Heather Hanover
Chair

James Eshelman
Vice-Chair

Commissioners
Scott Dzurka, *Mayor*
Eric Hufnagel, *City Commissioner*
Eric Harger
Mark Holden
Brian Mills
Melvin Renfrow
Vacant

Chad A. Gamble
City Manager

Mindy J. Seavey
City Clerk

Kristina Kinde
City Treasurer

Michael Homier
City Attorney

Christopher Khorey, AICP
Planning Consultant

PLANNING COMMISSION

October 9, 2024

The St. Johns Planning Commission will hold a regular meeting on October 9, 2024 at 5:30 pm in the County Commission Chambers located at the Clinton County Courthouse, 100 E. State Street, St. Johns, MI. (Please use Cass St. Entrance.)

AGENDA

1. **Call to Order (5:30 p.m.)**
2. **Approval of Agenda (5:31 – 5:32 p.m.)**
3. **Approval of Minutes (August 14, 2024 Meeting) (5:33-5:34 p.m.)**
4. **Public comment for non-agenda items (5:35 – 5:45 p.m.)**
5. **Public Hearings:**
   a. **Noise Ordinance Amendment (5:46-5:55 p.m.)**
6. **New Business:**
   a. **Clinton County Maintenance Garage Site Plan Review ACTION ITEM (5:56 – 6:15 p.m.)**
7. **Old Business:**
   a. **Noise Ordinance Amendment Recommendation to City Commission ACTION ITEM (6:15 – 6:20 p.m.)**
   b. **Master Plan Future Land Use Discussion: (6:20 – 6:50 p.m.)**
      i. **Walker Road/Scott Road Area**
      ii. **Townsend Road Corridor**
      iii. **"Near North Side"**
8. **Committee Site Plan Approvals: None**

9. **Commissioner Comments. (6:29 – 6:34 p.m.)**

10. **Adjournment (6:35 p.m.)**

Please note that the Planning Commission will take up the following topics at future meetings, depending on available time:

Future Public Hearings

- ***Accessory Structures/Corner Lots Amendment (November)***
- ***Landscaping Amendment (November)***

Update of the St. Johns Master Plan

- ***November: Greater Downtown Redevelopment Plan***
- ***December: Mobility Plan***
- ***February: Full Draft Review***
- ***March: Recommendation for Distribution***
- ***June: Public Hearing***

Update of the St. John's Zoning Ordinance

- ***Ordinance 92 vs Chickens Ordinance***

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Chair

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Mark Holden
Melvin Renfrow
Eric Harger
Brian Mills
Vacant

PLANNING COMMISSION

SEPTEMBER 11, 2024
REGULAR MEETING MINUTES

DRAFT

1. CALL TO ORDER

The meeting of the St. Johns Planning Commission was called to order by Chair Hanover at 5:32 p.m.

Members Present:	Heather Hanover, Mark Holden, Eric Harger, Scott Dzurka, Brian Mills
Members Absent:	Melvin Renfrow, Eric Hufnagel, James Eshelman
Staff Present:	Chad Gamble, City Manager; Mindy Seavey, City Clerk; Chris Khorey, McKenna

2. APPROVAL OF AGENDA

City Manager Gamble asked to add some comments regarding construction projects to the agenda.

Motion by Commissioner Dzurka seconded by Commissioner Holden to approve the agenda as amended.
YEA: Hanover, Holden, Harger, Dzurka, Mills
NAY: None
Motion carried.

3. APPROVAL OF MINUTES – AUGUST 14, 2024 MEETING

Motion by Commissioner Holden seconded by Commissioner Dzurka to approve the minutes as presented.
YEA: Hanover, Holden, Harger, Dzurka, Mills
NAY: None
Motion carried.

4. PUBLIC COMMENT FOR NON-AGENDA ITEMS

There were none.

5. PUBLIC HEARINGS - NONE

6. NEW BUSINESS:

A. Landscaping Amendment

Chris Khorey, McKenna, said this topic has come up recently with administrative site plans. He said one ended up in front of the city commission, the library. He discussed: propose some amendments, most are clearly stating when landscaping requirements apply and when they don't; street frontage and parking lots to provide shade; protect adjacent land uses that may not be compatible. In reviewing landscape ordinance, we felt it wasn't clearly doing #3. We are proposing a chart. He discussed the chart; the mixed use and long-term vision for mixed use; and other proposed changes to the ordinance.

There was a discussion of:

- Subjective language (155.296 B).
- Mixed use – flexibility.
- Approving body language.
- Trees over 2' caliper.
    - List of trees that are not permitted.
    - Cottonwood trees; female Ginkgo.
- Holding a November public hearing.

7. OLD BUSINESS:

A. Continued Discussion on Height of Accessory Buildings

Chris Khorey, McKenna, discussed: data from BS&A about approved accessory buildings in the last 5 years; there were 62 & of those 56 were under the maximum height, 4 were exactly at maximum height, 1 at 19½', and 1 at 21'.

There was a discussion of:

- 16'.
- Property owner rights.
    - Setback is more important than height.
- 155.189 (M)(2).
- Holding a November public hearing.

B. Continued Discussion on Corner Lots

Chris Khorey, McKenna, discussed: front yard of corner lot; setback changes.

There was a discussion of:

- Accessory structures and chicken ordinance.
- Holding a November public hearing.

8. INFORMATIONAL ITEM: NO DISCUSSION:

A. Master Plan Demographics Presentation

Chris Khorey, McKenna, discussed: master plan work; first step is a draft update of the demographics chapter; city population; age – relatively young; racial composition; education; economics; occupations; commuting; retail gap analysis – not updated from last time because we don't have access to that data; housing; average household size; housing type; housing tenure; housing composition; next steps on the master plan: future land use map, and the remaining master plan schedule.

9. COMMITTEE SITE PLAN APPROVALS - NONE:

DRAFT

10. CONSTRUCTION PROJECT COMMENTS (added to agenda)

City Manager Gamble discussed upcoming street construction projects: Friday, Monday & Tuesday: Cass Street & Oakland; M-21; tentatively Brush Street will begin around the 23rd.

Commissioner Mills discussed when Lansing Street was being re-done, he got a knock on the door letting him know. He asked about a similar notification process.

City Manager Gamble said we need to contact the road commission. We will be pushing notices out to local residents. He said Heather has been great to work with on the DDA component of it.

10. COMMISSIONER COMMENTS

Commissioner Mills said he is constantly baffled with all the ordinances and how we aesthetically control what is going on in the neighborhood. If that is important to us, it would be nice if the city was held to a higher standard. He discussed beautification efforts we could take if we want to set an example for residents. With the demographic study, is that a catalyst that the city gets serious about economic development?

City Manager Gamble said almost everything that we do is economic development. He discussed the downtown - big attractor of our city; DDA and facade grants; hopeful reopening of the Federal Mogul building; Wilson Center; entrance signs to the city. He discussed being patient, but purposeful.

Mayor Dzurka discussed entrance signs and parks and that you don't see it all happen here (Planning Commission). He said the conversations occur a lot at commission meetings. We can't do it all at once. He discussed the MDOT process on M-21. He said some is going to get done in master planning. He discussed the partnership with LEAP and there is a lot of interest in this community; Federal Mogul and the changes coming there.

City Manager Gamble discussed the September 23rd special city commission meeting at 4:30 p.m. with a presentation at 5:00 for the annual report.

Chairperson Hanover said she is going to miss that meeting.

Mayor Dzurka followed up on the discussion at the last meeting regarding the cat issue and feeding of cats.

City Manager Gamble said it was discussed internally. He said Chris and I agreed that trapping is different than feeding the cats, it is baiting. That clarification was communicated to the resident and the humane society.

Chris Khorey said that was also communicated to code enforcement.

Chairperson Hanover said she heard M-21 was going to get redone in 2029.

City Manager Gamble said 2029 or 2030.

Chairperson Hanover asked if the city should be given credit for that?

City Manager Gamble discussed those who were involved: City, County, Senator Sam Singh, multiple levels of imploring MDOT to divert funds to Clinton County to effectuate this. He said the driving lanes only will be milled and resurfaced.

Chairperson Hanover said as the concerns of economic development. We need to get people to put in single-family units and that will bring people to the schools.

Chris Khorey said that conversation is relevant to conversations with the master plan.

DRAFT

There was a discussion of:

- Single-family lots with the development requirements: setbacks, driveways, basements, etc.
    - Keeping them at a rate new families can afford.
    - Maybe come up with a hybrid "residential light" development.
    - Interest in property along Glastonbury.
- The apartment building with ramps with pressure treated wood.
    - We do not regulate very strictly for things that are put in for barrier-free access.
    - Don't remember ramps on site plan.
        - Going back and checking the plans and making sure it is in-compliance with the site plan.
- The Federal Mogul project.
    - Not having a say at the planning commission level.
        - Will make sure there is upgraded landscaping; replace old fence; parking lot.
        - They haven't submitted an administrative site plan.
        - City staff meets every other week with the Prevail Solar Team.

11. ADJOURNMENT

Motion by Commissioner Dzurka seconded by Commissioner Holden that the Planning Commission adjourn the meeting.
YEA: Hanover, Holden, Harger, Dzurka, Mills
NAY: None
Motion carried.

The meeting was adjourned at 7:09 p.m.

DRAFT

GENERAL PROVISIONS

NOISE CONTROL

§ 93.20 EXCESSIVE NOISE DECLARED NUISANCE.

~~All loud or unusual noises or sounds and annoying vibrations which offend the peace and quiet of persons of ordinary sensibilities are hereby declared to be public nuisances.~~ Excessive levels of sound are detrimental to the physical, mental and social well-being of the citizens of the city, as well as to their comfort, quality of life, general welfare and safety. The purpose of this article is to regulate or abate noises which annoy, disturb, injure or endanger the comfort, repose, health, peace, safety or welfare of persons within the city, and to establish maximum sound level limits for motor vehicles and transportation noise and other general environmental noise.

None of the terms or prohibitions of §§ 93.20 and 93.21 shall apply to or be enforced against:

(A) Emergency vehicles. Any police or fire vehicle or any ambulance, while engaged upon emergency business.

(B) Highway maintenance and construction. Excavations or repairs of bridges, streets, or highways by or on behalf of the city, county, or the State of Michigan, during the night, when the public safety, welfare, and convenience renders it impossible to perform such work during the day. (C) Motor vehicles, (as defined in the state motor vehicle code, MCL 257.1 et seq., MSA 9.1801 et seq.) in operation on a public right-of-way;

(D) Railroad equipment in operation on a railroad right-of-way; or

(E) Aircraft in flight or in operation at an airport.

(1990 Code, § 9.10)

§ 93.21 SPECIFIC OFFENSES.

Each of the following acts is declared unlawful and prohibited, but this enumeration shall not be deemed to be exclusive.

(A) Animal and bird noises. ~~The keeping of any animal or bird which~~Any pet or domestic livestock, as defined in Section 155.200, which, by causing frequent or long continued noise, shall ~~disturb the comfort or repose of any person.~~create a noise disturbance across a property line.

(B) Construction noises. The erection (including excavating therefor), demolition, alteration or repair of any building and the excavation of streets and highways ~~on Sundays and other days,~~Monday-Saturday between the hours of 8 pm and 7 am, ~~except between the hours of 7:00 a.m. and 6:00 p.m.,~~ unless a permit be first obtained from the City Manager (See Section 93.23.7).

(C) Sound amplifiers. Use of any loudspeaker, amplifier or other instrument or device, whether stationary or mounted on a vehicle for any purpose, except one which is noncommercial in character and when so used shall be subject to the following restrictions, unless a permit be first obtained from the City Manager:

(1) The only sounds permitted are music or human speech;

~~(2) Operations are permitted for four hours each day, except on Sundays and legal holidays when no operations shall be authorized. The permitted four hours of operation shall be between the hours of 11:30 a.m. and 1:30 p.m. and between the hours of 4:30 p.m. and 6:30 p.m.;~~

(~~3~~2) Sound amplifying equipment mounted on vehicles shall not be operated unless the sound truck upon which such equipment is mounted is operated at a speed of at least ten miles per hour except when said truck is stopped or impeded by traffic;

(~~4~~3) Sound from amplifying equipment shall not be issued within 100 yards of the property line of hospitals, schools or ~~churches~~ religious institutions;

(~~5~~4) The volume of sound shall be controlled so that it will not be audible for a distance in excess of 100 ~~feet~~ yards from the sound amplifying equipment and so that the volume is not ~~unreasonably loud~~in excess of the standards in Section 93.22, raucous, jarring, disturbing, or a nuisance to persons within the area of audibility;

(~~6~~5) No sound amplifying equipment shall be operated with an excess of 15 watts of power in the last stage of amplification.

(D) Engine exhausts. The discharge into the open air of the exhaust of any steam engine, stationary internal combustion engine, or motor vehicle except through a muffler or other device which effectively prevents loud or explosive noises therefrom.

(E) ~~Handling merchandise~~Loading and unloading. The creation of a loud and excessive noise in connection with loading or unloading any vehicle ~~or the~~ or otherwise ~~handle~~handling boxes, crates, containers, building materials, garbage cans, or similar objects in such a manner as to cause a noise disturbance across a residential property line. ~~opening and destruction of bales, boxes, crates and containers.~~

(F) Blowers. The discharge into the open air of air from any noise creating blower or power fan unless the noise from such blower or fan is muffled sufficiently to deaden such noise such that the standards of Section 93.22 are not violated..

(G) Hawking. The hawking of goods, merchandise, or newspapers in a loud and boisterous manner, in violation of the standards in Section 93.22.

(H) Horns and signal devices. The sounding of any horn or signal device on any automobile, motorcycle, bus or other vehicle while not in motion, except as a danger signal if another vehicle is approaching, apparently out of control, or to give warning of intent to get under motion, or if in motion, only as a danger signal after or as brakes are being applied and deceleration of the vehicle is intended; the creation by means of any such signal device of any unreasonably loud or harsh sound; and the sounding of such device for an unnecessary and unreasonable period of time, in violation of the standards of Section 93.22.

(I) Radio, TV, boom-box and vehicular radios.

(1) The playing of any radio, television set, phonograph, CD player, boom-box, or any musical instrument, hand-carried, stationary, within a building or dwelling, or within an automobile or other vehicle, in such a manner so as to annoy or disturb the quiet comfort or repose of persons within 50 feet of the device shall be prohibited.

(2) The ~~City Commission~~City Manager or their designee finds that excessive noise and excessive vibration from such devices degrades the environment, peace and dignity of the city residents and is harmful and detrimental to the health, welfare and safety of its inhabitants. The standard which may be considered in determining whether a violation of the provisions of this section exists may include, but not be limited to, the following:

(a) The level of the noise;

(b) Whether the nature of the noise is usual or unusual;

(c) Whether the origin of the noise is natural or unnatural;

(d) The level and intensity of the background noise, if any;

(e) The proximity of the noise to residential areas or to persons;

(f) The nature and zoning of the area within which the noise emanates, such as residential, commercial, or industrial;

(g) The density of the inhabitation of the area within which the noise emanates;

(h) The time of day and/or night the noise occurs;

(i) The duration of the noise;

(j) Whether the noise is recurrent, intermittent, or constant;

(k) Whether the noise is being intentionally used to harass or annoy another person

(~~k~~l) Whether the noise contains the discharge or escape of sounds or vibrations ~~which cause discomfort~~in violation of the standards in Section 93.22 ~~to others~~ within 50 feet of the source.

(3) The effective control and elimination of excessive noise and excessive vibration is essential to the furtherance of the health and welfare of the city's inhabitants and to the conduct and normal pursuit of life, recreation, commerce and industrial activity.

(J) Shouting and whistling. Yelling, shouting, hooting, whistling, or singing or the making of any other loud noise on the public streets between the hours of ~~11:00~~8:00 p.m. and 7:00 a.m., or the making of any such noise at any time so as to annoy or disturb the quiet, comfort, or repose of persons in any school, place of worship, or office, or in any dwelling, hotel, or other type of residence, or of any person in the vicinity.

(K) Whistle or siren. The blowing of any whistle or siren, except to give notice of the time to begin or stop work or as a warning of fire or danger.

(1990 Code, § 9.11) (Am. Ord. 429, passed 3-13-1995)

§ 93.22 MAXIMUM PERMISSIBLE SOUND LEVELS

No person shall create, assist in creating, permit, continue or permit the continuance of, on private property, any source of sound in such a manner as to create a sound level which exceeds the limits set forth in the table below when measured at or within the property line. Where property is used for both residential and commercial purposes, the residential sound level limits shall be used only for measurements made on the portion of the property used solely for residential purposes. Any sound in excess of the limits shall be deemed prima facie to be a noise disturbance.

Land use district category	Time interval	A-weighted sound level limit (dB(A))
Residential	~~10~~8:00 p.m. to 7:00 a.m.	60
	7:00 a.m. to 10:00 p.m.	~~66~~80
Commercial	8:00 ~~10:00~~ p.m. to 7:00 a.m.	66
	7:00 a.m. to 10:00 p.m.	~~71~~80
Industrial	8:00 ~~10:00~~ p.m. to 7:00 a.m.	71
	7:00 a.m. to 10:00 p.m.	~~71~~ 80

Noise sensitive areas (hospitals, schools, and religious institutions)	8:00 ~~10:00~~ p.m. to 7:00 a.m. 7:00 a.m. to 10:00 p.m.	60 ~~66~~70

** For any source of sound which emits a pure tone or impulsive sound, the maximum sound level limits set forth in the table above shall be reduced by five dB(A).*

§ 93.23~~2~~ EXCEPTIONS.

~~None of the terms or prohibitions of §§ 93.20 and 93.21 shall apply to or be enforced against:~~

~~(A) Emergency vehicles. Any police or fire vehicle or any ambulance, while engaged upon emergency business.~~

~~(B) Highway maintenance and construction. Excavations or repairs of bridges, streets, or highways by or on behalf of the city, county, or the State of Michigan, during the night, when the public safety, welfare, and~~ The following noises or noise-producing activities shall be exempt from the provisions of this article:

(1) Noise associated with athletic, musical or cultural activities or events (including practices and rehearsals) conducted by or under the auspices of public or private schools, colleges or universities.

(2) Noise associated with outdoor gatherings, public dances, shows, concerts, parades, fairs, festivals, and sporting or entertainment events, provided that all necessary permits, licenses or approvals have been obtained from all appropriate jurisdictions for the event, and subject to any alternative maximum sound limits imposed by the city.

(3) Stationary bells, chimes, or carillons played for religious or educational purposes or in conjunction with religious services, for national celebrations or public holidays, or for other noncommercial purposes, between the hours of 7:00 a.m. and ~~10~~8:00 p.m., and for a period not to exceed 90 seconds' duration in any one hour.

(4) Sound made to alert persons to the existence of an emergency, danger, or attempted crime, including sound made by stationary safety signals and warning devices.

(5) Noise resulting from the provision of essential services.

(6) Noise resulting from emergency work necessary to restore property to a safe condition following a fire, accident or natural disaster, or to protect persons or property from an imminent danger.

(7) Noise sources associated with the construction, repair, remodeling or grading of any real property, between the hours of ~~6~~8:00 a.m. and ~~10~~8:00 p.m., provided that all necessary permits have been obtained from the city and the permits are currently in effect.

(8) Noise sources associated with lawn maintenance equipment when it is functioning within manufacturer's specifications and with all mufflers and noise reduction equipment in use and in proper operating condition, between the hours of 7:00 a.m. and ~~10~~8:00 p.m.

(9) Noise created by mechanical devices, apparatus or equipment associated with agricultural operations, provided the operations do not take place between the hours of ~~10~~8:00 p.m. and ~~6~~ 7:00 a.m. of the following day.

(10) Noise associated with the operation or use, for any noncommercial purpose, of any loudspeaker, sound amplifier, public address system or similar device between the hours of 7:00 a.m. and ~~10~~8:00 p.m., including the use or operation of mechanical loudspeakers on or from a motor vehicle, only if a permit for the specific activity has been granted by the ~~city commission~~City

Manager or their designee. The ~~city commission~~City Manager or their designee shall cause such a permit to issue under circumstances and subject to conditions as follows:

a. The ~~city commission~~City Manager or their designee finds that the applicant has a noncommercial message that cannot be effectively communicated to the public by any other means of communication available;

b. The applicant will limit the use of the loudspeakers to times, locations and sound levels which will not unreasonably disturb the public peace, as determined by the ~~city commission~~City Manager or their designee; and

c. The applicant will not use the equipment in residential areas between the hours of ~~10~~8:00 p.m. and 7:00 a.m. of the following day.

(11) Use of fireworks in compliance with State law and Chapter 135 of the St. Johns Code of Ordinances.

(12) Noise associated with any activity to the extent that regulation of the activity has been preempted by state or federal law. ~~convenience renders it impossible to perform such work during the day.~~

~~(1990 Code, § 9.12)~~

93.24 EVALUATION OF NOISE LEVEL LIMITS.

It is the intent of the city to periodically reevaluate the noise level limits and other standards contained in this article, and, if it is determined to be appropriate, to adjust such standards either upward or downward in light of future possible advances in technology or the state of the art.

93.25 VIOLATION OF ARTICLE; MUNICIPAL CIVIL INFRACTION

(1) A person who violates any provision of this division (article IV, division 1) is responsible for a municipal civil infraction, subject to payment of a civil fine in the amount provided by this section, plus costs and other sanctions, for each infraction.

(1) An alleged violation shall be investigated by the St. Johns Police Department and/or the St. Johns Code Enforcement Officer. The investigator shall use a decibel meter to determine the loudest observed noise, and, if that noise is in excess of Section 93.22 and otherwise in violation of this Ordinance, it shall be considered to be in violation.

(2) For violations where the source of noise is associated with a residential activity (regardless of the character of the receiving land use), the amount of the civil fine shall be ~~no less than $10.00~~set and revised annually by the City Manager or their designee. Repeat offenses under this subsection shall be subject to increased fines as provided by section 1-11(c)(2) of this Code, ~~except that the increased fine for a repeat offense shall be as follows:~~ as set and revised annually by the City Manager or their designee.

