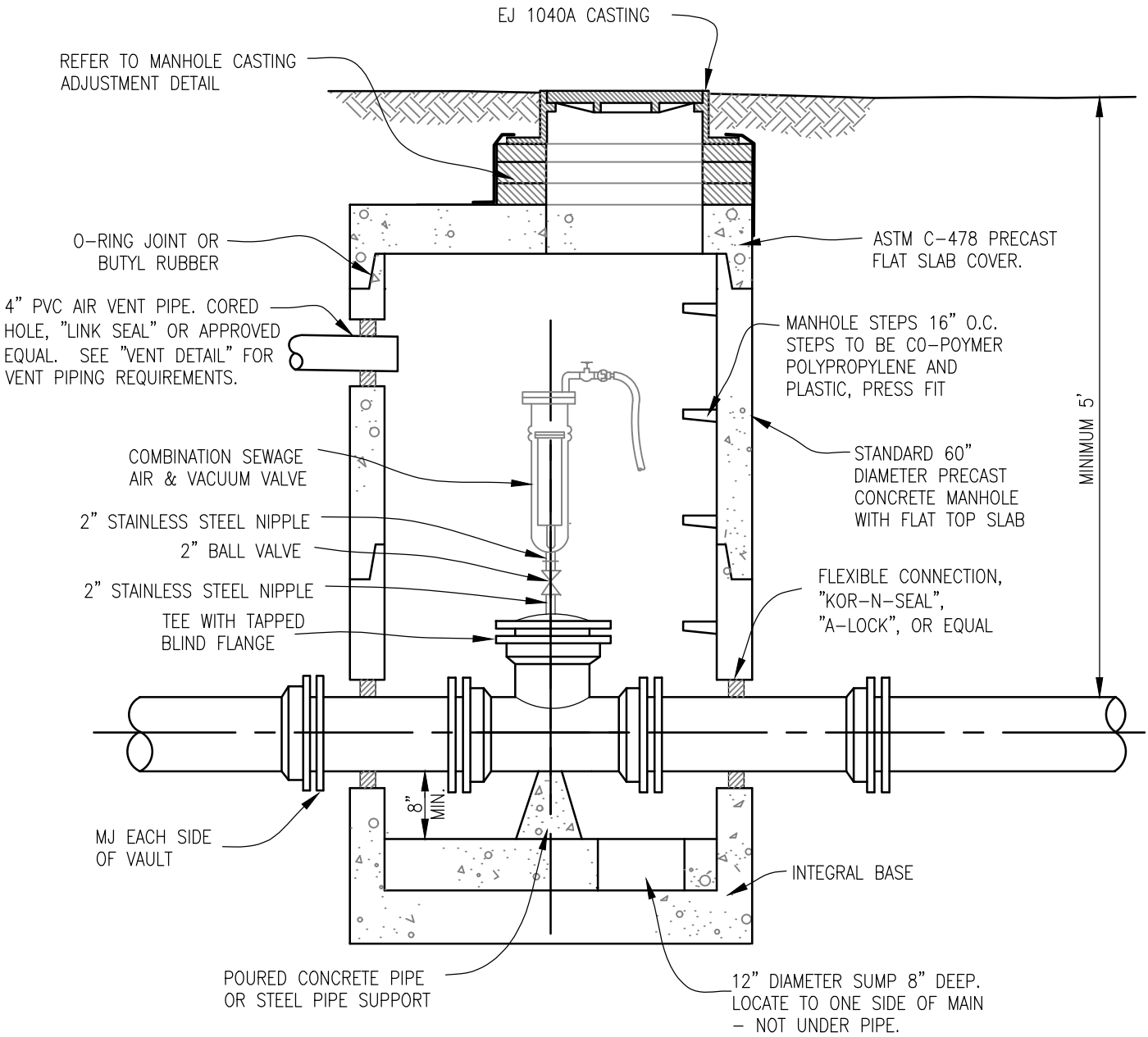
**NO SCALE**


DELTA TOWNSHIP

**Delta Charter Township**
**ENGINEERING DEPARTMENT**
7710 West Saginaw Highway
Lansing, MI 48917-9712
(517) 323-8540


## STANDARD SANITARY SEWER DETAILS

# HDPE TO D. I. PIPE CONNECTION




NOTE:
FURNISH A 25 FOOT LONG 3/4" I.D. DOUBLE LAYER REINFORCED RUBBER HOSE, WITH FEMALE QUICK CONNECTOR COUPLINGS ON BOTH ENDS.

| REVISIONS | DATE |
|---|---|
| Last Revision | 06/2017 |
| Adopted | 03/2013 |

**NO SCALE**


DELTA TOWNSHIP

**Delta Charter Township**
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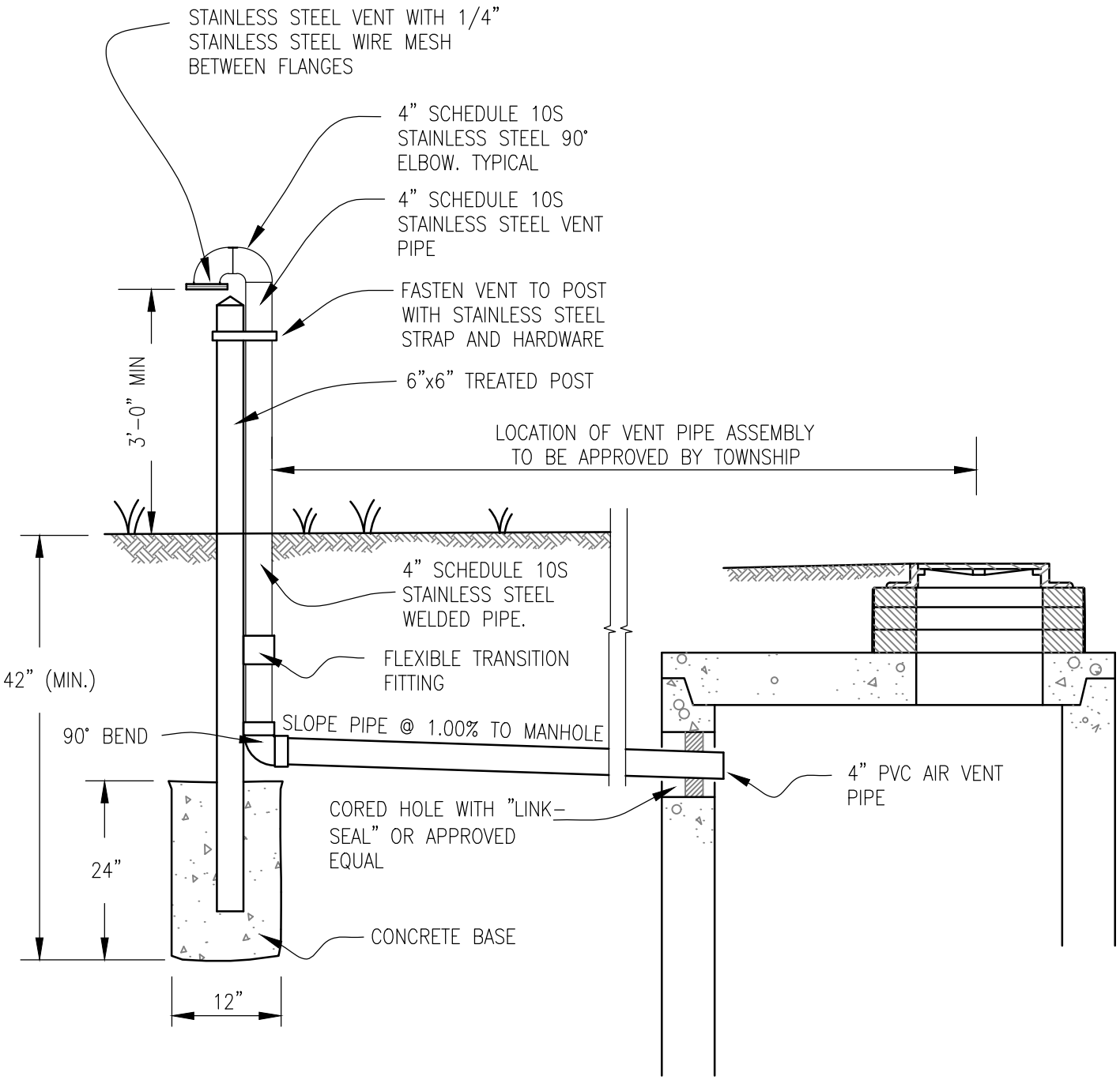
(517) 323-8540


## STANDARD SANITARY SEWER DETAILS

# FORCEMAIN AIR RELEASE MANHOLE




| REVISIONS | DATE |
|---|---|
| Last Revision | 06/2017 |
| Adopted | 03/2013 |

**NO SCALE**


**Delta Charter Township**
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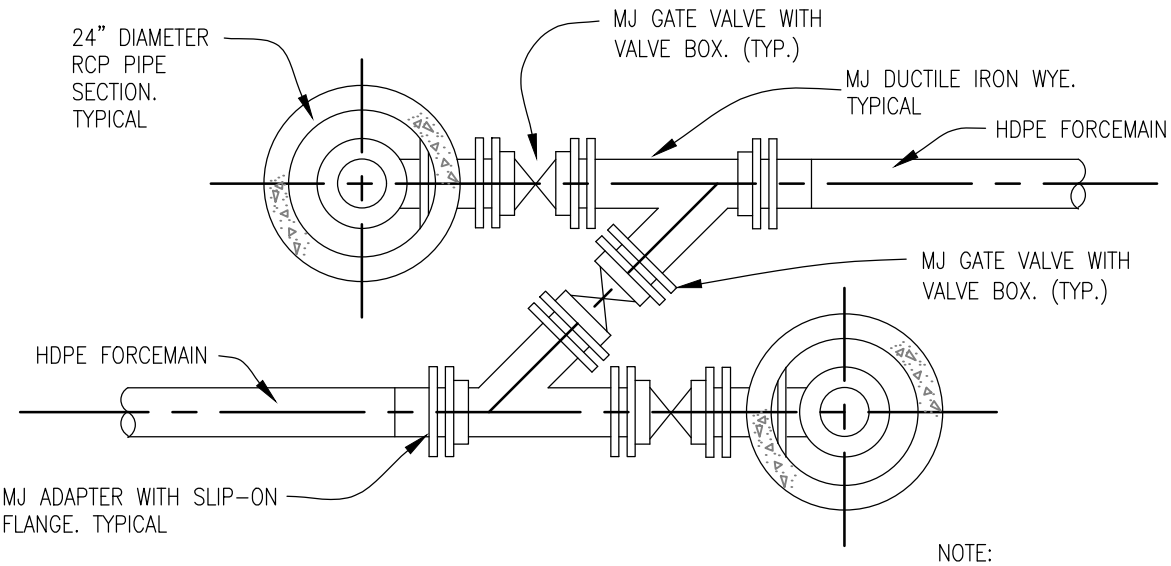
(517) 323-8540

