CHARTER TOWNSHIP OF SUPERIOR

BOARD OF TRUSTEES

SPECIAL MEETING
SUPERIOR CHARTER TOWNSHIP HALL
3040 N. PROSPECT, SUPERIOR TOWNSHIP, MI 48198
APRIL 20, 2021
3:00 P.M
AGENDA

1. CALL TO ORDER
2. PLEDGE OF ALLEGIANCE
3. ROLL CALL
4. ADOPTION OF AGENDA
5. PUBLIC COMMENTS (Limited to three minutes per person)
6. COMMUNICATIONS

7. NEW BUSINESS

    a. Review Salem Township's Application to Contract a Sewer in a Superior Township Right of Way

8. PUBLIC COMMENTS (Limited to three minutes per person)

9. ADJOURNMENT

April 15, 2021

David B. Landry
Attorney for Superior Charter Township
c/o Landry, Mazzeo & Dembinski PC
37000 Grand River Ave, Suite 200
Farmington Hills, MI 48335

RE: Salem Township Application for Permit for Municipal Sewerage Lines and Appurtenances in the Public Right-of-Way through Superior Charter Township - Utility Ordinance No. 169

Dear Mr. Landry:

As requested, we have reviewed the binder materials provided by Salem Township (Applicant) with the above-mentioned application for permit to Superior Township. The permit application is in response to Superior Township Ordinance No. 169 which prohibits sewage lines and appurtenances not owned or under control of the Township to service areas outside the limits of the Township unless all the following circumstances apply:

- A public health emergency exists
- The proposed sewer is the only way to avert the public health emergency
- The parties have executed an agreement setting forth the terms of use, fees, limitations, etc.

The permit application material submitted by the Applicant contains over 500 pages of content and includes several exhibits. Over the course of our engineering report, we have summarized the content that was submitted as part of the permit application by the Applicant and provide our engineering guided responses, input, and/or comments related to their content. Additionally, we have provided other engineering-based recommendations that are currently considered feasible alternatives for wastewater discharge service to the Salem Urban Services District (USD) in lieu of a sanitary sewer force main 10 miles in length through agriculturally zoned and environmentally sensitive areas of Superior Charter Township, as well as through congested areas of Ypsilanti Township and the American Center for Mobility (ACM)/Willow Run site, in route to the Willow Run Pump Station (YCUA owned pump station).

Please note that our summary of other feasible alternatives for wastewater service that may be available to the Applicant are preliminary based on our current review of the permit application materials and our knowledge of adjacent municipalities, utility services available, and utility authorities present in the immediate area. Our report is based on material provided and our initial review and response to that material from an engineering perspective but should not be considered a technical study or analysis. We assume future steps can be taken by the Applicant to vet other feasible alternative options that may be available to them in lieu of the current proposal for 10 miles of force main routed south through Superior Township and Ypsilanti Township.

We understand that the topic of providing municipal wastewater (sanitary sewer) and water utility services to Salem Township's USD has been ongoing for multiple decades. The current proposal by the Applicant as part of this permit application is to provide a sanitary sewer outlet for the Salem USD of approximately 1,400 acres of land area via a new triplex sanitary pump station (located on Joy Road at southern boundary of the Salem USD) and downstream sanitary force main (which is a pressurized sanitary sewer system). As noted above, a total of approximately 52,000 lineal feet (nearly 10 miles) of 18" nominal diameter HDPE force main is proposed to route southward through the entire north/south limits of Superior Township, through a small portion of Canton Township and through a relatively

congested area of Ypsilanti Township through the ACM site, while ultimately connecting to the YCUA system at an existing pump station.

Summary of Content provided from Permit Application in response to Ordinance No. 169

The following documents were included in the Applicant's binder content as part of their Permit Application:

- 7-page cover letter signed by Salem Township Supervisor, Gary Whittaker, outlining their basis for the permit application and reasoning to consider.
- Exhibit A - Washtenaw County Board of Road Commissioners (WCRC) permit approval letter dated March 1, 2019
- Exhibit B - Michigan Department of Environment, Great Lakes, and Energy (formerly Michigan Department of Environmental Quality) issued on April 24, 2019. It should be noted that this permit expires on April 24, 2021.
- Exhibit C - Stantec letter dated August 27, 2019 to Gary Whittaker for Application for Permit to Superior Township
- Exhibit D - HRC letter dated April 12, 2019 to State of Michigan summarizing past efforts to bring public utility service to the Salem USD
- Exhibit E - Engineering Specifications prepared by Stantec for pump station and force main construction
- Exhibit F - Agreement between YCUA and Salem Township for Wastewater Transportation and Treatment.

OHM Advisors review of Permit Application content

The following summarizes OHM Advisors review for the content included in the Applicant's submittal, related to permit application under Superior Township Ordinance No. 169:

- Comments related to Cover Letter content:
  - On Page 3 of cover letter, the Applicant references multiple locations where Superior Township Ordinance provisions identify that the use of septic tanks or similar private sewerage disposal facilities within the Utilities District of Superior Township is deleterious to the health, safety and welfare of the businesses, industries, residents, etc. We fail to recognize how this is relevant to the Applicant's permit application or meeting the criterial of Ordinance No. 169. Superior Township's Utilities District is geographically located adjacent to available regional public utilities.
  - On Page 4 of the cover letter, the Applicant indicates that a public health emergency exists, and is the basis for seeking the permit needed in this application. From an engineering and utility planning perspective, it would be typical in our opinion to locate an Urban Services District or Utilities District in a location where adjacent public utilities readily exist, or where there is a distinct possibility that they could exist in the foreseeable future based on surrounding land use. In our opinion, a public health emergency does not apply to the future growth aspect of the Salem USD.
  - Furthermore, anticipating future growth development does not typically constitute a public health emergency as outlined by environmental authorities of jurisdiction such as the Michigan Department of Environment, Great Lakes, and Energy (EGLE) or the Washtenaw County Health Department (WCHD).
  - On Page 5 of the cover letter, the Applicant summarizes that the Salem Township Master Plan notes potential deleterious effects of wastewater treatment plants and septic systems to water quality of drains that serve the Township. Although we do understand concerns related to environmental impacts to natural features, it is also worth noting that currently and in near future, certain wastewater treatment technologies may provide opportunities for treatment to meet current EGLE and NPDES permit requirements for nutrient load limits, depending on location and level of efficiency achieved.
  - On Pages 5 and 6 of the cover letter, the Applicant also notes that there are no feasible alternative means of providing sewer service to the Salem Township USD, and it must be determined that a public health emergency exists for the basis of seeking this permit from Superior Township consistent with Ordinance No. 169. Although we agree that on-site facilities such as septic systems are not feasible due to the nature and density of the proposed development, we cannot confirm at this time

that wastewater treatment plant (WWTP) facilities or alternative public facilities are not feasible at this time. This topic will be covered further later in our engineering report.

- Summary and comments related to Exhibit A content (for WCRC contingent approval letter for ROW impact):
  - In this letter WCRC outlines permit approval requirements and stipulations related to construction of a force main along corridors of WCRC jurisdiction. It should be noted that WCRC required approvals be provided from other impacted agencies along the route such as MDOT, Amtrak, and Superior Township (as well as EGLE related permits) prior to issuing the actual permit.

- Summary and comments related to Exhibit B content (EGLE (previously MDEQ) for Part 41 Permit for wastewater systems):
  - The permit was issued by EGLE on April 24, 2019 and would expire on April 24, 2021 without start of construction operations by that date. The Applicant may contact EGLE for renewal of permit or to inquire on necessary steps to renew permit.
  - We understand the permit approval to mainly contain the construction of a triplex submersible sanitary pump station, approximately 52,000 feet of 18" nominal diameter force main, 6 each air release valves, 22 each combination by-pass/air release valves, and 33 each contingency by-pass assemblies. Note that each appurtenance installation requires an open cut excavation.
  - We understand the sanitary sewerage system was permitted to provide for a peak hour flow of 3.36 MGD (million gallons per day), which is the planned ultimate peak flow of the Salem USD (and possibly portions of the existing Salem Hamlet which is not completely clear).
  - As noted above the wastewater system permitted is for the ultimate peak flow from the Salem USD of 3.36 MGD, while the average day flow for the ultimate build out of Salem USD is 1.0 MGD (peaking factor of 3.36), and the initial design flow from the USD is anticipated to be 0.30 MGD.

- Summary and comments related to Exhibit C content (Stantec letter for Superior Twp Permit Application):
  - Stantec identifies that they have been exploring alternatives since early 2000's and completed a Preliminary Design Report in 2008 related to USD public utilities.
  - Stantec identifies previous efforts to explore sewer service from entities such as YCUA via Western Township Utilities Authority (WTUA), Wayne County via WTUA, neighboring Plymouth Township, and Great Lakes Water Authority.
  - Stantec identifies the "directly to YCUA" alternative as being evaluated over the past 5 years.
  - Stantec also identifies multiple items related to the characteristics of the design approach for the proposed force main installation through Superior Township. We will summarize our concerns related to the installation of 10 miles of force main proposed as part of this permit later in our report, although we provide some initial feedback to the letter content as follows:
    - Related to Item 1, although trenchless methods of pipe installation such as directional drilling significantly reduce disturbance to earth/surface features, it does not eliminate open cut excavation and does not eliminate the possibility of potential harm to surface and environmental features. Open cut methods would still be necessary for locations such as staging pits for drilling/receiving pits, air release valves, by-pass connection valves, connection of HDPE force main segments, and for any instance of utility conflicts not anticipated or later realized due to field/unknown conditions.
    - Related to Item 2, we agree that a force main is more difficult for adjacent landowners to connect to than a gravity sanitary sewer, although we would not agree that it is nearly impossible. It is technically feasible that a development with a localized low pressure sewer system and/or small pump station could connect to an existing force main, especially if considerable capacity were present in the force main.
    - Related to Item 3, we agree there are incorporation of features in the force main piping system such as by-pass ports and air release valves to assist with system maintenance, but in our opinion, this does not describe the full potential of operations and maintenance challenges with this system if constructed for the proposed length and route.

- Related to Item 4, adding system telemetry is a positive aspect of operating the system controls, although it should be noted we understand the system operator to be contracted and not part of a Salem Township DPW.
- Related to Item 5, we take exception to the word "closed" to describe the force main since it is misleading. The force main is a pressurized pipe which makes direct connections more challenging than a gravity sewer pipe, but both systems can be tapped.
- Furthermore, related to Item 5 we acknowledge that the system is permitted through EGLE for the ultimate flow from the Salem USD (and possibly portions of the Salem Hamlet) and is intended to service future growth within the Salem USD. Although we also understand that ultimate flow/build-out of the system would not be realized for many years or possibly decades. In our opinion this provides a risk to Superior Township that an oversized force main will be routed directly through an agriculturally zoned and environmentally sensitive corridor of the Township, which would make it more difficult to prevent the perception of "sewer availability" along the route in our opinion.
- Related to Item 6, we agree these are good design measures to allow for maintenance along the route, but installation of these appurtenances will cause open excavation disruption, and the frequency of maintenance of the system likely would cause increased challenges for the operator regardless.

- Summary and comments related to Exhibit D content (HRC letter dated April 12, 2019 to State of Michigan):
  - HRC identifies options that were previously evaluated for sanitary sewer service such as discharge to Lyon Township WWTP, discharge to WTUA via Plymouth Township sanitary sewer, and direct discharge to WTUA Interceptor at Joy Rd and Haggerty Rd.
  - We assume based on statements of limited available capacity at Lyon Township WWTP, this option is not feasible.
  - We acknowledge that challenges exist related to direct connection to Plymouth Township owned existing sanitary sewer, therefore we assume this option (for discharging into WTUA specifically via Plymouth Township sanitary sewer along Joy Rd) is not feasible.
  - Multiple items were outlined in the HRC letter regarding a potential connection directly to the WTUA interceptor at Joy Rd & Haggerty Rd. Some points related to that portion of the letter are as follows:
    - In reviewing the potential to build approximately 6 miles of force main along Joy Road to Haggerty Rd, it was noted that 6 miles of pavement removal and replacement would be required. Although we assume the pipe would be directionally drilled so pavement removal could be limited to an extent. Regardless, we acknowledge the route has challenges with existing utilities and routing, some of which are like this current permit application along the southern segment of the proposed force main route in Ypsilanti Twp.
    - It is summarized in the letter that there is a higher likelihood that a current WTUA member community would claim any excess capacity in the system (which was limited in 2019), and it was under this assumption that WTUA providing the necessary sewer capacity for the Salem Twp USD was not feasible at that time. Although we understand that additional capacity is currently being constructed by WTUA and there may have been an opportunity in the recent past for Salem Township to be part of that system expansion. A summary of this opportunity (assuming it existed) was not mentioned in the Applicant's permit application material to Superior Township.
    - It was noted in the HRC letter that even if all the issues with the WTUA option could have been resolved at the time, the cost to route to WTUA would have been approximately double the cost of the current project (for 10 miles of force main directly to YCUA). Since no cost estimates were provided to us as part of the application, we are not able to confirm the accuracy of that assumption. Although based on our conceptual level cost assumptions from the current force main plan set material, we are not sure if that currently would be the case.

- At the time of the HRC letter, the WTUA system did discharge to both YCUA and Wayne County wastewater systems. Although currently, it is our understanding that WTUA discharges all sewage to YCUA and has since disconnected from the Wayne County system. Therefore, we assume that mention in the HRC letter of Salem Township being subject to ongoing Wayne County consent agreements and related cost share impact of $1B (related to those consent agreements) would no longer be applicable to a potential WTUA discharge option.

- Summary and comments related to Exhibit F content (YCUA Agreement with Salem Township for Wastewater Treatment)
  - It should be noted that the contract between Salem Township and WTUA is a lease on capacity to transport and treat a daily average flow of 0.30 MGD, and not the ultimate average daily flow of 1 MGD. The YCUA Agreement does provide the opportunity for Salem Township to participate in a future plant expansion to fulfill the remainder of the Salem Township USD's sanitary sewer flows up to 1 MGD average daily flow for wastewater treatment. We also note in comparison that the 18" nominal diameter force main permitted through EGLE is for a peak hour flow of 3.36 MGD, which is ultimate district build out peak flow.
  - It is noted in Paragraph 1.7 that Salem Township shall have exclusive ownership and control of the Salem Township force main up to the location of discharge into the pump station owned by YCUA in Ypsilanti Township, and that no other member community, contract community, or third party shall be allowed to connect to the Salem Township force main without Salem Township's consent. Our concern would be if there are on-going operational issues and cost impacts to maintain the system under a scenario where higher flows are not realized, could this provide pressure for outside connections to utilize remaining force main capacity along the route to improve the operation of the force main or reduced fixed costs on the system. Over the course of decades, this is difficult to predict due to various factors, and those decisions are with Salem Twp as owner of system.

Additional Items provided by Applicant during Permit Application review

During our review of the permit application materials, we requested additional information to assist with the technical and constructability aspects of our review for the proposed permit application. The additional items requested and received are as follows:

- Current version of construction plans prepared by Stantec for the Salem Township Force Main and Joy Rd Pump Station proposed from the Salem USD to the YCUA Willow Run Pump Station.
- Construction plans for the original construction of the Salem Hamlet WWTP
- Access requested/granted for site walkthrough of the existing Hamlet WWTP
- 2008 Preliminary Design Report for USD Utilities by Stantec

Review of Additional Items submitted by Applicant

Construction Plans for proposed Force Main and Pump Station for Salem USD

In the limited amount of time available once additional items requested were submitted, OHM Advisors was able to provide a cursory review of the construction plans prepared by Stantec for the proposed sanitary pump station on Joy Road and the downstream force main. As mentioned previously, the pump station is proposed as a tri-plex pump station (3 pumps for ultimate design conditions, 2 pumps for initial design conditions), and there is approximately 10 miles of 18" nominal diameter HDPE force main from the pump station location to the location of the YCUA Willow Run Pump Station. From the YCUA pump station, YCUA would be responsible for remaining transport of the sewage to the YCUA WWTP for treatment.

Regarding our review the focus was aspects related to Constructability as well as Operations & Maintenance of the system, as this could pose risk to Superior Township as well as surrounding areas. Regarding the basis of design, we understand that the force main is sized and permitted to carry the ultimate peak flow of the Salem USD. This is important to note as the ultimate peak flow of the Salem USD controls the sizing of the force main, although only a

small fraction of this flow will be present in the early stages of operation of the pump station and force main. Regarding the sanitary pump station proposed on Joy Road at the southern limit of the Salem USD, although the pump station is designed as a tri-plex pup station (3 submersible pumps), only 2 of those pumps would be initially installed to accommodate the initial phase (or wave) of new development. This design approach is understandable, although we would note the following technical feedback based on our current understanding of the design:

- Initial Design Conditions are 1,300 GPM (firm capacity) and can be met from one pump.
- The second pump is also rated for 1,300 GPM and would provide redundancy to the other pump and allow for alternating operation.
- Based on hydraulic calculations, this results in a calculated velocity of 2.14 fps while one pump is running, but it is important to note that the design flow velocity would be intermittent based on the amount of flow into the pump station and resulting pump cycle times. Therefore initially, in our opinion the design velocity is less important than the amount of sewage displaced through the force main each day based on pump cycling.
- We calculate that the total volume available in the force main over the proposed length is approximately 526,000 gallons, while we anticipate one pump cycle at the design parameters would displace approximately 9,100 gallons of sewage through the force main. This would result in a total of 58 pump cycles to clear the volume through the entire length of the force main. The number of actual pump cycles in the force main will be dependent on the incoming flow rate to the pump station. Therefore, with less incoming flow to the pump station from the USD during the earlier stages of development, there will be less pump cycles over the course of the day at design set points.