~~a. The fine for any offense which is a first repeat offense shall be no less than $20.00, plus costs.~~

~~b. The fine for any offense which is a second repeat offense or any subsequent repeat offense shall be no less than $50.00, plus costs.~~

(~~2~~3) For violations where the source of noise is associated with a commercial or industrial activity (regardless of the character of the receiving land use), the amount of the civil fine shall be ~~no less than $50.00~~set and revised annually by the City Manager or their designee. Repeat offenses under this subsection shall be subject to increased fines as provided by section 1-11(c)(2) of this Code.

(a) No provision of this article shall be construed to impair any common law or statutory cause of action or legal remedy of any person for injury or damage arising from any violation of this article or from other law.

(b) If there is any evidence of retaliation by any offender against any complainant or witness, the evidence shall be communicated to the district court. When sentencing any violator, the district court shall first examine the evidence of retaliation, and if acts of retaliation shall be shown, shall consider the acts and sentence the violator accordingly.

MCKENNA

October 3, 2024

Planning Commission
City of St. Johns
100 E. State St.
St. Johns, MI 48879

Subject: Clinton County Building Authority Maintenance Garage Expansion Site Plan Review

Dear Planning Commissioners,

As requested, we have reviewed the site plan received for the Clinton County Building Authority Maintenance Garage expansion at 1347 E. Townsend Road. The applicant is proposing an 11,855 sq. ft. expansion of the garage for the existing structure in the Northwest side of the structure as well as a 2,710 sq. ft. expansion of the office space for the same structure. In addition, the existing outdoor storage space is proposed to be relocated elsewhere on site. The site is zoned MC – Municipal Commercial.

Government offices and facilities are permitted by right in the MC District. The construction of an addition 5,000 square feet or greater in size to any principal structure other than single-family or duplex residence requires Planning Commission Site Plan Approval. Our comments regarding the criteria for approving the Site Plan follow.

1) **Dimensional Standards.** Below, we have analyzed the dimensional requirements for the lot.

Standard Type	Ordinance Requirement (MC)	1347 E. Townsend Rd. Proposed Conditions	Ordinance Compliance
Minimum Lot Area	6,000 sq. ft.	27.17 acres	Yes
Minimum Lot Width	60 feet	~987 feet	Yes
Minimum Front Yard Setback	50 feet	~70 feet	Yes
Minimum Side Yard Setback	10 feet	~166 feet	Yes
Minimum Rear Yard Setback	25 feet	~93 feet	Yes
Maximum Building Height	35 feet	23 feet, 6 inches (at greatest point)	Yes
Maximum Lot Coverage	60%	~7%	Yes

The proposed expansion appears to meet all of the dimensional requirements for the MC District.

2) **Parking, Loading, and Access.**

a. **Number of Spaces.** Section 155.342 of the Zoning Ordinance states the off-street parking requirement for all manufacturing and industrial uses other than warehouses, storage buildings, and wholesale establishments as 1 parking space per employee of the largest working shift or one space for every 600 feet of gross floor area of building, whichever is greater.

   The current total number of employees on the largest shift would produce a lesser parking requirement than the gross floor area, so the gross floor area will be considered the parking requirement for the lot. Below is a breakdown of the total gross floor area for all structures on the lot:

   Maintenance Garage with Proposed Expansion
   Total Gross Floor Area: 0.55 acres or 24,148 sq. ft. ÷ 600 sq. ft. = 40 parking spaces / 15 existing and 11 proposed

   Mid-Michigan District Health Department
   Total Gross Floor Area: 0.31 acres or 13,504 sq. ft. ÷ 600 sq. ft. = 23 parking spaces / 61 existing

   Clinton County Jail
   Total Gross Floor Area: 1.11 acres or 48,352 sq. ft. ÷ 600 sq. ft. = 81 parking spaces / 94 existing

   Clinton County Animal Shelter
   Total Gross Floor Area: 0.11 acres or 4,792 sq. ft. ÷ 600 sq. ft. = 8 parking spaces / 9 existing

   Total Requirement: 152 parking spaces **Total Proposed:** 190 parking spaces

   The total number of proposed parking spaces is greater than the requirement of the Zoning Ordinance and is therefore in compliance.

b. **Barrier-Free Spaces. Under the American with Disabilities Act, at least one parking space out of every 25 must be barrier-free (i.e. reserved for people with disabilities).** With 190 parking spaces, six (6) barrier-free spaces are required. There are currently six (6) existing barrier-free spaces on the site plan given, so no additional spaces are required.

c. **Dimensions.** Typical parking spaces dimensions have been included on the site plan. The dimensions shown for the proposed new parking spaces are 10 feet wide and 20 feet long, which complies with the requirements of the Zoning Ordinance.

d. **Paving and Striping.** The parking lot is proposed to be paved, as shown in the site plan provided. This complies with the requirements of the Zoning Ordinance.

e. **Loading Zone.** Section 155.344.C states: *"Each off-street loading and unloading space shall not be less than ten feet in width and 70 feet in length unless the Planning Commission determines during site plan review that a larger area is required based on the characteristics of the proposed use and its loading and unloading needs."* The required number of loading zones is calculated by the Gross Floor Area: 5,000 square feet to 20,000 square feet - one space; each additional 20,000 square feet or fraction thereof - one space. There is one proposed loading zone shown on the site plan that appears

to meet these requirements, at approximately 10 feet and 7 inches wide and over 70 feet long. As the proposed expansion would bring the total footprint of the building above 20,000 square feet, an additional loading zone is required to be constructed.

f. **Sidewalks.** Section 155.201 of the City of St. Johns Zoning Ordinance states that sidewalks must be constructed along all road frontages requiring Site Plan Review. Under this provision, the applicant will be required to install sidewalks along the full parcel's length of Townsend Road. If the applicant believes this may be too burdensome, they may apply for a waiver from the Planning Commission if there is shown to be physical, legal, or environmental impediment. The Planning Commission should decide whether to require the sidewalk.

3) **Trash Receptacles.** The revised site plan shows a dumpster located at the Northeastern corner of the lot, measured at 11.3 feet deep. The proposed dumpster will be contained within a closed enclosure, which complies with the requirements of the Zoning Ordinance.

4) **Landscaping.** No landscaping information has been included with the submitted site plan. Section 155.296 of the Zoning Ordinance requires all parcels subject to local site plan review must submit a landscape plan. The applicant must submit a landscape plan with the following landscaping shown:

a. **Buffer Zones/Existing Tree Preservation.** The West side lot line abuts an R-3-zoned parcel, so a buffer zone is required. Section 155.297 states that a buffer zone shall consist of two trees and four large shrubs per each 25 feet of adjacent property line. As the West lot line is measured at approximately 1,320 feet long, it triggers a requirement of approximately 106 trees and 212 shrubs along the lot line. There appears to be approximately 35 trees along the West lot line, leaving a requirement of 71 trees and 212 shrubs along that property line. The Planning Commission will hold a public hearing on November 13th to amend the landscaping requirements, which would either require the same number of plantings along the West lot line or the installation of a buffer wall along the length of the property.

   Section 155.301 of the Zoning Ordinance states that existing plantings may count towards the required greenbelts, buffer zones, and parking lot islands to preserve healthy, mature trees. As the rear half of the lot is a wooded, undeveloped area, we recommend the Planning Commission discuss and consider if the landscaping requirements for greenbelts, buffer zones, and parking lot islands for the rear and side lot lines to be met by the large number of mature trees in the parcel. This would still require a greenbelt to be installed along the Townsend Road frontage to bring the parcel into compliance with landscaping standards.

b. **Parking Lot Landscaping.** Section 155.298 of the Zoning Ordinance states that developments with more than 16 parking spaces must include parking lot islands with one (1) canopy tree per eight (8) spaces. With 190 total spaces, twenty-four (24) canopy trees must be included within parking lot islands. Islands are required to follow all the provisions of Section 155.298. The applicant must include these landscape islands on a submitted landscape plan.

c. **Greenbelts Along Rights-of-Way.** Section 155.299 of the Zoning Ordinance states that a greenbelt shall be constructed within or adjacent to the right-of-way of any public street. The

required greenbelt shall be a minimum of eight feet in width and contain at least one canopy tree for every 30 linear feet of frontage. As the front lot line along Townsend Road is measured at approximately 986 feet wide, this triggers a requirement of approximately 33 canopy trees to be planted along the right-of-way. These plantings must be included on a submitted landscape plan.

d. **Landscaping Adjacent to Buildings.** Ornamental landscaping is required along the perimeter of buildings by Section 155.302. However, the MC District does not fall under a multi-family, commercial, or industrial use and is therefore exempt from requiring landscaping around principal structures.

5) **Lighting.** Section 155.191.E.7 states: *"The illumination projected from any property onto a non-residential use shall at no time exceed 1.0 footcandle, measured line-of-sight from any point on the receiving property."* No photometric plan was provided with the site plan materials given. A photometric plan must be provided by the applicant detailing the locations and illumination levels of all existing and proposed exterior light fixtures on the property.

6) **Signage.** No new signage has been proposed, though any new signage may be approved separately under a different application.

7) **Outdoor Storage.** Section 155.195 of the Zoning Ordinances states that commercial outdoor display or storage may be permitted by the Planning Commission provided compliance with all other provisions of this chapter and provided:

   a. Any stockpiles of soils, fertilizer or similarly loosely packaged materials shall be sufficiently covered or contained to prevent dust or blowing of materials.
   b. No outdoor storage shall be permitted in the required front, side or rear yard of buildings for the district in which the commercial outdoor display, sales or storage use is located.
   c. The site shall include a building of at least 400 feet of gross floor area for office and sales uses in conjunction with the approved use.
   d. Storage areas shall consist of a permanent, durable and dustless surface (gravel) and shall be graded and drained to dispose of stormwater without a negative impact on adjacent property.
   e. All loading and truck maneuvering including into loading/unloading areas shall be accommodated on-site.
   f. All outdoor sales, display or storage area property lines adjacent to a residential district shall comply with the landscaping requirements in §§ 155.295 through 155.304. The Planning Commission may also require taller landscaping screening based on the height of materials to be displayed or stored.
   g. The use of semi-trailers, portable shipping containers, or other portable storage/shipping-type containers in conjunction with the sale or storage of material is prohibited, but the short-term use for "trailer sales" is permitted provided the sale does not exceed seven days and does not occur more than four times a year.

   The proposed outdoor storage area is shown to comply with all of the above requirements and is therefore in compliance with the requirements of the Zoning Ordinance.

RECOMMENDATION

At the October 9th Planning Commission meeting, the Planning Commission should discuss whether or not a sidewalk should be required along the Townsend Road frontage. Following the discussion, we recommend a Conditional Approval, with the following conditions:

1) One additional loading/unloading zone is required to be shown on a revised site plan.

2) The applicant must install sidewalks along Townsend Road, if required.

3) A landscape plan is required to be submitted by the applicant detailing the location, type, and size of every existing and proposed planting located on site to meet the requirements of the Zoning Ordinance.

4) A lighting plan must be submitted, including a photometric plan.

Please let us know if you have any questions.

Respectfully submitted,
McKENNA

Christopher Khorey, AICP
Vice President

Ethan Walthorn,
Assistant Planner

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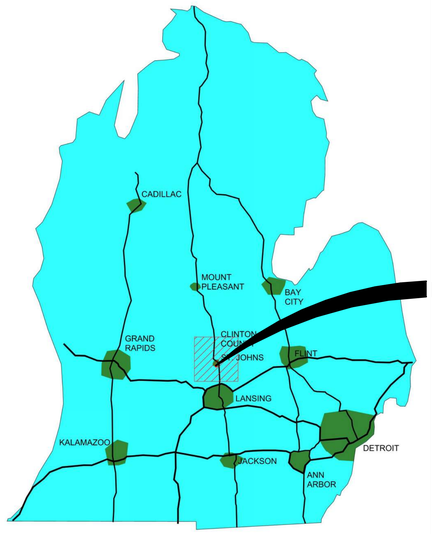
CLINTON COUNTY
MAINTENANCE FACILITY EXPANSION

1327 E TOWNSEND RD.,
ST. JOHNS, MI 48879

HOBBS + BLACK PROJECT #: 23-319

SITE PLAN REVIEW
09/09/2024



NORTH
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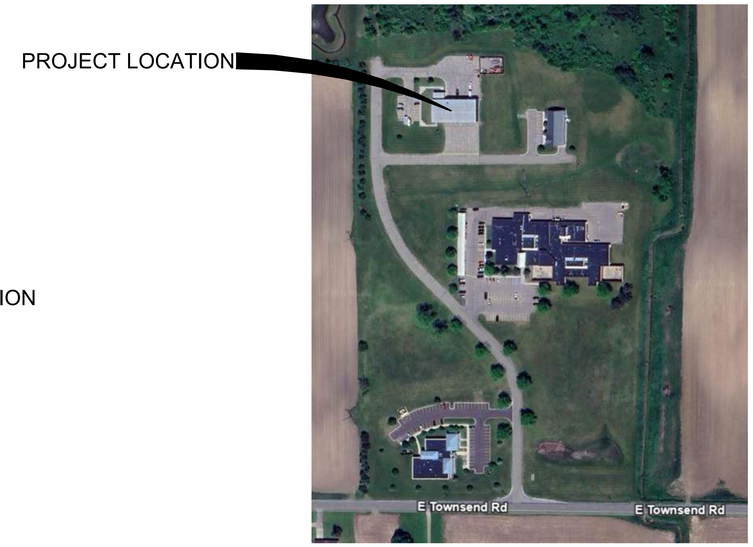
SCALE - N.T.S.



NORTH
VICINITY MAP
SCALE - N.T.S.

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C-4 SOIL EROSION AND SEDIMENTATION CONTROL PLAN
C-5 PAVING AND GRADING PLAN
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OWNER
CLINTON AREA TRANSIT SYSTEM
215 NORTH SCOTT ROAD,
ST. JOHNS, MICHIGAN 48879

ARCHITECT OF RECORD
HOBBS + BLACK ASSOCIATES, INC.
117 E. ALLEGAN STREET
LANSING, MI, 48933

CIVIL AND LANDSCAPE DESIGN
NOWAK & FRAUS ENGINEERS
46777 WOODWARD AVE
PONTIAC, MI 48342

MECHANICAL & ELECTRICAL
MATRIX CONSULTING ENGINEERS, INC.
1601 E. CESAR E. CHAVEZ AVE
LANSING, MI 48912

STRUCTURAL ENGINEER
JDH STRUCTURAL ENGINEERING
3000 IVANREST AVE SW, SUITE B
GRANDVILLE, MI 49418

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CLINTON COUNTY
MAINTENANCE FACILITY
EXPANSION
1327 E TOWNSEND RD., ST.
JOHNS, MI 48879
PROJECT

CONSULTANT

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COVER SHEET
SHEET TITLE

23-319
PROJECT NUMBER

G-000.
SHEET NUMBER

Autodesk Docs://23-319 Clinton County Maintenance Facility
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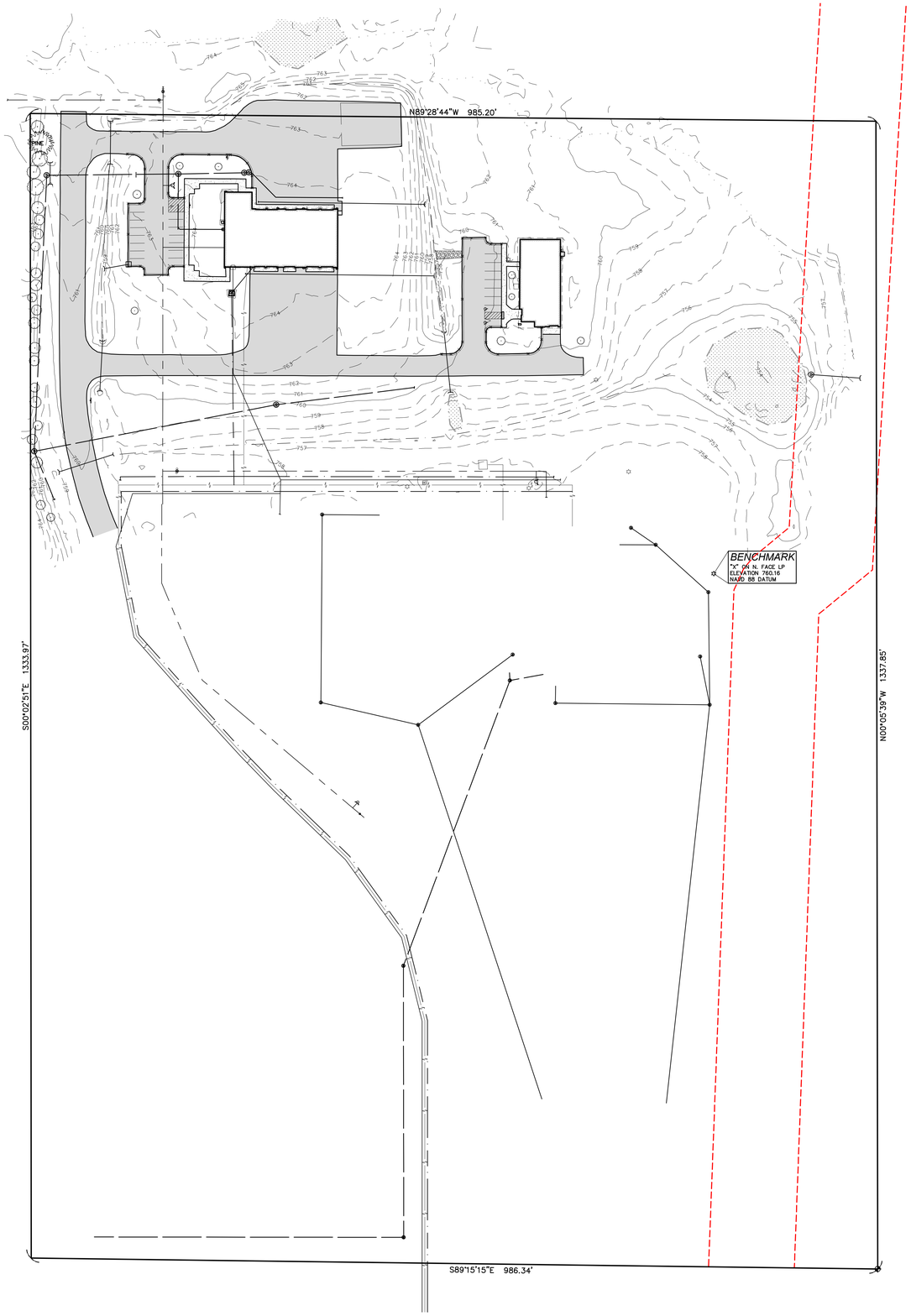

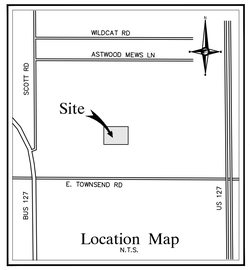

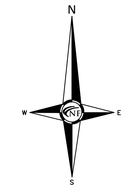

SCALE: 1" = 60'

60 30 0 30 60 90

SITE INFORMATION

PARCEL	30.230± ACRES INCL. ROAD RIGHT-OF-WAY
PARCEL ID:	300-015-300-030-51
EXISTING ZONING	MC (MUNICIPAL CENTER)
SITE ADDRESS:	1347 E TOWNSEND RD, ST JOHNS, MI 48879
OWNER NAME:	CLINTON COUNTY BLDG AUTHORITY

TAX LEGAL DESCRIPTION

BEG AT S 1/4 COR SEC 15, T7N R2W, TH N 1337.85 FT, W 951.80 FT, S 1333.97 FT, E 952.34 FT TO POB. COUNTY JAIL SPLIT 2001 FROM # 300-015-300-030-01

LEGAL DESCRIPTION PER RECORD SURVEY

PART OF THE SOUTHWEST CORNER OF SECTION 15, TOWN 7 NORTH, RANGE 2 WEST, CLINTON COUNTY, MICHIGAN, BEING MORE PARTICULARLY DESCRIBED AS:
BEGINNING AT THE SOUTH 1/4 CORNER OF SAID SECTION 15, THENCE N.00°05'39"W. ALONG NORTH-SOUTH QUARTER LINE OF SAID SECTION 15, 1337.85 FEET; THENCE N.89°28'44"W., 985.20 FEET; THENCE S.00°02'51"E., 1333.97 FEET TO A POINT ON SOUTH LINE OF SAID SECTION 15; THENCE S.89°15'15"E., 986.34 FEET TO TO POINT OF BEGINNING. COUNTY JAIL SPLIT 2001 FROM # 300-015-300-030-01
CONTAINING 1,316,801 SQUARE FEET OR 30.230 ACRES OF LAND, SUBJECT TO ALL RIGHT-OF-WAYS OR RECORD.

FLOOD HAZARD NOTE

THIS PROPERTY IS NOT LOCATED WITHIN A DESIGNATED FLOOD HAZARD AREA AS INDICATED BY FLOOD INSURANCE RATE MAP (FIRM) COMMUNITY PANEL NO. 26037C0181D DATED: 05-03-2011

MISS DIG / UTILITY DISCLAIMER NOTE

A MISS DIG TICKET NUMBER 2024041800599, PURSUANT TO MICHIGAN PUBLIC ACT 174 WAS ENTERED FOR THE SURVEYED PROPERTY. DUE TO THE EXTENDED REPORTING PERIOD FOR UNDERGROUND FACILITY OWNERS TO PROVIDE THEIR RECORDS, THE SURVEY MAY NOT REFLECT ALL THE UTILITIES AT THE TIME THE SURVEY WAS ISSUED ON. THE SURVEY ONLY REFLECTS THOSE UTILITIES WHICH COULD BE OBSERVED BY THE SURVEYOR IN THE FIELD OR AS DEPICTED BY THE UTILITY COMPANY RECORDS FURNISH PRIOR TO THE DATE THIS SURVEY WAS ISSUED. **THE CLIENT AND/OR THEIR AUTHORIZED AGENT SHALL VERIFY WITH THE FACILITY OWNERS AND/OR THEIR AUTHORIZED AGENTS, THE COMPLETENESS AND EXACTNESS OF THE UTILITIES LOCATION.**

TOPOGRAPHIC SURVEY NOTES

ALL ELEVATIONS ARE EXISTING ELEVATIONS, UNLESS OTHERWISE NOTED.