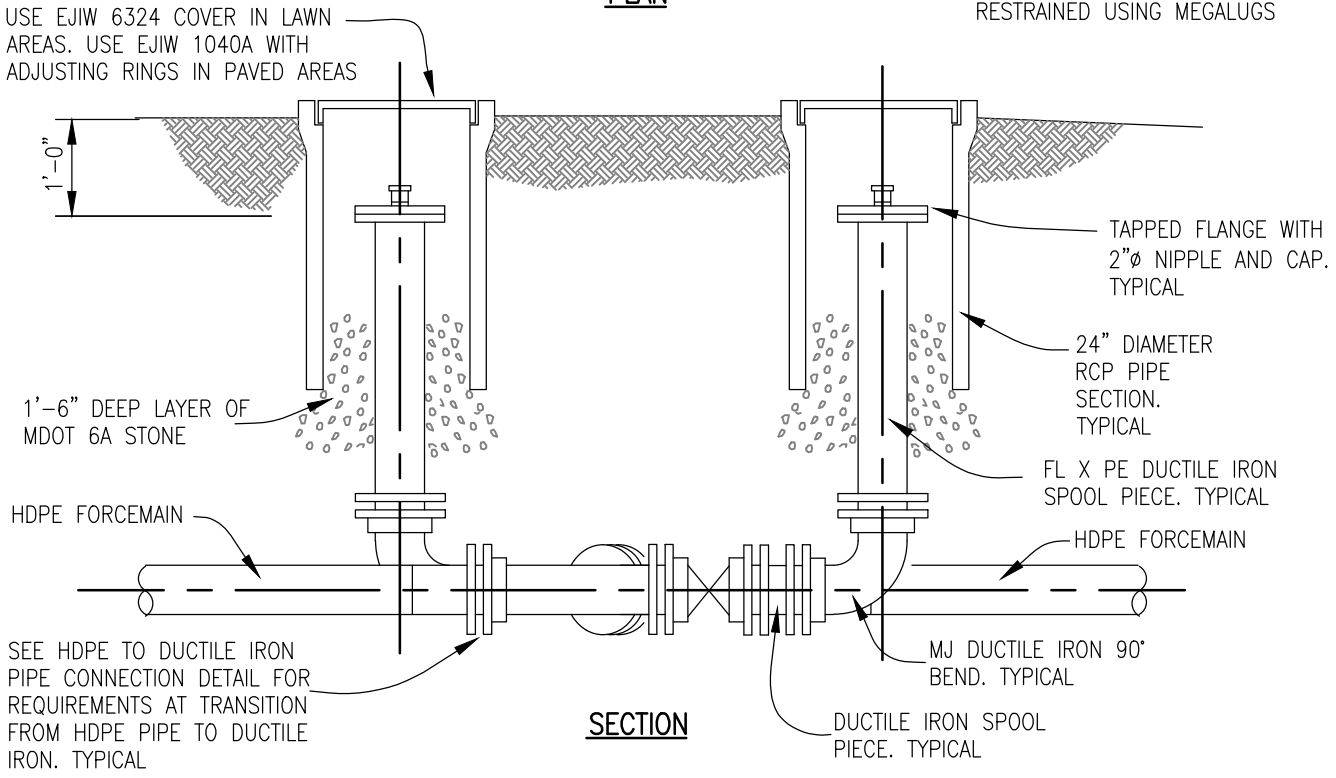

## STANDARD SANITARY SEWER DETAILS

# AIR RELEASE MANHOLE VENT




PLAN

NOTE:
ALL JOINTS AT CLEAN-OUT TO BE RESTRAINED USING MEGALUGS




SECTION

| REVISIONS | DATE |
|---|---|
| Last Revision | N/A |
| Adopted | 03/2013 |

**NO SCALE**

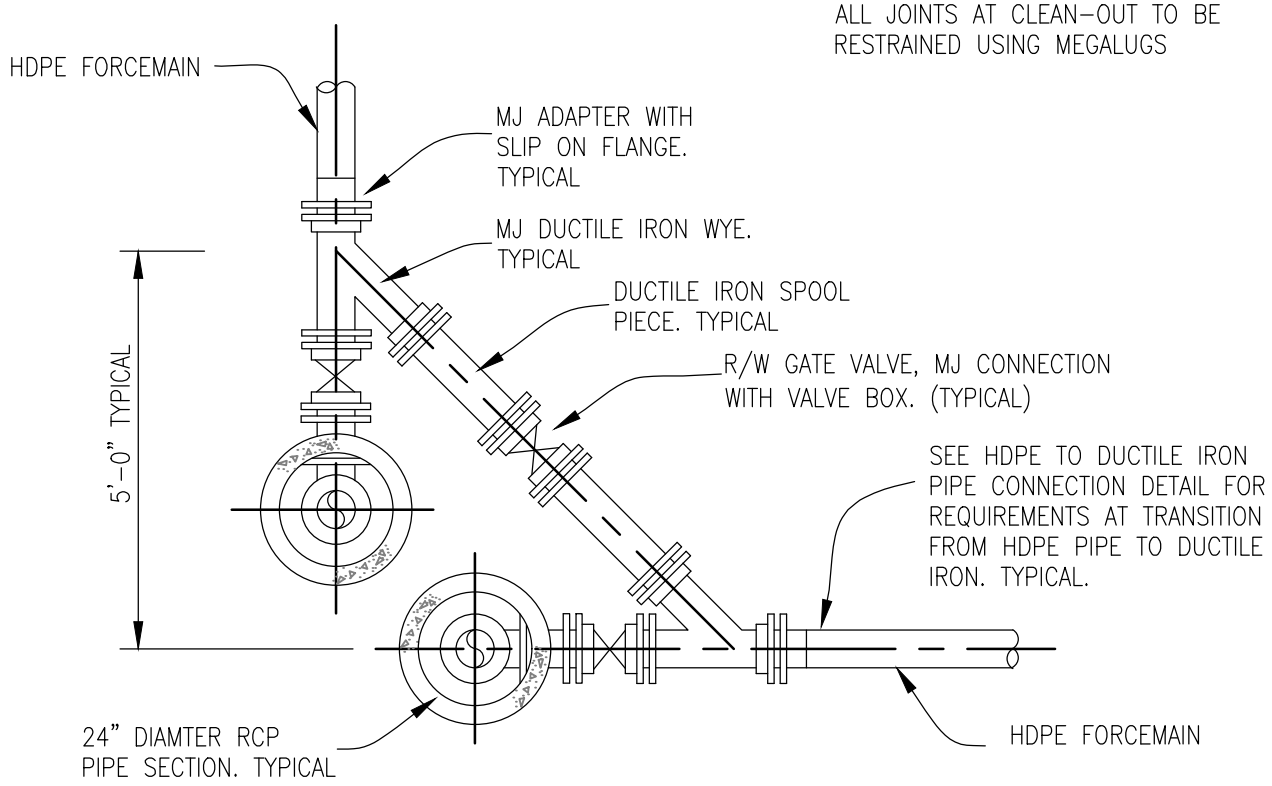

DELTA TOWNSHIP

**Delta Charter Township**
**ENGINEERING DEPARTMENT**
7710 West Saginaw Highway
Lansing, MI 48917-9712
(517) 323-8540

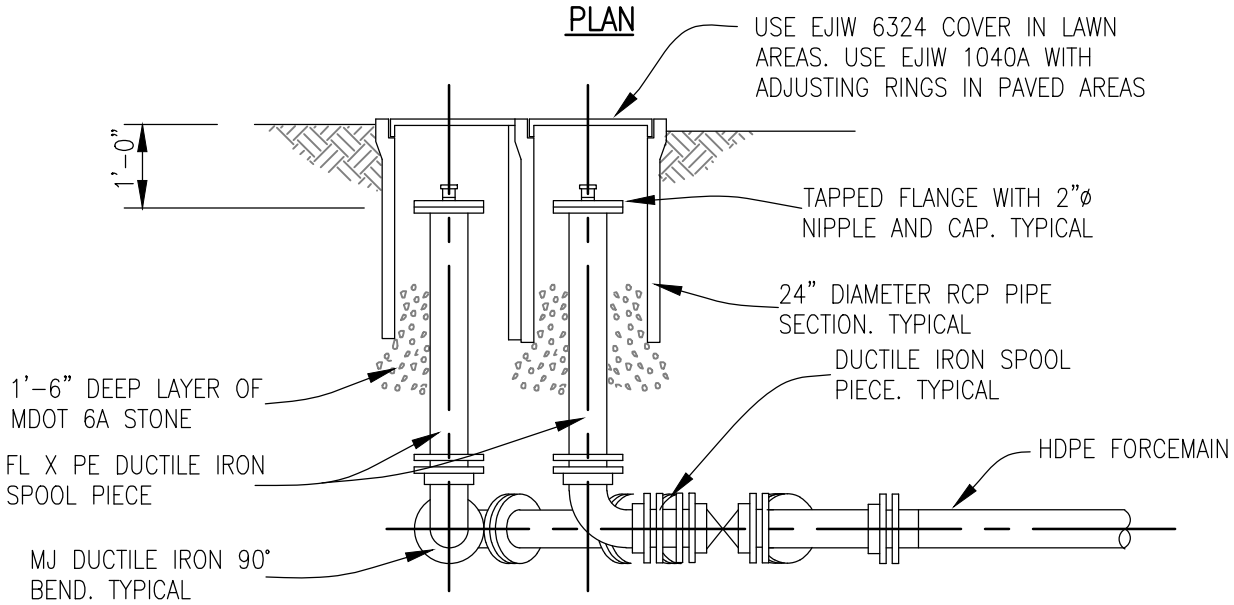

# STANDARD SANITARY SEWER DETAILS

# FORCEMAIN IN-LINE CLEANOUT

NOTE:
ALL JOINTS AT CLEAN-OUT TO BE RESTRAINED USING MEGALUGS




PLAN




SECTION

| REVISIONS | DATE |
|---|---|
| Last Revision | N/A |
| Adopted | 03/2013 |

**NO SCALE**


**Delta Charter Township**
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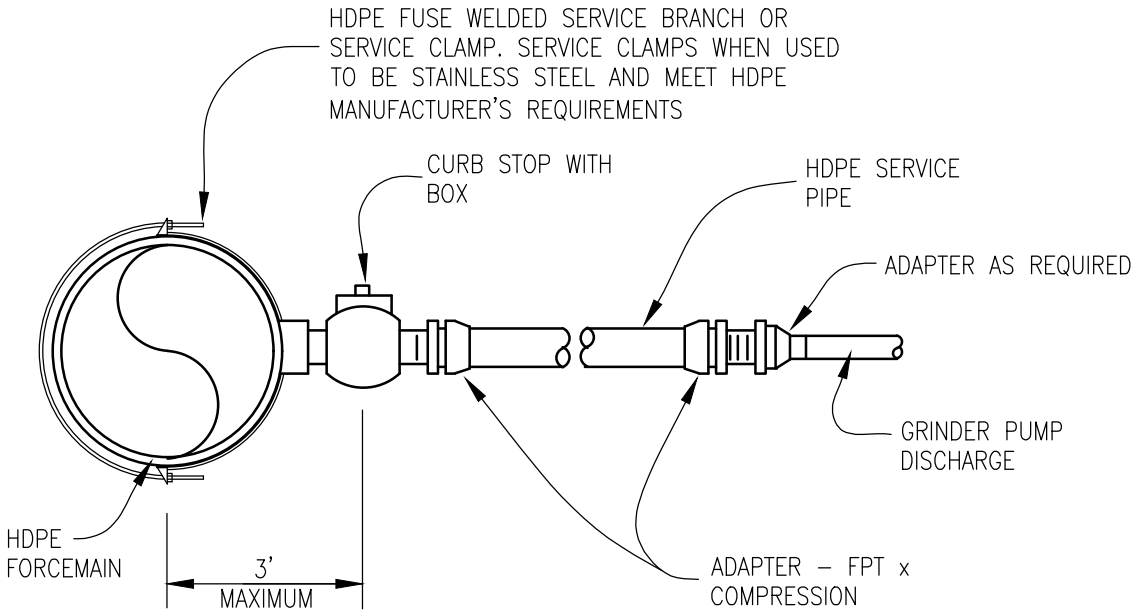
(517) 323-8540