Regarding the design of the force main from constructability, hydraulic operation, and on-going maintenance aspects, we have outlined the following comments for your consideration:

- In the early stages of the development of the Salem USD (that would likely be subject to variations in cyclical economic demand and/or to construction & material cost impacts), average daily flows would likely be in the 100,000 to 170,000 gpd (70 to 120 gpm) range. Low initial flows in a pressurized system that has a force main sized for ultimate peak capacity of the upstream area can result in issues such as settlement of solids within low points in the force main, and subsequent issues with hydrogen sulfide gas due to deposition of solids. Septic flow along the force main route is also a concern based on the amount of time needed to displace sewage through the 10 miles of force main.
- To alleviate issues related to solids deposition, frequent flushing and/or pigging of the force main would likely be necessary. Since there is no public water main along the route of the force main though Superior Township to assist with flushing operations, we assume flushing and/or pigging of the force main would occur from the Salem Twp USD water supply.
- We understand that the Salem USD force main design accommodates a poly-pig flushing assembly at the upstream end of the system utilizing the future Salem USD public water supply at that location. We further understand that water storage in the Salem USD water system could provide considerable water volume for this operation. Although the following concerns/questions are still noted:
    - A substantial volume of water at a moderate to high velocity would be necessary to resuspend or flush solids from the system during a successful pigging operation of the 52,000 feet of force main. We recommend a hydraulic analysis be submitted to support the pigging/flushing operation and the resulting impact on the Salem USD water system to confirm it is actually feasible. Preliminary calculations indicate that over 500,000 gallons of water may be necessary to perform one end to end flushing operation of the force main at the required velocity (one pump running at rated capacity for 6 hours continuously).
    - Has the cost impact of this type of operation, or the impact to the water system functionality been considered by Salem Township? Also, at what frequency does this flushing operation need to occur to avoid problematic build-up of hydrogen sulfide gases or to provide septic conditions?
    - There likely would only be certain times of the day that this type of flushing operation could take place due to exclusionary/non-exclusionary flow contract requirements from GLWA to avoid peak hour rate charges on water supply.

  - We question whether it is feasible that the level of on-going maintenance that is required for this length and size of force main is adequate to limit sediment deposition in the system or prevent septic conditions within the force main during lower upstream flow.
  - In lieu of water we understand that high pressure air may be utilized to push a poly-pig through a force main (or portions of the system) and assist in removing settled sediments, although we would have concern with the level of equipment that would be necessary for this size force main and potential noise impact. The feasibility of this would need to be looked at further.
- Assuming that a high level of maintenance cannot be maintained over time, solids deposition will occur at low points in the system. Furthermore blow-offs are not provided at low points for future maintenance, and the locations of low points along the route would generally be difficult to maintain due to the sensitive nature of those dips in the force main pipe (under natural drains, large culverts, gas mains, regional water transmission mains, regional sewer interceptors, and railways).
- Intermittent flow in the force main due to longer pump cycle times at the USD pump station would increase the likelihood that sewage within the force main would become septic (due to depletion of dissolved oxygen in sewage and presence of sulfides), also increasing the likelihood of increased formation of hydrogen sulfide gas.
- Increasing the level of hydrogen sulfide gas build up in the system would result in a corrosion risk at points in the system where iron/metallic or concrete are present, such as at air release valve and by-pass connection manholes/vaults.
- Although hydrogen sulfide gas would be released through air release valves, this could present an odor issue due to the excess build-up of hydrogen sulfide gases within the force main. We understand that odor control cartridges (activated carbon) would be installed on the air release system, although we also understand from experience that these require on-going maintenance to be effective.
- We also understand that air release valves will vent within the concrete well structures and not directly above ground. Although this can be beneficial for odor control to an extent, it presents other issues with controlling corrosion of ductile iron material components within the structure, and corrosion risk for the concrete structure itself. If corrosion becomes an issue along the route, this likely would result in additional disturbance along the force main route to make repairs or replace necessary components (and additional cost to owner).
- Once the force main was installed, considerable activity along the route will be necessary for on-going operations & maintenance to exercise air release valves and by-pass connections, change activated carbon odor filters, provide by-pass piping set-ups on surface, or future repairs in the force main.
- We have concern about a 3rd party operator being responsible for on-going maintenance of the entire force main system in lieu of a local municipal DPW staff, especially if the operator is not in geographic proximity to the system.
- The directional drilling process requires staging pits and access for appurtenances generally every 300 to 500 feet. Therefore, an excavation or some type of disturbance should be anticipated in that frequency along the route.
- The slurry from the bentonite drilling fluid mixture generally requires slurry pits along the route (to allow the bentonite slurry to settle/solidify before being transported off-site) or an on-site vactor truck to control the slurry discharge. If slurry pits are required along the route in Superior Township, it is not clear where those would be constructed, or what risk they could propose to adjacent natural features.
- It is possible that slurry can escape the site under pressurized circumstances through fissures formed along the surface and could flow into adjacent environmentally sensitive areas such as drains, creeks, or wetlands. Please note there are 2 crossings of the Fowler Creek along this route and other environmentally sensitive areas along the route within Superior Township.

In looking through the force main plan and profile drawings, there are many instances of vertical variations (dips) in the force main design due to crossings under natural drains, large-enclosed pipe drains, and various large diameter existing utilities. Those will be areas where solids will likely settle, especially until more significant flows are present in the system (which timing is variable due to economic factors). We anticipate that these areas of sediment deposition would be more difficult to remove from the force main pipe during flushing operations without a higher velocity flush through the entire system. The level of maintenance required for 52,000 feet of force main (with an internal diameter of nearly

16") from the upstream pump station to the downstream outlet poses many challenges regarding adequate operations and maintenance of the system.

There is also the potential cost for the operator of the force main to successfully accomplish this on-going maintenance while also reducing long term risks related to high levels of hydrogen sulfide gas in the system. The formation of high levels of hydrogen sulfide gas could be problematic not only at the metallic/iron appurtenances and concrete structures along the route, but also at the downstream discharge location. We understand that there are considerable by-pass valve connections along the route, but that also requires that by-pass piping be set up on the surface and adequate water be present to poly-pig or flush the force main in sections, which may not be practical.

It was identified in various locations of the Stantec and HRC letters provided in the Applicant's permit application materials, that this force main construction route was provided in part due to the simplicity of construction through the generally agricultural areas with unimproved roadway and limited conflicts. Although a substantial portion of the force main is along unimproved road through agriculturally zoned areas, it is also important to note that a considerable portion of the project (approximately the southern 13,000 feet of the project) presents considerable constructability challenges. These challenges include items such as crossing of wide corridors of Amtrak Rail, crossing of a 42" GLWA Transmission Water Main, crossing of 42" pipe for Ypsilanti #6 Drain Crossing and 84" pipe for Beyer Drain Crossing, 78" Culvert for crossing of Willow Run Drain, crossing of a 60" YCUA force main and multiple YCUA water mains, crossing of a 36" and 30" WTUA Force Mains, crossing of multiple High Pressure Gas Mains, and crossing of critical Fiber Optic lines, to mention a few (see Exhibit A attached to this report for excerpt views from the Stantec force main construction plan sheets as examples of this).

We also note several locations through this area with higher groundwater table elevations where open cut excavation and bore & jack operations are proposed. One of the bore & jack (w/steel casing) installation locations near STA 86+00 will likely require bore pits at 30-foot depth. It is also worth noting that damage to a regional GLWA Transmission Water Main, High Pressure Gas Main or Fiber Optic Duct Bank can have severe regional consequences, and some circumstances that may be difficult to control during construction can impact these installations such as soil conditions, groundwater levels, equipment malfunction, and mis-marked or mis-located existing utilities (or a combination of those issues).

Whether the project is completed by trenchless construction or with limited/targeted open excavation, all critical utilities would need to be exposed and verified as part of the construction process. Furthermore, the south portion of the project appears to be routed through the location of the current ACM site (Willow Run Plant area) that may have underground utilities remaining from the WWII era, and may also require careful investigation prior to work on that property including additional level of soft digs/potholing, and extra care taken for disposal of drilling fluids. These are all unknowns that may provide challenges with completing this project effectively from end to end.

In our opinion it is important for Superior Township to understand that construction of a certain portion of a project could be halted due to unknow circumstances, site conditions, or utility conflicts or breaks, and the ability of this proposed force main system to ultimately function depends on the successful installation of the entire 52,000 of force main from end to end.

Evaluation of existing Salem Twp Hamlet WWTP

As part of our permit application review, OHM Advisors requested a time to visit the existing Salem Twp Hamlet WWTP and requested plans available for the original construction of the plant. The reason for our request was to evaluate at a conceptual level the feasibility for upgrades or expansion to this plant or site to accommodate flow from the Salem USD, and to also understand how the status of this WWTP may impact a wider strategy for wastewater service in Salem Twp for the Hamlet and USD. Keep in mind that our level of evaluation does not constitute preliminary engineering or a formal study, rather to provide our initial engineering opinion if there is a feasible opportunity for Salem Township to pursue further the routing of sewage flow (portions of flow) from the Salem USD

to this location, or impact to other options in the Salem USD for wastewater treatment. The following is a summary of our observations from our single site visit, and looking at the plan set provided:

- The WWTP unit processes is generally comprised of an influent well w/manual bar screen, 2 extended aeration tanks, a final clarifier, a sand filter, UV disinfection, sludge storage and aluminum sulfate feed.
- The WWTP was apparently designed in 1996 and built at an estimated cost of $2.4M by Midwest Power Systems.
- An offsite influent lift station receives sanitary wastewater through a 12-inch gravity sewer and is pumped by one of two VFD driven centrifugal pumps via 4-inch force main to the influent well.
- The WWTP hydraulic profile indicates a design average flow of 50,000 gpd and a peak flow of 200,000 gpd (noted on sheet 2/3 of Contact Drawings). (Note: Basis of Design Report and Shop Submittals were not available to us at time of evaluation and could confirm if the unit processes were ultimately sized to handle the peak flow).
- Most of the visible process piping appears to be 6-inch diameter, which may accommodate the peak flow from a purely operational standpoint but would need confirmation.
- Equalization Storage (EQ) could potentially be provided "up front" if the WWTP were to be expanded or modified to handle more flow than current.
- The influent well receives flow from the 4-inch force main through a manual bar screen for coarse debris removal.
- Two gravity 6-inch lines from the influent well flow to the aeration basins, equipped with coarse bubble diffusers. One basin was in service at the time due to lower flow volume.
- Two positive displacement belt-drive blowers, alternated weekly, provide air to the aeration basins and to the final plant effluent for D.O. (dissolve oxygen) supply.
- The aeration basin flows by gravity to the final clarifier, with aluminum sulfate feed addition for nutrient removal. This appears to be the only chemical used in the WWTP.
- The final clarifier removes solids with RAS to the front of aeration basins via the influent well, WAS to the sludge storage tanks for biosolids removal and clarifier effluent to the sand filter.
- The biosolids were apparently last hauled approximately 2 years ago and once/2 years due to low volumes generated.
- The sand filter is split flow design and multi-media (gravel, sand, and anthracite) for effective solids and nutrient (phosphorous mostly) removal. It appears the media may require possible replacement due to age and condition. The ASCO valves used for the backwash cycle appear to need service/replace.
- Sand filter backwash is pumped to the headworks via the mud well.
- Clarifier effluent flows to 2 banks of UV units, with 3 bulbs per array for a total of 6 bulbs for disinfection and meeting the fecal coliform bacteria counts.
- Final effluent from the UVs gravity flows to the backwash supply well via a 6-inch line and through a 2-inch mag meter for flow monitoring before discharging in a 6-inch line towards Johnson Drain.
- It was mentioned that the NPDES Permit application for permit renewal this week was just completed. We do not have a copy of the renewal application.

Additionally, from public record we obtained and looked through the previous NPDES permit MI0054798 for the Hamlet WWTP discharge permit and note the following items:

- The plant monthly flow is limited to 0.07 MGD, or 70,000 gal/day. Based on our understanding in the time allotted for our initial evaluation, the average daily flow is ~ 20,000 gal/day in 2021. During 2020, there were seasonal flows (likely during rainy months) upwards of 50,000 gpd.
- The current permit expires October 1, 2021. Application for renewal is April 4, 2021. We understand this was submitted but did not have a copy of the renewal application or permit at time of this report.
- Discharge of WWTP is to an unnamed tributary of the Johnson Creek/Drain.
- Effluent limits appear to be for CBOD, TSS, NH3-N, P, coliform, pH and D.O. with seasonal concentration limits during May through November and December through March. Seasonal Removals of 85% for CBOD and TSS, during December through April.

From our review of these above-mentioned documents, we provide the following engineering related feedback related to the Hamlet WWTP that appear to be feasible to pursue further:

- Land/space for future expansion of the Hamlet WWTP appears to exist on-site or directly adjacent to the site.
- It may be feasible to provide an EQ basin up-front from the WWTP to handle wet weather/peak flow events. This may allow for expansion of the plant flow operations from current flow.
- The diameter of process piping within the WWTP appears to indicate that significantly more flow can be accommodated from a process standpoint. Has this been evaluated by Salem Twp as an option regarding accommodation of initial sewage flow from the Salem USD?
- There may be upgrades, additions, or replacement to existing equipment or processes within the Hamlet WWTP that could reduce the mass loading impact to Johnson Creek/Drain and allow for the WWTP to function at its design capacity or greater. Is replacement of sand filter with membrane or modification of equipment to accommodate MBR Technology been evaluated by Salem Township? Could an additional process such as Reverse Osmosis (RO) be applied to effluent prior to UV disinfection if an MBR retrofit was applied? There does appear to be adequate vacant land adjacent to the existing Hamlet WWTP where an RO building could be constructed.

We understand that there are current restrictions from the previous NPDES Permit related to nutrient mass loading and discharge to the Johnson Drain/Creek from the existing Hamlet WWTP. But it is also our opinion that there are feasible options that could be vetted further to accommodate some initial flow from the Salem USD. We are not aware that the above options were evaluated by Salem Township as part of the current permit application material.

We also obtained a copy of the 2008 Preliminary Design Report for the Salem USD that was prepared by Stantec that appeared to evaluate feasible options at that time and were also not part of the current Permit Application submitted through Superior Township. That discussion continues in the following section.

Review of 2008 Preliminary Design Report for Salem USD by Stantec

In our review of this design report prepared in 2008 by Stantec for Salem Twp, we note that an on-site WWTP was presented as a feasible option. In referencing the August 27, 2019 letter by Stantec that was included in the Permit Application material to Superior Township, the 2008 engineering report is mentioned as a previous study performed for the Salem Twp USD, but there is no specific discussion on why the on-site WWTP is no longer feasible. With the limited time available to review the additional documents provided to us by Salem Township, we note that an option presented previously at the USD was for a Membrane Biological Reactor (MBR) WWTP. It appears that a certain level of preliminary engineering was performed to prepare an NDPES permit application and draft permit with public notice documents, as well as conceptual level siting and effluent discharge location. We have included a few slides from the 2008 USD Engineering Report for reference as part of Exhibit B. Please note that these slides are included for informational purposes only from a previous public meeting presentation and are not in the specific order presented in the 2008 report (which can be reviewed in entirety if desired for more context).

The content included by Salem Twp with the current permit application does not specifically indicate why the on-site WWTP is no longer an option from an engineering feasibility standpoint. We fully understand there are certain environmental restrictions that must be satisfied currently to obtain an NPDES discharge permit, but it appears those anticipated stringent requirements regarding nutrient mass loading were understood in the past and the MBR technology was considered a feasible option in 2008. Furthermore, we understand there is advanced technology regarding the MBR process and ultra-filtration, as well as the possibility for supplemental processes such as RO that could further enhance the possibility of obtaining an NPDES discharge permit for an on-site solution at the location of the Salem USD. Therefore, based on this background and our current knowledge of this option, it appears feasible for further consideration by Salem Township.

In finalizing our thoughts regarding WWTP options for Salem Township within their own geographic borders, we understand there is a continuing need to provide wastewater service to the existing Hamlet area while accommodating the potential growth aspect of the USD. If the option to improve, expand, or modify the Hamlet WWTP were not ultimately feasible due to permitting constraints, it may be feasible to accommodate both the Salem Hamlet service area and future growth from the Salem USD with a new technologically advanced MBR WWTP on the USD site, which may provide an effluent discharge location (as well as level of effluent water quality) to be more amenable to EGLE.