UTILITY LOCATIONS WERE OBTAINED FROM MUNICIPAL OFFICIALS AND RECORDS OF UTILITY COMPANIES, AND NO GUARANTEE CAN BE MADE TO THE COMPLETENESS, OR EXACTNESS OF LOCATION.

THIS SURVEY MAY NOT SHOW ALL EASEMENTS OF RECORD UNLESS AN UPDATED TITLE POLICY IS FURNISHED TO THE SURVEYOR BY THE OWNER.

LEGEND

MANHOLE	EXISTING SANITARY SEWER
	EXISTING SAN. CLEAN OUT
HYDRANT / GATE VALVE	EXISTING WATER MAIN
MANHOLE / CATCH BASIN	EXISTING STORM SEWER
	EX. R.Y. CATCH BASIN
	EXISTING BURIED CABLES
UTILITY POLE / GUY POLE / GUY WIRE	OVERHEAD LINES
	LIGHT POLE
	SIGN
	EXISTING GAS MAIN

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50% CD REVIEW	08-22-2024
CONCEPT REVIEW	06-10-2024

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G. Burr
DRAWN BY

K. Navaroli
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Lansing, MI 48933
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www.hobbs-black.com

CLINTON COUNTY MAINTENANCE GARAGE EXPANSION

1347 E TOWNSEND RD.
ST. JOHNS, MICHIGAN 48879

PROJECT

NF ENGINEERS
CIVIL ENGINEERS
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LAND PLANNERS
NOWAK & FRAUS ENGINEERS
46777 WOODWARD AVE.
PONTIAC, MI 48342-5032
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FAX. (248) 332-8257
WWW.NOWAKFRAUS.COM

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OVERALL BOUNDARY SURVEY

SHEET TITLE

23-319

PROJECT NUMBER

C-1

SHEET NUMBER

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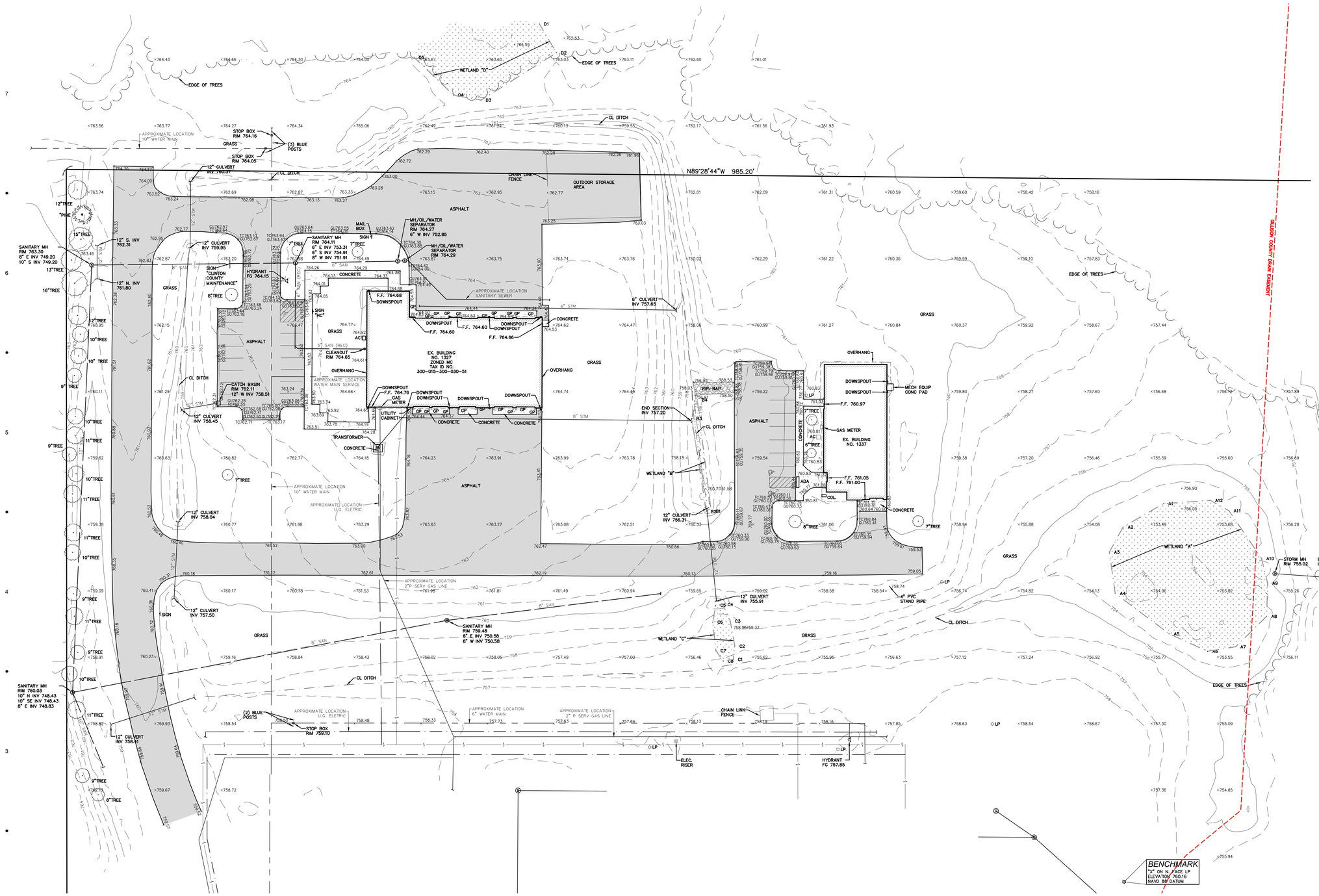

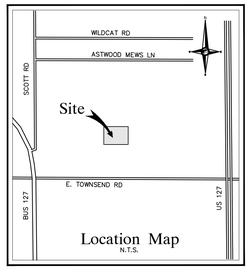

N
W E
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SCALE: 1" = 30'

30 15 0 15 30 45

MISS DIG / UTILITY DISCLAIMER NOTE

A MISS DIG TICKET NUMBER 202404180059B, PURSUANT TO MICHIGAN PUBLIC ACT 174 WAS ENTERED FOR THE SURVEYED PROPERTY. DUE TO THE EXTENDED REPORTING PERIOD FOR UNDERGROUND FACILITY OWNERS TO PROVIDE THEIR RECORDS, THE SURVEY MAY NOT REFLECT ALL THE UTILITIES AT THE TIME THE SURVEY WAS ISSUED ON _____. THE SURVEY ONLY REFLECTS THOSE UTILITIES WHICH COULD BE OBSERVED BY THE SURVEYOR IN THE FIELD OR AS DEPICTED BY THE UTILITY COMPANY RECORDS FURNISH PRIOR TO THE DATE THIS SURVEY WAS ISSUED. THE CLIENT AND/OR THEIR AUTHORIZED AGENT SHALL VERIFY WITH THE FACILITY OWNERS AND/OR THEIR AUTHORIZED AGENTS, THE COMPLETENESS AND EXACTNESS OF THE UTILITIES LOCATION.

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LEGEND

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	EXISTING SAN. CLEAN OUT
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UTILITY POLE / GUY POLE / GUY WIRE	OVERHEAD LINES
	LIGHT POLE
	SIGN
	EXISTING GAS MAIN

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TOPOGRAPHIC AND TREE SURVEY

SHEET TITLE

23-319

PROJECT NUMBER

C-2

SHEET NUMBER

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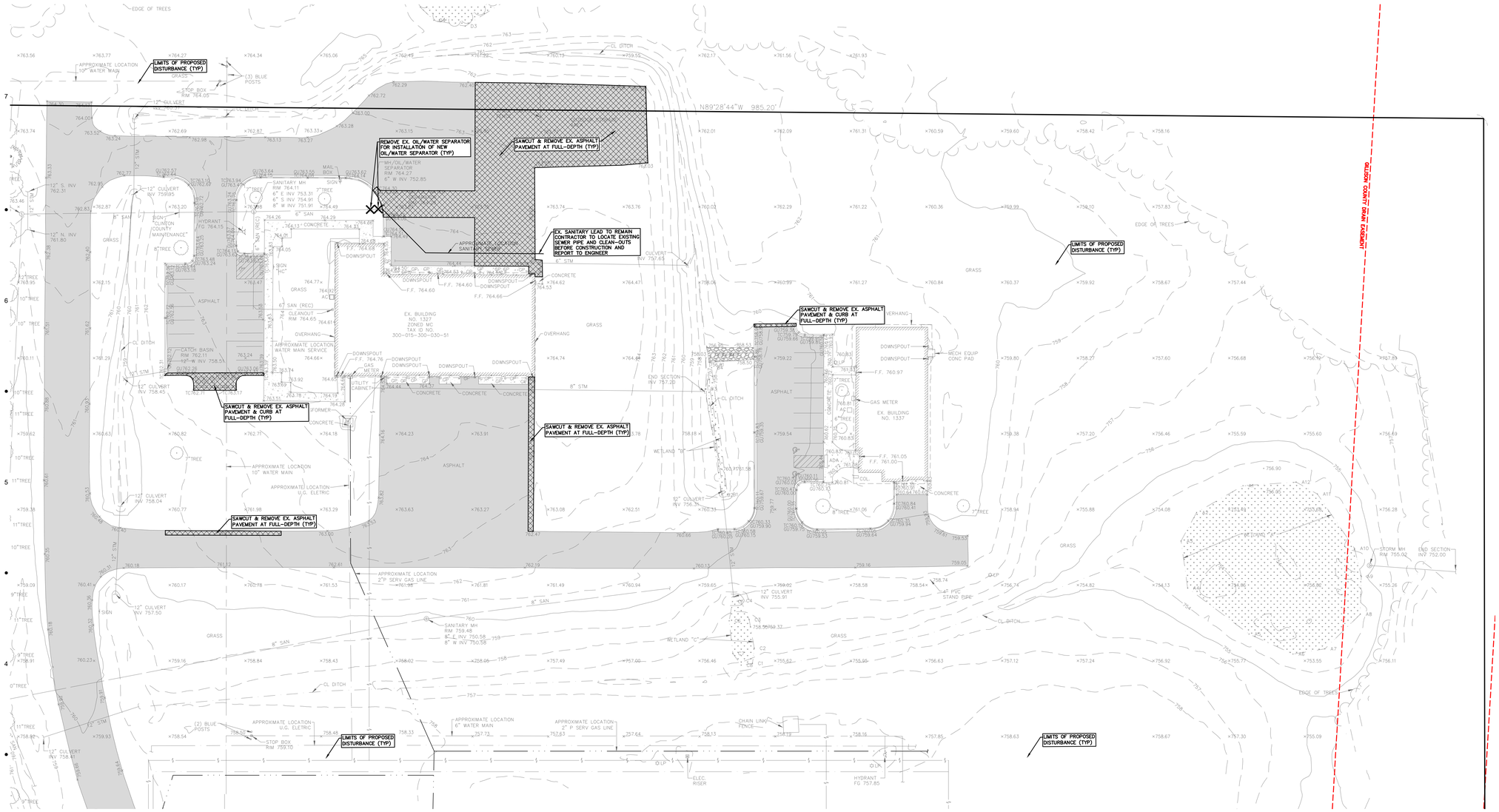

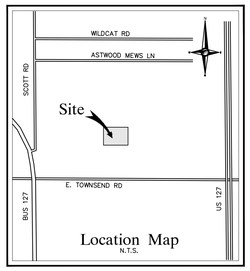

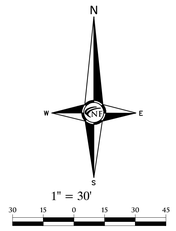

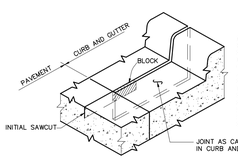

NOTE:
PLACE BLOCK IN FRONT OF GUTTER PAN. BLOCK WIDTH AND DEPTH SHALL BE THE SAME WIDTH AND DEPTH AS PROPOSED JOINT IN PAVEMENT. THE LENGTH OF BLOCK SHALL BE SUCH THAT THE FULL DEPTH OF THE JOINT IN CONCRETE PAVEMENT CAN BE OBTAINED. BLOCKED OUT AREA SHALL BE SEALED WITH THE SAME SEALER AS USED IN CONCRETE PAVEMENT

NOTE:
USE WHEN FINAL SAWCUT IN PAVEMENT IS MADE AFTER CURB AND GUTTER IS PLACED

MDOT SAWCUT DETAIL
N.T.S.

DEMOLITION NOTES

DEMOLITION OF SITE IMPROVEMENTS SHALL BE ALLOWED ONLY AFTER AN APPROVED PERMIT HAS BEEN SECURED FROM THE PUBLIC AGENCY HAVING JURISDICTION OVER SAID DEMOLITION.

SITE DEMOLITION INCLUDES THE COMPLETE REMOVAL OF EXISTING SITE IMPROVEMENTS AND OFF-SITE DISPOSAL. DEBRIS SHALL BE TRANSPORTED TO AN APPROPRIATE DISPOSAL FACILITY THAT IS LICENSED FOR THAT TYPE OF DEBRIS.

THE CONTRACTOR SHALL COORDINATE TRUCK ROUTES WITH THE MUNICIPALITY PRIOR TO COMMENCEMENT OF SITE DEMOLITION. ALL TRUCKS SHALL BE TARPED OR PROPERLY SECURED TO CONTAIN DEMOLITION DEBRIS PRIOR TO LEAVING SITE.

EXISTING ON-SITE UNDERGROUND UTILITIES AND BUILDING SERVICES HAVE BEEN INDICATED BASED UPON THE BEST AVAILABLE UTILITY RECORDS AND/OR ON-SITE INSPECTION. NO GUARANTEE IS MADE BY THE DESIGN ENGINEER, AS TO THE COMPLETENESS OR ACCURACY OF UTILITY DATA. THE CONTRACTOR SHALL BE RESPONSIBLE FOR FIELD VERIFICATION OF UTILITY INFORMATION (THE DESIGN ENGINEER MAKES NO GUARANTEE NOR ASSUMES ANY LIABILITY AS TO THE COMPLETENESS AND/OR ACCURACY OF UTILITY DATA).

PRIOR TO THE REMOVAL OR BULK-HEAD & ABANDONMENT OF ANY EXISTING UNDERGROUND UTILITY OR BUILDING SERVICE LINES CALLED FOR IN THE PLANS OR DISCOVERED DURING EXCAVATION, THE CONTRACTOR MUST DETERMINE IF THE UTILITY LINE OR BUILDING SERVICE IS STILL IN USE. IF THE UTILITY LINE OR BUILDING SERVICE IS STILL IN USE/ACTIVE THE CONTRACTOR MUST TAKE ALL THE NECESSARY STEPS TO GUARANTEE THAT THE UTILITY LINE OR BUILDING SERVICE IS RECONNECTED WITHOUT AN INTERRUPTION IN SERVICE. THE RECONNECTION OF THE UTILITY LINE OR BUILDING SERVICE MUST BE IN ACCORDANCE WITH THE STANDARDS AND REQUIREMENTS OF THE APPROPRIATE GOVERNMENTAL AGENCY OR PRIVATE UTILITY COMPANY.

SOIL EROSION AND SEDIMENTATION CONTROL MEASURES SHALL BE INSTALLED BY THE CONTRACTOR PRIOR TO SITE DEMOLITION.

* THE CONTRACTOR SHALL NOTIFY MISS DIG (1-800-482-7171) A MINIMUM OF THREE (3) WORKING DAYS PRIOR TO THE START OF THE SITE DEMOLITION.

THE CONTRACTOR SHALL COORDINATE THE REMOVAL AND/OR RELOCATION OF EXISTING UTILITY POLES AND BUILDING SERVICES WITH APPROPRIATE UTILITY COMPANY (DETROIT EDISON, CONSUMERS ENERGY/MICHCON, AT&T, CABLE COMPANY, ETC). REMOVAL OF SERVICES SHALL BE IN ACCORDANCE WITH THE CURRENT STANDARDS AND REQUIREMENTS OF APPROPRIATE UTILITY COMPANIES.

THE CONTRACTOR SHALL BE RESPONSIBLE FOR NOTIFICATION OF PRIVATE UTILITY COMPANIES AND COORDINATE UTILITY SERVICE SHUT OFF/DISCONNECT, PRIOR TO DEMOLITION OF EXISTING STRUCTURES OR PROPERTIES.

ALL UTILITY METERS SHALL BE REMOVED BY THE APPROPRIATE UTILITY COMPANY.

ANY ON-SITE STORM SEWER FACILITIES LOCATED DURING DEMOLITION SHALL BE REMOVED AND BULK HEADED AT THE PROPERTY LINE IF INDICATED FOR REMOVAL ON THE PLANS.

CONTRACTOR IS RESPONSIBLE TO SECURE ALL REQUIRED ENVIRONMENTAL PERMITS BEFORE COMMENCEMENT OF ANY DEMOLITION WORK THAT INVOLVES HAZARDOUS MATERIALS. ALL HAZARDOUS MATERIAL SHALL BE REMOVED/SAFELY DISPOSED. THE DEMOLITION CONTRACTOR SHALL IMMEDIATELY NOTIFY THE OWNER SHOULD ANY SUSPICIOUS MATERIAL BE FOUND.

EXISTING WATER SERVICES AND/OR STOP-BOXES THAT WILL NO LONGER BE IN USE SHOULD BE ABANDONED AT THE MAIN OR AS DIRECTED BY THE OWNER'S REPRESENTATION.

WHERE EXISTING BUILDINGS PLANED FOR DEMOLITION FALL WITHIN PROPOSED BUILDING FOOT PRINTS, BASEMENT FLOOR SLABS, FOUNDATION WALLS AND FOOTINGS SHALL BE COMPLETELY REMOVED AND BACK FILLED WITH MDOT CLASS II GRANULAR MATERIAL AND BE MACHINE COMPACTED TO A MINIMUM OF 95% OF MATERIALS MAXIMUM DENSITY.

UTILITY NOTE

UNDERGROUND UTILITY LINES AND STRUCTURES SHOWN ARE PER RECORDS MADE AVAILABLE BY UTILITY OR MUNICIPALITY, AND BY FIELD OBSERVATION WHERE POSSIBLE. ALL MUNICIPALITIES AND UTILITY COMPANIES SHOULD BE NOTIFIED BY CONTRACTOR FOR FIELD LOCATION OF ALL UTILITIES PRIOR TO CONSTRUCTION.
ANY EXISTING SANITARY SEWER SERVICE, WATER MAIN SERVICE AND GAS MAIN SERVICE LINES FOR THE EXISTING BUILDINGS THAT WILL NO LONGER BE IN USE SHOULD BE PROPERLY DISCONNECTED AND ABANDONED AT THE MAIN. ANY DAMAGED FACILITIES SHALL BE REPAIRED AT THE CONTRACTOR'S EXPENSE.