**STANDARD SANITARY SEWER DETAILS**

# FORCEMAIN CLEAN-OUT AT BEND




| REVISIONS | DATE |
|---|---|
| Last Revision | N/A |
| Adopted | 03/2013 |

**NO SCALE**

DELTA TOWNSHIP

**Delta Charter Township**
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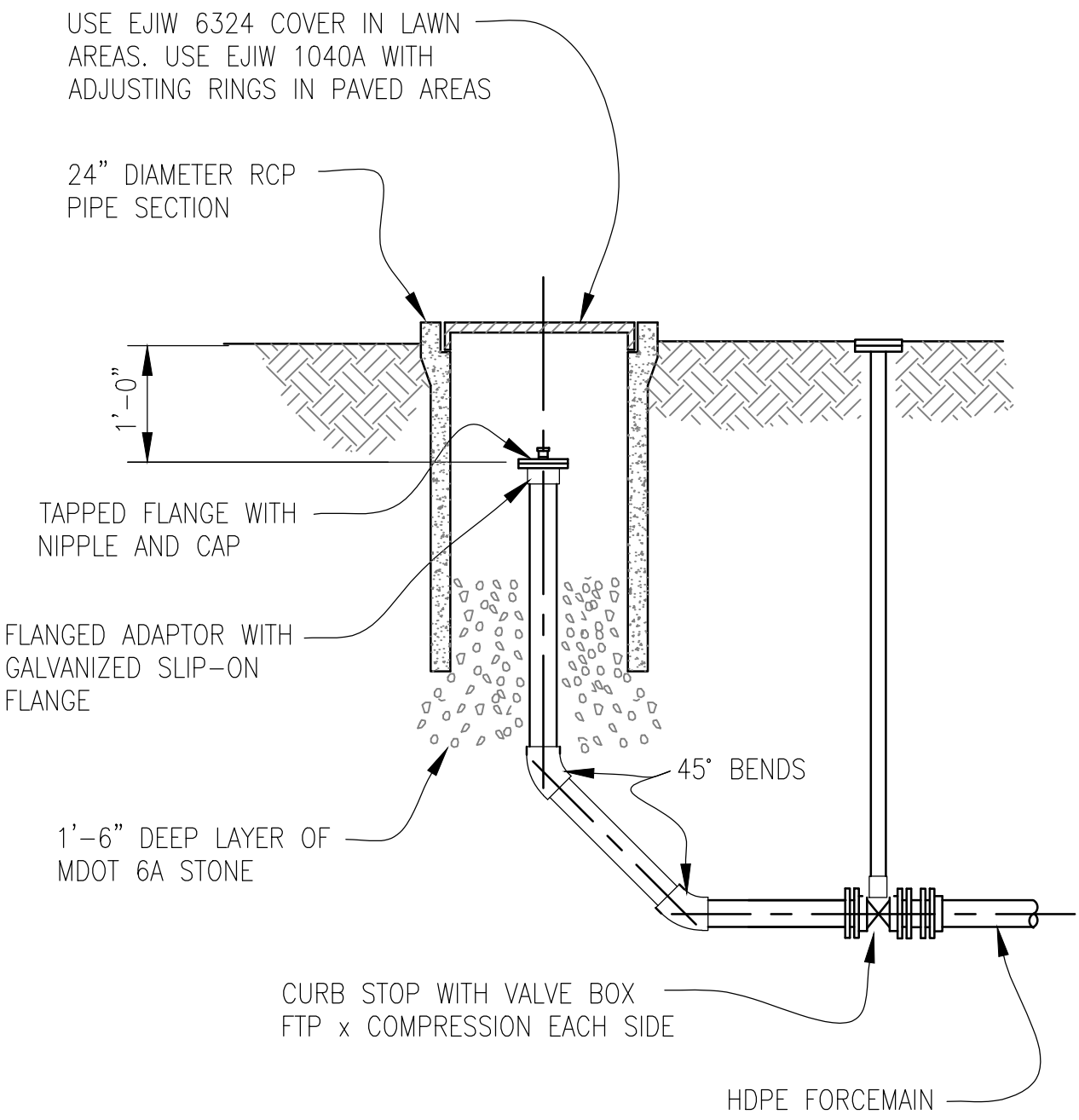
7710 West Saginaw Highway
Lansing, MI 48917-9712
(517) 323-8540

## STANDARD SANITARY SEWER DETAILS

# GRINDER PUMP CONNECTION




| REVISIONS | DATE |
|---|---|
| Last Revision | N/A |
| Adopted | 03/2013 |

**NO SCALE**


DELTA TOWNSHIP

**Delta Charter Township**
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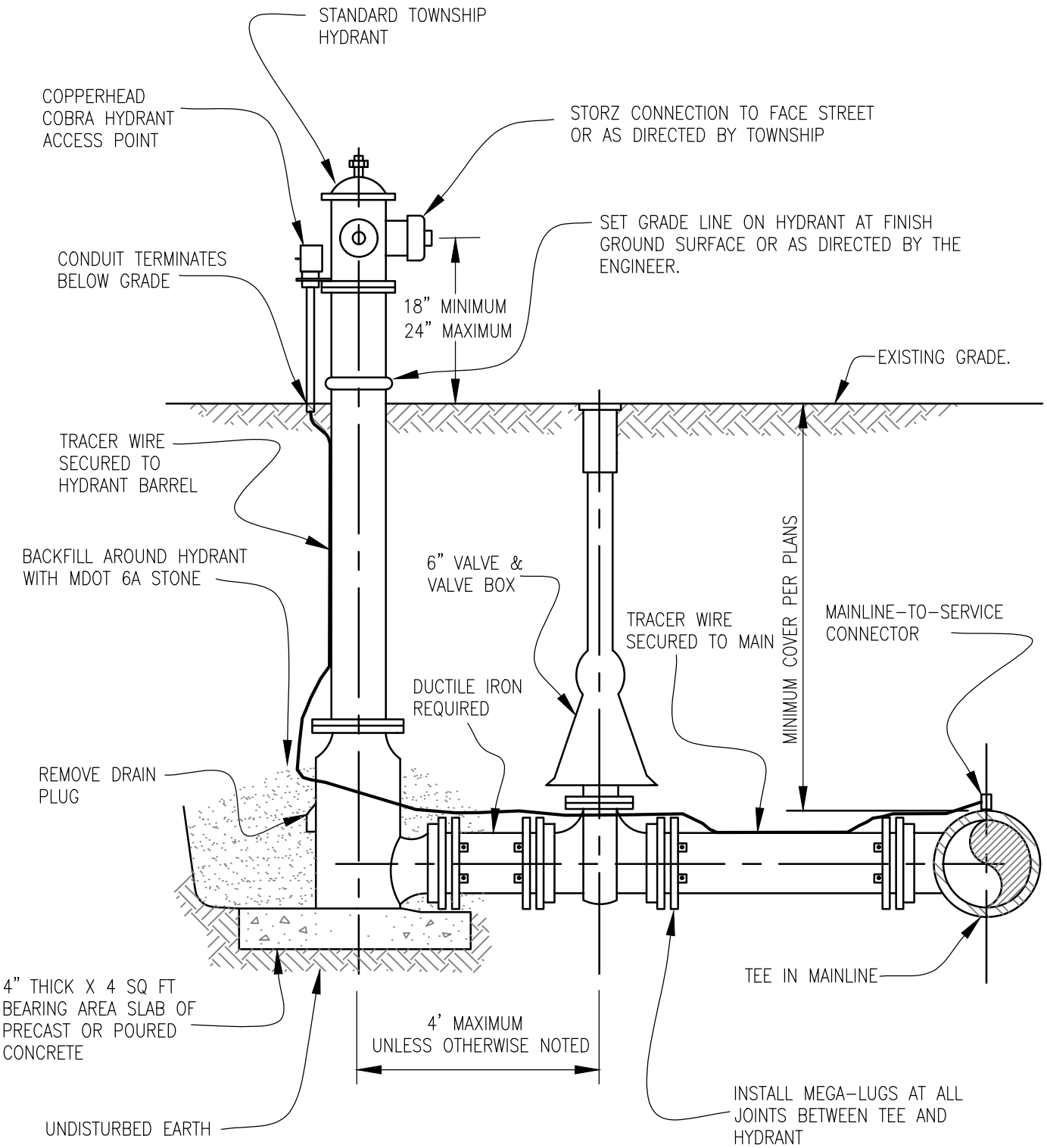
7710 West Saginaw Highway
Lansing, MI 48917-9712
(517) 323-8540