Alternate Regional Option for Sanitary Sewer Discharge for Salem USD

In our review of this permit application on behalf of Superior Township, we note that the Applicant has stated there are no feasible alternative means of providing sanitary sewer service to the USD, and therefore constructing the ten miles of 18" diameter force main to the south is necessary to avert a public health emergency. In addition to WWTP alternatives that appear to be feasible for the Applicant to vet further, we also note an additional option that from an engineering standpoint appears to be feasible and may provide regional benefits across multiple communities/entities.

We understand that there is high-tech corridor development project in the conceptual or preliminary stages to the east of Salem Township along 5 Mile Road, east of Napier Road. The intent of this corridor development (identified as MITC) is to promote high-tech corporations and development to spur economic activity for the region (which would also likely help future development in the Salem USD). A current challenge of developing this corridor along 5 Mile Road between Napier Road to a location west of Beck Road (at the limit of existing development within both Northville Township and Plymouth Township) is to accommodate the project cost for a Class A Wayne County Road reconstruction, while also providing public utility extensions into this currently mainly undeveloped area.

Since sanitary sewer is typically the more challenging and costly public utility to provide due to cost and feasibility aspects, we see an opportunity that could be pursued to provide wastewater discharge to the east of the Salem USD if certain sanitary sewer infrastructure could be constructed by Salem Township/Salem Springs LLC to the location of an existing WTUA Interceptor just east of Ridge Road. This WTUA Interceptor routes N/S and flows north and northeast at this location. We are also currently of the engineering opinion that challenges regarding the acceptable amount of flow that could be routed directly into the WTUA system may be overcome, and a solution is feasible assuming certain technical considerations are provided by the Applicant.

For WTUA to accommodate flow from the Salem USD, it would likely be necessary for Salem Township to accommodate wet weather/peak flow on-site, either within the limits of the Salem USD or within the limits of Salem Township near the east border of the Township with Northville/Plymouth Townships. In our opinion the peak flow could be accommodated with a proposed EQ Basin to provide wet weather/peak storage (which we understand would need to be roughly 400,000 gallons to accommodate ultimate build out of Salem USD), prior to discharge into a future MITC sanitary sewer system ultimately discharging to the WTUA Interceptor. It is also possible that a smaller portion of the ultimate flow could be routed this direction and still provide a viable near-term solution for the Applicant, MITC, and WTUA.

We understand that further analysis of the WTUA Interceptor capacity in this location and ability to transport any outside flow from the current member communities is required, but we do not see a technical reason why this could not be evaluated further. We also provide the following other potential benefits of this option in our opinion, regardless of if the solution provides ultimate or initial flow capacity to Salem USD:

- Reduce force main construction from 10 miles to less than 3 miles. This would alleviate concerns over the ability to flush and clean the force main on a regular basis, and the amount of water necessary to accomplish this on-going maintenance.

- Reduce the potential environmental impact to the portion of the force main that would otherwise route southward along Gotfredson Road, which would cross drains, creeks, and wetland areas.
- Reduce the concerns regarding critical crossings (GLWA, YCUA, WTUA, high pressure gas) on southern portion of route and potential conflicts through the location of the ACM property in Ypsilanti Twp.
- Provide an alternative to the current force main route that has the potential to provide beneficial regional impact to multiple communities and beyond, along a corridor where economic growth is already being planned and actively pursued.
- With the understanding that we do not currently know all the technical aspects of WTUA system for transport and storage, ultimately wastewater would still be routed to the YCUA treatment plant. But in this case utilizing a much shorter length of proposed force main with much less risk related to initial construction and on-going operations & maintenance.
- A proposed sanitary sewer along 5 Mile Rd east of Napier Rd has the potential for positive regional economic impact for MITC, while also utilizing existing sewer infrastructure already in place for regional wastewater transport ultimately to YCUA treatment plant.
- In 2021, there appears to be modified/additional considerations regarding the potential to utilize the WTUA system since WTUA is no longer contracted with Wayne County for wastewater transport/treatment, and additional capital improvements are being made by WTUA to their system which may provide new opportunity for some capacity. Again, we also understand that Salem Twp would likely need to provide their own wet weather/peak flow storage on-site, but we do not currently understand why this would not be feasible.
- An additional consideration that may be pursued by Salem Township is coordination with the existing landfill (located just west of Napier Road) to accommodate a proposed EQ basin on the landfill site (or adjacent properties). Such as the ability to provide combined storage for USD wastewater flow and landfill leachate flow. Does this present unique opportunity for a regionally agreeable method to accommodate wastewater flow transport to the east in addition to accommodations for wet weather/peak flows/leachate flow within geographic borders of Salem Twp, if providing economic benefit to multiple communities in the region?
- We assume if the cost of the current improvement to the south of USD were applied to this alternative, there may be various feasible options available to vet further.

Conclusion

In summary, as part of our report we have provided the following:

- A summary of the permit application materials submitted by Salem Township (as required by Superior Township Ordinance No. 169)
- Our input and comment regarding the content of the Applicant's permit application submittal
- A preliminary evaluation of the additional content requested and received by the Applicant and how that may impact consideration of the current permit application
- A summary of our current opinion of feasible options that could be vetted further by the Applicant for wastewater/sanitary sewer discharge in lieu of the current proposal for 10 miles of force main southward through Superior Township and Ypsilanti Township.

It is also our opinion based on available information and utilizing conceptual level cost analysis, that the capital cost of other feasible options would be comparable to or less than the cost of constructing the improvements provided in the current permit application. Since cost estimates were not provided to us as part of the current permit application for the proposed improvements by the Applicant, we cannot provide further detail on cost comparisons at this time.

We also are not aware of the potential capital or benefit related costs from potential connection to the WTUA system, although we assume this can be investigated further by the Applicant when looking at the total cost impact for various options available. Therefore, we have not currently accounted for the specific cost impact for connection to WTUA.

We trust that the information provided in this report will be useful to the Superior Township Board of Trustees in their evaluation of this permit application from an engineering standpoint. If you need further assistance or have any questions related to our report, please do not hesitate to reach out to me at any time.

Sincerely,
OHM Advisors

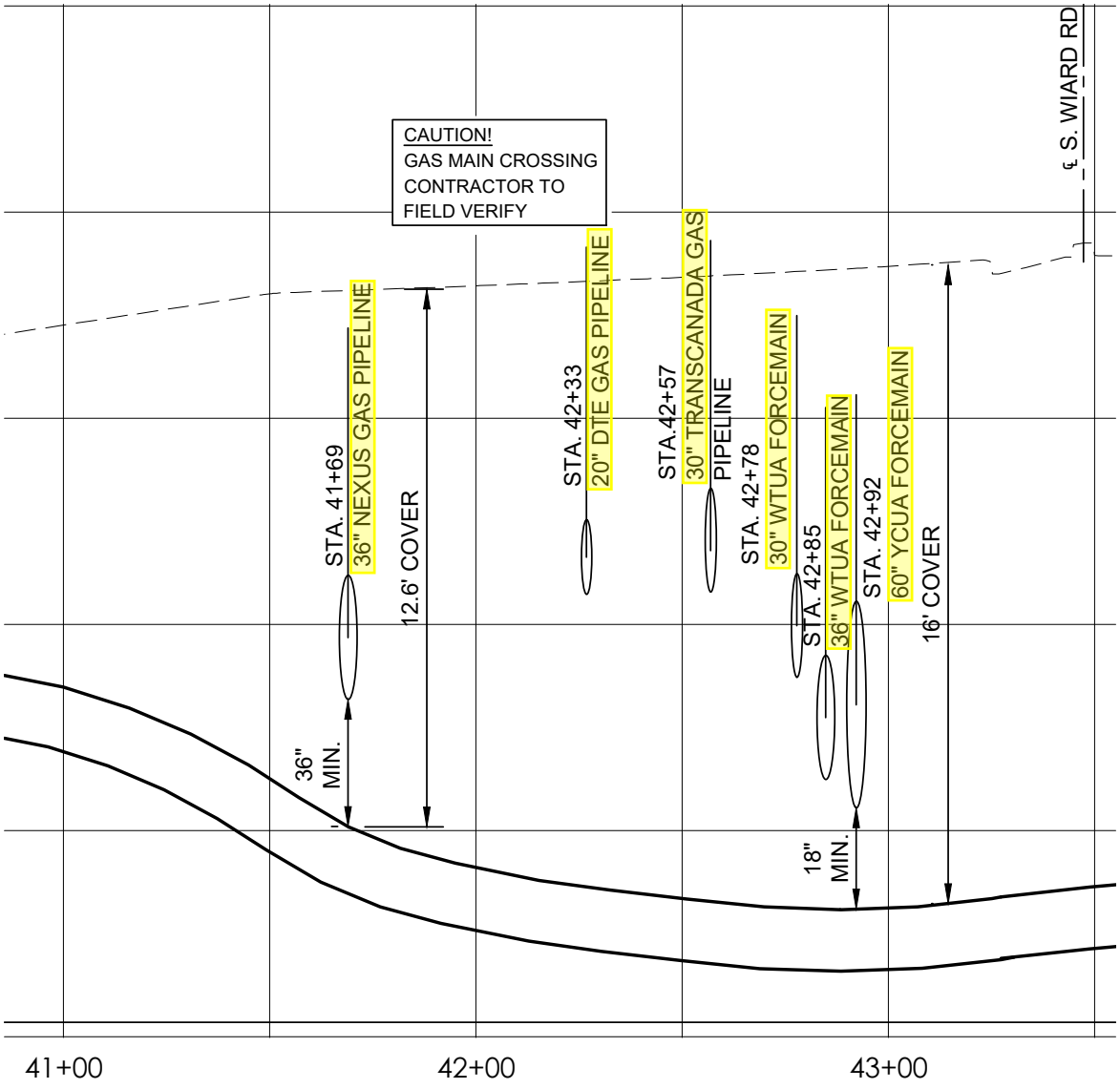
George Tsakoff

Digitally signed by George Tsakoff
DN: C=US, E=george.tsakoff@ohm-advisors.com, O=OHM Advisors, OU=Municipal, CN=George Tsakoff
Date: 2021.04.15 16:14:50-04'00'