REMOVAL LEGEND

- PROPOSED AREA TO REMOVE VEGETATION AND STRIP TOPSOIL
- EX. PAVEMENT TO BE REMOVED
- PROPOSED REMOVAL

LEGEND

- MANHOLE — EXISTING SANITARY SEWER
- HYDRANT, GATE VALVE — EXISTING SAN. CLEAN OUT
- EXISTING WATER MAIN
- MANHOLE, CATCH BASIN — EXISTING STORM SEWER
- EX. R. Y. CATCH BASIN
- UTILITY POLE, GUY POLE, GUY WIRE — EXISTING BURIED CABLES
- OVERHEAD LINES
- LIGHT POLE
- SIGN
- EXISTING GAS MAIN
- CONSTRUCTION/TREE PROTECTION FENCING
- 12" MAPLE — INDICATES EXISTING TREE TO BE REMOVED

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CONCEPT REVIEW	08-10-2024

DATE ISSUED

E. Oshaben
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S. Sutton
CHECKED BY

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NOWAK & FRAUS ENGINEERS
46777 WOODWARD AVE.
PONTIAC, MI 48342-5032
TEL. (248) 332-7931
FAX. (248) 332-8257
WWW.NOWAKFRAUS.COM

CONSULTANT

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NOT FOR CONSTRUCTION

DEMOLITION PLAN

SHEET TITLE

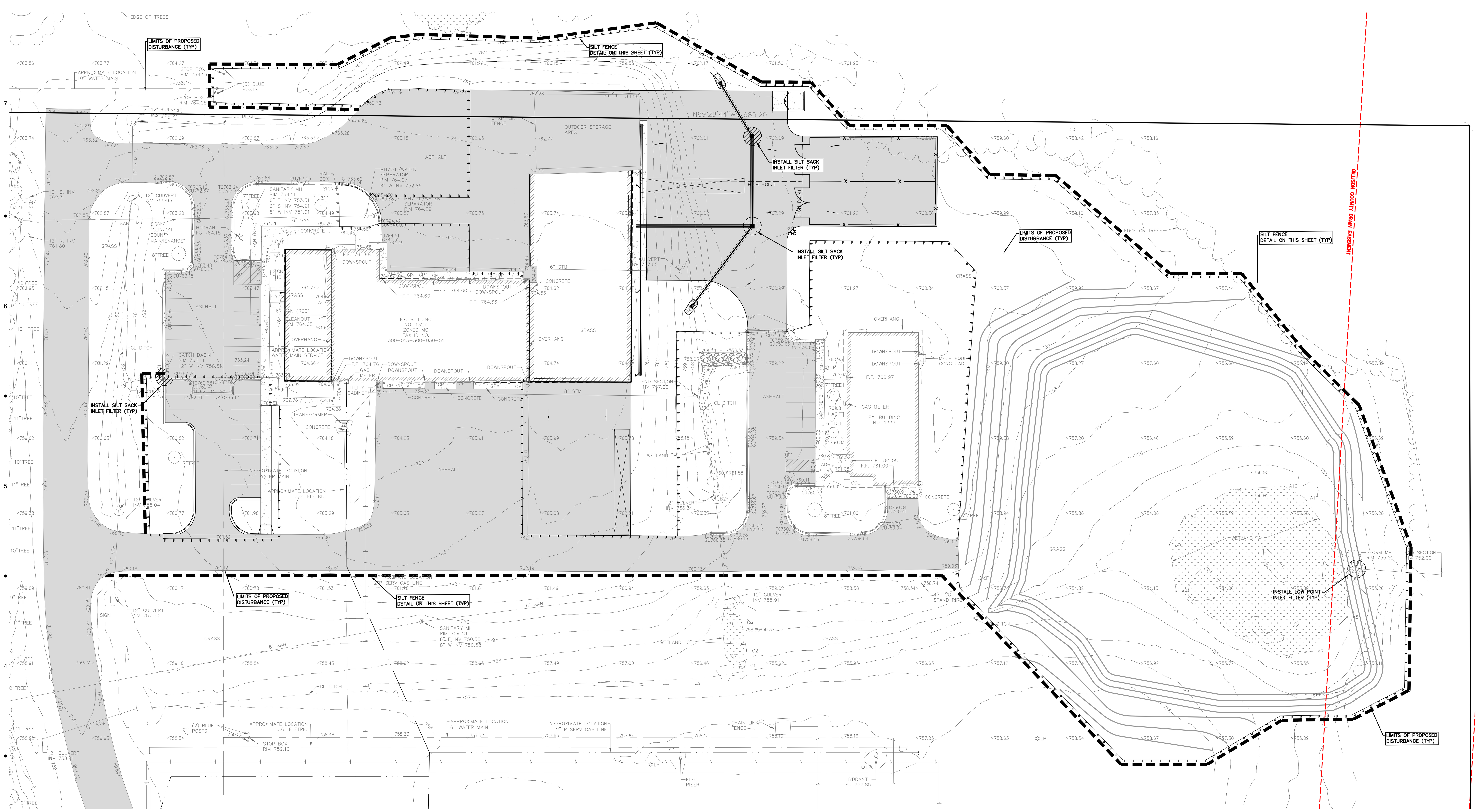
23-319

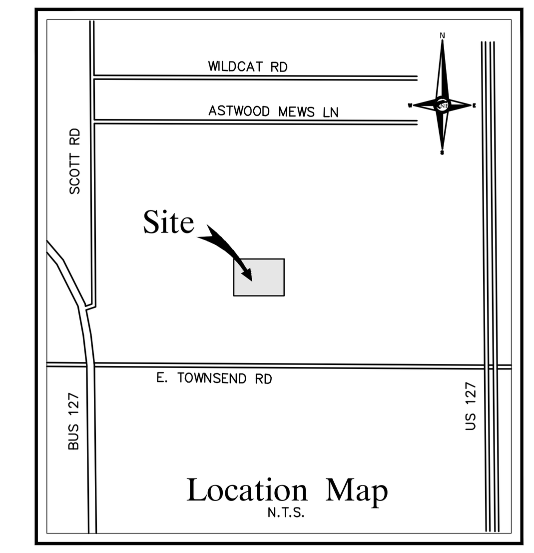
PROJECT NUMBER

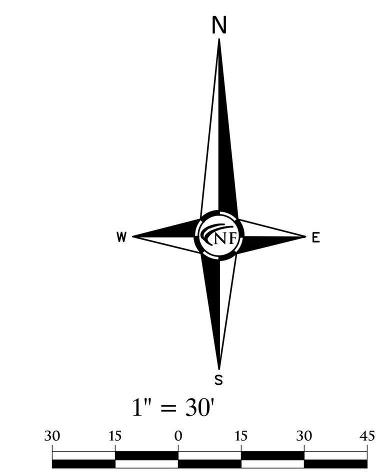
C-3

SHEET NUMBER

J:\0000-FILES\2021 Clinton County Maintenance Expansion\Office\dbe Plans\2021-07.dwg, C03-ADM, 9/5/2024 5:24:29 PM, Nowak and Fraus Ph.L.L.C.







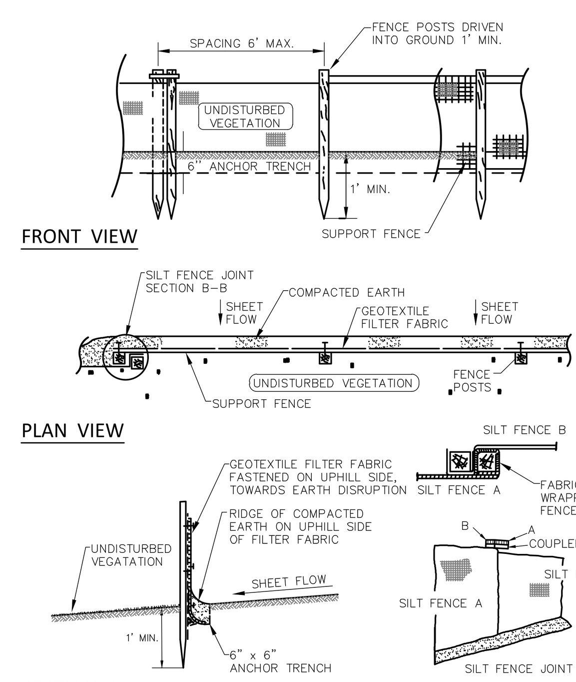
CONSTRUCTION SEQUENCE TIMING CHART

CONSTRUCTION EVENTS	2025 FEB	MAR	APR	MAY	JUN	MAR	APR	MAY	JUNE	JULY	AUG	SEP	OCT
INSTALL SILT FENCING AND PROTECTIVE FENCING	—												
CLEAR THE SITE	—												
STRIP AND STOCKPILE TOPSOIL		—											
GRADE AND BALANCE AS REQUIRED. STABILIZE DITCHES, SWALES, COMMON AREAS AND SLOPES PER PLAN		—											
INSTALL UNDERGROUND UTILITIES (STORM, WATER, SANITARY, ELECTRIC, TELEPHONE, GAS, ETC.)		—	—										
PLACE INLET FILTERS	—												
BUILDING CONSTRUCTION			—	—	—	—	—	—	—				
INSTALL PAVEMENT, ADJUST INLET FILTERS									—	—	—		
FINAL GRADING											—		
ESTABLISH VEGETATION FOR ALL DISTURBED AREAS												—	
CLEAN OUT STORM SEWERS SYSTEM												—	
RESTORE LANDSCAPING / SEED & MULCH, SOD												—	
REMOVE SILT FENCE AND CATCH BASIN FILTERS													—

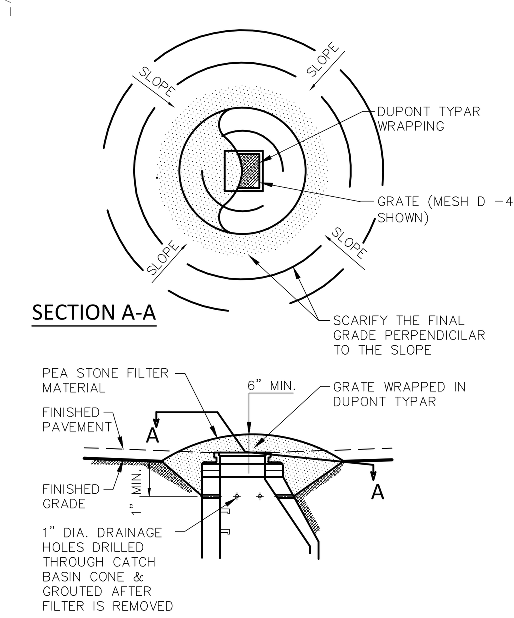
STREET CLEANING SCHEDULE (MINIMUM REQUIREMENT)

	SUNDAY	MONDAY	TUESDAY	WEDNESDAY	THURSDAY	FRIDAY	SATURDAY
SCRAPE STREETS *)		X	X	X	X	X	X
SWEEP STREETS		X	X	X	X	X	X

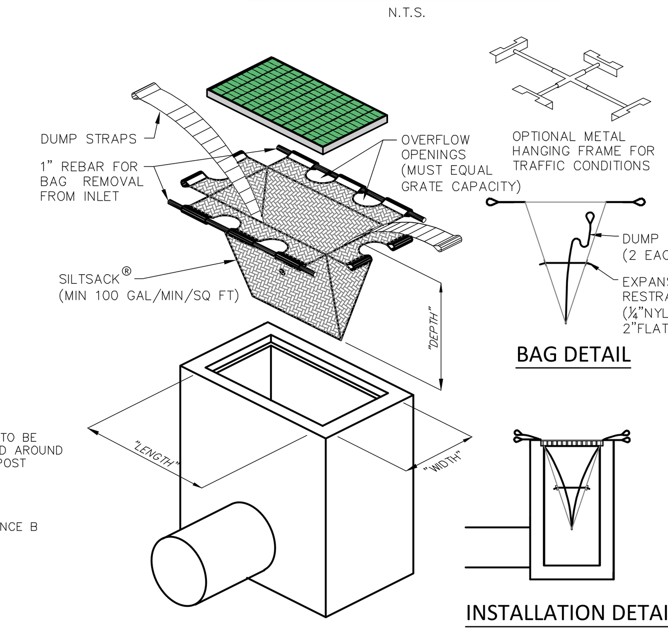
NOTE: *) SHOULD BE PERFORMED AT END OF EACH WORKDAY AS A MINIMUM
*) CLEAN STREETS FROM ANY SEDIMENT TRACKING OR SITE EROSION PRIOR TO THE END OF EACH WORK DAY. PLAN ON DAILY SWEEPING OR VACUUMING



SILT FENCE DETAIL
N.T.S.



LOW POINT INLET FILTER
N.T.S.



SILT SACK FILTER DETAIL

SOIL EROSION CONTROL NOTES

1. CUTTING, FILLING AND GRADING SHALL BE MINIMIZED AND THE NATURAL TOPOGRAPHY OF THE SITE SHALL BE PRESERVED TO THE MAXIMUM POSSIBLE EXTENT, EXCEPT WHERE SPECIFIC FINDINGS DEMONSTRATE THAT MAJOR ALTERATIONS WILL STILL MEET THE PURPOSES AND REQUIREMENTS OF THIS ORDINANCE.
2. DEVELOPMENT SHALL BE STAGED TO KEEP THE EXPOSED AREAS OF SOIL AS SMALL AS PRACTICABLE.
3. SOIL EROSION CONTROL MEASURES SHALL BE INSTALLED BETWEEN THE DISTURBED AREA AND ANY WATERCOURSES, INCLUDING RIVERS, STREAMS, CREEKS, LAKES, PONDS AND OTHER WATERCOURSES; WETLANDS; OR ROADWAYS ON OR NEAR THE SITE.
4. SEDIMENT RESULTING FROM ACCELERATED SOIL EROSION SHALL BE REMOVED FROM RUNOFF WATER BEFORE THAT WATER LEAVES THE SITE.
5. TEMPORARY AND PERMANENT SOIL EROSION CONTROL MEASURES DESIGNED AND CONSTRUCTED FOR THE CONVEYANCE OF WATER AROUND, THROUGH, OR AWAY FROM THE SITE SHALL BE DESIGNED TO LIMIT THE WATER FLOW TO A NON-EROSIVE VELOCITY.
6. OUTLETS OF STORM SEWERS, DITCHES, AND AREAS WHERE CONCENTRATIONS OF RUNOFF OCCUR SHALL BE PROTECTED AGAINST EROSION BY SODDING, RIP-RAP, MULCH BLANKETS, OR OTHER MEANS APPROVED BY THE ENGINEER. END SECTIONS ARE REQUIRED ON ALL CULVERTS.
7. ALL SITE SHALL BE STABILIZED WITH PERMANENT SOIL EROSION CONTROL MEASURES. TEMPORARY SOIL EROSION CONTROL MEASURES SHALL BE REMOVED AFTER PERMANENT SOIL EROSION CONTROL MEASURES HAVE BEEN IMPLEMENTED AND ESTABLISHED.
8. IF LAKES, PONDS, CREEKS, STREAMS, OR WETLANDS ARE LOCATED ON OR NEAR THE SITE, EROSION CONTROL MEASURES WHICH DIVERT RUNOFF AND TRAP SEDIMENT MUST BE PROVIDED AT STRATEGIC LOCATIONS. STRAW BALE BERMS MAY BE USED AS TEMPORARY STORMWATER DIVERSION STRUCTURES, BUT WILL NOT BE CONSIDERED SUFFICIENT FOR TRAPPING SEDIMENT. THE USE OF SEDIMENT BASINS, FILTER FABRIC, VEGETATED BUFFER STRIPS, AND ROCK FILTERS IN LIEU OF STRAW BALE BERMS SHALL BE STRONGLY ENCOURAGED. OTHER MEASURES MAY BE REQUIRED IF REASONABLY DETERMINED TO BE NECESSARY TO PROTECT A WATERCOURSE OR WETLAND.
9. WHEN IT IS NOT POSSIBLE TO PERMANENTLY STABILIZE A DISTURBED AREA AFTER AN EARTH CHANGE HAS BEEN COMPLETED OR WHEN SIGNIFICANT EARTH CHANGE ACTIVITY CEASES, TEMPORARY SOIL EROSION CONTROL MEASURES SHALL BE INSTALLED.
10. PERMANENT EROSION CONTROL MEASURES FOR ALL SLOPES, CHANNELS, DITCHES, OR ANY DISTURBED LAND AREA SHALL BE COMPLETED WITHIN 15 (FIFTEEN) CALENDAR DAYS AFTER FINAL GRADING OR THE FINAL EARTH CHANGE HAS BEEN COMPLETED. ALL TEMPORARY SOIL EROSION CONTROL MEASURES SHALL BE MAINTAINED UNTIL PERMANENT SOIL EROSION CONTROL MEASURES ARE IMPLEMENTED AND ESTABLISHED.
11. VEGETATED BUFFER STRIPS SHALL BE CREATED OR RETAINED ALONG THE EDGES OF ALL LAKES, PONDS, CREEKS, STREAMS, OTHER WATERCOURSES, OR WETLANDS.
12. EROSION AND SEDIMENTATION CONTROL MEASURES SHALL RECEIVE REGULAR INSPECTION AND MAINTENANCE ON A WEEKLY BASIS TO ASSURE PROPER FUNCTIONING. AS A MINIMUM RECORD IN A LOGBOOK ONCE A WEEK AND WITHIN 24 HOURS AFTER A STORM EVENT AS REQUIRED BY THE NPDES PERMIT. IMPLEMENTATION OF CONTINUOUS INSPECTION AND MAINTENANCE PROGRAMS SHALL INCLUDE, BUT NOT LIMITED TO:
   - PROTECTION OF EXPOSED SOIL AND STOCKPILES FROM WIND AND WATER EROSION
   - PROTECTION OF EXPOSED SLOPES FROM WIND AND WATER EROSION
   - VEHICULAR TRACKING OF SOIL OFF-SITE AND STREET SWEEPING
   - MINIMIZING OF THE SURFACE AREA OF UNSTABILIZED SOILS LEFT UNPROTECTED AND VULNERABLE TO RUNOFF AND WIND EROSION.
12. OWNER WILL OBTAIN STORM WATER "NOTICE OF COVERAGE" AND WILL BE RESPONSIBLE FOR INSPECTIONS AND "LOG BOOK" ENTRIES
13. TEMPORARY SWALES AS DEPICTED HERE IN SHALL BE FIELD GRADED TO PROVIDE POSITIVE DRAINAGE TO TEMPORARY DETENTION FACILITIES.
14. ALL FILL – STEEP SLOPE AREAS SHALL BE IMMEDIATELY SEEDED AND COVERED WITH AN EROSION BLANKET TO HOLD SLOPES IN PLACE.

EROSION CONTROL CONSTRUCTION SEQUENCE:

1. INSTALL FABRIC SILT FENCE AS INDICATED ON THE PLANS OR DETERMINED BY ENGINEER IN FIELD.
2. STRIP AND STOCKPILE TOPSOIL.
3. INSTALL EROSION AND SEDIMENT CONTROL MEASURES PER PLAN.
4. INSTALL STORM DRAINAGE SYSTEM. IMMEDIATELY INSTALL INLET FILTERS AT ALL CATCH BASIN AND INLET STRUCTURES.
5. COMMENCE FINAL GRADING AND TRIMMING OPERATIONS. PREPARE SUBGRADE FOR INSTALLATION OF PROPOSED PAVEMENT.
6. REPAIR AND/OR REPLACE ALL LOW POINT CATCH BASIN FILTERS AS NECESSARY.
7. PLACE AGGREGATE BASE COURSE, ASPHALT LEVELING COURSE, CONCRETE SIDEWALKS.
8. FINISH GRADING, REDISTRIBUTE TOPSOIL AND ESTABLISH VEGETATION.
9. CLEAN PAVEMENT AND CLEAR STORM SYSTEM OF ANY SEDIMENT.
10. RESTORE DENUDED EARTH AREAS WITH TOPSOIL, SEED AND/OR SOD, PER THE LANDSCAPE PLAN.
13. REMOVE TEMPORARY SOIL EROSION CONTROL MEASURES AFTER PERMANENT VEGETATION HAS BEEN ESTABLISHED.
14. CLEAR PAVEMENT AND STRUCTURES OF ACCUMULATED DEBRIS IN CONJUNCTION WITH THE REMOVAL OF TEMPORARY SOIL EROSION AND SEDIMENTATION CONTROL MEASURES.
15. IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO ENSURE THAT ALL SOIL EROSION CONTROL MEASURES ARE PROPERLY INSTALLED AND MAINTAINED.
16. ALL MUD TRACKED ON PUBLIC ROADWAYS SHALL BE REMOVED DAILY.
17. DUST CONTROL SHALL BE MAINTAINED AT ALL TIMES.

NOTES

NEAREST BODY OF WATER: GILLISON CREEK, ADJACENT TO EAST SIDE OF SITE.

THE TOTAL AREA OF PROPOSED EARTH DISTURBANCE IS 8.620 ACRES.

THE SOIL EROSION CONTROLS WILL BE MAINTAINED WEEKLY AND AFTER EVERY STORM EVENT BY THE CONTRACTOR.

A SOIL EROSION PERMIT IS REQUIRED FROM CLINTON COUNTY.

WETLAND / FLODPLAIN NOTE

THE SITE DOES NOT LIE WITHIN A SPECIAL FLOOD HAZARD AREA.

KNOWN WETLANDS LOCATED ON SITE ARE IDENTIFIED ON THIS SHEET AND SHEET C-2.

SOIL TYPE DESCRIPTION

THE SOILS ON SITE CONSIST OF PARKHILL LOAM, NON DENSE TILL SUBSOIL, 0 TO 2 PERCENT SLOPES (65.9 OF PARCEL), METAMORA-CAPAC SANDY LOAMS, 0 TO 4 PERCENT SLOPES (18.6% OF PARCEL), CAPAC-MARLETTE LOAMS, 1 TO 6 PERCENT SLOPES (12.6% OF PARCEL), AND CONOVER LOAM, 0 TO 4 PERCENT SLOPES (3.0% OF PARCEL).

BASED ON DATA PROVIDED BY THE UNITED STATES DEPARTMENT OF AGRICULTURE, NATURAL RESOURCES CONSERVATION SERVICE.

THIS PROJECT SHALL BE CONSTRUCTED IN COMPLIANCE WITH PART 91 OF ACT 451 OF 1994, AS AMENDED, THE SOIL EROSION AND SEDIMENT CONTROL ACT

LEGEND

- PROPOSED SILT FENCE
- LIMITS OF SOIL DISTURBANCE
- PROPOSED LOW POINT INLET FILTER
- PROPOSED SILT SACK INLET FILTER
- PROPOSED DITCH SEDIMENT TRAP
- PROPOSED TEMPORARY 8" CRUSHED CONCRETE CONSTRUCTION ENTRANCE

LEGEND

- MANHOLE — EXISTING SANITARY SEWER
- EXISTING SAN. CLEAN OUT
- HYDRANT, GATE VALVE — EXISTING WATER MAIN
- MANHOLE, CATCH BASIN — EXISTING STORM SEWER
- EX. R. Y. CATCH BASIN
- EXISTING BURIED CABLES
- UTILITY POLE, GUY POLE, GUY WIRE — OVERHEAD LINES
- LIGHT POLE
- SIGN
- EXISTING GAS MAIN
- CONSTRUCTION/TREE PROTECTION FENCING
- 12" MAPLE — INDICATES EXISTING TREE TO BE REMOVED

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50% CD REVIEW	08-22-2024
CONCEPT REVIEW	06-10-2024

DATE ISSUED

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PROJECT

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SHEET TITLE

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PROJECT NUMBER

C-4
SHEET NUMBER

J:\O000-FILES\O031 Clinton County Maintenance Expansion\Office\Site Plans\O031-SIT.dwg, C04-SESC, 9/9/2024 5:23:26 PM, Nowak and Fraus P.L.L.C.