## STANDARD SANITARY SEWER DETAILS

## GRINDER PUMP FORCEMAIN TERMINAL FLUSHING CONNECTION



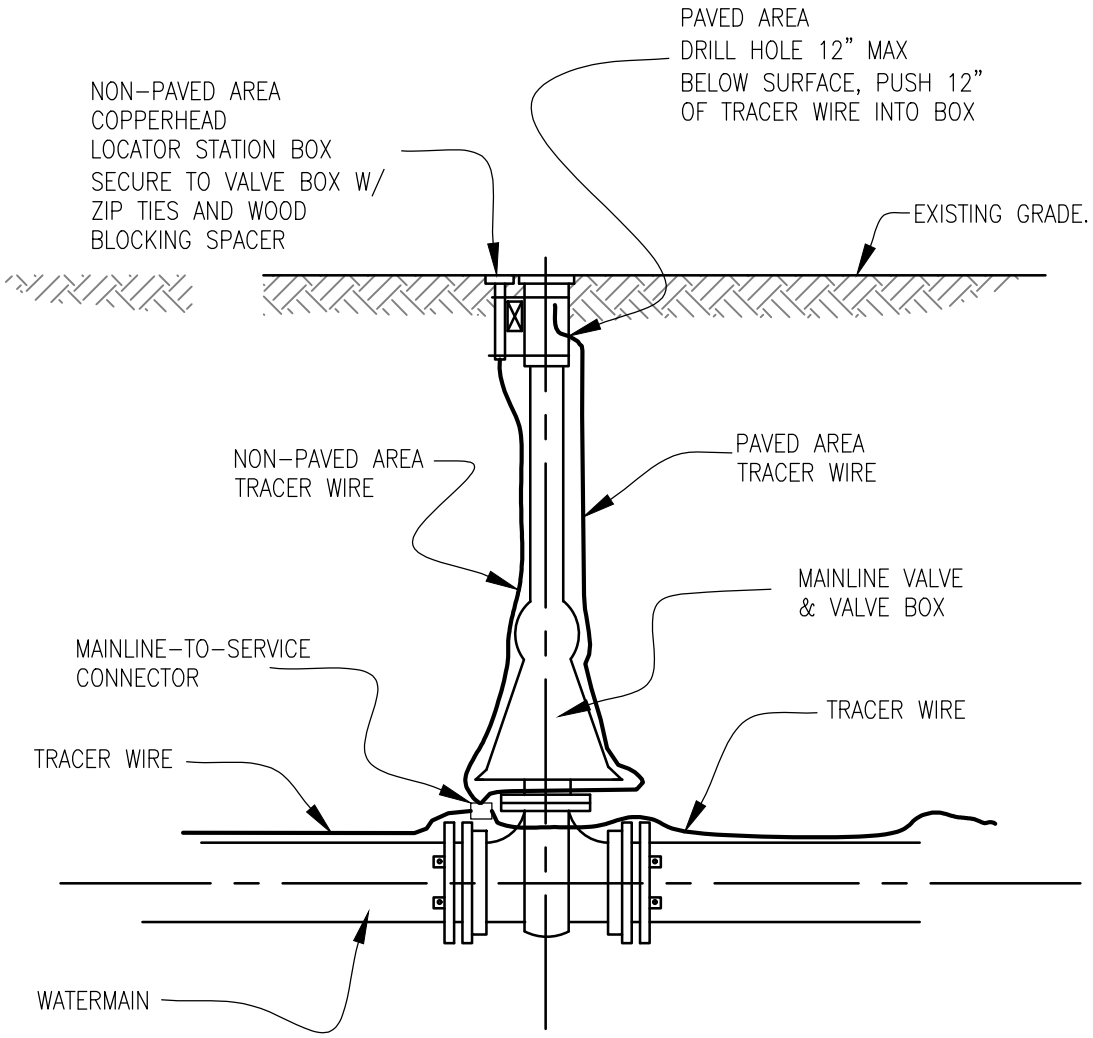

| REVISIONS | DATE |
|---|---|
| Last Revision | 03/2020 |
| Adopted | 03/2013 |

**NO SCALE**


**Delta Charter Township**
**ENGINEERING DEPARTMENT**
7710 West Saginaw Highway
Lansing, MI 48917-9712
(517) 323-8540


## WATER SYSTEM DETAILS

# STANDARD HYDRANT ASSEMBLY




| REVISIONS | DATE |
|---|---|
| Last Revision | N/A |
| Adopted | 03/2020 |

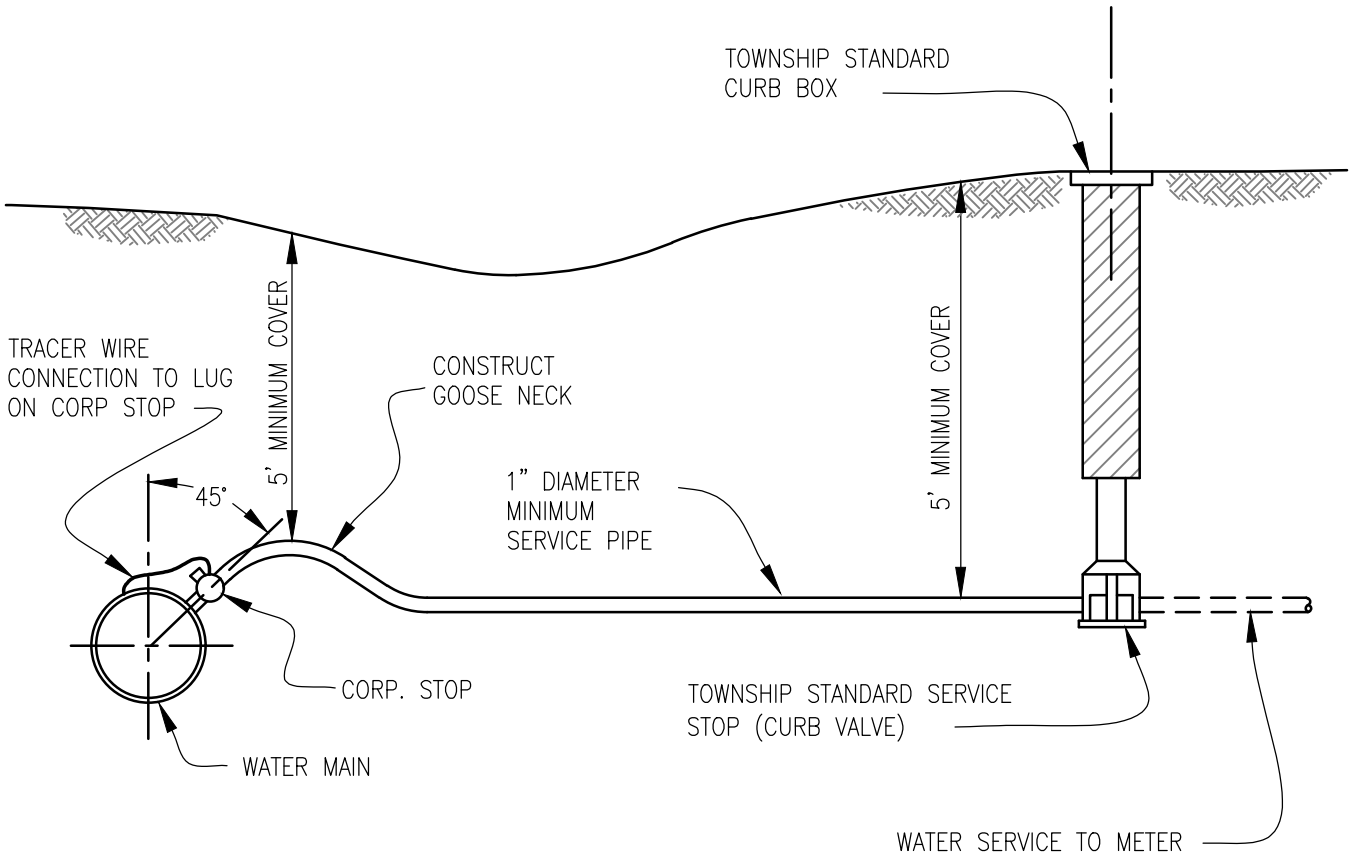
**NO SCALE**


DELTA TOWNSHIP

**Delta Charter Township**
**ENGINEERING DEPARTMENT**
7710 West Saginaw Highway
Lansing, MI 48917-9712
(517) 323-8540


## WATER SYSTEM DETAILS

# TRACER WIRE ACCESS AT VALVE BOX




| REVISIONS | DATE |
|---|---|
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| Adopted | 03/2013 |

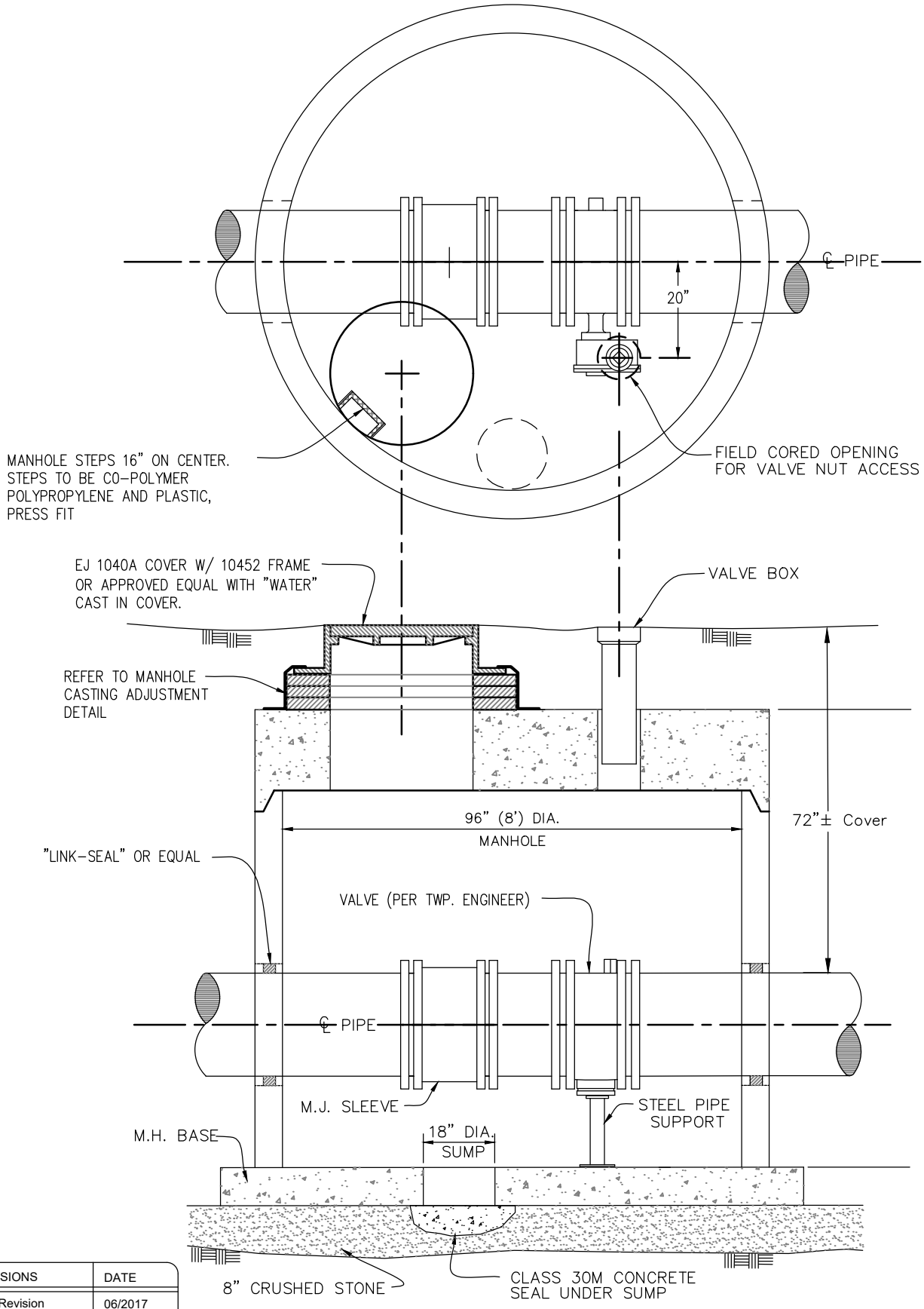
**NO SCALE**


DELTA TOWNSHIP

**Delta Charter Township**
**ENGINEERING DEPARTMENT**
7710 West Saginaw Highway
Lansing, MI 48917-9712
(517) 323-8540


## WATER SYSTEM DETAILS

# WATER SERVICE CONNECTION




| REVISIONS | DATE |
|---|---|
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| Adopted | 03/2013 |

**NO SCALE**


DELTA TOWNSHIP

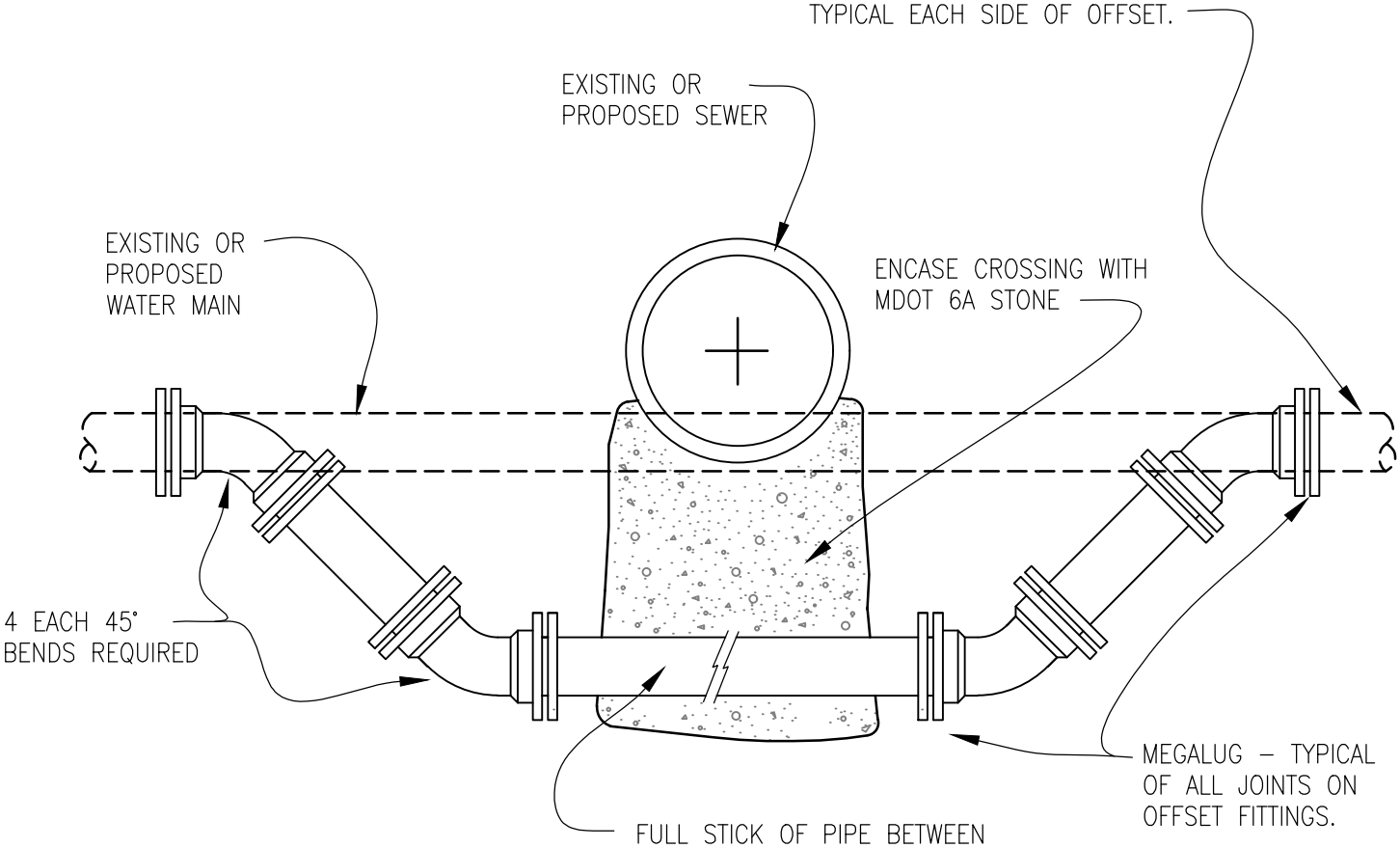
**Delta Charter Township**
**ENGINEERING DEPARTMENT**
7710 West Saginaw Highway
Lansing, MI 48917-9712
(517) 323-8540


## WATER SYSTEM DETAILS

# WATER VALVE MANHOLE

NOTE:

1. PROVIDE JOINT RESTRAINT PER SPECIAL PROVISION FOR WATER MAIN INSTALLATION.




NOTE:
CONSTRUCT APPROPRIATE DIAMETER AND DEPTH MJ X MJ OFFSET TO PROVIDE 18" MINIMUM CLEARANCE BETWEEN WATER MAIN AND SEWER

| REVISIONS | DATE |
|---|---|
| Last Revision | 03/2020 |
| Adopted | 03/2013 |

**NO SCALE**


**Delta Charter Township**
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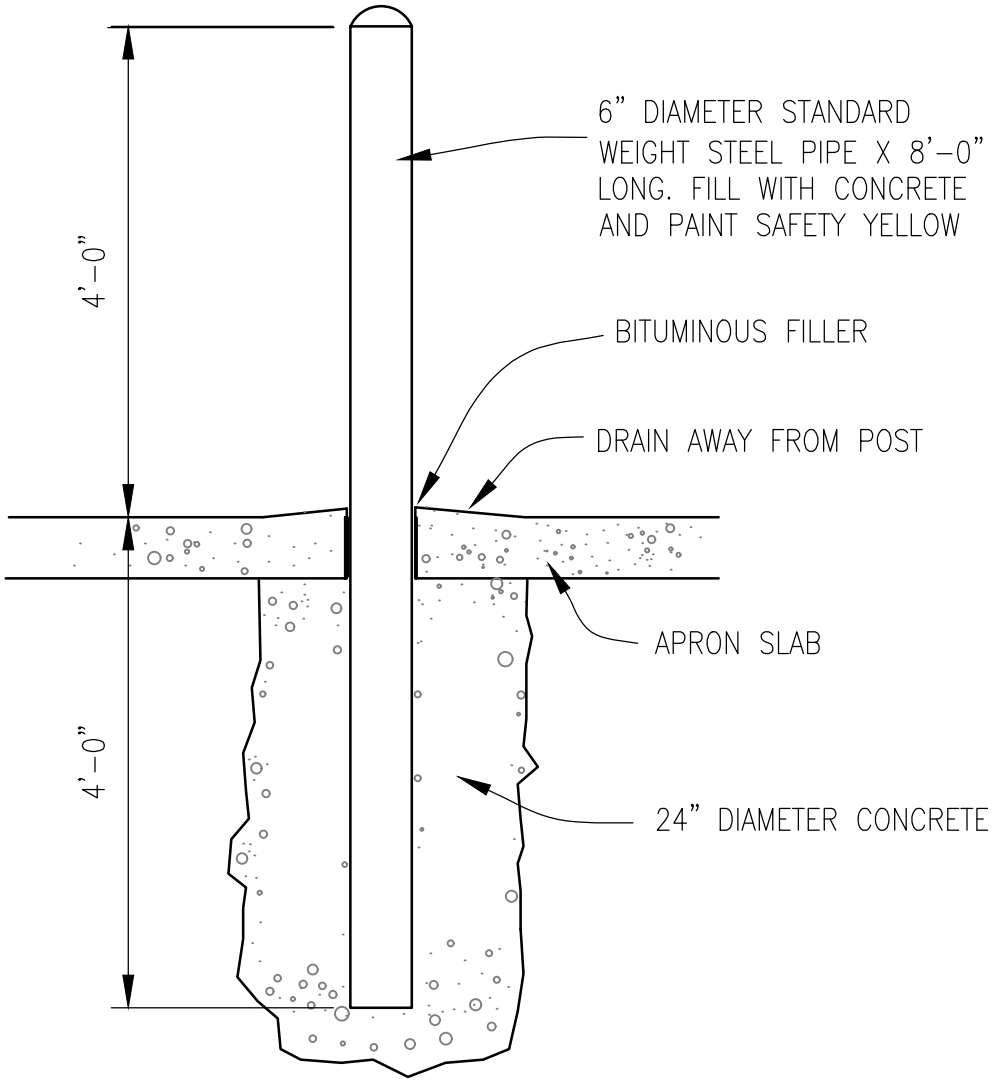
# WATER SYSTEM DETAILS

# WATER MAIN OFFSET




| REVISIONS | DATE |
|---|---|
| Last Revision | N/A |
| Adopted | 03/2013 |

**NO SCALE**


**Delta Charter Township**
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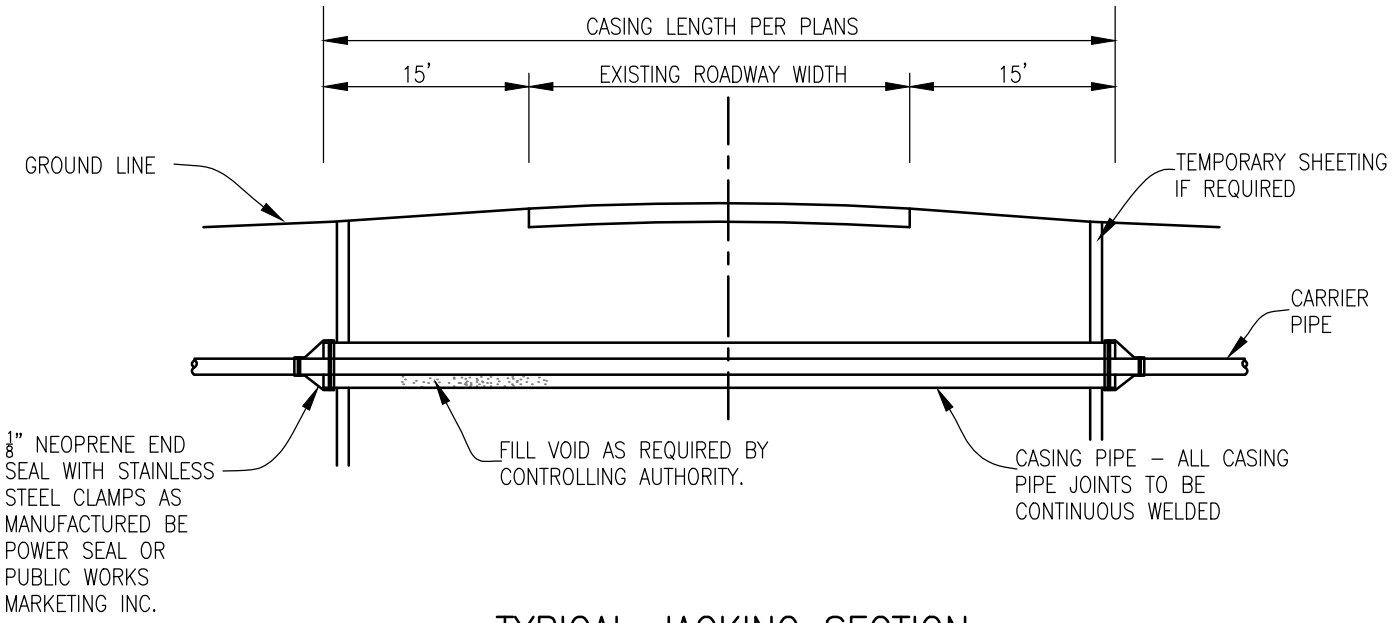
(517) 323-8540

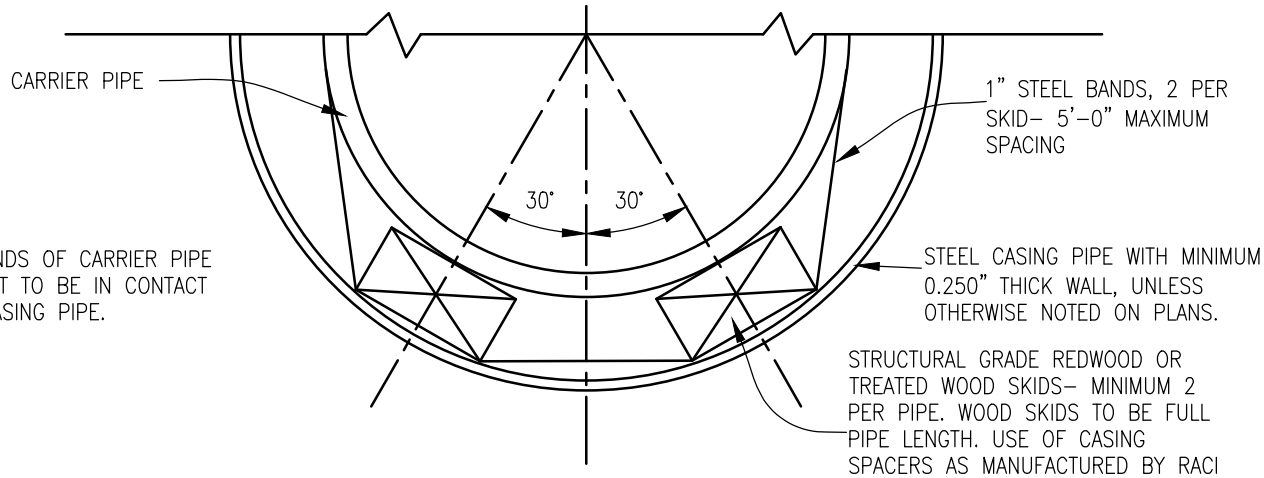

# WATER SYSTEM DETAILS

## GUARD POST




## TYPICAL JACKING SECTION

NO SCALE




NOTE:
1. BELL ENDS OF CARRIER PIPE ARE NOT TO BE IN CONTACT WITH CASING PIPE.