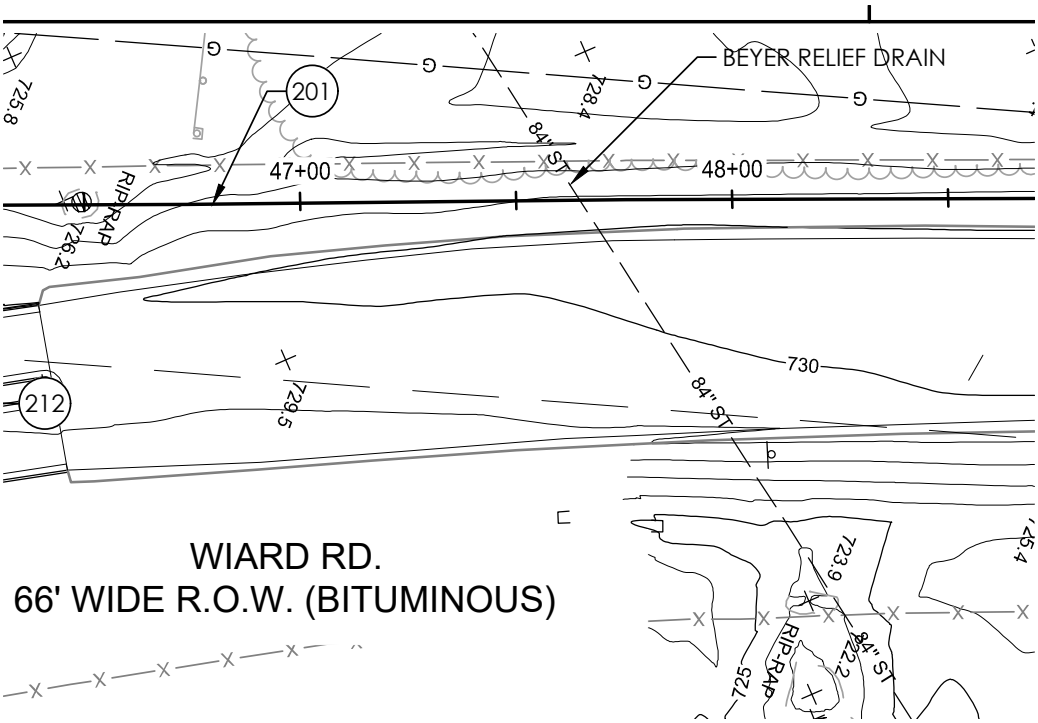
George Tsakoff, PE
Principal

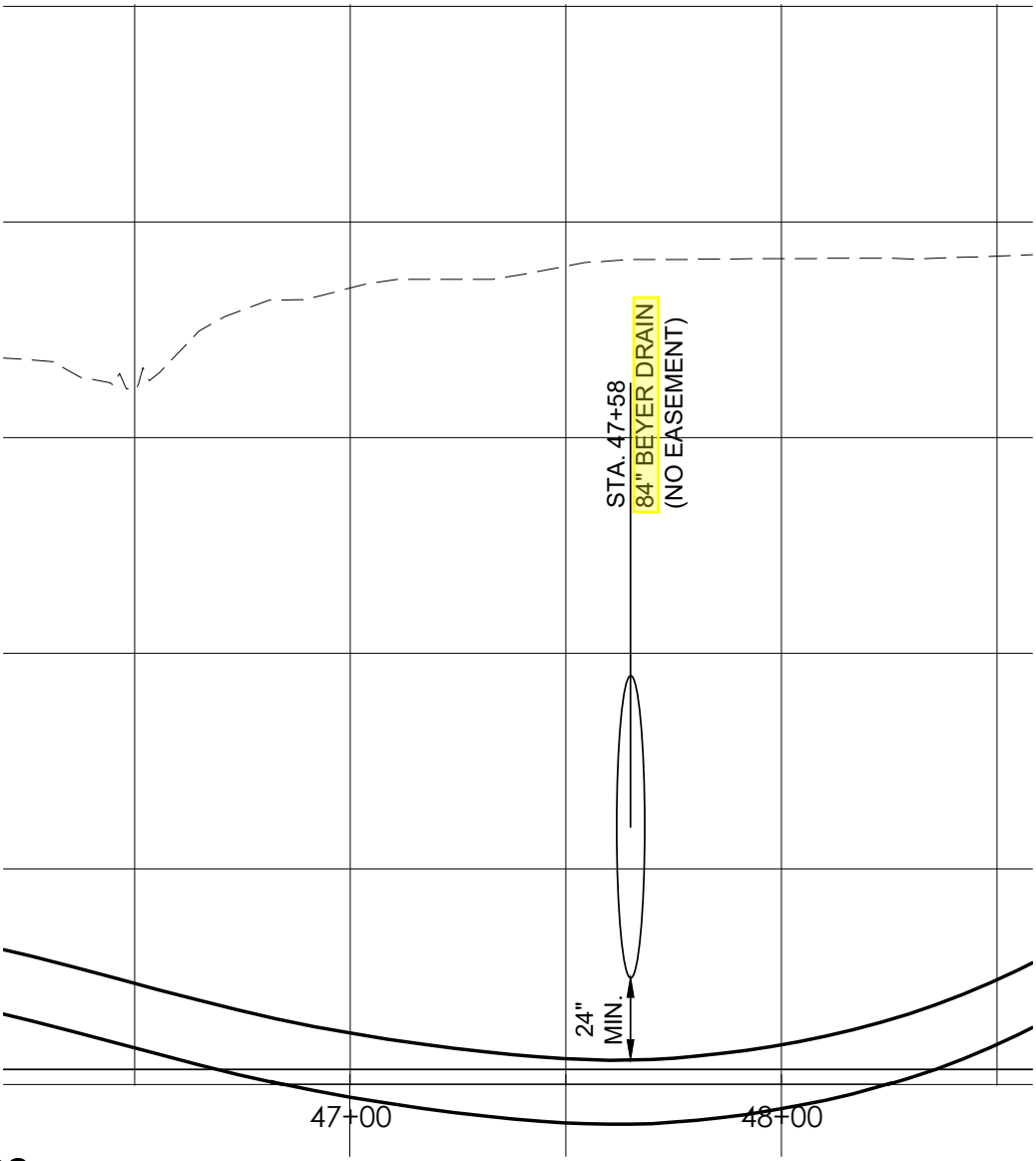
Attach: Exhibit A & B
cc: file

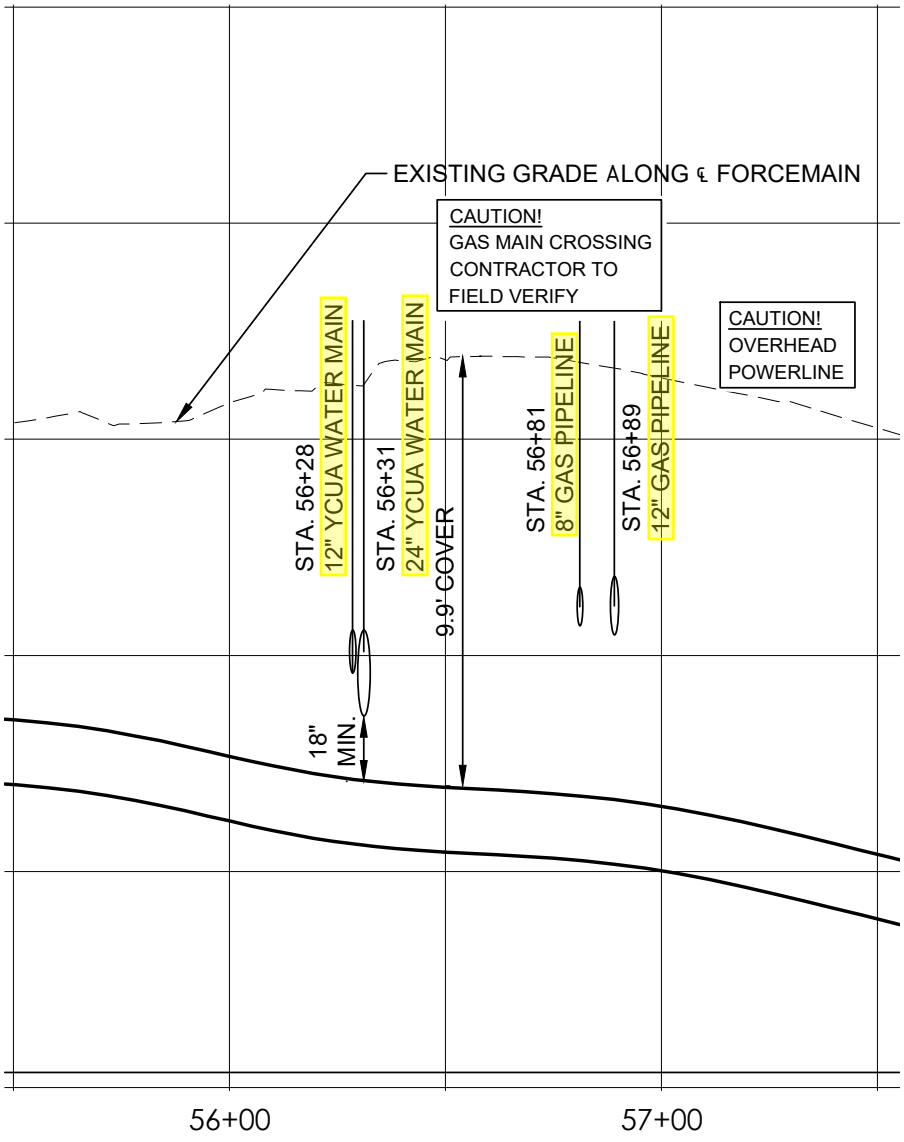
EXHIBIT A

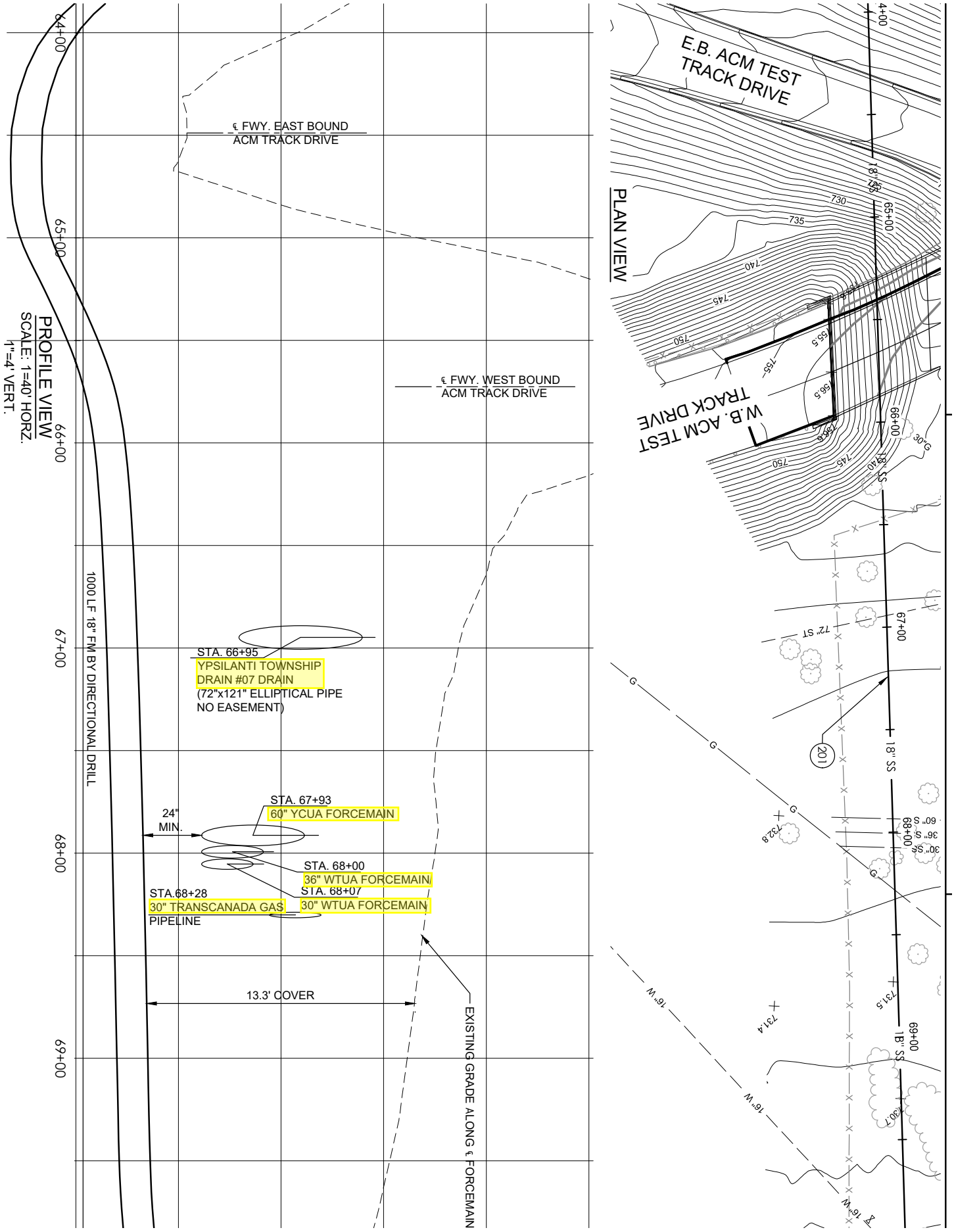

CAUTION!
GAS MAIN CROSSING
CONTRACTOR TO
FIELD VERIFY
℄ S. WIARD RD
STA. 41+69
36" NEXUS GAS PIPELINE
12.6' COVER
36" MIN.
STA. 42+33
20" DTE GAS PIPELINE
STA.42+57
30" TRANSCANADA GAS
PIPELINE
STA. 42+78
30" WTUA FORCEMAIN
STA. 42+85
36" WTUA FORCEMAIN
STA. 42+92
60" YCUA FORCEMAIN
16' COVER
18" MIN.
41+00
42+00
43+00

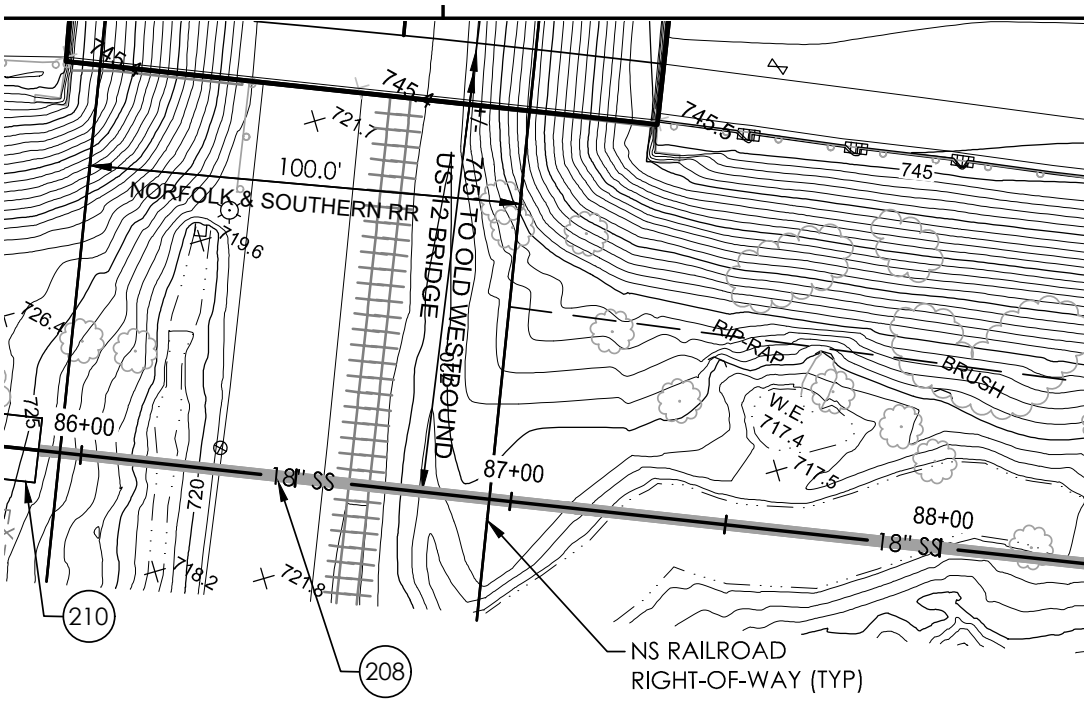
Sheet C-102

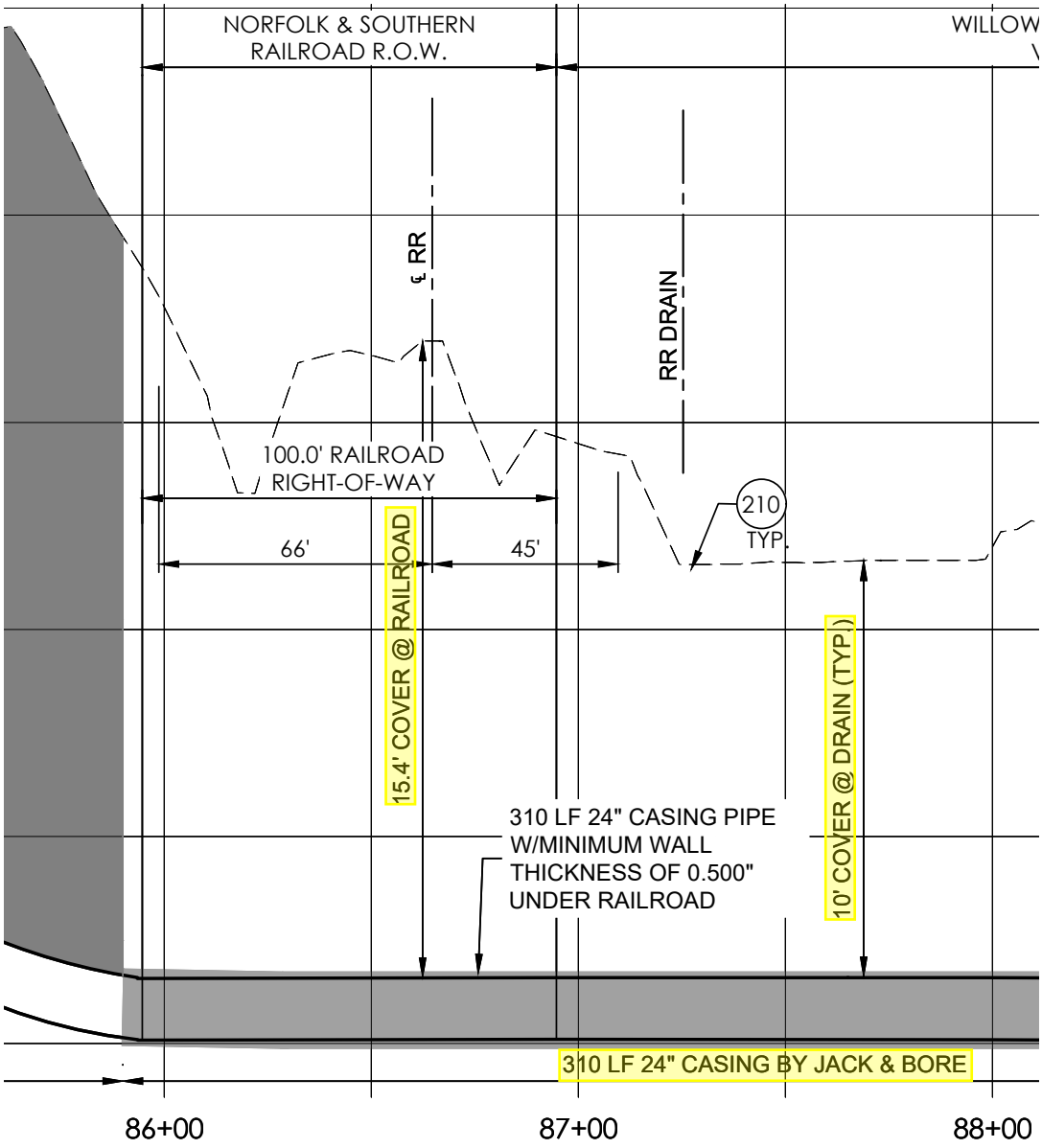

BEYER RELIEF DRAIN
201
212
47+00
48+00
730
725
84" ST
RIP-RAP
WIARD RD.
66' WIDE R.O.W. (BITUMINOUS)
BEYER RELIEF DRAIN
LIBER 528, PG. 303

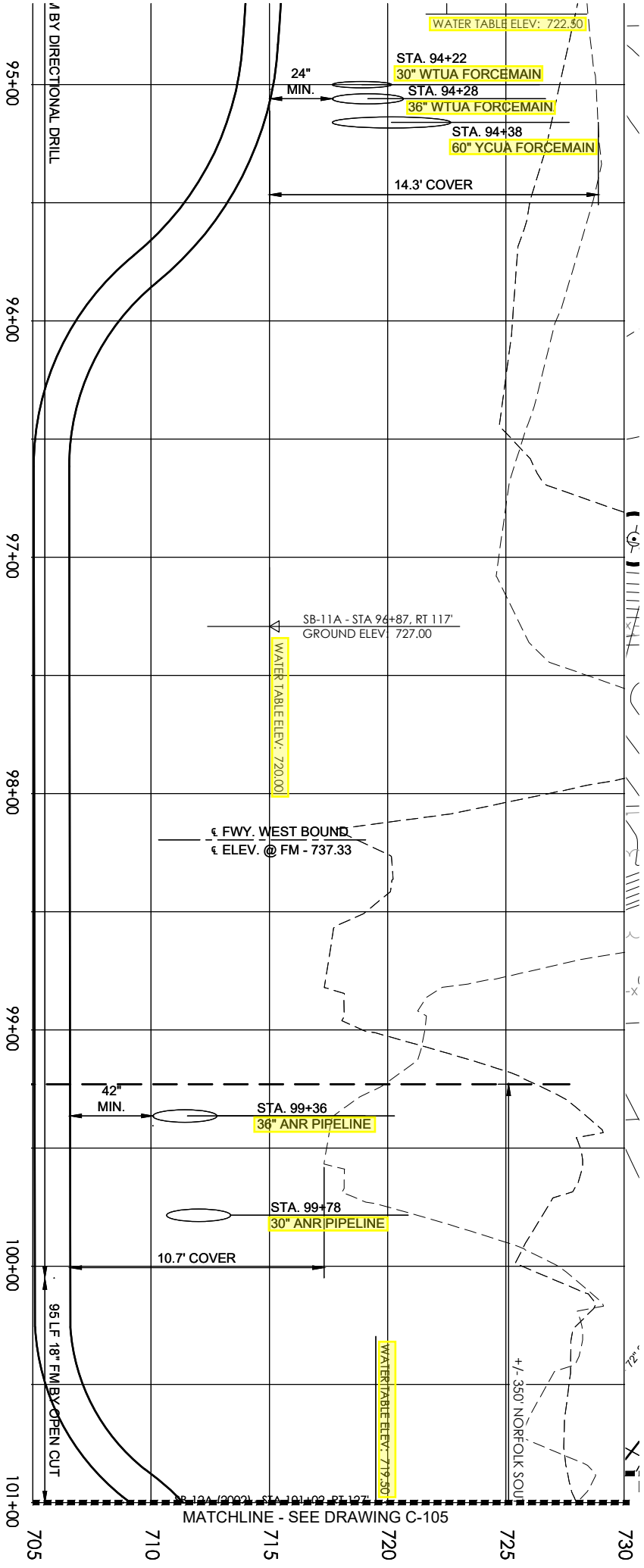

STA. 47+58
84" BEYER DRAIN
(NO EASEMENT)
24"
MIN.
47+00
48+00


EXISTING GRADE ALONG ℄ FORCEMAIN
CAUTION!
GAS MAIN CROSSING
CONTRACTOR TO
FIELD VERIFY
CAUTION!
OVERHEAD
POWERLINE
STA. 56+28
12" YCUA WATER MAIN
STA. 56+31
24" YCUA WATER MAIN
9.9' COVER
18"
MIN.
STA. 56+81
8" GAS PIPELINE
STA. 56+89
12" GAS PIPELINE
56+00
57+00