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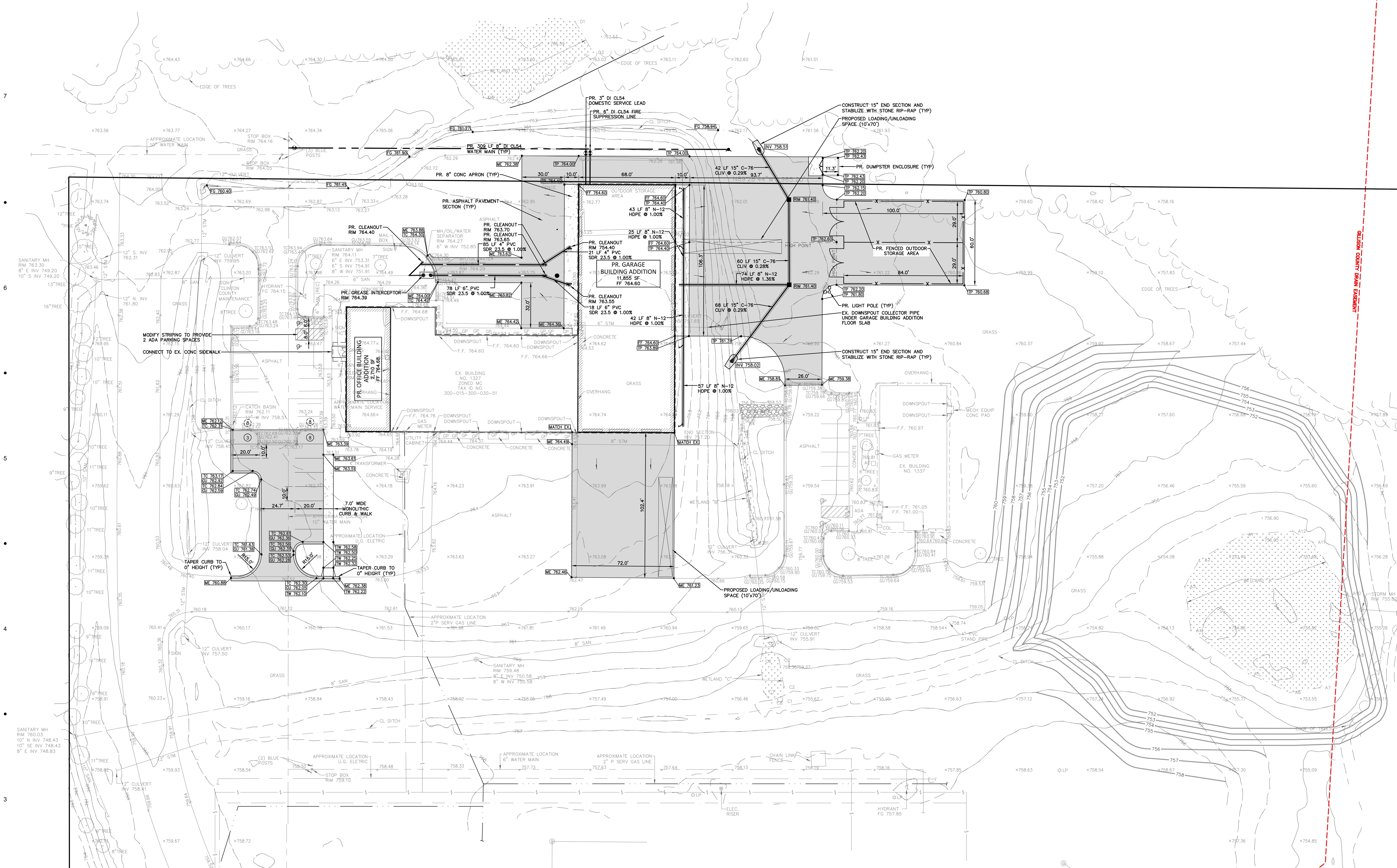
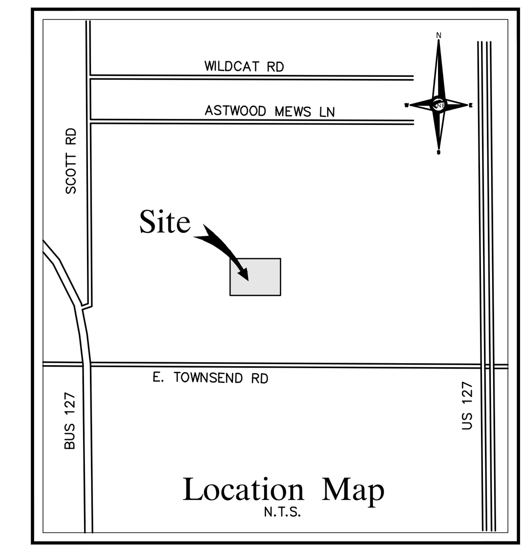
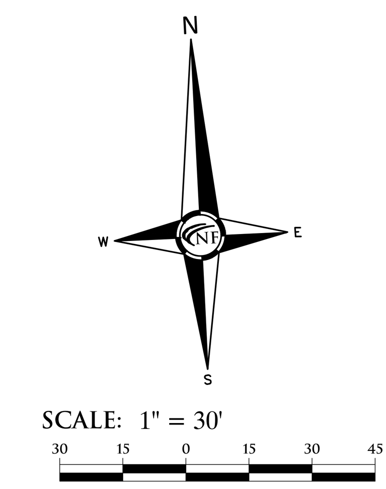
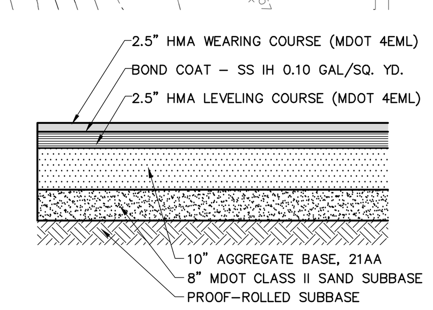
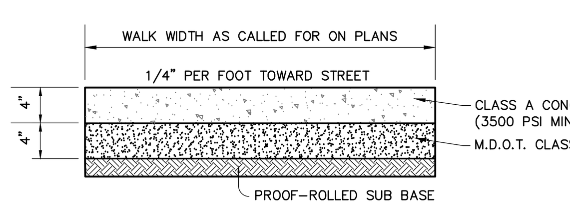




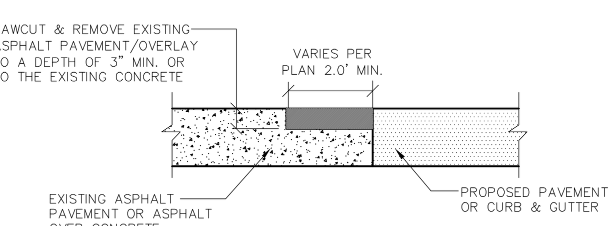




5" ASPHALT PAVEMENT SECTION
(DRIVE & BUS PARKING)



CONCRETE SIDEWALK SECTION
N.T.S.



BUTT JOINT DETAIL
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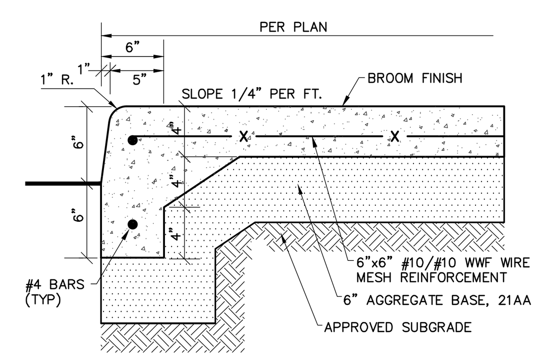
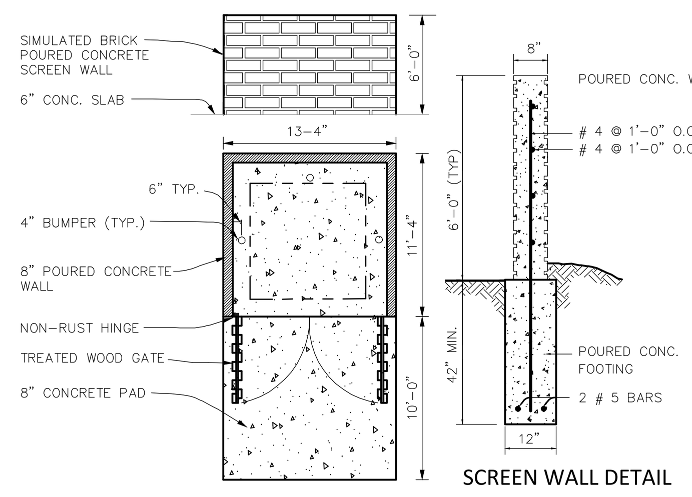


MONOLITHIC CURB AND WALK DETAIL
N.T.S.



CONCRETE SCREEN WALL DUMPSTER ENCLOSURE
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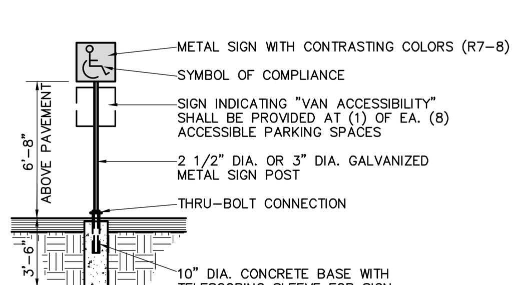

BARRIER FREE PARKING SIGN DETAIL
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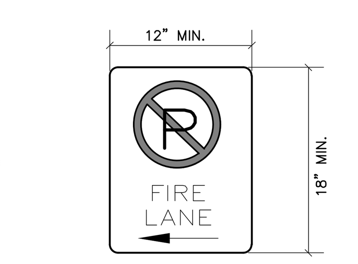
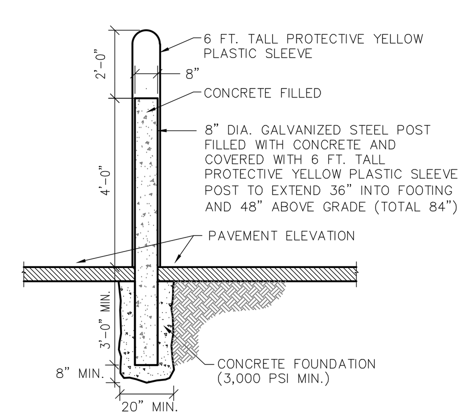


THE SYMBOL 'P' IS BLACK, CIRCUMSCRIBED IN A RED CIRCLE WITH A RED SLASH ON A WHITE BACKGROUND AND BLACK BORDER.

THE SUPPLEMENTAL EDUCATIONAL PLAQUE NO PARKING, WITH A RED LEGEND AND BORDER ON A WHITE BACKGROUND, MAY BE USED ABOVE THE SYMBOL.

CARE SHOULD BE EXERCISED TO SEE THAT THE SINGLE ARROWS POINT IN THE PROPER DIRECTION TO INDICATE THE REGULATED ZONE.

FIRE LANE SIGN DETAIL
N.T.S.



GUARD POST DETAIL
N.T.S.

PARKING CALCULATIONS

FLOOR AREA IS GROSS FLOOR AREA FOR PURPOSES OF COMPUTING PARKING EXCLUDING FLOOR AREAS USED EXCLUSIVELY FOR STORAGE, HOUSING OF MECHANICAL EQUIPMENT, MAINTENANCE FACILITIES, OR OTHER AREAS RESTRICTED TO GENERAL PUBLIC

OFF-STREET PARKING:

A) OFF-STREET PARKING SPACES REQUIRED PER TYPE OF USE

1. EXISTING + PROPOSED OFFICE AREA
FLOOR AREA: 3,190 SF x 0.80 = 2,552 SF

SPACES REQUIRED: 1 PARKING SPACE FOR 200 SQ. FT. OF FLOOR AREA

2,552 SF x 1 SP/200 SF = 13 SPACES

2. EXISTING + PROPOSED MAINTENANCE SERVICE AREA
GROSS FLOOR AREA 8,406 SF

ONE SPACE PER EMPLOYEE OF THE LARGEST WORKING SHIFT; OR ONE SPACE FOR EVERY 600 SQUARE FEET OF GROSS FLOOR AREA OF BUILDING, WHICHEVER IS GREATER

5 EMPLOYEES ON LARGEST SHIFT = 5 SPACES
8,406 SF x 1 SP/600 SF = 14 SPACES
PARKING SPACES REQUIRED (GREATER OF TWO) = 14 SPACES

2. EXISTING + PROPOSED GARAGE & STORAGE AREA
STORAGE ROOM GROSS FLOOR AREA 699 SF
PROPOSED GARAGE GROSS FLOOR AREA 11,855 SF
TOTAL GARAGE & STORAGE GROSS FLOOR AREA 12,554 SF

NO PARKING REQUIRED FOR GARAGE OR STORAGE AREA

TOTAL SPACES REQUIRED 13 + 14 = 27 SPACES

B) OFF-STREET PARKING SPACES REQUIRED PER NUMBER OF EMPLOYEES

TOTAL NUMBER OF EMPLOYEES ON LARGEST SHIFT (OFFICE, MAINTENANCE) 20 EMPLOYEES

ONE SPACE FOR EACH TWO EMPLOYEES REQUIRED OF ALL APPLICABLE USES

40 EMPLOYEES x 1 SP/2 EMPLOYEES = 20 SPACES

TOTAL SPACES REQUIRED: GREATER OF (A) AND (B) = 27 SPACES

SPACES PROVIDED:
STAFF PARKING: 20 SPACES (INCLUDING 1 HC)
VISITOR PARKING: 7 SPACES (INCLUDING 1 HC)
TOTAL PARKING PROVIDED: 27 SPACES (INCLUDING 2 HC)

LOADING/UNLOADING PARKING:
TOTAL PROPOSED GROSS FLOOR AREA = 24,150 SQ. FT

FOR 5,000 - 20,000 OF GROSS FLOOR AREA:
ONE (1) SPACES PLUS ONE (1) SPACE FOR EACH ADDITIONAL 20,000 SQ. FT OR FRACTION THEREOF

SPACES REQUIRED:
REQUIRED TWO (2) 10'x70' SPACES WITH 14-FOOT HEIGHT CLEARANCE

PROVIDED TWO (2) LOADING/UNLOADING SPACES

SITE INFORMATION

PARCEL	27.17± ACRES
PARCEL ID:	300-015-300-030-51
EXISTING ZONING	MC (MUNICIPAL CENTER)
SITE ADDRESS:	1347 E TOWNSEND RD, ST JOHNS, MI 48879
OWNER NAME:	CLINTON COUNTY BLDG AUTHORITY

MIN. YARD SETBACKS	BUILDING	PARKING
FRONT (SOUTH)	50 FT	N/A
SIDE (EAST)	20 FT *1)	N/A
SIDE (WEST)	50 FT	N/A
REAR	25 FT *1)	N/A

MAXIMUM LOT COVERAGE 60 %

NOTES:
*1) MINIMUM 50 FEET IF ABUTTING RESIDENTIAL DISTRICT
*2) SIDE AND REAR YARDS, EXCEPT FOR A STRIP ALONG THE LOT BOUNDARY TEN FEET IN WIDTH, MAY BE USED FOR PARKING AND LOADING, BUT NOT FOR STORAGE

REQUIREMENTS WERE OBTAINED FROM THE CITY OF ST. JOHNS ZONING ORDINANCE, PASSED DECEMBER 14, 2020.

ADJACENT LAND ZONING AND USE

ADJACENT LAND	ZONING	USE
FROM NORTH	MC	MUNICIPAL CENTER
FROM WEST	R-3	HIGH DENSITY RESIDENTIAL
FROM SOUTH	A-2	AGRICULTURAL (BINGHAM TOWNSHIP)
FROM EAST	A-2	AGRICULTURAL (BINGHAM TOWNSHIP)

BUILDING DATA

SQUARE FOOTAGE OF BLDG. ENVELOPE	
EXISTING BUILDING	9,585 SF
PROPOSED MAINTENANCE GARAGE ADDITION	11,855 SF
PROPOSED OFFICE BUILDING ADDITION	2,710 SF
TOTAL BUILDING ENVELOPE AREA	24,150 SF

LOT COVERAGE CALCULATIONS

TOTAL PARCEL AREA	1,183,525 SF	(27.17± AC)
EXISTING & PROPOSED BUILDING AREA	24,150 SF	(0.55 AC)
EXISTING & PROPOSED PAVEMENT AREA	182,474 SF	(4.18 AC)
TOTAL PROPOSED AREA	206,624 SF	(4.74 AC)

LOT COVERAGE 206,624/1,183,525 x 100% = 17.46% (< 60%)

SURFACE LEGEND

DETENTION BASIN STORAGE VOLUME

PAVING LEGEND

PROPOSED CONCRETE PAVEMENT
PROPOSED ASPHALT PAVEMENT

LEGEND

MANHOLE — EXISTING SANITARY SEWER
SAN. CLEAN OUT
HYDRANT, GATE VALVE — EXISTING WATERMAIN
MANHOLE, CATCH BASIN — EXISTING STORM SEWER
EX. R. Y. CATCH BASIN
EXISTING BURIED CABLES
UTILITY POLE, GUY POLE, GUY WIRE — OVERHEAD LINES
LIGHT POLE
SIGN
EXISTING GAS MAIN
C.O., MANHOLE — PR. SANITARY SEWER
HYDRANT, GATE VALVE — PR. WATER MAIN
INLET, C.B., C.B., MANHOLE — PR. STORM SEWER
PR. R. Y. CATCH BASIN
PROPOSED LIGHT POLE

50% CD REVIEW 08-22-2024
CONCEPT REVIEW 06-10-2024
DATE ISSUED

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PAVING & GRADING PLAN
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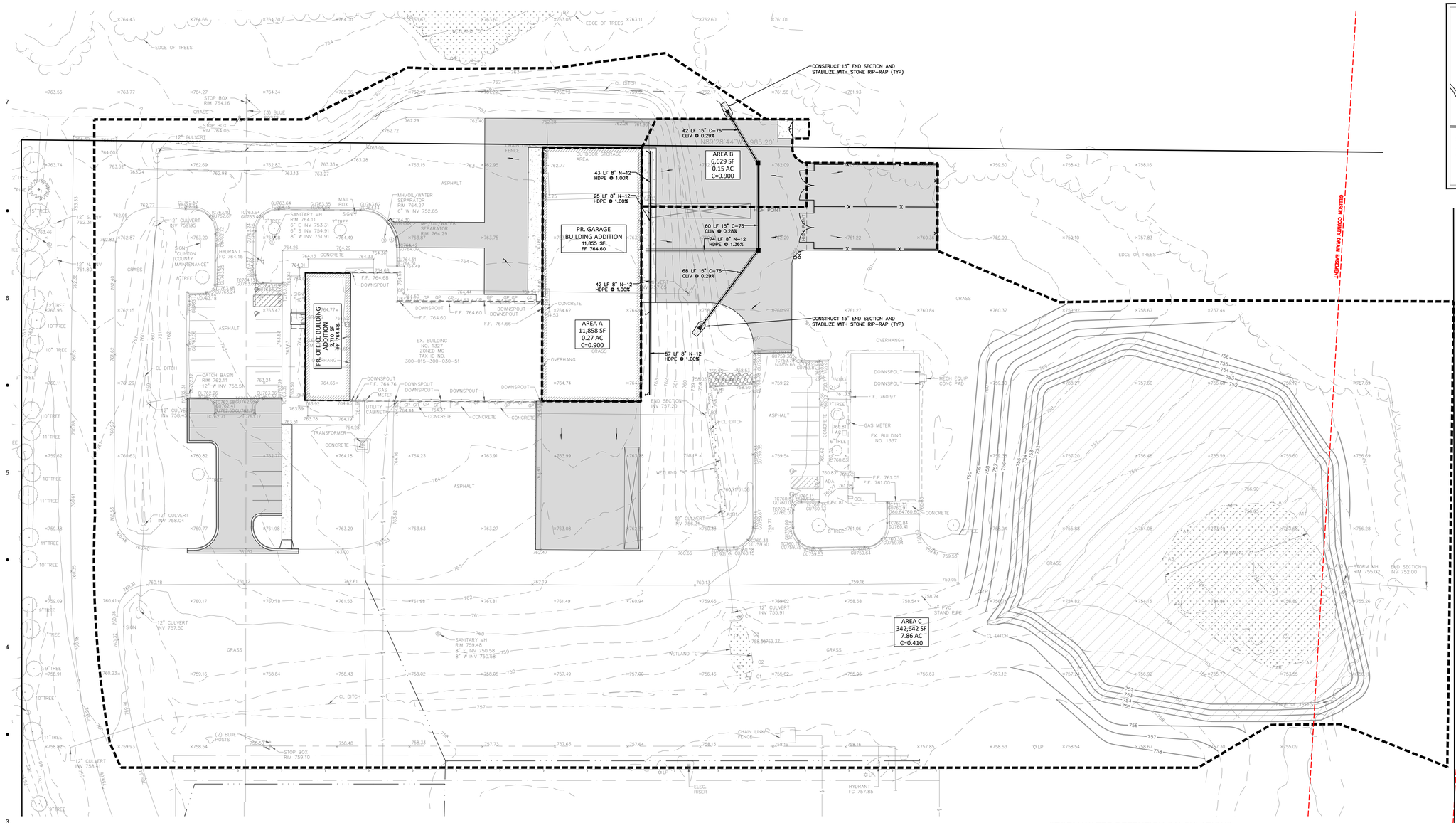
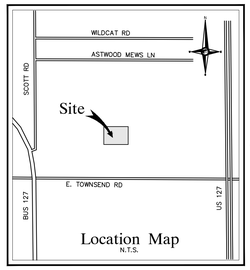
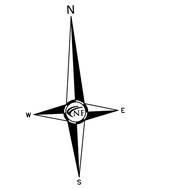
C-5
SHEET NUMBER

J:\O000-FILES\O031 Clinton County Maintenance Expansion\Office\Site Plans\O031-SIT.dwg, C05-PAV, 9/9/2024 5:26:34 PM, Nowak and Fraus P.L.L.C.







SCALE: 1" = 30'

30 15 0 15 30 45

STORM WATER DETENTION CALCULATIONS

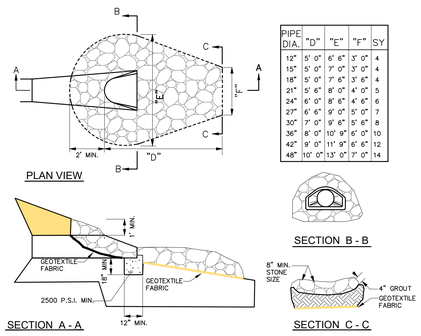
STORM WATER DETENTION BASIN CALCULATIONS

Detention Drainage Area	8.620 ac	
A. Runoff Coefficient		
Total Contributory Drainage Area	8.620 ac	
Building Area	0.664 ac	(incl. future expansion)
Pavement Area	4.909 ac	
RAP Pavement/Storage Area	0.000 ac	
Permanent Water Area in Basin	0.000 ac	
Grass/Vegetated Surface Area	3.047 ac	
Impervious Surface Runnoff Coefficient C	0.900	
Semipervious Surface Runnoff Coefficient C	0.600	
Vegetated Surface Runnoff Coefficient C	0.350	
Weighted Runnoff Coefficient C	**0.706**	

B. Required Detention Volume for the Design 100-Year Storm Event

DURATION (HR)	STORM INTENSITY (IN/HR)	Q_{IN} = C I A (CFS)	Q_{OUT} = 0.13/Acre (CFS)	Q_{IN} - Q_{OUT} (CFS)	STORAGE VOLUME (CF)
0.17	7.74	47.076	1.121	45.955	28,125
0.25	6.64	40.385	1.121	39.265	35,338
0.50	4.56	27.735	1.121	26.614	47,905
1.00	2.89	17.577	1.121	16.457	59,245
2.00	1.79	10.887	1.121	9.766	70,318
3.00	1.31	7.968	1.121	6.847	73,948
4.00	1.04	6.325	1.121	5.205	74,950
5.00	0.88	5.352	1.121	4.232	76,170
5.50	0.82	4.987	1.121	3.867	76,562
6.00	**0.77**	4.683	**1.121**	**3.563**	**76,953**
6.50	0.72	4.379	1.121	3.259	76,250
7.00	0.68	4.136	1.121	3.015	75,985
				MAXIMUM	76,953

Required Storage Volume	**76,953**	**cf**
Provided Storage Volume	**78,628**	**cf**
Proposed Storage Elevation	**755.02**	**ft**
Proposed Freeboard Elevation	**757.00**	**ft**



PIPE DIA.	"D"	"E"	"F"	SY
12"	5' 0"	6' 6"	3' 0"	4
15"	5' 0"	7' 0"	3' 0"	4
18"	5' 0"	7' 6"	3' 6"	4
21"	5' 6"	8' 0"	4' 0"	5
24"	6' 0"	8' 6"	4' 6"	6
27"	6' 6"	9' 0"	5' 0"	7
30"	7' 0"	9' 6"	5' 6"	8
36"	8' 0"	10' 9"	6' 0"	10
42"	9' 0"	11' 9"	6' 6"	12
48"	10' 0"	13' 0"	7' 0"	14

GROUTED STONE RIP-RAP

N.T.S.