## SKID DETAIL

NO SCALE

| REVISIONS | DATE |
|---|---|
| Last Revision | N/A |
| Adopted | 03/2013 |

**NO SCALE**

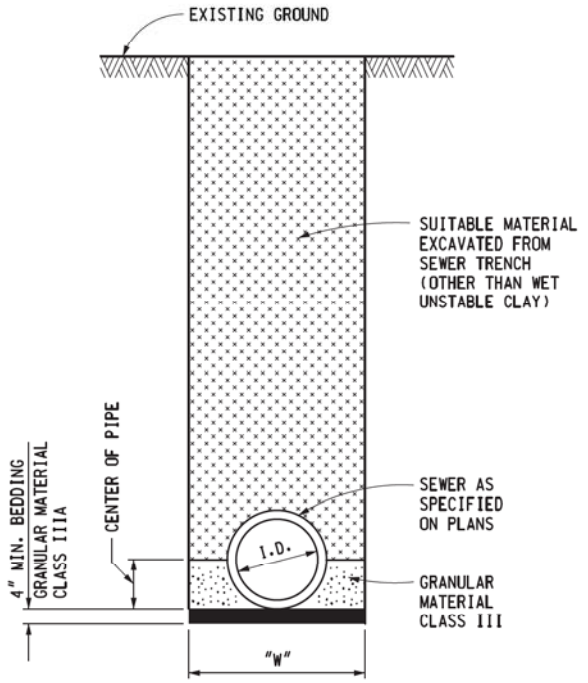

**Delta Charter Township**
**ENGINEERING DEPARTMENT**
7710 West Saginaw Highway
Lansing, MI 48917-9712
(517) 323-8540


**STANDARD DETAIL**

# BORE AND JACK CONSTRUCTION

# APPENDIX A

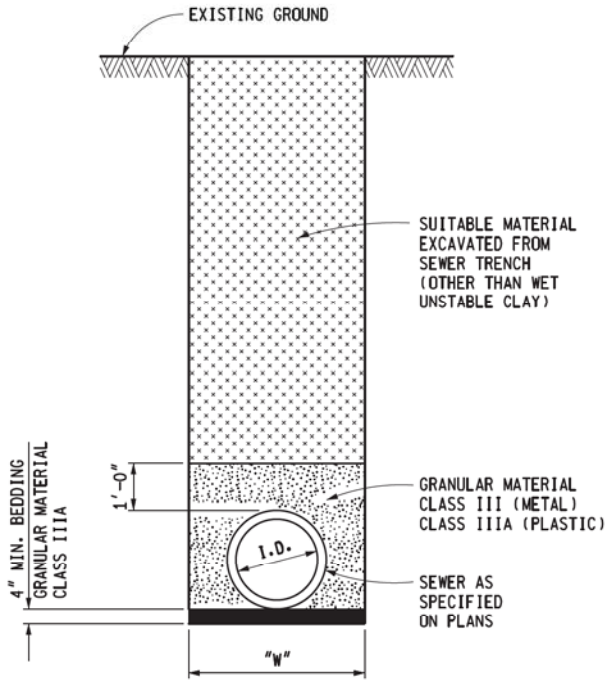
# MDOT UTILITY TRENCH STANDARD DETAILS




**SEWER NOT UNDER ROADBED**
CONCRETE

NOTE: FOR "W" SEE NOTES ON SHEET 5

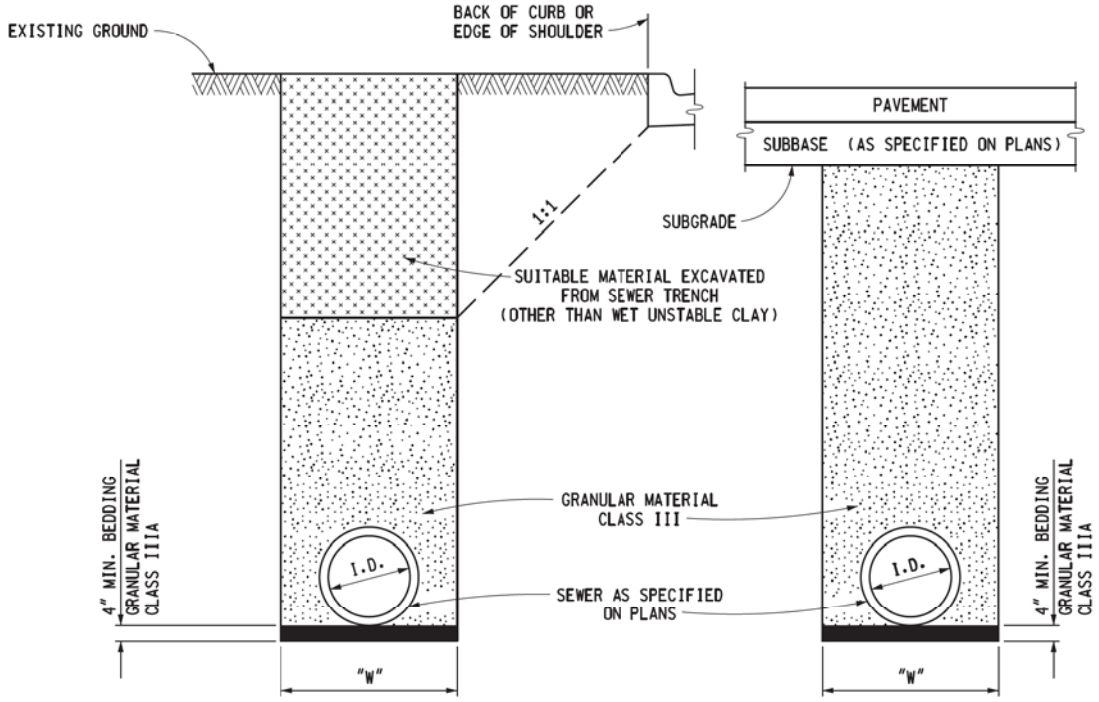
A1




**SEWER NOT UNDER ROADBED**
METAL & PLASTIC

NOTE: FOR "W" SEE NOTES ON SHEET 5

A2




**SEWER UNDER ROADBED OR WITHIN INFLUENCE OF ROADBED**
CONCRETE & METAL PIPE

B1

MDOT Michigan Department of Transportation

PREPARED BY DESIGN DIVISION

DRAWN BY: B.L.T.

CHECKED BY: W.K.P.

DEPARTMENT DIRECTOR
Kirk T. Steudle

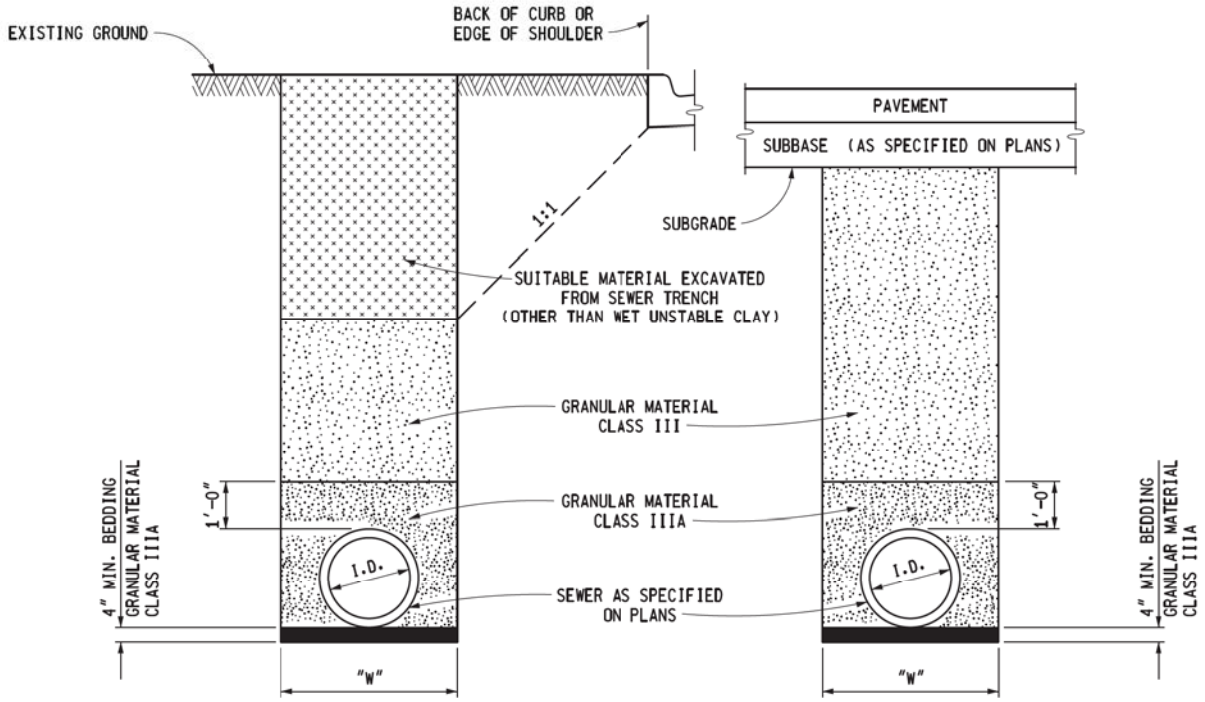
APPROVED BY: Kimberly Avery
Digitally signed by Kimberly Avery DN: cn=Kimberly Avery, o=MDOT, ou=Bureau of Field Services, email=averyk@michigan.gov, c=US Date: 2016.12.15 09:03:17 -05'00'
DIRECTOR, BUREAU OF FIELD SERVICES

APPROVED BY: Bradley C. Wieferich
Digitally signed by Bradley C. Wieferich DN: cn=Bradley C. Wieferich, o=Michigan Department of Transporation, ou=Design Division, email=wieferichb@michigan.gov, c=US Date: 2016.12.10 09:45:44 -05'00'
DIRECTOR, BUREAU OF DEVELOPMENT

MICHIGAN DEPARTMENT OF TRANSPORTATION
BUREAU OF DEVELOPMENT STANDARD PLAN FOR

# UTILITY TRENCHES

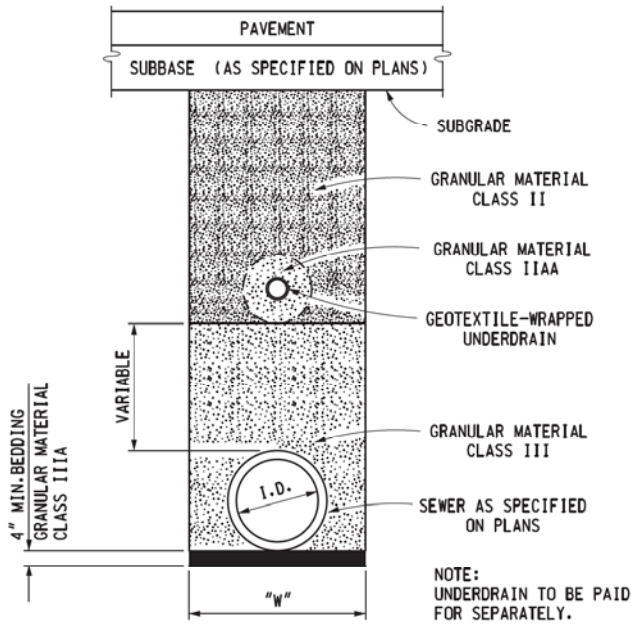
| 7-25-2017 | 2-8-2016 | R-83-C | SHEET 1 OF 5 |
|---|---|---|---|
| F.H.W.A. APPROVAL | PLAN DATE | | |