PROFILE VIEW
SCALE: 1=40' HORZ.
1"=4' VERT.
64+00
65+00
66+00
67+00
68+00
69+00
℄ FWY. EAST BOUND
ACM TRACK DRIVE
℄ FWY. WEST BOUND
ACM TRACK DRIVE
1000 LF 18" FM BY DIRECTIONAL DRILL
STA. 66+95
YPSILANTI TOWNSHIP
DRAIN #07 DRAIN
(72"x121" ELLIPTICAL PIPE
NO EASEMENT)
24"
MIN.
STA. 67+93
60" YCUA FORCEMAIN
STA. 68+00
36" WTUA FORCEMAIN
STA. 68+07
30" WTUA FORCEMAIN
STA.68+28
30" TRANSCANADA GAS
PIPELINE
13.3' COVER
EXISTING GRADE ALONG ℄ FORCEMAIN
PLAN VIEW
E.B. ACM TEST
TRACK DRIVE
W.B. ACM TEST
TRACK DRIVE
4+00
65+00
66+00
67+00
68+00
69+00
730
735
740
745
750
18" SS
72" ST
30" G
201
732.8
731.5
731.4
730.7
16"W

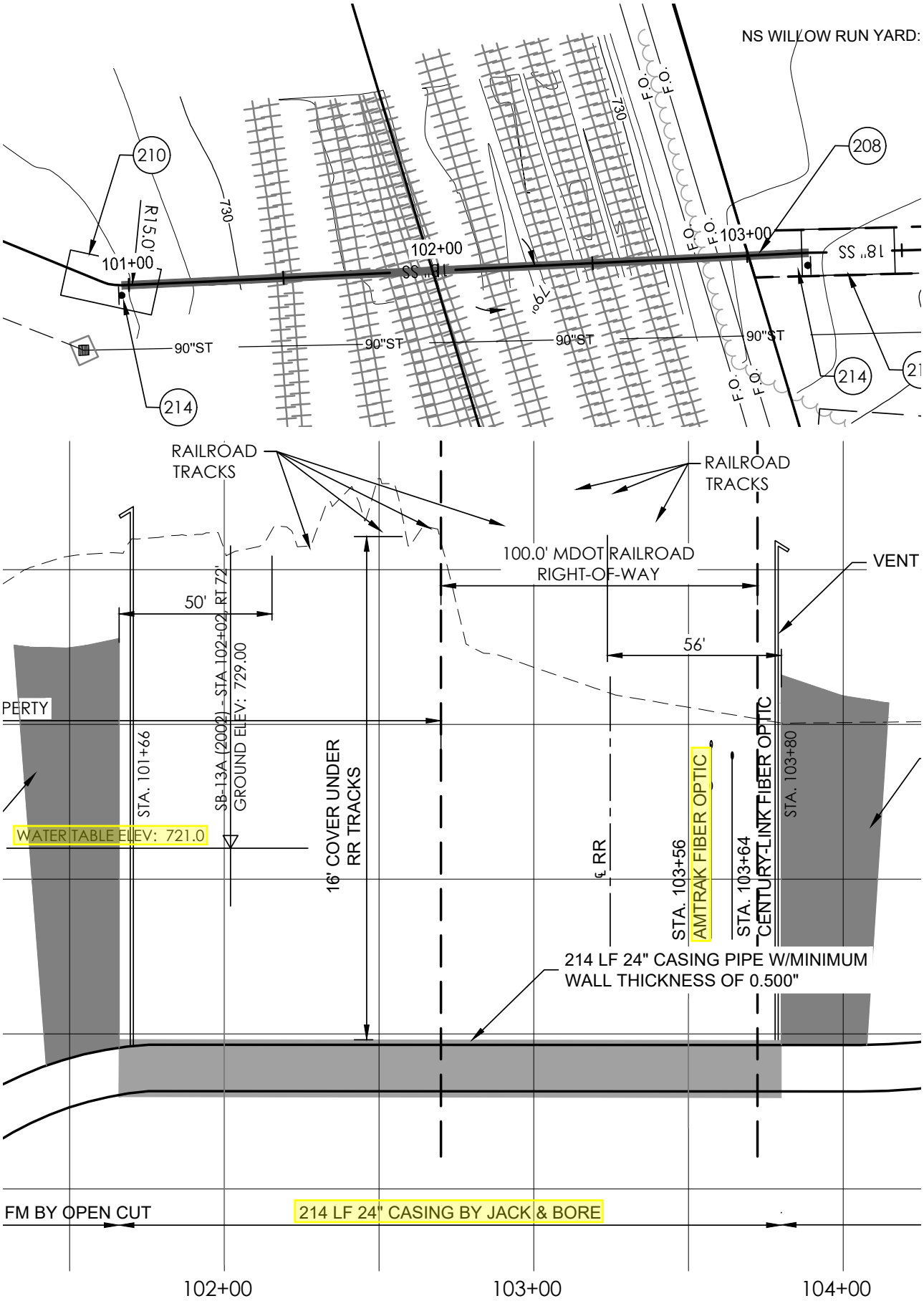

745
721.7
100.0'
NORFOLK & SOUTHERN RR
719.6
+/- 70' TO OLD WESTBOUND US-12 BRIDGE
726.4
725
86+00
720
18" SS
87+00
718.2
721.8
745.5
745
RIP-RAP
BRUSH
W.E.
717.4
717.5
88+00
18" SS
210
208
NS RAILROAD
RIGHT-OF-WAY (TYP)


NORFOLK & SOUTHERN
RAILROAD R.O.W.
WILLOW
℄ RR
RR DRAIN
100.0' RAILROAD
RIGHT-OF-WAY
66'
45'
210
TYP.
15.4' COVER @ RAILROAD
10' COVER @ DRAIN (TYP.)
310 LF 24" CASING PIPE
W/MINIMUM WALL
THICKNESS OF 0.500"
UNDER RAILROAD
310 LF 24" CASING BY JACK & BORE
86+00
87+00
88+00