SURFACE LEGEND

DETENTION BASIN STORAGE VOLUME

LEGEND

- MANHOLE — EXISTING SANITARY SEWER
- SAN. CLEAN OUT
- HYDRANT, GATE VALVE — EXISTING WATERMAIN
- MANHOLE, CATCH BASIN — EXISTING STORM SEWER
- EX. R. Y. CATCH BASIN
- EXISTING BURIED CABLES
- UTILITY POLE, GUY POLE, GUY WIRE — OVERHEAD LINES
- LIGHT POLE
- SIGN
- EXISTING GAS MAIN
- C.O., MANHOLE — PR. SANITARY SEWER
- HYDRANT, GATE VALVE — PR. WATER MAIN
- INLET, C.B., C.B., MANHOLE — PR. STORM SEWER
- PR. R. Y. CATCH BASIN
- PROPOSED LIGHT POLE

Sheet Size - 30x42
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50% CD REVIEW	08-22-2024
CONCEPT REVIEW	06-10-2024

DATE ISSUED

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CONSULTANT

811 Know what's below Call before you dig.

NOT FOR CONSTRUCTION

STORMWATER MANAGEMENT PLAN

SHEET TITLE

23-319

PROJECT NUMBER

C-6

SHEET NUMBER

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UTILITIES

AT LEAST 72 HOURS (3 WORKING DAYS) PRIOR TO THE START OF CONSTRUCTION, THE CONTRACTOR SHALL NOTIFY MISS DIG AND THE LOCAL COMMUNITY (WHERE APPLICABLE) TO STAKE LOCATIONS OF EXISTING UTILITIES.

THE CONTRACTOR SHALL EXPOSE AND VERIFY EXISTING UTILITIES FOR LOCATION, SIZE, DEPTH, MATERIAL AND CONFIGURATION PRIOR TO CONSTRUCTION. COSTS FOR EXPLORATORY EXCAVATION IS AN INCIDENTAL COST AND SHALL NOT BE CONSIDERED AN EXTRA TO THE CONTRACT.

THE CONTRACTOR SHALL NOTIFY THE ENGINEER OF ANY EXISTING UTILITIES WHICH DO NOT MATCH THE PLANS AND SPECIFICATIONS PRIOR TO COMMENCING WORK. ANY FIELD CHANGES OF THE PROPOSED UTILITIES SHALL BE APPROVED BY THE OWNER AND ENGINEER BEFORE THE WORK IS DONE.

THE CONTRACTOR SHALL PROTECT ALL EXISTING UTILITIES FROM DAMAGE. ANY SERVICE OR UTILITY DAMAGED OR REMOVED BY THE CONTRACTOR SHALL BE REPAIRED OR REPLACED AT THE EXPENSE OF THE CONTRACTOR, IN CONFORMANCE WITH THE REQUIREMENTS OF THE UTILITY COMPANY PROVIDER.

NO UNDERGROUND UTILITIES TO BE PLACED WITHIN 5 FEET OF AREAS INDICATED AS FUTURE BUILDINGS.

MEANS AND METHODS FOR PIPE CONSTRUCTION

IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO DETERMINE THE MEANS AND METHODS FOR CONSTRUCTING THE UNDERGROUND PIPE SYSTEMS PROPOSED ON THE PLANS, INCLUDING BUT NOT LIMITED TO THE NEED FOR SHORING/BRACING OF TRENCHES, DEWATERING OF TRENCHES, SCHEDULING THE WORK AT OFF PEAK HOURS, AND/OR MAINTAINING EXISTING FLOWS THAT MAY BE ENCOUNTERED VIA PUMPING, BY-PASS PIPING OR OTHER MEANS. THE CONTRACTOR SHALL NOT BE PAID ANY ADDITIONAL COMPENSATION TO IMPLEMENT ANY MEANS AND METHODS TO SATISFACTORILY COMPLETE THE CONSTRUCTION.

STRUCTURE BACKFILL

STRUCTURAL BACKFILL SHALL BE PLACED IN CONFORMANCE WITH THE PROJECT PLANS, SPECIFICATIONS OR AS REQUIRED BY THE COMMUNITY, GOVERNMENT AGENCY OR UTILITY THAT HAS JURISDICTION OVER THE WORK.

TRENCH BACKFILL

TRENCH BACKFILL SHALL BE PLACED IN CONFORMANCE WITH THE PLANS AND/OR SPECIFICATIONS. TRENCH BACKFILL SHALL ALSO BE INSTALLED IN CONFORMANCE WITH THE COMMUNITY REQUIREMENTS OR AGENCY/UTILITY GOVERNING SAID TRENCH CONSTRUCTION. IN THE CASE OF CONFLICTING REQUIREMENTS, THE MORE STRINGENT SHALL APPLY.

DEWATERING OF TRENCH AND EXCAVATIONS

IF NOT SPECIFICALLY PROVIDED FOR IN THE CONSTRUCTION DESIGN DOCUMENTS, THE DESIGN OR QUALITATIVE ANALYSIS OF GROUND WATER DEWATERING SYSTEMS IS BEYOND THE SCOPE OF DESIGN FOR THESE DOCUMENTS. THE CONTRACTOR SHALL BE RESPONSIBLE FOR SELECTING AND PROVIDING APPROPRIATE EXCAVATION DEWATERING SYSTEMS FOR USE DURING CONSTRUCTION.

THE DEWATERING METHOD SELECTED BY THE CONTRACTOR WILL NOT ADVERSELY AFFECT ADJACENT PAVEMENTS OR STRUCTURES PRIOR TO BEGINNING DEWATERING CONDITIONS. MEANS AND METHODS OF DEWATERING ARE SOLELY THE RESPONSIBILITY OF THE CONTRACTOR. THE COST OF DEWATERING WILL BE CONSIDERED INCLUDED IN THE WORK OF CONSTRUCTING THE UNDERGROUND UTILITIES UNLESS SPECIFICALLY INDICATED OTHERWISE.

BY-PASS PUMPING

FROM TIME TO TIME IT MAY BE NECESSARY FOR THE CONTRACTOR TO BY-PASS PUMP TO COMPLETE THE WORK INDICATED ON THE PLANS. THE COST OF BY-PASS PUMPING, THE METHODS, EQUIPMENT AND MEANS OF PROVIDING THAT WORK ARE THE RESPONSIBILITY OF THE CONTRACTOR AND SHALL BE CONSIDERED PART OF THE WORK WHETHER SPECIFICALLY CALLED OUT ON THE PLANS OR NOT.

GENERAL PAVING NOTES

PAVEMENT SHALL BE OF THE TYPE, THICKNESS AND CROSS SECTION AS INDICATED ON THE PLANS AND AS FOLLOWS:

CONCRETE: PORTLAND CEMENT TYPE IA (AIR-ENTRAINED) WITH A MINIMUM CEMENT CONTENT OF SIX SACKS PER CUBIC YARD, MINIMUM 28 DAY COMPRESSIVE STRENGTH OF 3,500 PSI AND A SLUMP OF 1 1/2 TO 3 INCHES.

ASPHALT: BASE COURSE – MDOT BITUMINOUS MIXTUR HMA 4E1, 20AA; SURFACE COURSE – MDOT BITUMINOUS MIXTURE HMA 5E1, 20AA; ASPHALT CEMENT PENETRATION GRADE 85-100, BOND COAT – MDOT SS-1H EMULSION AT 0.10 GALLON PER SQUARE YARD; MAXIMUM 2 INCH LIFT.

PAVEMENT BASE SHALL BE COMPACTED TO 95% OF THE MAXIMUM DENSITY (MODIFIED PROCTOR) PRIOR TO PLACEMENT OF PROPOSED PAVEMENT. EXISTING SUB-BASE SHALL BE PROOF-ROLLED IN THE PRESENCE OF THE ENGINEER TO DETERMINE STABILITY.

ALL CONCRETE PAVEMENT, DRIVEWAYS, CURB & GUTTER, ETC., SHALL BE SPRAY CURED WITH WHITE MEMBRANE CURING COMPOUND IMMEDIATELY FOLLOWING FINISHING OPERATION.

ALL CONCRETE PAVEMENT JOINTS SHALL BE FILLED WITH HOT POURED RUBBERIZED ASPHALT JOINT SEALING COMPOUND IMMEDIATELY AFTER SAWCUT OPERATION. FEDERAL SPECIFICATION SS-S164.

ALL WORKMANSHIP AND MATERIALS SHALL BE IN ACCORDANCE WITH THE CURRENT STANDARDS AND SPECIFICATIONS OF THE MUNICIPALITY AND THE MICHIGAN DEPARTMENT OF TRANSPORTATION STANDARD SPECIFICATIONS FOR CONSTRUCTION, CURRENT EDITION.

ALL TOP OF CURB ELEVATIONS, AS SHOWN ON THE PLANS, ARE CALCULATED FOR A 6" CONCRETE CURB UNLESS OTHERWISE NOTED.

ALL SIDEWALK RAMPS, CONFORMING TO PUBLIC ACT NO. 8, 1993, SHALL BE INSTALLED AS INDICATED ON THE PLANS.

CONSTRUCTION OF A NEW OR RECONSTRUCTED DRIVE APPROACH CONNECTING TO AN EXISTING STATE OR COUNTY ROADWAY SHALL BE ALLOWED ONLY AFTER AN APPROVED PERMIT HAS BEEN SECURED FROM THE AGENCY HAVING JURISDICTION OVER SAID ROADWAY.

FOR ANY WORK WITHIN THE PUBLIC RIGHT-OF-WAY, THE CONTRACTOR SHALL PAY FOR AND SECURE ALL NECESSARY PERMITS AND LIKEWISE ARRANGE FOR ALL INSPECTION.

EXISTING TOPSOIL, VEGETATION AND ORGANIC MATERIALS SHALL BE STRIPPED AND REMOVED FROM PROPOSED PAVEMENT AREA PRIOR TO PLACEMENT OF BASE MATERIALS.

EXPANSION JOINTS SHOULD BE INSTALLED AT THE END OF ALL INTERSECTION RADII.

SIDEWALK RAMPS, CONFORMING TO PUBLIC ACT NO. 8, 1973, SHALL BE INSTALLED AS SHOWN AT ALL STREET INTERSECTIONS AND AT ALL BARRIER FREE PARKING AREAS AS INDICATED ON THE PLANS.

ALL PAVEMENT AREAS SHALL BE PROOF-ROLLED UNDER THE SUPERVISION OF A GEOTECHNICAL ENGINEER PRIOR TO THE PLACEMENT OF BASE MATERIALS AND PAVING MATERIALS.

FILL AREAS SHALL BE MACHINE COMPACTED IN UNIFORM LIFTS NOT EXCEEDING 9 INCHES THICK TO 98% OF THE MAXIMUM DENSITY (MODIFIED PROCTOR) PRIOR TO PLACEMENT OF PROPOSED PAVEMENT.

GENERAL WATER MAIN NOTES

ALL WORKMANSHIP AND MATERIALS SHALL BE IN ACCORDANCE WITH THE CURRENT STANDARDS AND SPECIFICATIONS OF THE MUNICIPALITY. THE MUNICIPALITY STANDARD NOTES, DETAILS AND SPECIFICATIONS SHALL BE INCORPORATED AS PART OF THESE PLANS.

WATER MAIN SHALL BE OF THE TYPE, SIZE & CLASS DESIGNATION INDICATED ON THE PLANS.

THE CONTRACTOR SHALL NOTIFY MISS DIG (1-800-482-7171) A MINIMUM OF THREE (3) WORKING DAYS PRIOR TO THE START OF CONSTRUCTION.

THE UNDERGROUND SITE CONTRACTOR SHALL INSTALL ALL WATER MAIN BUILDING SERVICE TO WITHIN FIVE (5) FEET OF PROPOSED BUILDING.

THE CONTRACTOR SHALL PAY FOR AND SECURE ALL NECESSARY PERMITS AND LIKEWISE ARRANGE FOR ALL SITE INSPECTIONS.

PROPOSED WATER MAIN SHALL BE CONFORMING TO A.N.S.I./A.W.W.A. SPECIFICATION C151/A21.51, CLASS 54. DUCTILE IRON FITTINGS SHALL CONFORM TO A.N.S.I./A.W.W.A. SPECIFICATION C110/A21.10 FOR STANDARD FITTINGS OR TO A.N.S.I./A.W.W.A. SPECIFICATION C153/A21.53 FOR COMPACT FITTINGS. DUCTILE IRON PIPE AND FITTINGS SHALL HAVE A DOUBLE THICKNESS CEMENT MORTAR LINING CONFORMING TO A.N.S.I. SPECIFICATION A21.4.

JOINTS FOR DUCTILE IRON WATER MAIN SHALL BE U.S. PIPE AND FOUNDRY COMPANY "TYTON JOINT" OR APPROVED EQUAL.

ALL WATER MAIN SHALL BE INSTALLED WITH A MINIMUM COVER OF FIVE (6) FEET, SIX (6) INCHES BELOW FINISH GRADE. WHEN WATER MAINS MUST DIP TO PASS UNDER A STORM SEWER OR SANITARY SEWER, THE SECTIONS WHICH ARE DEEPER THAN NORMAL SHALL BE KEPT TO A MINIMUM LENGTH BY THE USE OF VERTICAL TWENTY TWO AND ONE-HALF (22 1/2) DEGREE BENDS, PROPERLY ANCHORED.

ALL TRENCHES UNDER OR WITHIN THREE (3) FEET OF THE FORTY-FIVE (45) DEGREE LINE OF INFLUENCE OF EXISTING OR PROPOSED PAVEMENT, SIDEWALK OR DRIVE APPROACH SHALL BE BACKFILLED WITH SAND COMPACTED TO NINETY-FIVE (95) PERCENT OF MAXIMUM UNIT WEIGHT.

HYDRANTS SHALL BE E.J.I.W. 6 BR TRAFFIC TYPE PER MUNICIPALITY STANDARDS. HYDRANT BURY SHALL BE FIVE (5) FEET SIX (6) INCHES.

THE CONTRACTOR WILL FILL, FLUSH, DISINFECT AND PRESSURE TEST ALL NEW WATER MAIN CONSTRUCTION, IN THE PRESENCE OF THE GOVERNING MUNICIPALITY WATER DEPARTMENT.

BACTERIOLOGICAL TESTING SHALL BE PERFORMED BY THE GOVERNING MUNICIPALITY WATER DEPARTMENT.

BEFORE ANY WATER MAIN WILL BE ACCEPTED BY THE MUNICIPALITY, IT MUST PASS A PRESSURE TEST COMPLYING WITH THE CURRENT SPECIFICATIONS AND PROCEDURES OF THE MUNICIPALITY AND THE DETROIT WATER DEPARTMENT.

ALL DUCTILE IRON PIPE SHALL BE ENCASED IN POLYETHYLENE FILM CONFORMING TO A.N.S.I./A.W.W.A. SPECIFICATION A21.5/C-105, WHERE REQUIRED BY THE MUNICIPALITY.

GATE WELL COVERS SHALL BE E.J.I.W. NO. 1040 OR APPROVED EQUAL. WHERE GATE WELLS ARE LOCATED WITHIN PAVEMENT GREATER THAN SEVEN (7) INCHES THICK, THE GATE WELL COVER SHALL BE E.J.I.W. NO. 1050 OR APPROVED EQUAL.

GENERAL SANITARY SEWER NOTES

ALL WORKMANSHIP AND MATERIALS SHALL BE IN ACCORDANCE WITH THE CURRENT STANDARDS AND SPECIFICATIONS OF THE MUNICIPALITY. THE MUNICIPALITY STANDARD NOTES, DETAILS AND SPECIFICATIONS SHALL BE INCORPORATED AS PART OF THESE PLANS.

ALL SANITARY SEWER PIPE SHALL BE INSTALLED ON CLASS "B" BEDDING OR BETTER UNLESS OTHERWISE INCLUDED ON THE PLANS.

SANITARY SEWER SHALL BE OF THE TYPE, SIZE & CLASS DESIGNATION INDICATED ON THE PLANS AND LIKEWISE BE INSTALLED AT THE PROPOSED LINE & GRADE INDICATED.

ALL MAN HOLE COVERS SHALL BE AS INDICATED ON THE PLANS IN ACCORDANCE WITH MUNICIPALITY STANDARDS.

THE CONTRACTOR SHALL NOTIFY MISS DIG (1-800-482-7171) A MINIMUM OF THREE (3) WORKING DAYS PRIOR TO THE START OF CONSTRUCTION.

EXACT GRADES AND INVERTS OF PROPOSED SANITARY SEWER ARE TO BE CHECKED WITH THE FIELD ENGINEER PRIOR AND DURING INSTALLATION. THE CONTRACTOR SHALL IMMEDIATELY NOTIFY THE DESIGN ENGINEER OF ANY PLAN INCONSISTENCY AND/OR UTILITY CONFLICTS.

THE UNDERGROUND SITE CONTRACTOR SHALL INSTALL ALL SANITARY SEWER BUILDING LEADS TO WITHIN FIVE (5) FEET OF PROPOSED BUILDING.

THE CONTRACTOR SHALL PAY FOR AND SECURE ALL NECESSARY PERMITS AND LIKEWISE ARRANGE FOR ALL SITE INSPECTIONS.

IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO VERIFY AND/OR OBTAIN ANY INFORMATION NECESSARY REGARDING THE PRESENCE OF UNDERGROUND UTILITIES WHICH MIGHT AFFECT THIS JOB.

ALL TRENCHES UNDER OR WITHIN THREE (3) FEET OF THE FORTY-FIVE (45) DEGREE ZONE OF INFLUENCE LINE OF EXISTING AND/OR PROPOSED PAVEMENT, SIDEWALK OR DRIVE APPROACH SHALL BE BACKFILLED WITH SAND COMPACTED TO AT LEAST NINETY-FIVE (95) PERCENT OF MAXIMUM UNIT WEIGHT.

DOWNSPOUTS, WEEP TILE, FOOTING DRAINS, OR ANY CONDUIT, THAT CARRIES STORM OR GROUND WATER SHALL NOT BE ALLOWED TO DISCHARGE INTO A SANITARY SEWER.

NO SANITARY SEWER INSTALLATION OR PORTION THEREOF SHALL HAVE INFILTRATION EXCEEDING 100 GALLONS PER INCH DIAMETER PER MILE OF PIPE PER TWENTY-FOUR (24) HOUR PERIOD.

EACH TEE OR END OF SERVICE LEAD SHALL BE MARKED BY SETTING A TWO (2) INCH BY TWO (2) INCH BY EIGHT (8) FOOT (2" X 2" X 8') LUMBER STAKE VERTICALLY ABOVE THE END OF THE LEAD.

EACH TEE OR END OF SERVICE LEAD SHALL HAVE WATER-TIGHT AND AIRTIGHT STOPPER OF COMPATIBLE JOINT MATERIAL AND SHALL BE ADEQUATELY BRACED TO WITHSTAND EXFILTRATION AND/OR AIR TEST PRESSURE.

GENERAL STORM SEWER NOTES

ALL WORKMANSHIP AND MATERIALS SHALL BE IN ACCORDANCE WITH THE CURRENT STANDARDS AND SPECIFICATIONS OF THE MUNICIPALITY. THE MUNICIPALITY STANDARD NOTES, DETAILS AND SPECIFICATIONS SHALL BE INCORPORATED AS PART OF THEIR PLANS.

ALL STORM SEWER TRENCHES UNDER OR WITHIN THREE (3) FEET OF EXISTING OR PROPOSED PAVEMENT SHOULD BE BACKFILLED WITH MDOT CLASS II MATERIAL (SAND) AND BE MACHINE COMPACTED TO A MINIMUM OF 95% OF THE MATERIAL'S MAXIMUM DENSITY. PAVEMENT SHALL INCLUDE PARKING LOTS, DRIVE APPROACHES, CURB & GUTTER AND ADJACENT WALLS.

ALL STORM SEWER PIPE SHALL BE INSTALLED ON CLASS "B" BEDDING OR BETTER UNLESS OTHERWISE INDICATED ON THE PLANS.

STORM SEWER SHALL BE OF THE TYPE, SIZE & CLASS DESIGNATION INDICATED ON THE PLANS AND SHALL BE INSTALLED AT THE PROPOSED LINE AND GRADE INDICATED.

ALL STORM SEWER PIPE SHALL BE REINFORCED CONCRETE PIPE CONFORMING TO ASTM SPECIFICATION C-76, CL IV.

ALL MANHOLE, CATCH BASIN, INLET, REAR YARD DRAIN FRAMES AND COVERS SHALL BE AS INDICATED ON THE PLANS IN ACCORDANCE WITH MUNICIPALITY STANDARDS.