## SEWER UNDER ROADBED OR WITHIN INFLUENCE OF ROADBED

PLASTIC PIPE

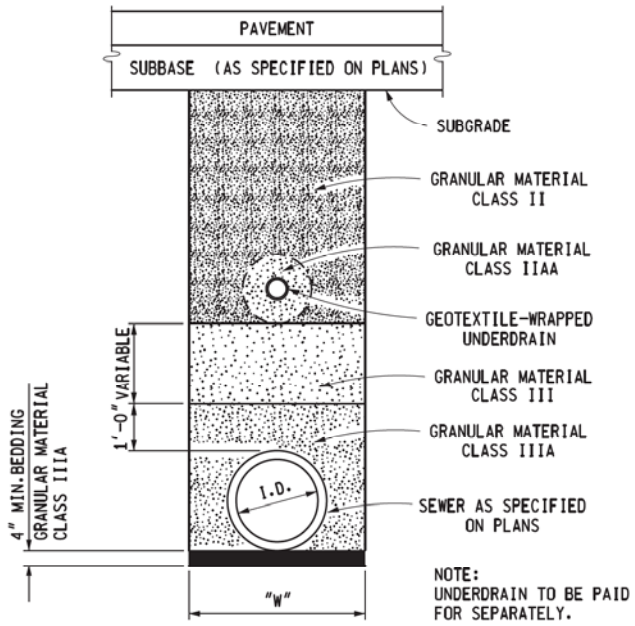
B2




## SEWER WITH UNDERDRAIN UNDER ROADBED

CONCRETE & METAL PIPE

C1




## SEWER WITH UNDERDRAIN UNDER ROADBED

PLASTIC PIPE

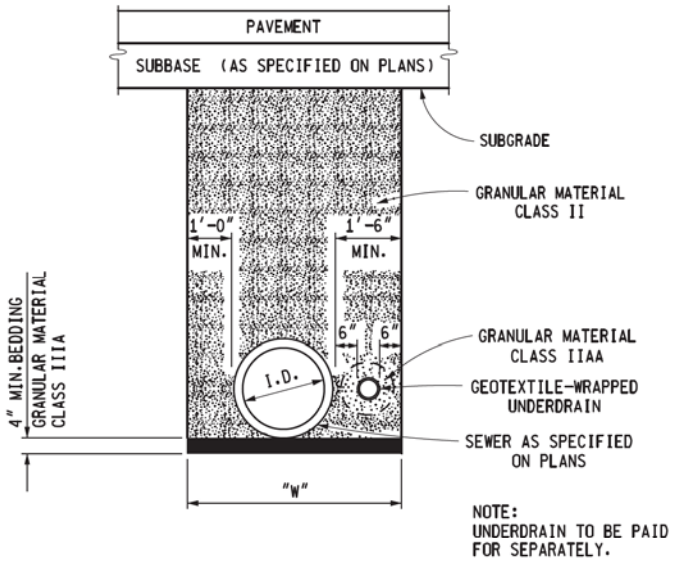
C2

MICHIGAN DEPARTMENT OF TRANSPORTATION

BUREAU OF DEVELOPMENT STANDARD PLAN FOR

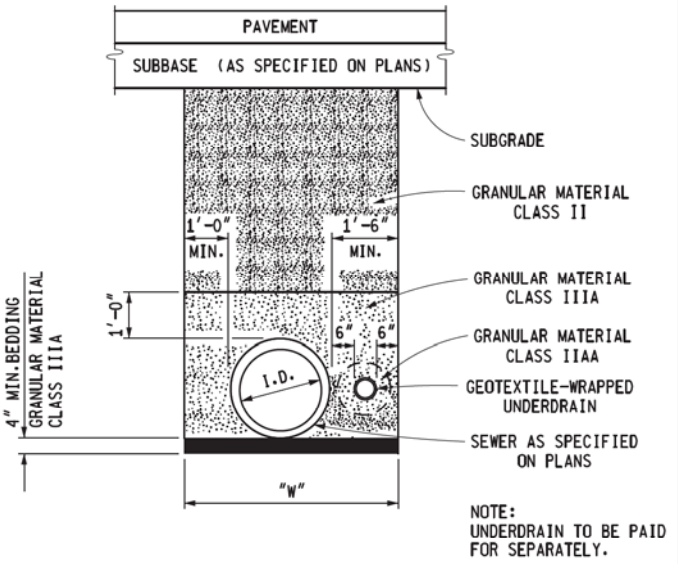
# UTILITY TRENCHES

| 7-25-2017 F.H.W.A. APPROVAL | 2-8-2016 PLAN DATE | R-83-C | SHEET 2 OF 5 |
|---|---|---|---|



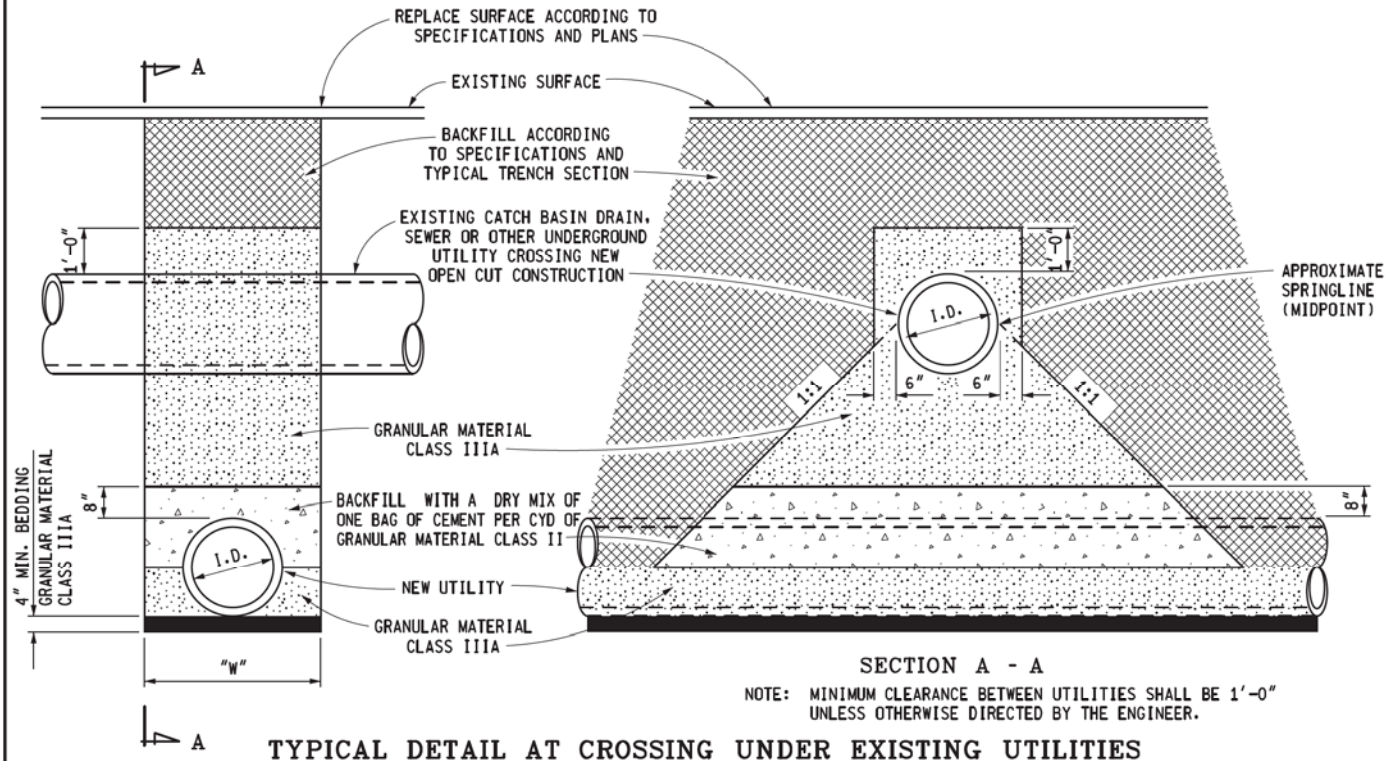

**SEWER WITH UNDERDRAIN UNDER ROADBED**
CONCRETE & METAL PIPE
(FOR SHALLOW SEWERS)

D1




**SEWER WITH UNDERDRAIN UNDER ROADBED**
PLASTIC PIPE
(FOR SHALLOW SEWERS)

D2




SECTION A - A

NOTE: MINIMUM CLEARANCE BETWEEN UTILITIES SHALL BE 1'-0" UNLESS OTHERWISE DIRECTED BY THE ENGINEER.

**TYPICAL DETAIL AT CROSSING UNDER EXISTING UTILITIES**

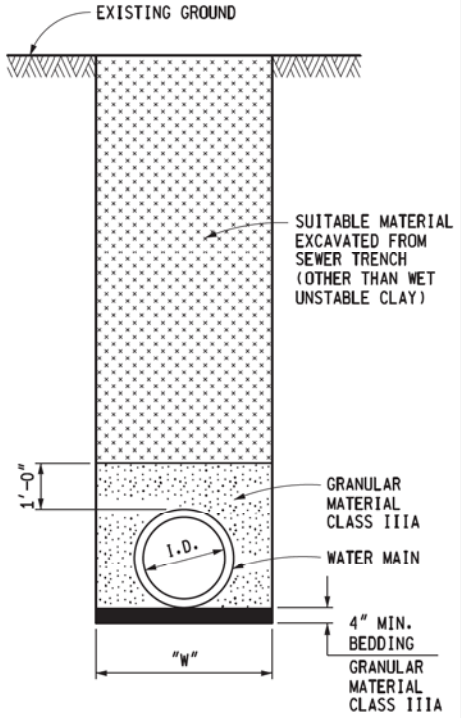
PAYMENT FOR THIS TRENCH DETAIL WILL BE INCLUDED WITH THE ADJACENT TRENCH DETAILS

E

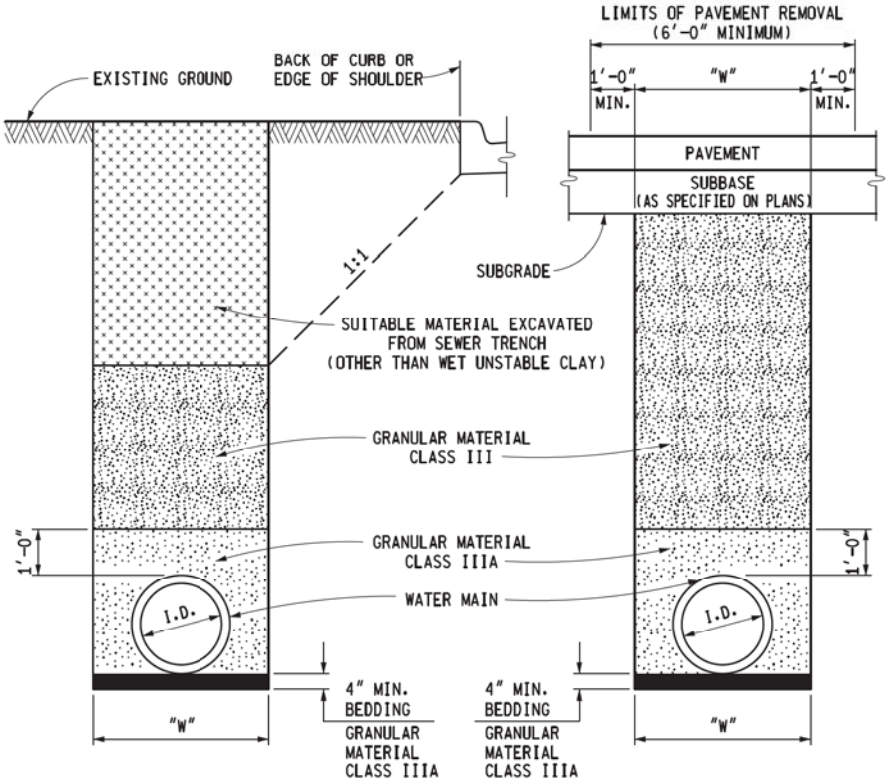
MICHIGAN DEPARTMENT OF TRANSPORTATION
BUREAU OF DEVELOPMENT STANDARD PLAN FOR

# UTILITY TRENCHES

| 7-25-2017 F.H.W.A. APPROVAL | 2-8-2016 PLAN DATE | R-83-C | SHEET 3 OF 5 |
|---|---|---|---|

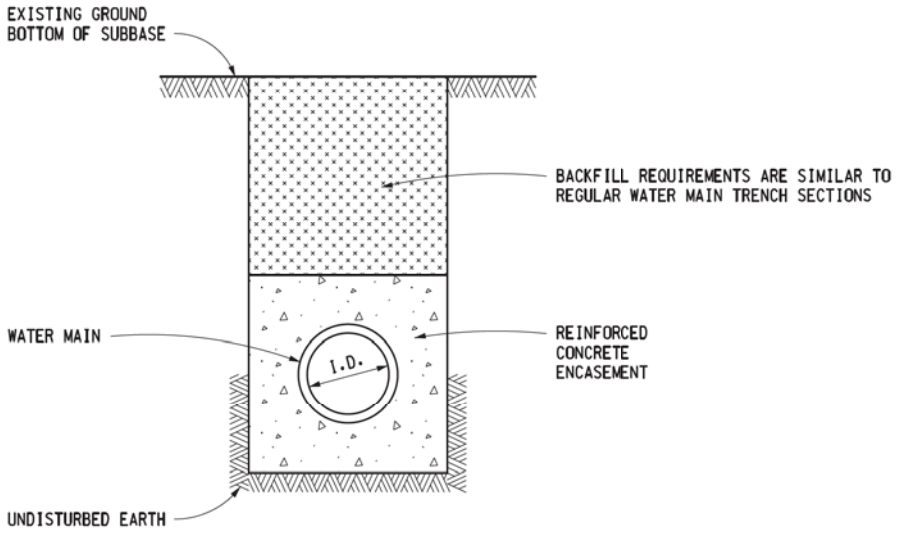



WATER MAINS
NOT UNDER ROADBED F




NOTE: WHEN WATER MAIN IS PLACED IN PROPOSED ROADBED AREA, IT SHALL BE BACKFILLED WITH SELECTED EXCAVATION MATERIAL ABOVE FUTURE SUBGRADE TO EXISTING GROUND LINE.

WATER MAINS UNDER ROADBED
OR WITHIN INFLUENCE OF ROADBED G




| REQUIRED ENCASEMENT SIZE FOR RESPECTIVE PIPE SIZES | |
|---|---|
| DIAMETER OF PIPE | ENCASEMENT SIZE AND TRENCH WIDTH |
| 6" - 12" | 3'-0" |
| 16" | 3'-6" |
| 24" | 4'-6" |
| 30" | 5'-0" |
| 36" | 5'-6" |
| 42" | 6'-0" |
| 48" | 7'-0" |
| 54" | 7'-6" |
| 60" | 8'-0" |
| 66" | 8'-6" |
| 72" | 9'-0" |

NOTE:
REINFORCEMENT SHALL BE AS SPECIFIED ON PLANS.

WATER MAINS IN REINFORCED CONCRETE ENCASEMENT H

MICHIGAN DEPARTMENT OF TRANSPORTATION
BUREAU OF DEVELOPMENT STANDARD PLAN FOR

# UTILITY TRENCHES

| 7-25-2017 F.H.W.A. APPROVAL | 2-8-2016 PLAN DATE | R-83-C | SHEET 4 OF 5 |
|---|---|---|---|

NOTES:

BACKFILLING SHALL BE ACCORDING TO THE STANDARD SPECIFICATION.

SUFFICIENT TRENCH WIDTH SHALL BE PROVIDED TO ALLOW FREE WORKING SPACE AND TO PERMIT COMPACTING THE BACKFILL AROUND THE PIPE.