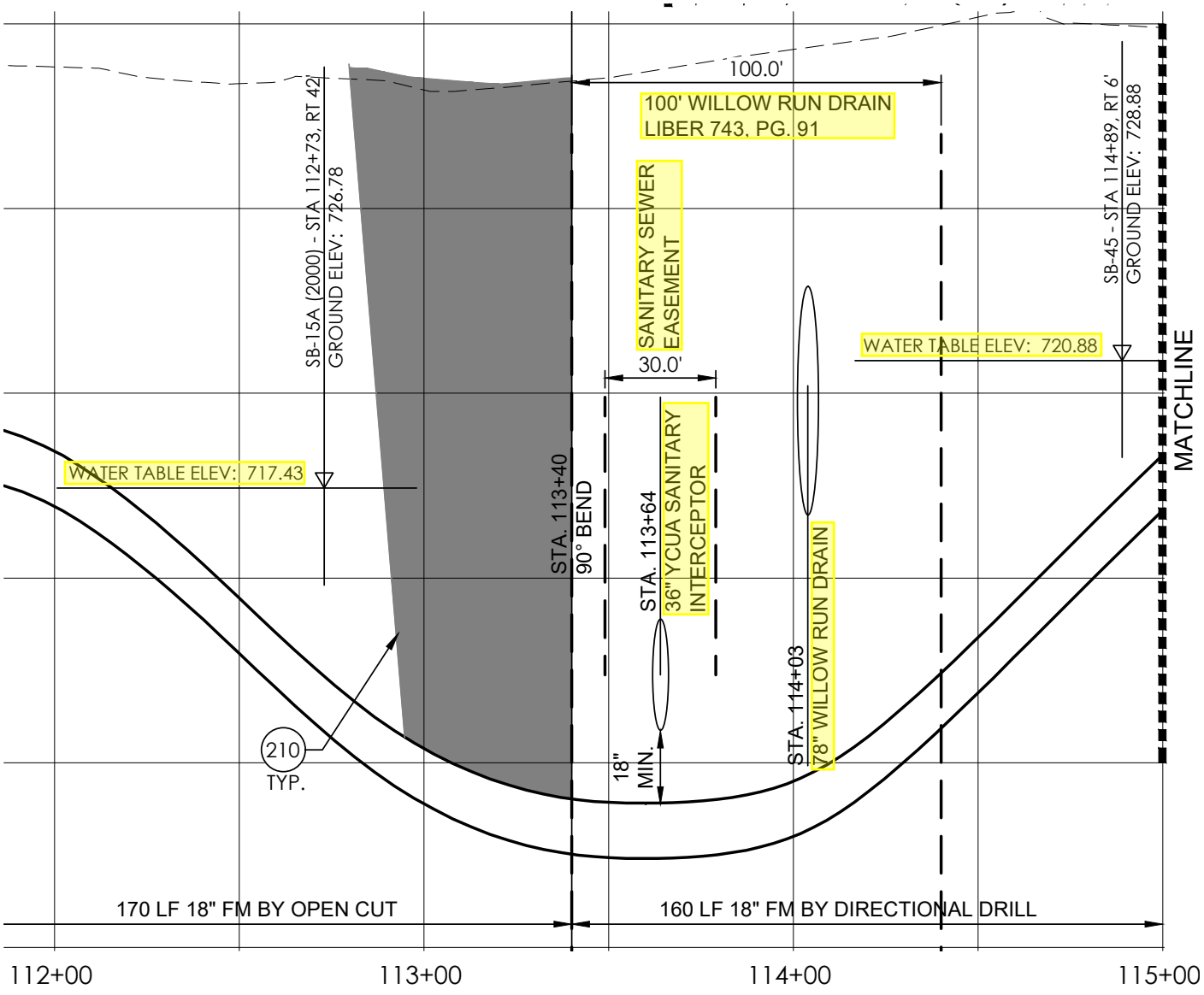


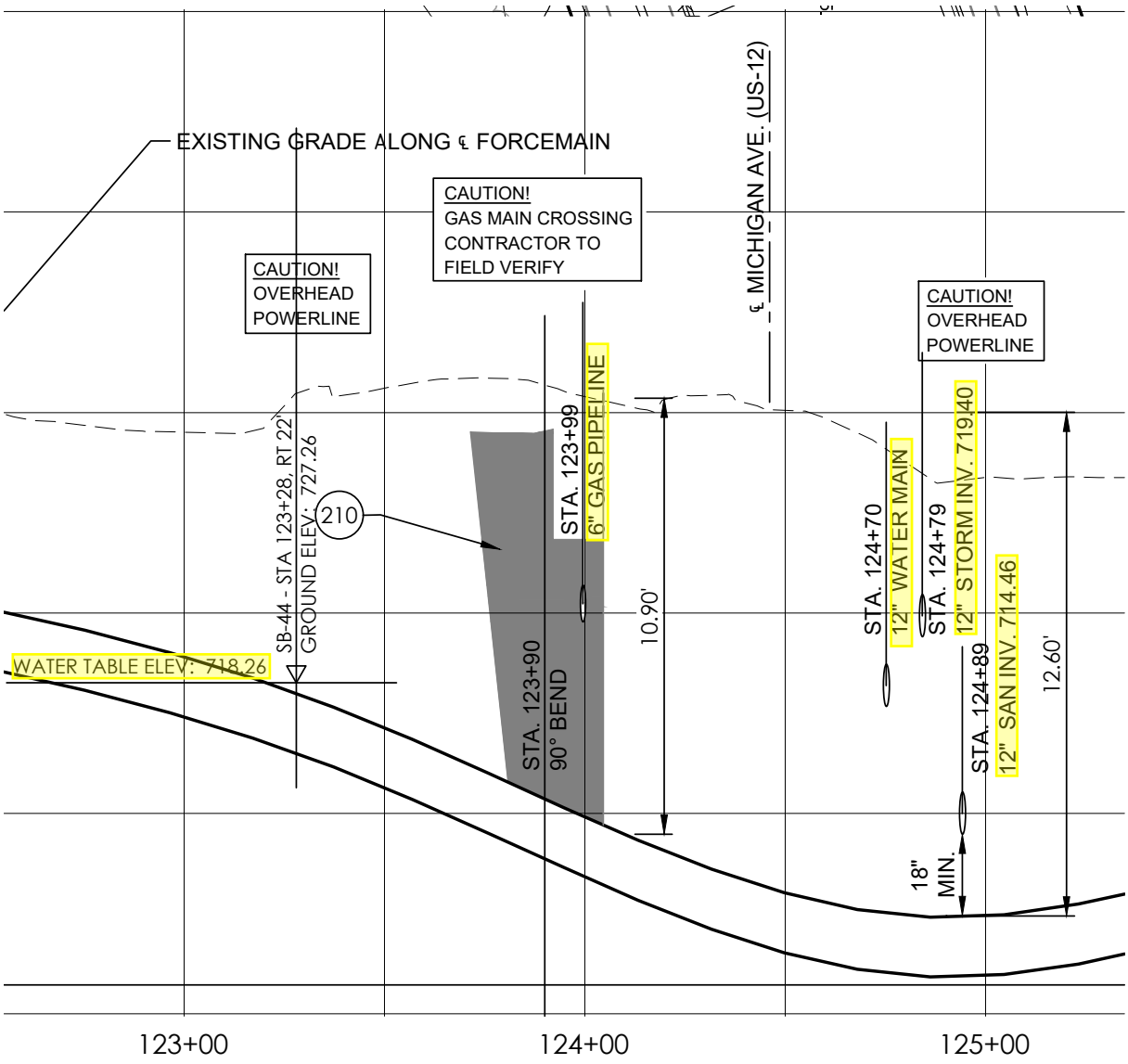
MATCHLINE - SEE DRAWING C-105

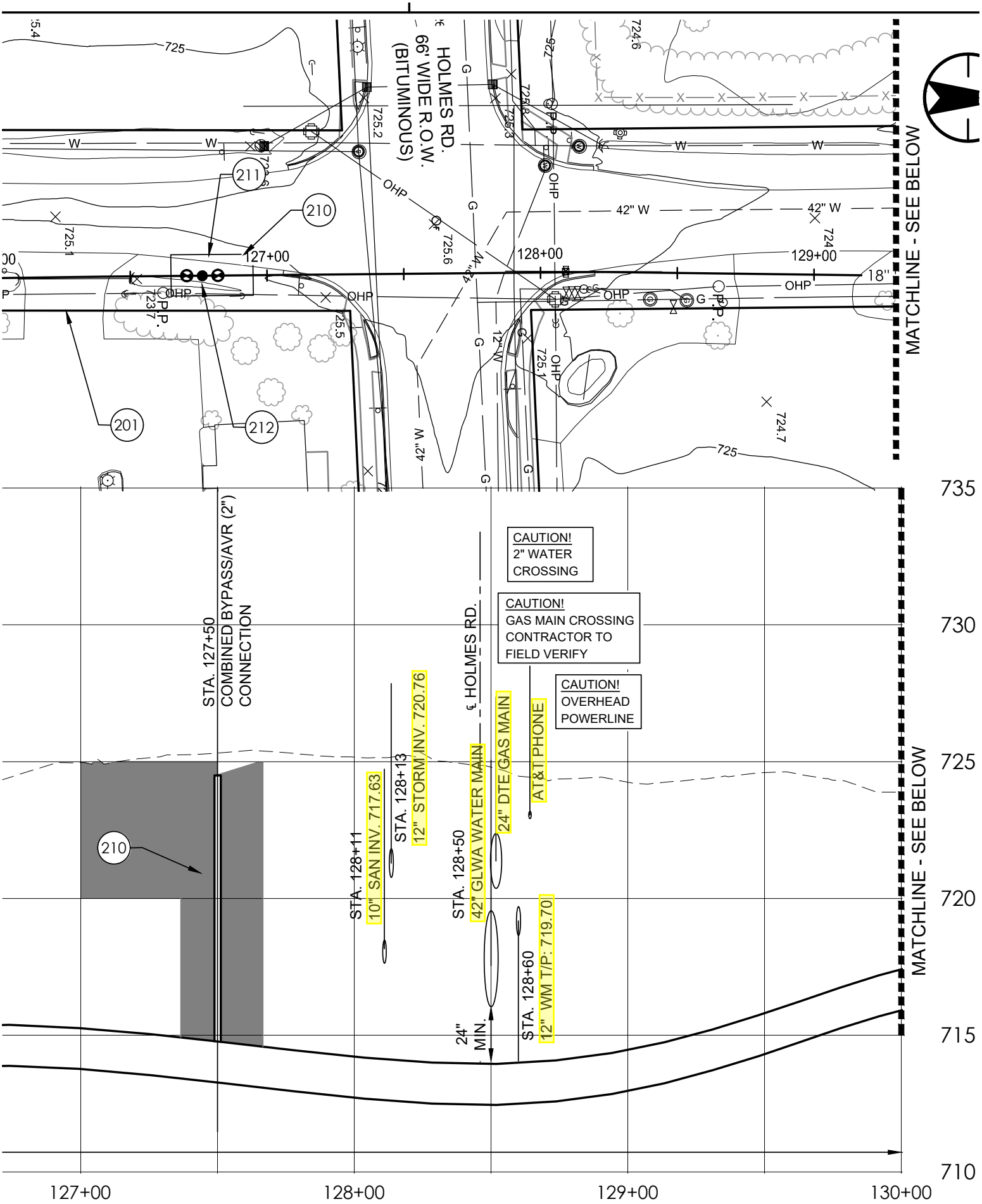
Sheet C-104

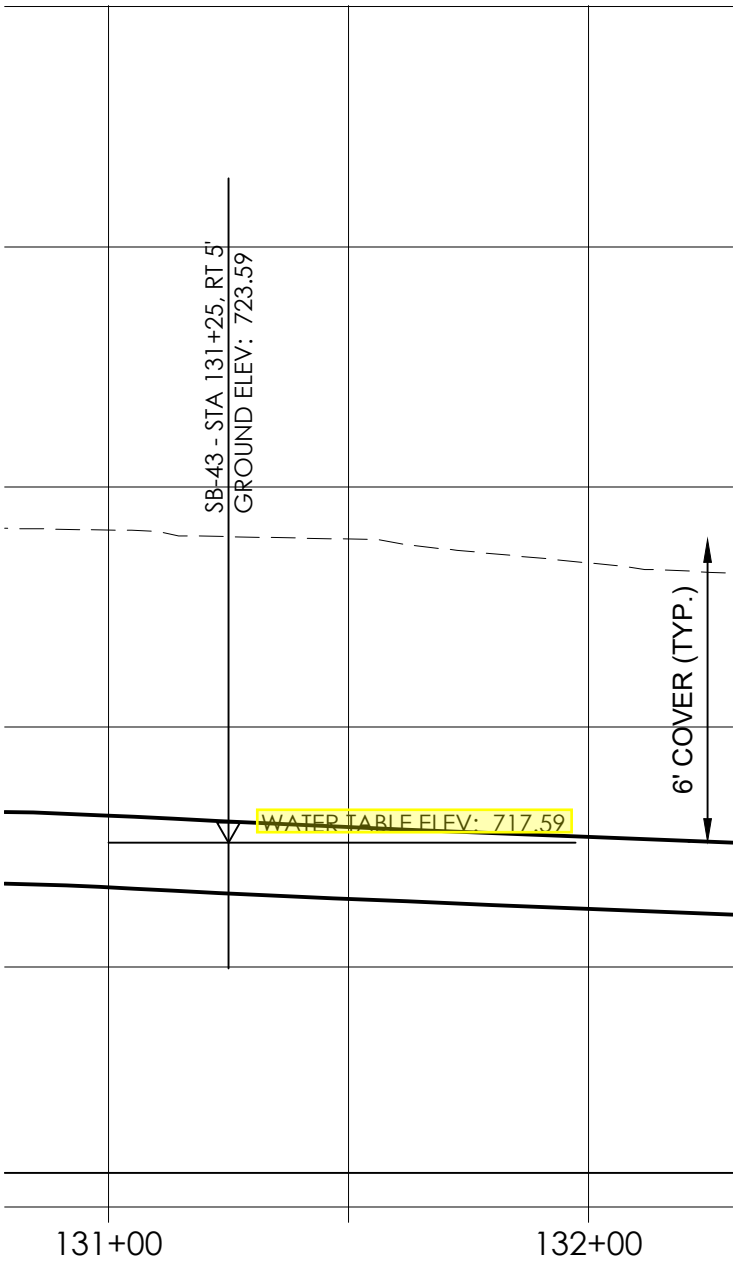

NS WILLOW RUN YARD:
210
208
214
101+00
102+00
103+00
R15.0'
730
F.O.
90"ST
RAILROAD TRACKS
100.0' MDOT RAILROAD RIGHT-OF-WAY
VENT
50'
56'
PERTY
STA. 101+66
SB-13A (2002) - STA 102+02, RT 72'
GROUND ELEV: 729.00
WATER TABLE ELEV: 721.0
16' COVER UNDER RR TRACKS
℄ RR
STA. 103+56
AMTRAK FIBER OPTIC
STA. 103+64
CENTURY-LINK FIBER OPTIC
STA. 103+80
214 LF 24" CASING PIPE W/MINIMUM WALL THICKNESS OF 0.500"
FM BY OPEN CUT
214 LF 24" CASING BY JACK & BORE
102+00
103+00
104+00

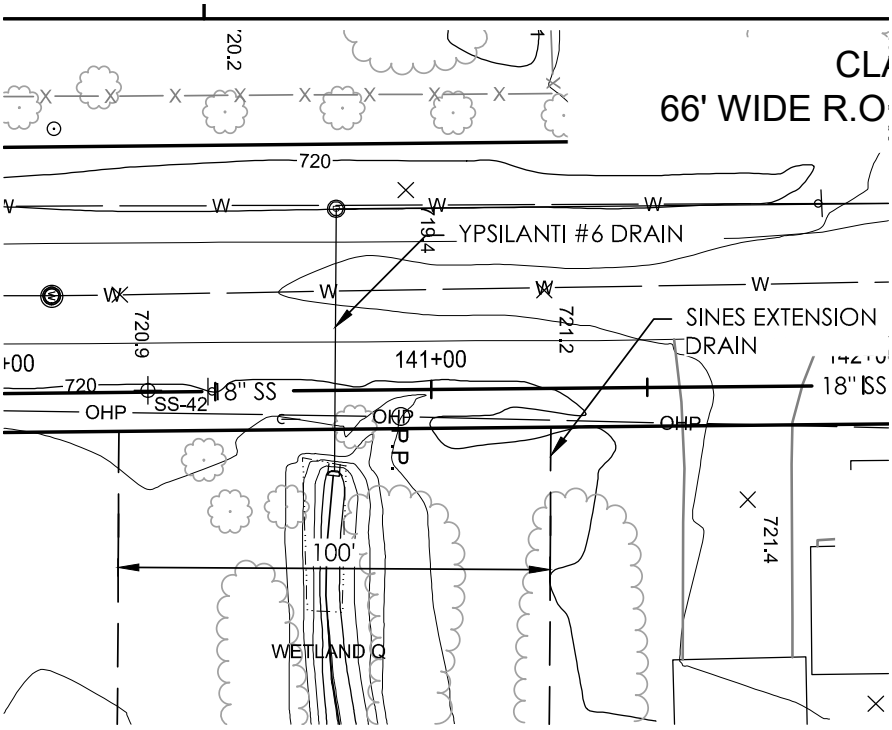
Sheet C-105

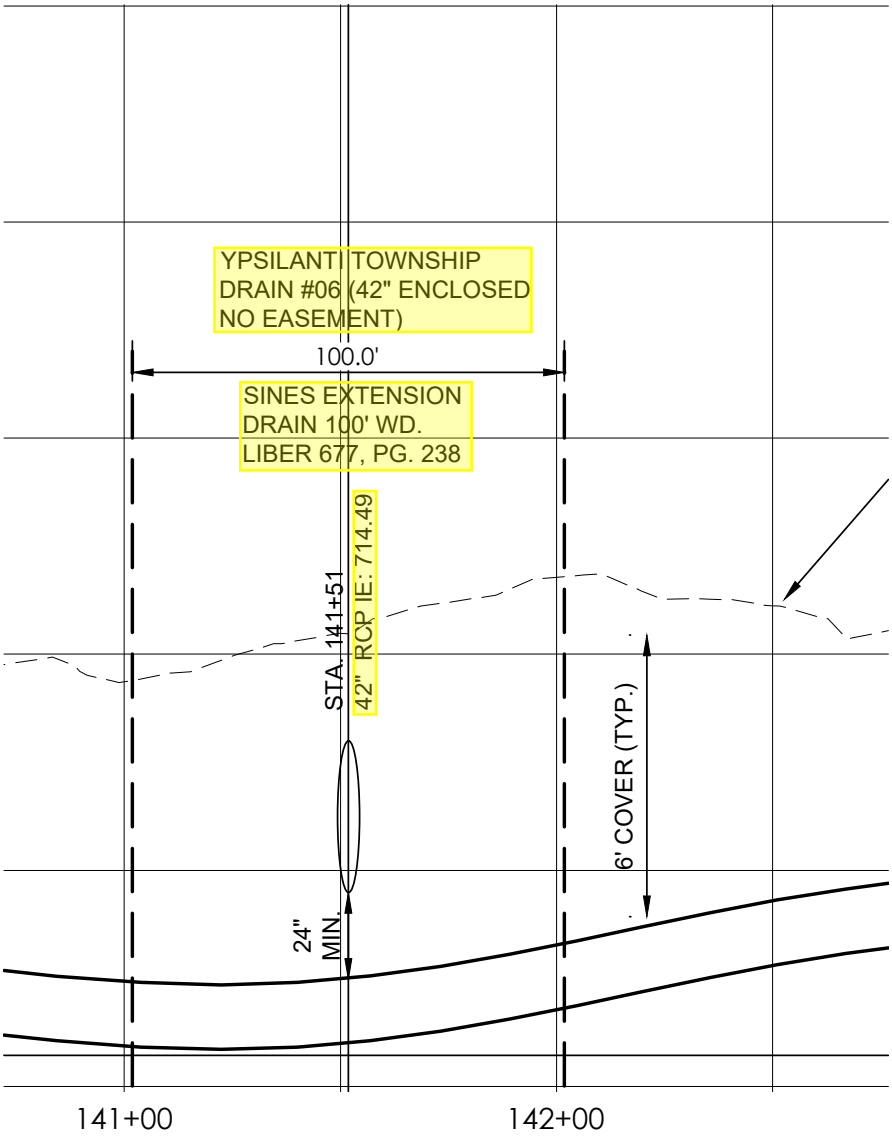

100.0'
100' WILLOW RUN DRAIN
LIBER 743, PG. 91
SANITARY SEWER
EASEMENT
30.0'
SB-15A (2000) - STA 112+73, RT 42'
GROUND ELEV: 726.78
SB-45 - STA 114+89, RT 6'
GROUND ELEV: 728.88
WATER TABLE ELEV: 720.88
WATER TABLE ELEV: 717.43
MATCHLINE
STA. 113+40
90° BEND
STA. 113+64
36" YCUA SANITARY
INTERCEPTOR
STA. 114+03
78" WILLOW RUN DRAIN
18"
MIN.
210
TYP.
170 LF 18" FM BY OPEN CUT
160 LF 18" FM BY DIRECTIONAL DRILL
112+00
113+00
114+00
115+00


EXISTING GRADE ALONG ℄ FORCEMAIN
CAUTION!
GAS MAIN CROSSING
CONTRACTOR TO
FIELD VERIFY
CAUTION!
OVERHEAD
POWERLINE
CAUTION!
OVERHEAD
POWERLINE
℄ MICHIGAN AVE. (US-12)
SB-44 - STA 123+28, RT 22'
GROUND ELEV: 727.26
210
STA. 123+99
6" GAS PIPELINE
STA. 123+90
90° BEND
10.90'
STA. 124+70
12" WATER MAIN
STA. 124+79
12" STORM INV. 719.40
STA. 124+89
12" SAN INV. 714.46
12.60'
18"
MIN.
WATER TABLE ELEV.: 718.26
123+00
124+00
125+00


HOLMES RD.
66' WIDE R.O.W.
(BITUMINOUS)
MATCHLINE - SEE BELOW
MATCHLINE - SEE BELOW
211
210
201
212
127+00
128+00
129+00
42" W
18"
OHP
725
724.7
724.6
725.1
725.2
725.3
725.5
725.6
725.7
724
CAUTION!
2" WATER
CROSSING
CAUTION!
GAS MAIN CROSSING
CONTRACTOR TO
FIELD VERIFY
CAUTION!
OVERHEAD
POWERLINE
STA. 127+50
COMBINED BYPASS/AVR (2")
CONNECTION
℄ HOLMES RD.
STA. 128+13
12" STORM INV. 720.76
STA. 128+11
10" SAN INV. 717.63
STA. 128+50
42" GLWA WATER MAIN
24" DTE GAS MAIN
AT&T PHONE
STA. 128+60
12" WM T/P: 719.70
24"
MIN.
735
730
725
720
715
710
127+00
128+00
129+00
130+00


SB-43 - STA 131+25, RT 5'
GROUND ELEV: 723.59
6' COVER (TYP.)
WATER TABLE ELEV: 717.59
131+00
132+00


720.2
CL
66' WIDE R.O
720
YPSILANTI #6 DRAIN
719.4
720.9
721.2
SINES EXTENSION
DRAIN
141+00
720
18" SS
SS-42
OHP
P.P.
100'
721.4
WETLAND Q


YPSILANTI TOWNSHIP
DRAIN #06 (42" ENCLOSED
NO EASEMENT)
100.0'
SINES EXTENSION
DRAIN 100' WD.
LIBER 677, PG. 238
STA. 141+51
42" RCP IE: 714.49
6' COVER (TYP.)
24"
MIN.
141+00
142+00

Sheet C-107

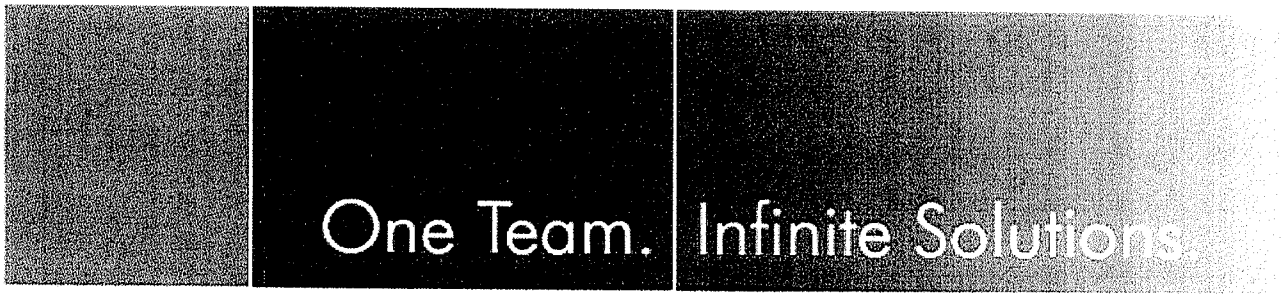
EXHIBIT B

Salem Township

Urban Services District (USD)

Wastewater Treatment Plant (WWTP)

Stantec Consulting, Michigan
February, 2008



Stantec

WWTP
Background Information

- *USD Established by Salem Township to be Served by Municipal Water and Sewer Systems*

- *Development Agreement Between Salem Township and Developer (Schostak) to Build a WWTP for the USD*

- *Original Development Agreement Calls For WWTP on Township Property at Intersection of M-14 and Gottfredson Road (Northeast Corner)*

- *Recent Discussions Indicate that the WWTP May Be Located on the JCI Property (Southeast of M-14 and Gottfredson Road)*

WWTP

Michigan Department of Environmental Quality (MDEQ) Regulatory Requirements

Critical Effluent Discharge Limits

- *Phosphorous (P) is the most critical and is the deciding factor*
- *In 2002 – 2003 the P limitation was 1.0 mg/L*
- *Recent communication and meetings with MDEQ indicates an expected maximum P limit of 0.1 mg/L and possibly 0.05 mg/L*
- *Change in regulatory requirements impacts selected technologies for Salem WWTP.*