THE CONTRACTOR SHALL NOTIFY MISS DIG (1-800-482-7171) A MINIMUM OF THREE (3) WORKING DAYS PRIOR TO THE START OF CONSTRUCTION.

EXACT GRADES AND INVERTS OF PROPOSED STORM SEWER ARE TO BE CHECKED WITH THE FIELD ENGINEER PRIOR AND DURING INSTALLATION. THE CONTRACTOR SHALL IMMEDIATELY NOTIFY THE DESIGN ENGINEER OF ANY PLAN INCONSISTENCY AN/OR UTILITY CONFLICTS.

ALL STORM SEWER PIPE JOINTS SHALL BE "PREMIUM JOINT" MODIFIED GROOVED TONGUE, (M.G.T.) WITH SYNTHETIC RUBBER GASKETS CONFORMING TO ASTM SPECIFICATION C-443 & C-361 UNLESS OTHERWISE INDICATED ON THE PLANS. ALTERNATE JOINT CONNECTION MAYBE STANDARD GROOVED TONGUE WITH COLD MASTIC (DEWITT #10 JOINT COMPOUND OR EQUAL).

FACTORY MANUFACTURED PRECAST TEE SECTIONS SHALL BE USED FOR ROOF DRAINS AND/OR SUMP PUMP LEADS AND LATERALS WHERE INDICATED ON THE PLANS. BLIND TOP CONNECTIONS INTO STORM SEWER WILL NOT BE PERMITTED BY BREAKING PIPE WALL.

THE UNDERGROUND SITE CONTRACTOR SHALL INSTALL ALL STORM SEWER BUILDING LEADS TO WITHIN FIVE (5) FEET OF PROPOSED BUILDING.

GROUTED RIP RAP SHALL BE INSTALLED AT THE ENDS OF ALL CULVERTS AND END SECTIONS. GROUTED RIP RAP SHALL LIKEWISE BE INSTALLED AT OUTLET POINTS IN DETENTION AND SEDIMENTATION FACILITY. THE MINIMUM WIDTH OF THE RIP RAP SHALL BE TWICE THE OUTSIDE DIAMETER OF THE PIPE. THE RIP RAP SHALL EXTEND FROM THE BOTTOM OF THE SLOPE TO THE PIPE INVERT.

THE CONTRACTOR SHALL PAY FOR AND SECURE ALL NECESSARY PERMITS AND LIKEWISE ARRANGE FOR ALL SITE INSPECTION.

NO UNDERGROUND UTILITIES TO BE PLACED WITHIN 5 FEET OF AREAS INDICATED AS FUTURE BUILDINGS.

UTILITIES

AT LEAST 72 HOURS (3 WORKING DAYS) PRIOR TO THE START OF CONSTRUCTION, THE CONTRACTOR SHALL NOTIFY MISS DIG AND THE LOCAL COMMUNITY (WHERE APPLICABLE) TO STAKE LOCATIONS OF EXISTING UTILITIES.

THE CONTRACTOR SHALL EXPOSE AND VERIFY EXISTING UTILITIES FOR LOCATION, SIZE, DEPTH, MATERIAL AND CONFIGURATION PRIOR TO CONSTRUCTION. COSTS FOR EXPLORATORY EXCAVATION IS AN INCIDENTAL COST AND SHALL NOT BE CONSIDERED AN EXTRA TO THE CONTRACT.

THE CONTRACTOR SHALL NOTIFY THE ENGINEER OF ANY EXISTING UTILITIES WHICH DO NOT MATCH THE PLANS AND SPECIFICATIONS PRIOR TO COMMENCING WORK. ANY FIELD CHANGES OF THE PROPOSED UTILITIES SHALL BE APPROVED BY THE OWNER AND ENGINEER BEFORE THE WORK IS DONE.

THE CONTRACTOR SHALL PROTECT ALL EXISTING UTILITIES FROM DAMAGE. ANY SERVICE OR UTILITY DAMAGED OR REMOVED BY THE CONTRACTOR SHALL BE REPAIRED OR REPLACED AT THE EXPENSE OF THE CONTRACTOR, IN CONFORMANCE WITH THE REQUIREMENTS OF THE UTILITY COMPANY PROVIDER.

DAMAGE TO PRIVATE PROPERTY

ALL SIDEWALKS, DRIVEWAYS, LAWNS, FENCING, TREES, SHRUBS, SPRINKLERS, LANDSCAPING, ETC., THAT ARE DAMAGED DURING CONSTRUCTION MUST BE REPAIRED OR REPLACED, IN KIND OR BETTER, BY THE CONTRACTOR. ALL STREET SIGNS, MAIL BOXES, ETC., REMOVED SHALL BE REPLACED IN KIND OR BETTER, BY THE CONTRACTOR. ALL THE REPAIRS OR REPLACEMENTS DUE TO THE CONTRACTOR'S WORK ARE TO BE INCLUDED IN THE CONTRACT PRICE(S) AND SHALL NOT BE AN EXTRA TO THE CONTRACT.

THE CONTRACTOR SHALL SECURE PERMISSION IN WRITING FROM ADJACENT PROPERTY OWNERS PRIOR TO ENTERING UPON ANY ADJOINING PROPERTIES, UNLESS OFFSITE PERMITS HAVE ALREADY BEEN OBTAINED BY THE OWNER AND ARE PART OF THE CONTRACT DOCUMENTS.

PAVEMENT REMOVAL

THE CONTRACTOR IS RESPONSIBLE FOR DETERMINING THE THICKNESS OF THE PAVEMENT REMOVAL. PAVEMENT CORE SAMPLES ARE FOR INFORMATIONAL PURPOSES ONLY AS TO THE THICKNESS OF THE PAVEMENT AT THE LOCATION OF THE SAMPLE. THE OWNER AND ENGINEER MAKE NO REPRESENTATION, WARRANTY OR GUARANTY THAT THE SAMPLES ACCURATELY REFLECT THE PAVEMENT THICKNESS ON THE PROJECT.

MAINTENANCE OF TRAFFIC

DURING THE PROGRESS OF THE WORK THE CONTRACTOR SHALL ACCOMMODATE BOTH VEHICULAR AND PEDESTRIAN TRAFFIC IN THE ROAD RIGHTS OF WAY. THE CONTRACTOR'S EQUIPMENT AND OPERATIONS ON PUBLIC STREETS SHALL BE GOVERNED BY ALL APPLICABLE LOCAL, COUNTY AND STATE ORDINANCES, REGULATIONS AND LAWS. THE CONTRACTOR SHALL OBTAIN AND SATISFY ANY AND ALL PERMIT REQUIREMENTS BY THE LOCAL, COUNTY AND STATE GOVERNMENTAL AGENCIES.

IRRIGATION

THE CONTRACTOR SHALL MAINTAIN OR REPAIR ANY EXISTING IRRIGATION SYSTEMS WITHIN THE PROJECT AREA UNLESS THE DRAWINGS CALL FOR THE IRRIGATION SYSTEM TO BE REMOVED. THE OWNER AND NFE MAKE NO REPRESENTATIONS, WARRANTY OR GUARANTY AS TO THE LOCATION OF THE IRRIGATION SYSTEM. THE CONTRACTOR SHALL TAKE ALL NECESSARY MEASURES TO PROTECT THE IRRIGATION SYSTEM DURING CONSTRUCTION ACTIVITIES. COMPENSATION FOR MAINTAINING OR REPAIRING EXISTING IRRIGATIONS SYSTEMS SHALL BE CONSIDERED INCLUDED IN THE CONTRACT PRICE(S) UNLESS SPECIFIC IRRIGATION SYSTEM REPAIR ITEMS ARE INCLUDED IN THE ACCEPTED BID PROPOSAL.

SUB-SOIL CONDITIONS

ANY SOIL BORING PROVIDED BY THE OWNER AND/OR ENGINEER IS PROVIDED FOR INFORMATIONAL PURPOSES ONLY. THIS INFORMATION IS NOT OFFERED AS EVIDENCE OF GROUND CONDITIONS THROUGHOUT THE PROJECT AND ONLY REFLECT THE GROUND CONDITIONS AT THE LOCATION OF THE BORING ON THE DATE THEY WERE TAKEN.

THE ACCURACY AND RELIABILITY OF THE SOIL LOGS AND REPORT ARE NOT WARRANTED OR GUARANTEED IN ANY WAY BY THE OWNER OR ENGINEER AS TO THE SUB-SOIL CONDITIONS FOUND ON THE SITE. THE CONTRACTOR SHALL MAKE THEIR OWN DETERMINATION AND SUB-SOIL INVESTIGATION AND SECURE OTHER SUCH INFORMATION AS THE CONTRACTOR CONSIDERS NECESSARY TO DO THE WORK PROPOSED AND IN PREPARATION OF THEIR BID.

SUBGRADE UNDERCUTTING AND PREPARTION

IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO REMOVE ANY AND ALL SOILS WHICH DO NOT CONFORM TO THE PLANS AND SPECIFICATIONS. THE CONTRACTOR SHALL BE RESPONSIBLE TO PROVIDE A SUBGRADE IN CONFORMANCE WITH THE PROJECT PLANS AND/OR SPECIFICATIONS. THE MEANS AND METHODS USED TO ACHIEVE THE REQUIRED RESULT SHALL REST SOLELY WITH THE CONTRACTOR.

ANY AREAS OF UNDERCUTTING THAT RESULT IN ADDITIONAL OR EXTRA WORK BECAUSE THEY COULD NOT BE IDENTIFIED BY THE CONTRACTOR'S PRE-BID SITE OBSERVATION OR ARE NOT SET FORTH IN THE PLANS AND SPECIFICATIONS, SHALL BE BROUGHT TO THE ATTENTION OF THE OWNER AND ENGINEER BEFORE ANY EXTRA WORK IS PERFORMED. THE CONTRACTOR SHALL MAKE A REQUEST FOR ANY ADDITIONAL COMPENSATION FOR THE UNDERCUTTING IN WRITING AND THE REQUEST SHALL CONFORM TO THE CONTRACT'S CHANGE ORDER PROVISIONS.

STRUCTURE BACKFILL

STRUCTURAL BACKFILL SHALL BE PLACED IN CONFORMANCE WITH THE PROJECT PLANS, SPECIFICATIONS OR AS REQUIRED BY THE COMMUNITY, GOVERNMENT AGENCY OR UTILITY THAT HAS JURISDICTION OVER THE WORK.

TRENCH BACKFILL

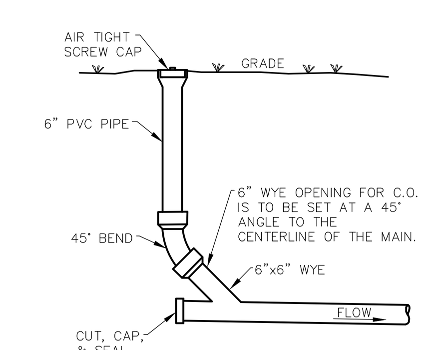
TRENCH BACKFILL SHALL BE PLACED IN CONFORMANCE WITH THE PLANS AND/OR SPECIFICATIONS. TRENCH BACKFILL SHALL ALSO BE INSTALLED IN CONFORMANCE WITH THE COMMUNITY REQUIREMENTS OR AGENCY/UTILITY GOVERNING SAID TRENCH CONSTRUCTION. IN THE CASE OF CONFLICTING REQUIREMENTS, THE MORE STRINGENT SHALL APPLY.

EARTH BALANCE / GRADING

IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO DETERMINE WHETHER THE SITE EARTHWORK BALANCES OR NOT. ANY EXCESS CUT MATERIAL SHALL BE DISPOSED OF BY THE CONTRACTOR. IN A LIKE MANNER, IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO IMPORT APPROVED FILL MATERIAL AND PLACE IT AS REQUIRED TO ATTAIN THE SITE GRADE AND COMPACTION REQUIREMENTS PER THE ENGINEER'S PLAN AND ALL APPLICABLE GOVERNMENTAL STANDARDS. THE ENGINEER AND OWNER MAKE NO REPRESENTATION AS TO THE QUANTITIES THAT MAY BE NEEDED TO CREATE A BALANCED EARTHWORK CONDITION OR THAT THE SITE EARTHWORK IS BALANCED.

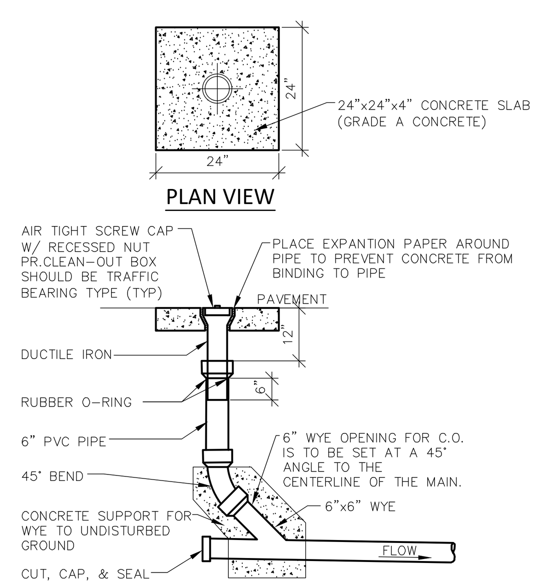
SOIL EROSION / SEDIMENTATION CONTROL

THE CONTRACTOR SHALL OBTAIN THE REQUIRED SOIL EROSION PERMIT AND SATISFY ALL REGULATORY REQUIREMENTS FOR CONTROLLING SOIL EROSION AND SEDIMENT TRANSPORT. THE CONTRACTOR IS RESPONSIBLE FOR THE MEANS AND METHODS. THE ENGINEER AND OWNER ARE NOT RESPONSIBLE FOR INSPECTION OR APPROVAL OF THE CONTRACTOR'S WORK IN CONNECTION WITH SATISFYING THE SOIL EROSION PERMIT REQUIREMENTS UNLESS SPECIFICALLY STATED IN THE CONTRACT DOCUMENTS.



STANDARD SANITARY SEWER CLEANOUT

N.T.S.



SANITARY SEWER CLEANOUT IN PAVEMENT

N.T.S.

J:\O000-FILES\O031 Clinton County Maintenance Expansion\Office\Site Plans\O031-SIT.dwg, C07-DET, 9/9/2024 5:55:45 PM, Nowak and Fraus P.L.L.C.

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50% CD REVIEW	08-22-2024
CONCEPT REVIEW	06-10-2024

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S. Sutton

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CLINTON COUNTY MAINTENANCE GARAGE EXPANSION

1347 E TOWNSEND RD.
ST. JOHNS, MICHIGAN 48879

PROJECT

NF ENGINEERS
CIVIL ENGINEERS
LAND SURVEYORS
LAND PLANNERS
NOWAK & FRAUS ENGINEERS
46777 WOODWARD AVE.
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TEL. (248) 332-7931
FAX. (248) 332-8257
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811 Know what's below Call before you dig.

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NOTES & DETAILS

SHEET TITLE

23-319

PROJECT NUMBER

C-7

SHEET NUMBER

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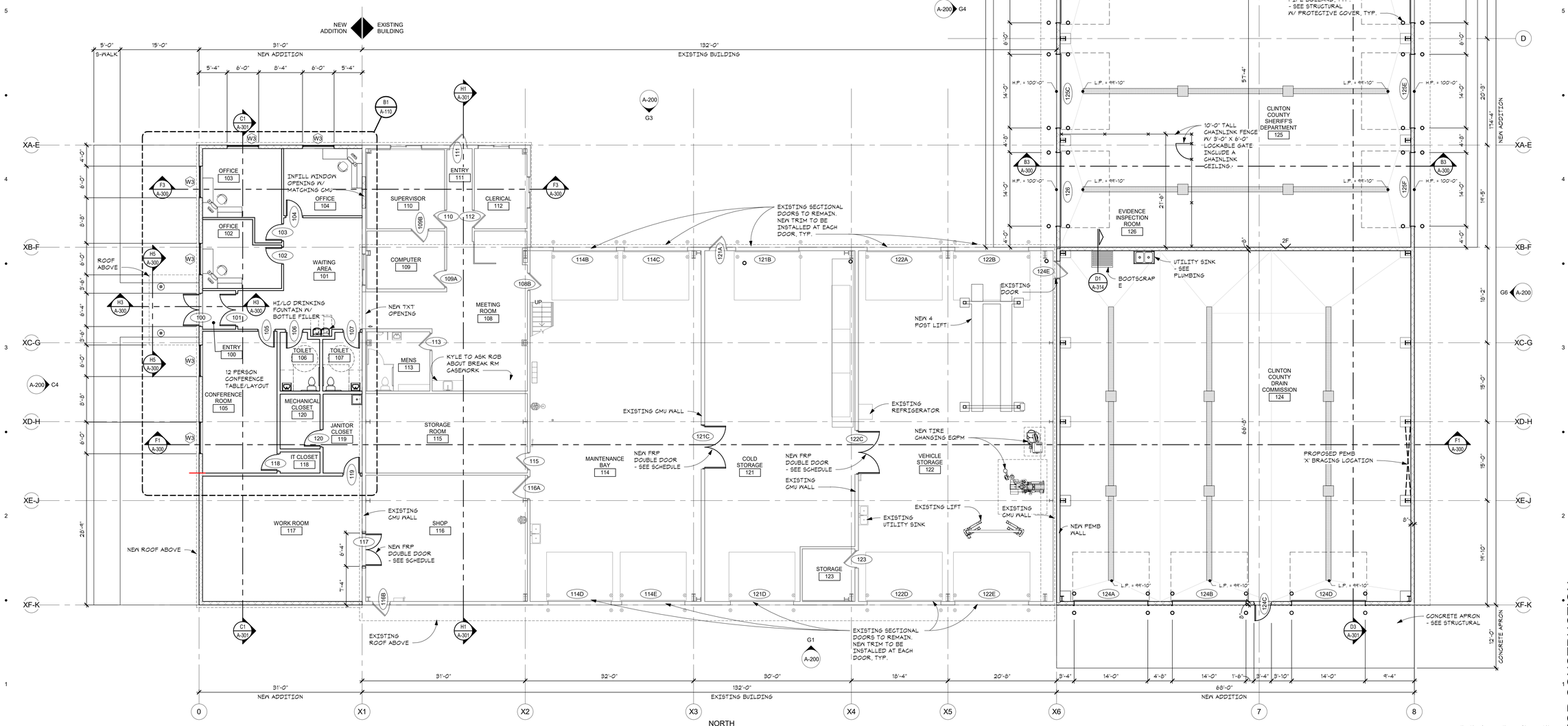
FLOOR PLAN NOTES

1. CONTRACTOR TO CHECK AND VERIFY ALL DIMENSIONS AND PROMPTLY NOTIFY ARCHITECTURE OF ANY DISCREPANCIES.
2. FINISH FLOOR ELEVATION OF 100'-0" AT FIRST FLOOR. SEE CIVIL FOR USGS OR NAVD88 ELEVATION.
3. ALL EXTERIOR SLABS TO SLOPE AWAY FROM BUILDING. SEE CIVIL.
4. WHERE FLOOR DRAINS OCCUR, SLOPE FLOOR TO DRAIN
5. WINDOWS DESIGNATED AS W1 OR W2 ARE CLERESTORY WINDOWS. SEE EXTERIOR ELEVATIONS FOR HEIGHTS.
6. DIMENSIONS READ FROM FACE OF OUTSIDE FACE OF PEMB METAL GIRT, FACE OF CMU, FINISH FACE OF STUD PARTITIONS, AND/OR PEMB RIGID FRAME CENTERLINE UNLESS NOTED OTHERWISE.
7. REFER TO SHEET A-110 FOR EQUIPMENT AND SIGNAGE SCHEDULES.
8. PROVIDE FOR FUTURE EXPANSION AT GRID LINE XF-K BETWEEN X6 AND 8. GIRTS, METAL SIDING, AND WIND COLUMNS TO BE REMOVED FOR FUTURE ADDITION. THE CONCRETE FOUNDATION AT THAT WALL WILL BE NO HIGHER THAN 8" BELOW FINISH LEVEL; SEE STRUCTURAL AND WALL SECTIONS.