THE FOLLOWING ARE MINIMUM TRENCH WIDTHS:

| I.D. PIPE SIZE (INCHES) | LESS THAN 18 | 21 | 24 | 30 | 36 |
|---|---|---|---|---|---|
| "W" TRENCH WIDTH (FEET) | 3.0 | 3.5 | 4.0 | 5.0 | 6.0 |

| I.D. PIPE SIZE (INCHES) | 42 | 48 | 54 | 60 | 66 | 72 |
|---|---|---|---|---|---|---|
| "W" TRENCH WIDTH (FEET) | 7.0 | 8.0 | 9.5 | 10.0 | 10.5 | 11.0 |

| I.D. PIPE SIZE (INCHES) | 78 | 84 | 90 | 96 | 102 | 108 |
|---|---|---|---|---|---|---|
| "W" TRENCH WIDTH (FEET) | 11.5 | 12.0 | 12.5 | 13.0 | 13.5 | 14.0 |

ESTIMATED PAVEMENT REMOVAL WIDTH IS TO BE TRENCH WIDTH "W" PLUS 1'-0" EACH SIDE OF THE TRENCH (6'-0" MINIMUM).

MICHIGAN DEPARTMENT OF TRANSPORTATION
BUREAU OF DEVELOPMENT STANDARD PLAN FOR

# UTILITY TRENCHES

| 7-25-2017 F.H.W.A. APPROVAL | 2-8-2016 PLAN DATE | R-83-C | SHEET 5 OF 5 |
|---|---|---|---|

Supervisor Kenneth R. Fletcher
Treasurer Howard A. Pizzo
Clerk Mary R. Clark
Manager Brian T. Reed

Trustee Fonda J. Brewer
Trustee Andrea M. Cascarilla
Trustee Dennis R. Fedewa
Trustee Karen J. Mojica

DELTA TOWNSHIP

Delta Township Board

(517) 323-8590

**DATE:** March 16, 2020

**TO:** The Delta Township Board

**FROM:** Kenneth R. Fletcher, Township Supervisor

**SUBJECT:** Board & Commission Appointments

I respectfully submit for your consideration the following individuals to be appointed to the Delta Township Board or Commission listed below:

**Parks, Recreation and Cemeteries Commission**

- **Aaron Keel** is reappointed to a full Three-year term beginning April 1, 2020 and expiring March 31, 2023.
- **Mary Kwas** is reappointed to a full Three-year term beginning April 1, 2020 and expiring March 31, 2023.
- **Laura O'Connor** is reappointed to a full Three-year term beginning April 1, 2020 and expiring March 31, 2023.
- **Carmen Turner** is reappointed to a full Three-year term beginning April 1, 2020 and expiring March 31, 2023.

**Zoning Board of Appeals**

- **Sue Parr** is reappointed to a full Three-year term beginning April 1, 2020 and expiring March 31, 2023.

Therefore, I offer the following motion for your consideration:

> ***"I move that the Delta Township Board appoint the aforementioned persons to the corresponding Board or Commission; and that the Clerk is hereby directed to send notification informing them of their appointment."***

Supervisor Kenneth R. Fletcher
Treasurer Howard A. Pizzo
Clerk Mary R. Clark
Manager Brian T. Reed

Trustee Fonda J. Brewer
Trustee Andrea M. Cascarilla
Trustee Dennis R. Fedewa
Trustee Karen J. Mojica

DELTA TOWNSHIP

Manager's Office

(517) 323-8590

**TO:** **Supervisor Kenneth R. Fletcher and the Delta Township Board**

**FROM:** **Brian Reed, Township Manager**

**DATE:** **March 16, 2020**

**SUBJECT:** **Payment of Vouchers**

Since the next regular Board meeting is not scheduled until April 13, 2020, and there will be a need to pay bills, I am recommending the Delta Township Board give Finance Director Jeff Anderson the authority to approve vouchers for payment prior to April 13, 2020. Vouchers being paid will be approved by the Finance Director, Clerk, and Township Manager. In addition, staff will prepare a list of vouchers and forward to the Township Treasurer for review. Those vouchers paid will then be on the April 13, 2020 regular Board meeting agenda for approval.

The following resolution is offered for your consideration:

> ***"I recommend that the Delta Township Board give Finance Director Jeff Anderson the authority to release payment of vendor invoices approved by the Township Manager, Clerk, and Treasurer. Further, I recommend all paid vouchers between March 16, 2020 and April 13, 2020 be presented for approval at the regular Township Board meeting scheduled for April 13, 2020."***

Supervisor Kenneth R. Fletcher
Treasurer Howard A. Pizzo
Clerk Mary R. Clark
Manager Brian T. Reed

Trustee Fonda J. Brewer
Trustee Andrea M. Cascarilla
Trustee Dennis R. Fedewa
Trustee Karen J. Mojica

DELTA TOWNSHIP

Manager's Office

(517) 323-8590

**TO:** **Supervisor Kenneth R. Fletcher and the Delta Township Board**

**FROM:** **Brian Reed, Township Manager**

**DATE:** **March 16, 2020**

**SUBJECT:** **Payment of Vouchers Extension Provision**

Due to recent public health guidelines issued by the Governor's Office, in the event that the Township should need to close and cancel future Board meetings, I am recommending the Delta Township Board give Finance Director Jeff Anderson the authority to approve vouchers for payment after April 13, 2020, for a for a period of time deemed necessary by the Township Manager due to public health concerns. Vouchers being paid will be approved by the Finance Director, Clerk, and Township Manager. In addition, staff will prepare a list of vouchers and forward to the Township Treasurer for review. Those vouchers paid will then be on the next scheduled regular Board meeting agenda for approval.

The following resolution is offered for your consideration:

> ***"I recommend that the Delta Township Board give Finance Director Jeff Anderson the authority to release payment of vendor invoices approved by the Township Manager, Clerk, and Treasurer.***
>
> ***I further recommend that the Delta Township Board give Township Manager Brian Reed the authority to determine the period of time in which the extended payment of vouchers is necessary for public health safety.***
>
> ***Further, I recommend all paid vouchers following April 13, 2020 be presented for approval at the next available regular Township Board meeting scheduled after the extension period has concluded."***

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I AM DELTA

Township of Excellence MTA 2012 - 2016

BACK TO AGENDA

Supervisor Kenneth R. Fletcher
Treasurer Howard A. Pizzo
Clerk Mary R. Clark
Manager Brian T. Reed

Trustee Fonda J. Brewer
Trustee Andrea M. Cascarilla
Trustee Dennis R. Fedewa
Trustee Karen J. Mojica

DELTA TOWNSHIP

Planning Department

(517) 323-8560

**MEMO**

**TO:** Supervisor Kenneth R. Fletcher & Township Board
Delta Charter Township

**FROM:** Matt McKernan,
Township Planner

**DATE:** March 6, 2020

**SUBJECT:** Referral of 601 North Waverly Road Rezoning Request in Case No. 3-20-1.

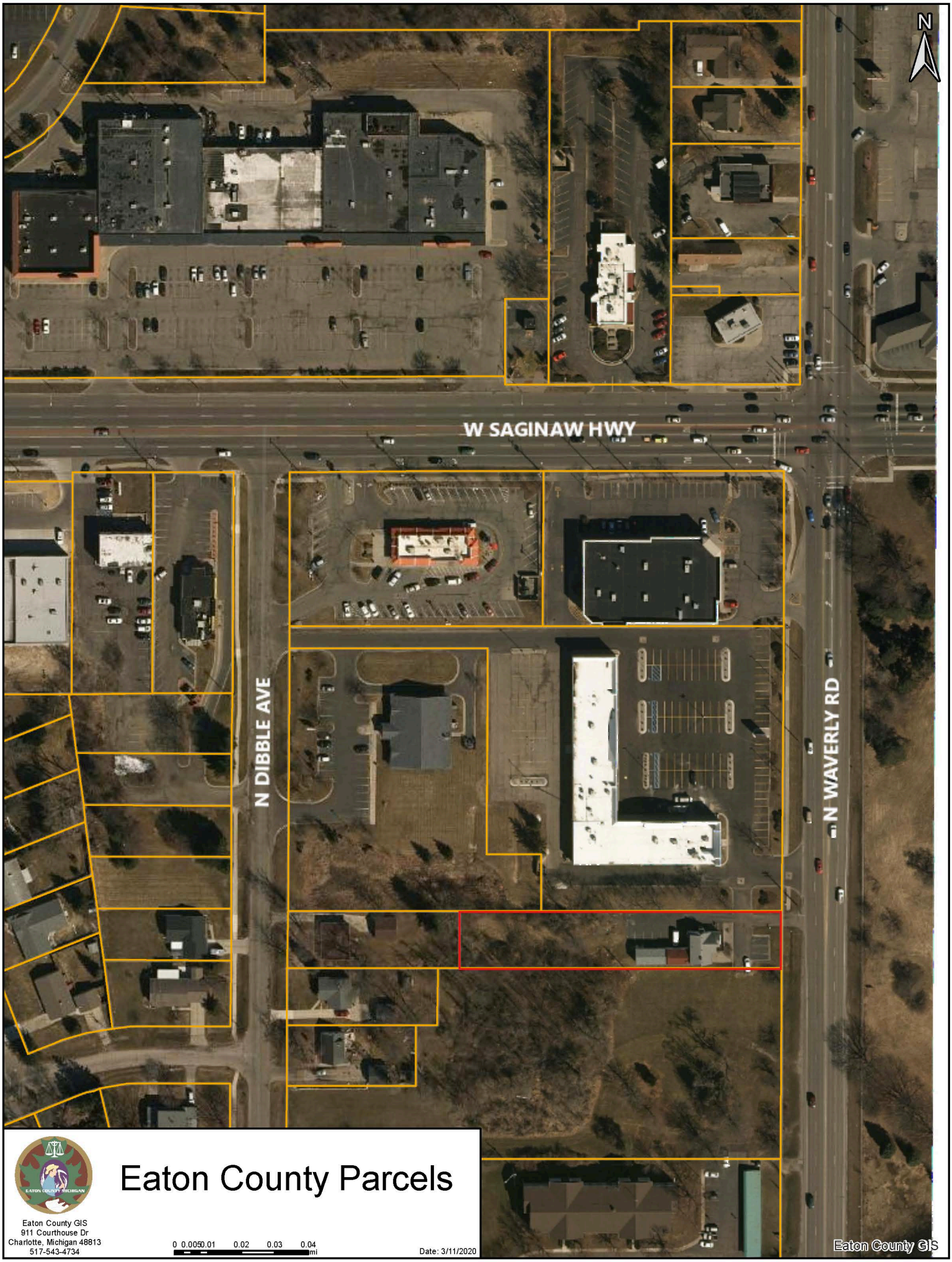
The Township is in receipt of an application submitted by Emilee Galica (9976 Riverside Drive, Eagle MI, 48822) to rezone a property located at 601 N. Waverly Road from O-Office, to C-Commercial. The 0.570-acre property is located approximately 0.1 Mile south of the intersection of W Saginaw Highway/N Waverly Road, in Section 13 of Delta Township. The applicant wishes to open a commercial bakery in an existing building on the subject parcel. Commercial bakeries are classified as a General Retail use and are permitted by right in the Township's C-Commercial zoning district.

The rezoning request is being placed on the Board's Monday, March 16, 2020 regular meeting agenda for referral to the Planning Commission for the purpose of holding a public hearing and making a recommendation to the Township Board. The hearing before the Planning Commission will then be scheduled for April 13, 2020.

**The following motion is offered for the Board's consideration:**

"I move that the Delta Township Board refer Emilee Galica's request to rezone the property described in Case No. 3-20-1 from O-Office, to C, Commercial, to the Planning Commission for the purposes of holding a public hearing on the matter and submitting a recommendation to the Township Board."

Attachments
C:\USERS\MMCKERNAN\DROPBOX (DELTA TOWNSHIP)\DELTA PLANNING DEPARTMENT\MATT MCKERNAN\REZONINGS\601 WAVERLY RZ INTRO MEMO.DOC




# Eaton County Parcels

Eaton County GIS
911 Courthouse Dr
Charlotte, Michigan 48813
517-543-4734

0 0.005 0.01 0.02 0.03 0.04 mi

Date: 3/11/2020