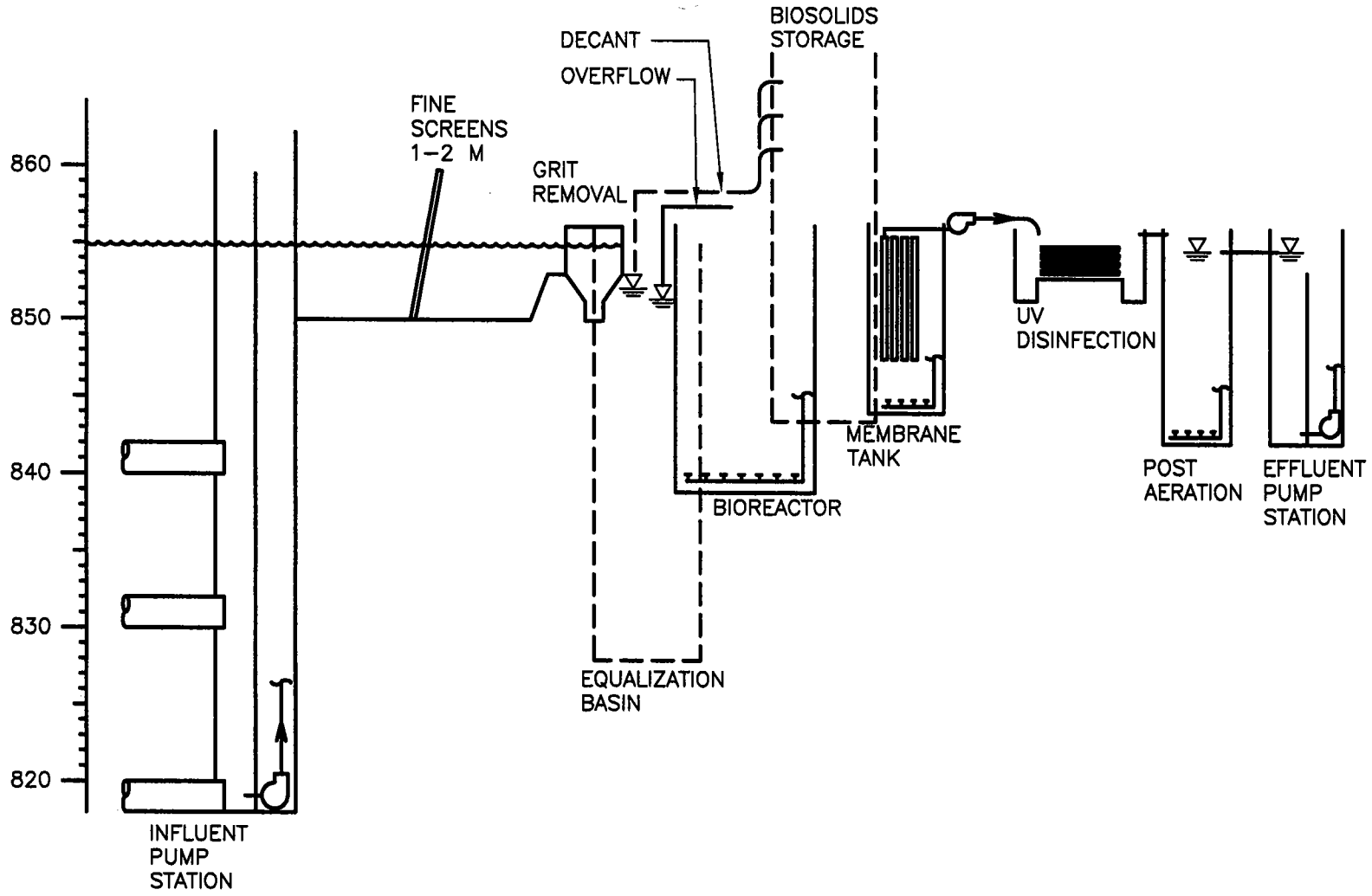
Conclusions and Recommendations

Conclusions:

- ***The regulatory environment is changing and is becoming more stringent.***
- ***The regulations appear to be changing at a fast pace.***
- ***Communities should have long-term plans to address potentially more stringent regulations.***

Recommendations:

- ***Adopt the technology that is better suited to meet current and potential future, more stringent, requirements.***
  - *That is the MBR technology.*



MBR WWTP TYPICAL HYDRAULIC PROFILE

APRIL, 2008
2075077201

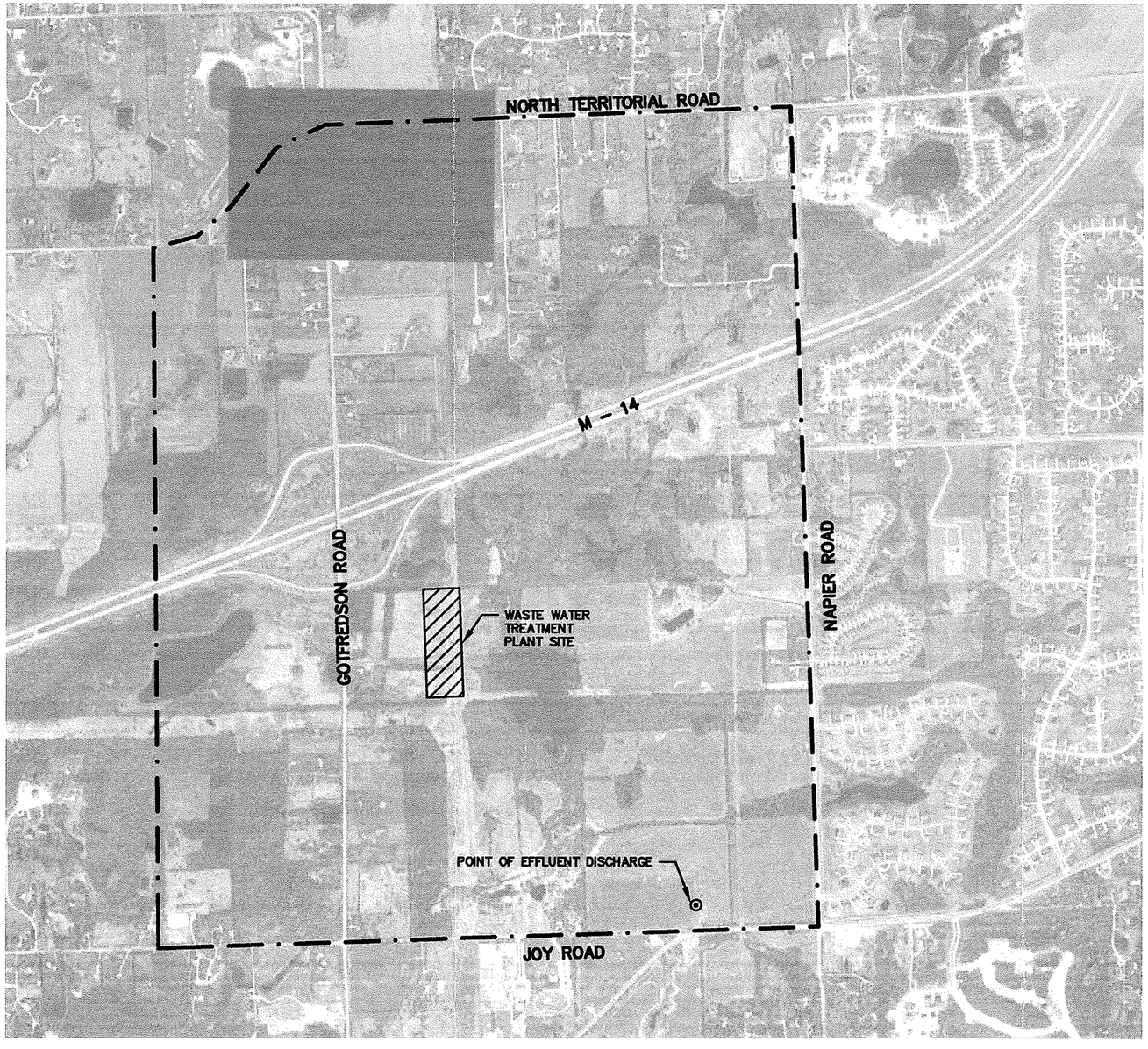
Stantec Consulting Michigan Ltd.
3959 Research Park Drive
Ann Arbor MI U.S.A.
48108–2216
Tel. 734.761.1010
Fax. 734.761.1200
www.stantec.com

Legend

Client/Project
SALEM TOWNSHIP, MICHIGAN
USD WWTP

Figure No.

Title
HYRAULIC PROFILE
MBR WWTP



N

Scale 1:1500 0 1500 2250 3000

APRIL, 2008
2075077201

Stantec
3959 Research Park Drive
Ann Arbor MI U.S.A.
48108–2216
Tel. 734.761.1010
Fax. 734.761.1200
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Client/Project
SALEM TOWNSHIP, MICHIGAN
USD WWTP

Figure No.
1.2

Title
WASTEWATER SYSTEM
LOCATION MAP

MCKENNA

April 7, 2021

Mr. David B. Landry
Attorney for Superior Charter Township
c/o Landry, Mazzeo & Dembinski PC
37000 Grand River Ave.
Suite 200
Farmington Hills, MI 48335

Subject: Salem Springs SE, LLC v. Superior Charter Township
Planning Analysis

Dear Mr. Landry:

As requested, I have analyzed the potential impacts the construction of a sanitary sewer line along Gotfredson Road would have on the planning goals of Superior Charter Township. As explained in this letter, my research finds that the proposed construction would have serious consequences, thwarting the Township's efforts to preserve and protect its agricultural land and rural open space.

BACKGROUND INFORMATION

Several years ago, Salem Township created an Urban Services District (USD), comprising approximately 1,400 acres in the vicinity of the M-14/Gotfredson Road interchange.[1] The purpose of the USD was to facilitate commercial and residential development. Salem Springs SE, LLC (Schostak Brothers) acquired approximately 370 acres on the east side of Gotfredson Road in the USD and submitted plans that called for commercial development and approximately 570 single family homes.

Meanwhile, Salem Township struck an agreement with the Great Lakes Water Authority to supply potable water to the USD, connecting to an existing watermain near the intersection of Napier and Joy Roads. The pursuit of sanitary sewer service proved to be a difficult task, but after investigating several options Salem Township entered into a Water Transportation and Treatment Agreement with the Ypsilanti Community Utilities Authority (YCUA) on July 1, 2017.

Stantec Consulting Michigan, Inc., was commissioned to design the sanitary sewer system to transport the wastewater from the USD south to the treatment plant in Ypsilanti Township. The system designed by Stantec calls for extension of an 18-inch sanitary forcemain from a pump station located on Joy Road, south on Gotfredson and Ridge Roads through Superior Township, continuing further south into Ypsilanti Township.

The forcemain is proposed to travel through sensitive environmental areas north of Ford Road, characterized by the presence of wetlands, streams, woods, and rural open spaces. Between Cherry Hill and Geddes Roads, the forcemain is proposed to travel through vast prime agricultural lands occupied by huge, productive farms.

[1] The USD is within Sections 25, 26, 35, and 36 of Salem Township, and is bounded by North Territorial Road on the north, Napier Road on the east, Joy and Ann Arbor Roads on the south, and the eastern ½ section lines of Sections 26 and 35 on the west.

HEADQUARTERS
235 East Main Street
Suite 105
Northville, Michigan 48167

O 248.596.0920
F 248.596.0930
MCKA.COM

THE MASTER PLAN: A COMMITMENT TO AGRICULTURE AND RURAL OPEN SPACE

The Master Plan for Superior Charter Township, adopted in mid-2010 by both the Planning Commission and Township Board, demonstrates the Township's commitment in an official policy document to protect its agricultural land and rural open space. Chapter 5 of the Plan describes the residents' vision for the Township in 2029 as follows:

> "The most common landscape view in most of Superior Township continues to be a mix of woods, meadows, wetlands, and farm fields. This is because the center of the Township remains largely undeveloped, and settlement still retains a rural character at all but the southern edge of the Township. The bulk of the population continues to live in the more developed portion south of Geddes Road and in the historic hamlet of Dixboro."

Later in Chapter 5, the Plan sets forth Objective VII, indicating that:

> "The majority of the land north of Geddes Road and outside of the hamlet of Dixboro and the Township's designated Urban Service Area shall be *preserved, managed, or developed in a manner that focuses on long-term retention of agricultural operations*, greenspaces, and other rural land uses." (italics added)

Then, following Objective VII, is the following policy that further emphasizes agricultural preservation:

> "Agricultural uses, as defined in the Agricultural Land Use Section of this Plan, conservancy, recreational, and low density rural residential uses (screened by native vegetation), shall be retained as the predominant land uses in area in the Township outside of the hamlet of Dixboro and the Township's designated Urban Service Area."

The agricultural emphasis in the Master Plan is unambiguously portrayed on the Future Land Use Map (Map 6-4), which designates most of the land between Geddes and Warren Road, including all of the land on both sides of Gotfredson Road, as "Agricultural Lands, Conservation and Rural Residential."

Statistics indicate that Superior Charter Township has been extraordinarily successful at implementing its Master Plan. According to SEMCOG's 2015 Land Use Inventory, nearly half (47.2%) of the Township's land is agricultural. Recreation/Open Space accounts for 10.4% of the total land area, Vacant accounts for 13.2%, and Water accounts for 2%. Altogether, therefore, the rural land use categories account for 72.8%—almost three-quarters—of the land cover. The Township clearly has been successful at keeping incompatible uses from infiltrating the rural heart of the community.

Building permit data provide further evidence of the success of the Township's planning and agricultural preservation efforts. Since 2010, an average of only 49.5 building permits were issued annually for new residential units in Superior Charter Township. Most of these permits were issued in the Township's Urban Service District, including 125 permits for a multiple-family development in 2018-2019. Subtracting these 125 units yields an annual average of only 38.1 single-family permits since 2010.

FEASIBILITY OF THE MASTER PLAN

The Master Plan was drafted in 2010, but does it present a realistic picture of the future, particularly for agriculture, in 2021? Our research indicates that implementation of the plan is feasible. One measure of the viability of agriculture is the amount of farmland enrolled in the Michigan Farmland and Open Space Preservation Act program under Part 361 of Public Act 451 of 1994 (formerly the "Act 116 program"). Current data show there are 14 parcels protected from development under this program, representing 1,246 acres of land. Parcels that front on Gotfredson Road account for 673 acres, or 54% of the total acreage. The end date of enrollment of these parcels ranges from 2025 to 2091, revealing that farmers expect to remain in agriculture for many decades.

With respect rural open space, the Southeast Michigan Land Conservancy reports there are eight nature preserves in Superior Charter Township, encompassing 1,044 acres that are protected in perpetuity from development of any kind.

THREATS TO AGRICULTURE

The Master Plan acknowledges that there are threats to agriculture, principally from the following three related reasons:

1. Rural non-farm housing replacing active farm fields;
2. The incompatibilities that arise from locating non-farm or urban housing close to active agriculture; and
3. Increasing property tax burdens on farmland.

One of the drivers of all three threats is the extension of utilities, particularly sanitary sewer service, into agricultural areas. Superior Charter Township recognized this and put in place policies and ordinances to control where utilities could be extended in the Township.

THE URBAN SERVICE AREA

The principal method of control over utility extensions was the establishment of an Urban Service Area that describes the precise boundaries within which public utilities may be extended, which are land south of Geddes Road, the Medical Center Area, and a small area adjacent to Ann Arbor Township.

Chapter 4 of the Master Plan sets forth Township policy on extensions of utilities outside of the Urban Service Area, stating the following:

> "*It is not sound regional or community planning to encourage or permit the extension of public sanitary sewer and public water services outside of the Urban Service Area* (if capacity is available), or to permit the use of private community wastewater systems to justify residential developments of an urban scale and density. Development of housing at urban scale and densities on land outside of the Urban Service Area would contribute to an inefficient pattern of urban sprawl and would not be in accordance with the policies of this Plan." (italics added)

UTILITIES RESULT IN URBAN DEVELOPMENT

In the above passage, the Master Plan is in essence acknowledging that extension of utilities outside of the Urban Service Area (into the agricultural areas of the Township) will result in development of housing at an urban scale. The driver of housing demand in the area is the City of Ann Arbor. According to the Ann Arbor City Planner, there is a severe shortage of housing in the City that is exacerbated by the limitation on growth in the three adjacent townships, Ann Arbor Township, Scio Township, and to a lesser extent, Pittsfield Township. Because of the pent-up demand for housing in Ann Arbor, the cost of housing is extremely high.

Experience in the area has shown that once utilities are extended to allow for residential development in and surrounding Ann Arbor, land speculation occurs followed quickly by development. The City of Ann Arbor extended utilities into Scio Township, for example, and the land on the east side of the Township and along Jackson Road filled with development. A quick look at the Zoning Map for Superior Charter Township reveals that the Urban Service Area is nearly filled with numerous subdivisions, multiple lot splits, medical center development, and technology center development.

In a community I am intimately familiar with located just six miles to the north, Lyon Charter Township constructed its own wastewater treatment plant and sanitary sewer system, which consists of both gravity sewers and forcemains. The system generated widespread land speculation based on the prospect of being able to connect to a sanitary sewer. Hundreds of residential building permits were issued each year, making Lyon Township one of the fastest growing communities in southeast Michigan. Seemingly overnight, the township's rural character was transformed.

THE UTILITIES—DEVELOPMENT CYCLE

The prospects for agriculture and rural open space are grim if a sanitary sewer line is constructed along Gotfredson Road in Superior Township. The cycle described above is more than likely to occur, beginning with

land speculation that will drive up the price of land, making it more costly to farm. The higher land values will over time spur higher property taxes. One by one farmers will begin to sell. Meanwhile, developers who have acquired the land will begin to apply pressure on Salem Township to provide access to the sanitary sewer, offering ever higher financial incentives. Eventually, Salem Township will capitulate and agree in writing to allow connections to the forcemain in Superior Township, pursuant to Section 1.7 of the Wastewater Transportation and Treatment Agreement.

SALEM TOWNSHIP MASTER PLAN

Interestingly, Salem Township's planning goals and policies are amazingly similar to Superior Township's. The Introduction to Part 12 of Salem Township's Master Plan, which deals with Public Utilities, begins with the following statement:

> "It is the intent of this Plan that sewer service not be extended into any portion of the Township that is not planned for such extension."

The Introduction further states that:

> "Other than the Salem Hamlet Area, public sanitary sewer and water will only be allowed within the designated Urban Service District."

In Section 12.02(A), the Master Plan sets forth the following objective:

> "Management of any public sanitary sewer system will direct development away from areas designated for agricultural, rural, and suburban residential land uses."

In the Policies portion of Section 12.02, the Master Plan concludes the following:

> "*Extension of public sewer services into designated agricultural zones shall be prohibited.*" (italics added)

Like Superior Charter Township, Salem Township apparently recognizes the deleterious impact the utilities—development cycle has on agricultural and rural open spaces. Nevertheless, Salem Township wants Superior Township to cast aside the same utilities and growth management strategy it has adopted and adhered to, just so it can develop its Urban Service District.

SUPERIOR TOWNSHIP UTILITY ORDINANCE

The Superior Township Utility Ordinance No. 169 states in part:

> "Sewage lines, equipment and appurtenances, not owned by or under the control of the Township, to serve areas outside of the Township, are prohibited in the Township and in all road rights-of-way within the Township, unless: (a) a public health emergency exists and (b) the proposed connection, sewer line and appurtenances is the only feasible way to avert the public health emergency and (c) the parties have executed an agreement setting forth the terms of use, fees, limitations and other pertinent issues."

On September 18, 2019, Gary Whittaker, Salem Township Supervisor, submitted to Superior Township an Application for Permit for Municipal Sewerage Lines and Appurtenances in the Public Right-of-Way Located in Superior Charter Township. In the application, Mr. Whittaker found "that a public sanitary sewer system to service the Salem Township Urban Service District is a necessity in order *to avoid* a public health emergency." (italics added)

Dictionary.com defines "emergency" as "a sudden, urgent, usually unexpected occurrence or occasion requiring immediate attention." The wish to provide sanitary sewer service to the Salem Township Urban Service District is by no means an emergency. This wish has been known for well over a decade, so it certainly cannot be classified as sudden, urgent or unexpected. If there was a public health need that required immediate attention, the Washtenaw County Health Department and Michigan Department of Environment, Great Lakes, and Energy

would likely be involved. Even Mr. Whittaker's use of the words "to avoid a public health emergency" acknowledges there is no present emergency in existence.

Salem Township's dilemma was created years ago because Urban Service District boundaries were arbitrarily drawn to encompass 1,400 acres around the interchange of Gotfredson Road and M-14 without sufficient forethought as to where the urban services would come from. One questions whether it was a logical decision to even plan for urbanized development in this location, in an otherwise rural area.

CONCLUSION

The Master Plan reflects Superior Charter Township's determination to protect and preserve its agricultural lands and rural open spaces. At the same time, the Plan recognizes there are threats to these preservation efforts, primarily from non-farm residential development in agricultural and rural areas.

Experience has shown that the construction of utilities, particularly sanitary sewer utilities, accelerates non-farm residential development, especially in an area where there is pent-up demand for housing (like the Ann Arbor area). The construction of a sanitary sewer line along Gotfredson Road in Superior Charter Township would initiate a utilities—development cycle, accelerating residential development, and thwarting all efforts to protect and preserve agricultural land and rural open space.

Sincerely,

McKENNA

Christopher J. Doozan, AICP
Community Planning Consultant

Lynette Findley

From: Ken Schwartz
Sent: Tuesday, April 20, 2021 12:13 PM
To: Lynette Findley
Subject: FW: Sewer email

Ken Schwartz
Superior Township Supervisor
(734) 482-6099

From: Dan Ezekiel <dan.ezekiel24@gmail.com>
Sent: Tuesday, April 20, 2021 12:03 PM
To: Ken Schwartz <kenschwartz@superior-twp.org>
Subject: Sewer email

Dear Supervisor Schwartz and Trustees,

As former chair of the Ann Arbor Greenbelt Advisory Commission and current member of the Washtenaw County Parks and Recreation Commission, as well as past chair and current member of the local Sierra Club leadership, I am a longtime friend of the Superior Greenway.

I strongly oppose the "Salem Sewer". It is a threat to the integrity of the Superior Greenway that your township has fought long and hard to protect, and also a threat to the wildlife that lives there. Without the Superior Greenway, we could see a Canton-like suburban sprawl stretching from Detroit to Ann Arbor and beyond. With proper care, the Superior Greenway will one day be the keystone of a Detroit Greenbelt.

Thanks in advance for your foresight in rejecting this awful proposal and fighting it in court.

Sincerely Yours,

Dan Ezekiel

Lynette Findley

From: richardmaurer@provide.net
Sent: Monday, April 19, 2021 5:19 PM
To: Ken Schwartz; Lynette Findley; Brenda McKinney; Nancy Caviston, Trustee; Bernice Lindke; Lisa Lewis; Rhonda McGill; richardmaurer@provide.net
Subject: Eyde Co. development and Salem Twp. extension of sewer lines

Dear Mr. Schwartz and the members of the Superior Township Board,

I am not able to come to the Superior Township meeting tonight, so I am writing a letter to you instead. I had planned on coming and speaking out about the Eyde Co. proposal to build a huge development at LeForge and Geddes. I'm not sure how they would be able to build the development without sewer lines, which would need to be extended north of Geddes.

We have been fighting in Superior Township for decades to keep the Township from becoming another Canton, and to preserve the Township's rural character, The board of directors has always been supportive of these endeavors and has always worked hard to keep extensive developments out. We have got to preserve our quality of life. I am furious by the notion that some company, from outside our beautiful Township, could come in and try to tell us what we should do with these beautiful lands we have stewardship over. I would have thought that Eyde had gotten the message to stay out. However, they apparently keep trying.

I don't know what actions, legal or otherwise, we can do to stop these big developments, but I and a lot of other Superior Township residents don't want them. We urge you to do what you can to stop the Eyde development at LeForge and Geddes. PLEASE stop them.

The other problem is the issue of extending sewer lines along Gottfredsohn Road to Salem Township. I'm sure you are aware that if the sewer lines are extended in this way, it will open development all along Gottfredsohn Road, and throughout the rest of the Township. Our quality of life as we know it will disappear. Salem Township is suing us to force us to extend the sewer lines. However, again, they can't force us to do something that is not in our best interests, and only benefits Salem Township. That's wrong. It's their responsibility to find alternative methods to get their sewer, not ours.

We have elected you to preserve our quality of life, and you have been working hard to help keep Superior wonderful. As you always say, "Our Township is Superior!" I urge you to in fact keep our Township Superior. Please keep these disgusting developments out of our township. No housing development will ever replace the geese and ducks, the wetlands and farms, that spread out across our beautiful place we call home.

Thank you,

Richard Maurer

Lynette Findley

From: Ken Schwartz
Sent: Tuesday, April 20, 2021 2:08 PM
To: Lynette Findley
Subject: FW: Salem Township Sewer Application

Ken Schwartz
Superior Township Supervisor
(734) 482-6099

From: jrintamaki@comcast.net <jrintamaki@comcast.net>
Sent: Tuesday, April 20, 2021 1:16 PM
To: Ken Schwartz <kenschwartz@superior-twp.org>
Subject: Salem Township Sewer Application

Dear Mr. Schwartz

I am totally opposed to any grant of the Salem Township Sewer Application. I have been involved with Superior Township for over 30 years and have watched and participated in the development of the Superior Township Growth Management Plan. I also have been involved in similar developments in Fruitland Township, Michigan and Bessemer Township, Michigan. I have been amazed at the popular turn out and participation of the residents of Superior Township in the process which crystallizes the visions of the residents in the future of their township. Compared to the other townships I have been involved in, Superior Township participation as been overwhelming popular and has attracted a huge participation from the residents. And in my personal experience, this has been the case with Superior Township for well over 30 years.

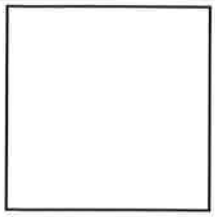
That said, the carefully crafted Growth Management Plan and all that flows from it would be seriously eroded by a grant of the Salem Township sewer application. The proposed Salem Township sewer facility would severely damage all the standards and goals that Superior Township residents have worked so hard to preserve.

When other Townships, whose goals are opposite of ours, place growth and urbanization (and usually NOT including affordable housing) as their main goals, we as residents of Superior Township should not have to bear any burden of another Township's goals and problems. The Salem Township proposal would place under burden on Superior Township residents both from a goal and standard standpoint, and from likely financial impositions relating to the construction, maintenance and management of the proposed Salem Township Sewer.

I ask that you forward this email message on to the Trustees for their consideration, and I urge them to reject the application. And if litigation is necessary, I support any litigation to oppose the proposed application.

If you or the Trustees have any questions, please let me know.

John Rintamaki



Lynette Findley

From: Ken Schwartz
Sent: Tuesday, April 20, 2021 2:08 PM
To: Lynette Findley
Subject: FW: meeting on sewer

Ken Schwartz
Superior Township Supervisor
(734) 482-6099

From: Daniel Moerman <dmoerman@umich.edu>
Sent: Tuesday, April 20, 2021 1:23 PM
To: Ken Schwartz <kenschwartz@superior-twp.org>
Cc: Bill Secrest <willysecrest@gmail.com>; copley, john <jalmoncopley@hotmail.com>; marion morris <petermorris201@comcast.net>
Subject: meeting on sewer

Hi Ken

I can't make the meeting this afternoon (dentist, yuk). I am UNALTERABLY OPPOSED TO THIS SEWER PROJECT, in upper case, and cubed. Totally opposed. It will ruin our township. Nothing could change my mind. Suppose they offer to buy the right of way for 20 skintillion dollars? NO NO NO!!!

best, Dan.

--
Daniel E Moerman
William E. Stirton Professor Emeritus of Anthropology
University of Michigan-Dearborn
Research Associate, Botanical Research Institute of Texas

Lynette Findley

From: Ken Schwartz
Sent: Tuesday, April 20, 2021 2:08 PM
To: Lynette Findley
Subject: FW: Sewage line to Salem Twp

Ken Schwartz
Superior Township Supervisor
(734) 482-6099

From: ANDREW DETTLING <dendroica@sbcglobal.net>
Sent: Tuesday, April 20, 2021 1:35 PM
To: Ken Schwartz <kenschwartz@superior-twp.org>
Subject: Sewage line to Salem Twp

Ken, I'm writing to you to express my opposition to Salem Twp request to run a sewage line through Superior Twp. Superior Twp has held steadfast against the urban sprawl that has crept west from Metro Detroit for decades now. Just look at a satellite photo of the area and you can easily pick out Superior Twp as a green oasis next to Detroit. People choose to live in the Twp for this very reason. If they wanted to live in suburbia, they would move to Canton, who develops every single plot of free space. Superior Township's charter is to remain rural and have green space for people and wildlife.

I have been a supporter of Southeast Michigan Land Conservancy for decades and they have done an amazing job creating a green wall next to Detroit. This sewer line will open up a huge portion of Superior Twp to development. This goes against the Township charter and the wishes of its residents.

I have been conducting bird surveys in Superior Twp for 20 years and have seen 214 species of birds and may other observations of mammals, insects, trees and flowers. Don't throw away all of this beauty to benefit one wealthy, politically connected individual. We live in a democracy and shouldn't have to bow to the desires of one elite.

Please do everything in your power to prevent this sewer line from being run through Superior Township.

Andrew Dettling
2019 N Woods Ct
Canton, MI 48188
248-470-3127

Lynette Findley

From: Ken Schwartz
Sent: Tuesday, April 20, 2021 2:07 PM
To: Lynette Findley
Subject: FW: Sewer line

Ken Schwartz
Superior Township Supervisor
(734) 482-6099

-----Original Message-----
From: Ann Alvarez <annra.new@gmail.com>
Sent: Tuesday, April 20, 2021 1:53 PM
To: Ken Schwartz <kenschwartz@superior-twp.org>
Subject: Sewer line

Hello. I am a resident of Washtenaw county. I live in Pittsfield Township, while my sister and her husband live in Ssuperior Township. We are birders, and often bird the Vreeland Road and Gotfredson Road areas, which have prime habitat for special birds and other wildlife. In that area we have seen snowy owls, short eared owls, and many other birds of interest to environmentalists.

We very much hope this proposed project will not be developed as indicated, especially since it goes against existing and well thought out plans, as I understand it.

It is great to be good neighbors to other townships... But not if your own is actually harmed in the process.

Very much hoping this can be stopped.
Thank you for your attention to this important matter.

Regards,
Ann Alvarez

Sent from my iPhone

Lynette Findley

From: Ken Schwartz
Sent: Tuesday, April 20, 2021 2:14 PM
To: Lynette Findley
Subject: FW: Sewer

Ken Schwartz
Superior Township Supervisor
(734) 482-6099

-----Original Message-----
From: Janet Hinshaw <jhinshaw@umich.edu>
Sent: Tuesday, April 20, 2021 2:12 PM
To: Ken Schwartz <kenschwartz@superior-twp.org>
Subject: Sewer

I am against granting permission for the sewer passing through Superior township. There is no benefit to the township and doesn't fit in with your master plan.
Regards,
Janet Hinshaw,
Sylvan Township

Sent from my iPhone

From: Ken Schwartz <kenschwartz@superior-twp.org>
Sent: Tuesday, April 20, 2021 2:18 PM
To: Lynette Findley <lynettefindley@superior-twp.org>
Subject: FW: Salem Township Sewer Application Special Meeting

Ken Schwartz
Superior Township Supervisor
(734) 482-6099

From: Bernard Donkerbrook <donkerbrook.bj@icloud.com>
Sent: Tuesday, April 20, 2021 2:17 PM
To: Ken Schwartz <kenschwartz@superior-twp.org>
Cc: Hedwig Murphy <hsmurphy@umich.edu>; Dave Shipman <daveshipman@comcast.net>; Nasim Uddin <mnuddin1@gmail.com>; David Masch <davidmasch@comcast.net>; John Rintamaki <jrintamaki@comcast.net>; Reg Baker <vireo@comcast.net>; Bernard Donkerbrook <donkerbrook.bj@icloud.com>
Subject: Re: Salem Township Sewer Application Special Meeting

Mr. Ken Schwartz,

Subject: Strong Opposition to the Salem Sewer Application by the 66 unit **Matthaei Farm Site Condominium Association (MFCA)!**

From: Bernard Donkerbrook, MFCA President

Ken: Urban sprawl and intrusion on the natural, nature experience, consistent land-use management by Superior Township leadership over years, is a significant deterrent to our Matthaei Farm community's core values, therefore, MFCA is vehemently opposed to this initiative.

Respectfully,
—
Bernard Donkerbrook
MFCA President

Statement by the Matthaei Farm Condominium Association's Board of Directors Opposing the Request by Salem Township to Install a Sewer Line Along Godfredson Road

April 20, 2021

Matthaei Farm is a residential community of 66 homesites on approximately 100 acres along Gale Road in Superior Township. The development was founded by Fred Matthaei in 1988.

One of our core values is the preservation and enhancement of the native landscape, both within our development and in the surrounding township. We are in total agreement with the philosophy expressed in the *Superior Township Master Plan: A Growth Management Plan* emphasizing sustainability, preservation of agricultural land and open space, provision of recreational opportunities for residents, maintenance of a visual character of a natural and rural landscape, and resistance to urban sprawl, a clear threat in this specific instance.

The proposed pipeline along Godfredson Road threatens all of these values. It provides no value to Township residents. It disregards a quarter century of responsible management of our land and resources. It seeks to deny us our right as residents to manage our own affairs. We oppose it in the strongest possible terms.

With the full support of the residents of Matthaei Farm, we urge the Board of Trustees to reject the proposal and take whatever steps are necessary to defend such action.

Respectfully submitted,

Matthaei Farm Condominium Association

From: Ken Schwartz <kenschwartz@superior-twp.org>
Sent: Tuesday, April 20, 2021 3:31 PM
To: Lynette Findley <lynettefindley@superior-twp.org>
Subject: FW: Resident objecting to Salem sewer plan

Ken Schwartz
Superior Township Supervisor
(734) 482-6099
From: Matt Schuster <mattaschuster@yahoo.com>
Sent: Tuesday, April 20, 2021 2:59 PM
To: Ken Schwartz <kenschwartz@superior-twp.org>
Subject: Resident objecting to Salem sewer plan

Hello Mr. Schwartz,

I appreciate the township keeping residents updated on the proceedings with the proposed Salem township sewer.

As a long term township resident, I have taken great pride in the townships planning, specifically the master plan detailing protection for natural areas. I am a strong believer in the master plan that limits locations of sewer systems in the township and preservation of greenspace.

I object to the installation of the Salem sewer.

The proposed sewer is in violation of our township master plan in potentially fostering dense growth north of geddes rd. If the township is successful in limiting that development in keeping with our master plan, then the proposed sewer is of no value to township residents.

The proposed sewer brings risks of sewage spills to undisturbed farming areas and protected wetlands and greenspace.

For these reasons, and numerous more, I request that the township deny the permit and maintain the township master plan, which is not arbitrary and has been well vetted by our community.

Best regards

Matt Schuster
5766 geddes rd
Superior township, mi 48105