FIRST FLOOR PLAN

SCALE - 1/8" = 1'-0"

GROSS AREA: 24,162 SF

SCALE: 1/8" = 1'-0"

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FIRST FLOOR PLAN

SHEET TITLE

23-319

PROJECT NUMBER

A-101

SHEET NUMBER

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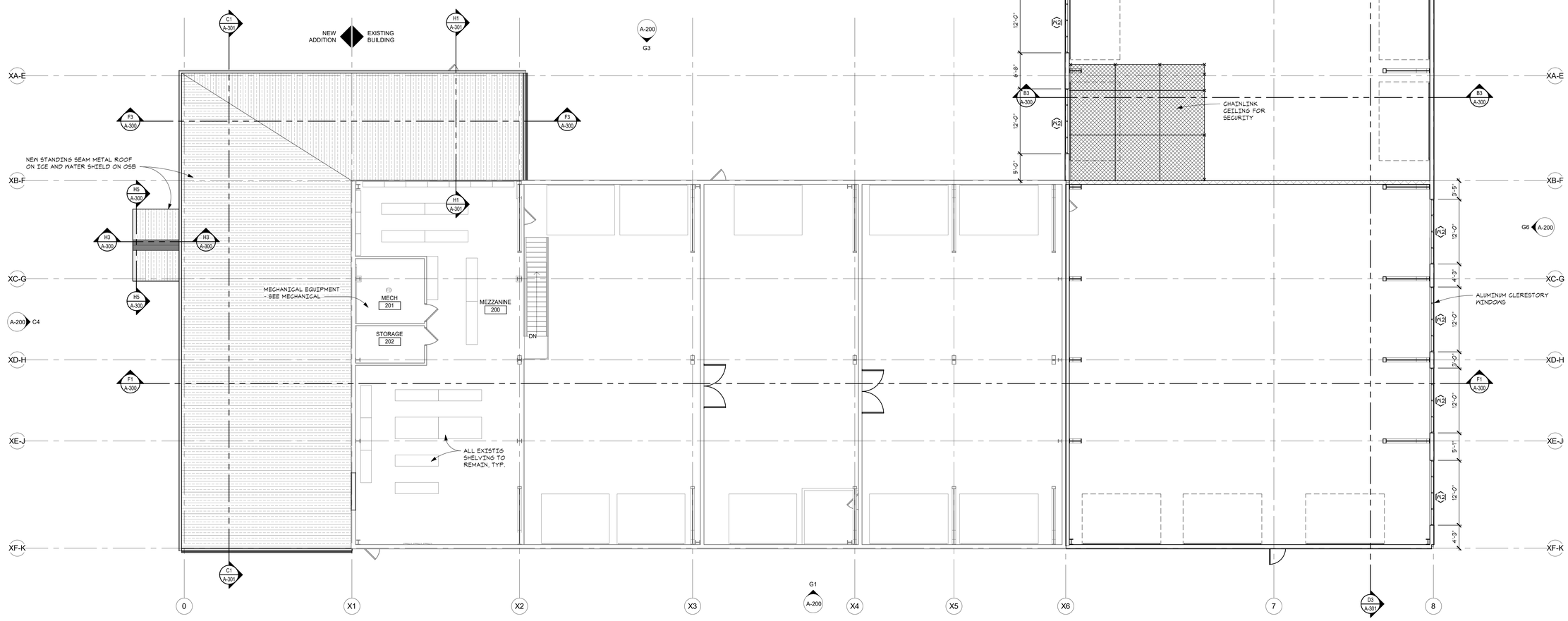

NORTH

MEZZANINE PLAN

SCALE - 1/8" = 1'-0"

4' 2' 0 4' 8' 16'
SCALE: 1/8" = 1'-0"

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MEZZANINE
FLOOR PLAN

SHEET TITLE

23-319

PROJECT NUMBER

A-102

SHEET NUMBER

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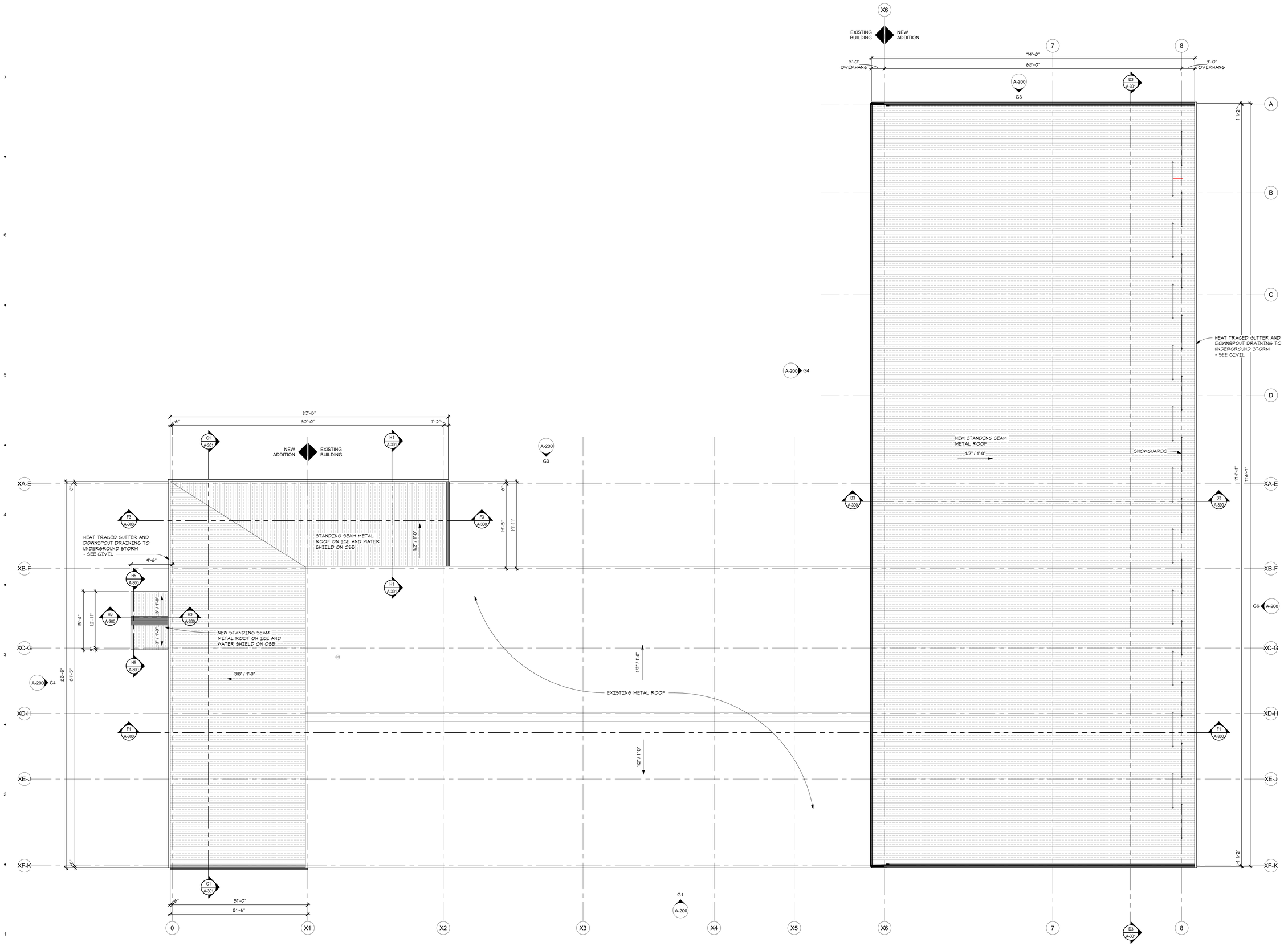

NORTH

ROOF PLAN

SCALE - 1/8" = 1'-0"

SCALE: 1/8" = 1'-0"

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ROOF PLAN

SHEET TITLE

23-319

PROJECT NUMBER

A-103

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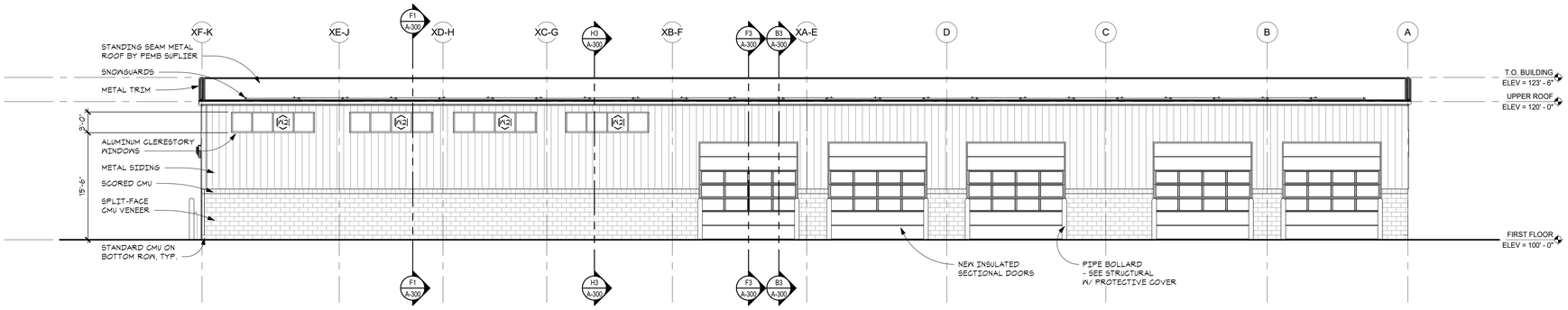
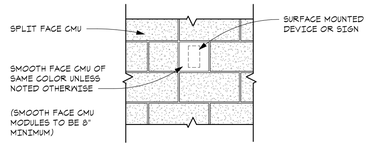
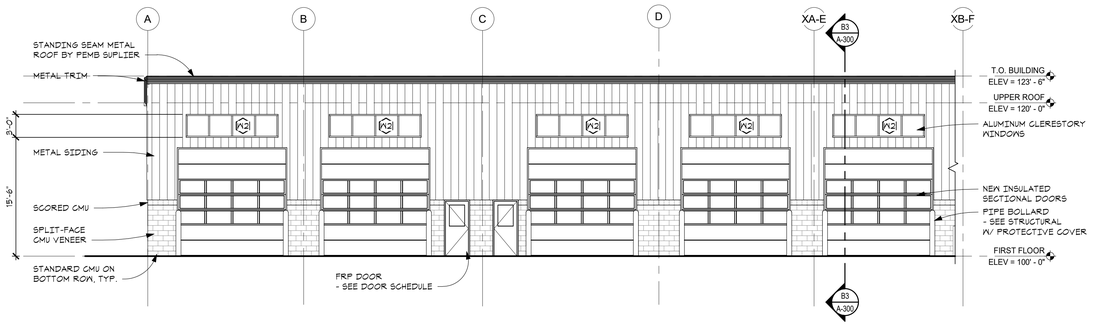


G6 A-200 A-101 EAST ELEVATION
SCALE - 1/8" = 1'-0"

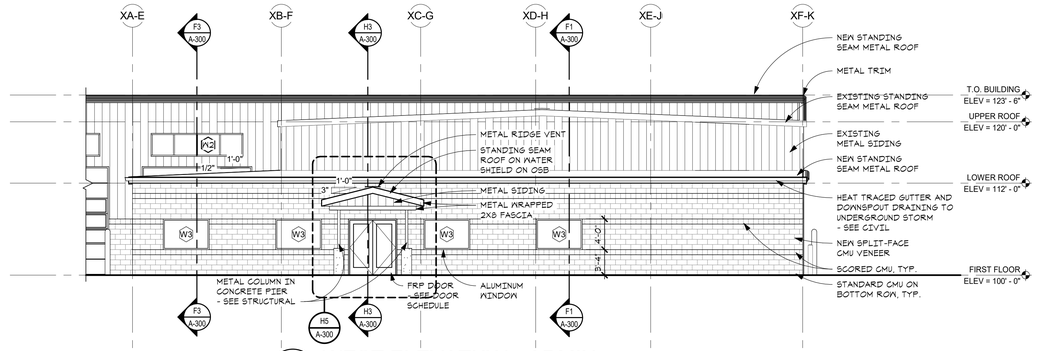


A7 A-200 MASONRY COURSING DETAIL
SCALE - 3/4" = 1'-0"

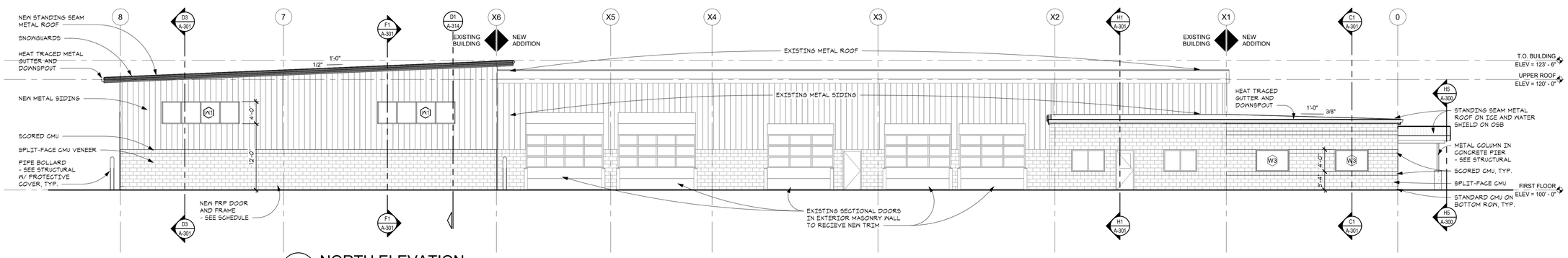
NOTE:
1. AT ALL SURFACE APPLIED ACCESSORIES (SIGNAGE, PLUMBING FIXTURES, OUTLETS, DISCONNECTS, LIGHTS, & ETC.) PROVIDE SMOOTH FACE CMU. SEE DETAIL ABOVE.
2. PROVIDE SMOOTH FACE CMU AT BOTTOM COURSE.
3. PROVIDE SCORED CMU TOP COURSE.



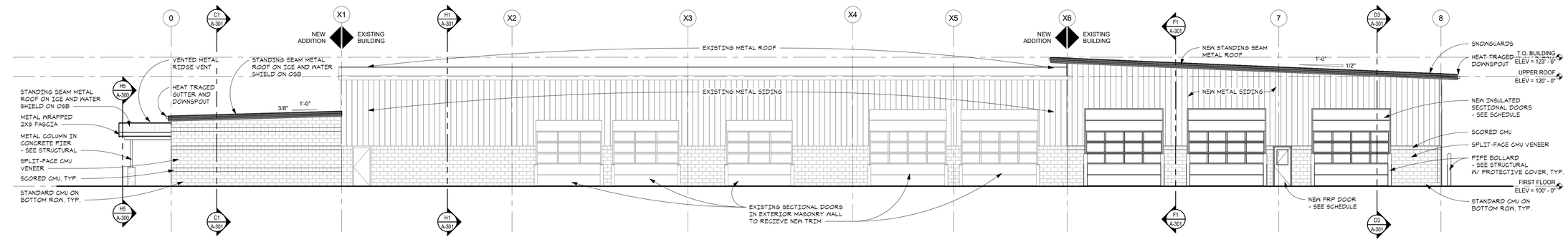
G4 A-200 A-101 WEST ELEVATION - GARAGE
SCALE - 1/8" = 1'-0"



C4 A-200 A-101 WEST ELEVATION - ADMIN
SCALE - 1/8" = 1'-0"



G3 A-200 A-101 NORTH ELEVATION
SCALE - 1/8" = 1'-0"



G1 A-200 A-101 SOUTH ELEVATION
SCALE - 1/8" = 1'-0"

4' 2' 0 4' 8' 16'
SCALE: 1/8" = 1'-0"

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EXTERIOR ELEVATIONS

SHEET TITLE

23-319

PROJECT NUMBER

A-200

SHEET NUMBER

ELECTRICAL SYMBOLS LEGEND

OUTLETS
- SINGLE RECEPTACLE (120 VOLT)
- DUPLEX RECEPTACLE
- EMERGENCY RECEPTACLE
- DOUBLE DUPLEX RECEPTACLE
- F FLUSH FLOOR BOX
- S SURFACE FLOOR BOX
- SPECIAL EQUIPMENT RECEPTACLE
- TELEPHONE OUTLET
- DATA OUTLET
- TELEPHONE / DATA OUTLET
- PP POWER POLE
- J JUNCTION BOX
- WALL JUNCTION BOX
- J PULL (JUNCTION) BOX
- UNDERFLOOR JUNCTION BOX
- CEILING MOUNTED WIFI

SWITCHES
- $ SINGLE-POLE SWITCH
- $3 THREE-WAY SWITCH
- $4 FOUR-WAY SWITCH
- $P SWITCH WITH PILOT LIGHT
- $TO THERMAL OVERLOAD SWITCH
- $M MANUAL MOTOR SWITCH
- $K KEY SWITCH
- $T TIME SWITCH
- D DIMMER SWITCH

MECHANICAL
- SINGLE PHASE MOTOR
- THREE PHASE MOTOR
- RESISTANCE HEATER, KW SHOWN
- PIPE TRACE HEATER
- ELECTRIC UNIT HEATER
- WH ELECTRIC WATER HEATER

NURSE CALL
- NCC NURSE CALL CONTROLLER
- M MASTER STATION
- P EMERGENCY PULL STATION
- E EMERGENCY PUSH STATION
- CB CODE BLUE STATION
- A PENDENT INTERFACE
- I BED / LIGHT INTERFACE
- B1 SINGLE BED STATION
- B2 DUAL BED STATION
- DOME LIGHT
- SRS STAFF REGISTER STATION
- S STAFF STATION
- DS DUTY STATION

DESIGNATIONS
- DEMOLITION NOTE
- PLAN NOTE
- ADDENDUM NOTE

FIXTURES
- LIGHT FIXTURE
- STRIP FIXTURE
- EMERGENCY LIGHT FIXTURE
- IN-GRADE LIGHT FIXTURE
- SPOTLIGHT (number of heads shown)
- EXIT SIGN (face & direction as shown)
- WALL MOUNT LIGHT FIXTURE
- CEILING LIGHT FIXTURE
- TRACK & FIXTURE
- STREET TYPE POLE FIXTURE
- POLE MOUNTED LIGHT FIXTURE
- EXTERIOR WALL MOUNT LIGHT FIXTURE
- WALLPACK LIGHT FIXTURE
- SPECIAL PURPOSE LIGHT FIXTURE
- HIGH BAY LIGHT FIXTURE
- EMERGENCY EGRESS LIGHT FIXTURE (number of heads shown)
- DOCK LIGHT FIXTURE

CIRCUITRY and RACEWAYS
- CONDUIT INSTALLED (by E.C.)
- CONDUIT INSTALLED (by others)
- CONDUIT STUB UP
- CONDUIT STUB DOWN
- 1,3 HOME RUN (with circuit numbers)
- END OF CONDUIT RUN
- END OF CONDUIT RUN, CAP AND STAKE
- "CONDUIT RUN CONTINUES" INDICATION
- CR FLEXIBLE PIGTAILS/CONNECTIONS
- WM WIREMOLD AS SPECIFIED
- PM PLUGMOLD AS SPECIFIED
- BD BUS DUCT
- UFD UNDERFLOOR DUCT

SOUND and SIGNAL
- SPEAKER
- WALL MOUNTED SPEAKER
- WALL MOUNTED SPEAKER / CLOCK COMBO
- SINGLE FACE CLOCK
- DUAL FACE CLOCK
- VIDEO INPUT
- AI AUDIO / VIDEO INPUT
- B BELL
- V VOLUME CONTROL
- B BUZZER
- CHIME
- TELEVISION OUTLET
- M MICROPHONE OUTLET
- I INTERCOM OUTLET
- C CAMERA
- DC DOOR CONTACT
- M MOTION DETECTOR
- B BEAM DETECTOR
- KP KEY PAD
- SSCP SECURITY SYSTEM CONTROL PANEL
- CCTV CCTV CONTROL PANEL
- CR CARD READER
- SS STUDENT STATION
- AS ADMINISTRATION STATION
- TS TEACHER STATION
- G GLASS BREAK

SERVICE and EQUIPMENT
- TVSS TRANSIENT VOLTAGE SURGE SUPPRESSION
- VFD VARIABLE FREQUENCY DRIVE
- T TRANSFORMER
- DISCONNECT SWITCH
- MAGNETIC STARTER
- COMB. STARTER
- PANELBOARD, SURFACE MOUNTED
- PANELBOARD, FLUSH MOUNTED
- WEATHERHEAD
- UTILITY METER, AS REQUIRED
- DIGITAL EQUIPMENT METER, AS REQUIRED
- CT CURRENT TRANSFORMERS
- G GENERATOR, KW SHOWN
- TT TELEPHONE TERMINAL BOARD
- GROUND CONNECTION PER N.E.C.
- WW WIREWAY
- TS TRANSFER SWITCH
- CB ENCLOSED CIRCUIT BREAKER
- CAPACITOR

CONTROL
- T THERMOSTAT
- H HUMIDISTAT
- PC PHOTOCELL (voltage as required)
- TC TIME CLOCK (24 hour U.O.N.)
- $_3$ PUSHBUTTON STATION (number of buttons indicated)
- CONTROL TRANSFORMER
- LIGHTING CONTACTOR
- IC IRRIGATION CONTROLLER (120 volt xxVA connection by x/C)
- OS1 WALL MOUNT DUAL TECHNOLOGY SENSOR
- OS2 OCCUPANCY SENSOR / PHOTOCELL
- US3 ULTRASONIC SENSOR - 360° - 2 CIRCUIT
- DS4 DUAL TECHNOLOGY SENSOR - 360° - 1000 SQ FT
- DS5 DUAL TECHNOLOGY SENSOR - 360° - 500 SQ FT
- OC SWITCH STYLE OCCUPANCY SENSOR
- PP POWER PACK
- $_T$ DIGITAL TIME SWITCH

FIRE ALARM
- SMOKE DETECTOR
- H HEAT DETECTOR
- DUCT SMOKE DETECTOR
- F DUCT SMOKE DETECTOR
- H HORN
- HS HORN & LIGHT
- S SPEAKER
- SP SPEAKER & LIGHT
- P PULL STATION
- FACP FIRE ALARM CONTROL PANEL
- ANN ANN ANNUNCIATOR PANEL
- EOL END OF LINE DEVICE
- REMOTE INDICATING LIGHT, WALL MTD.
- REMOTE INDICATING LIGHT, CLG. MTD.
- DH MAGNETIC DOOR HOLDER
- FC FIREFIGHTER COMMUNICATION JACK
- F FLOW SWITCH (furnished by FP/C)
- TAMPER SWITCH (furnished by FP/C)
- VO VISUAL ONLY UNIT
- FCPS FIRE CONTROL POWER SUPPLY
- M MONITOR MODULE
- C CONTROL MODULE
- M CARBON MONOXIDE DETECTOR

GENERAL ELECTRICAL NOTES

1. ALL WALL AND FLOOR PENETRATIONS ARE TO BE SEALED TO MAINTAIN ORIGINAL RATING.
2. ALL CONDUITS TO BE FIELD ROUTED ALONG EXISTING PIPING AND STRUCTURAL STEEL.
3. THE DIVISION 26 CONTRACTORS SHALL VISIT THE PROJECT AND DETERMINE THE EXACT EXTENT OF THE DEMOLITION WORK REQUIRED BEFORE BIDDING THE PROJECT.
4. REMOVE ALL EXISTING OBSOLETE EXPOSED CONDUIT, WIRE AND UNUSED EQUIPMENT WHERE WORK IS BEING DONE EXCEPT ITEMS NOTED OTHERWISE.
5. WHERE BUILDING SURFACES ARE DAMAGED BY THE REMOVAL OF OLD WORK, SURFACES SHALL BE PATCHED TO MATCH ADJACENT.
6. EXISTING WORK WHICH IS PRESENTLY CONCEALED AND WHICH WILL REMAIN CONCEALED AND DOES NOT INTERFERE WITH ANY NEW WORK OF ANY TRADE NEED NOT BE REMOVED. HOWEVER, ALL CONDUIT SHALL BE CAPPED BELOW FINISH SURFACE AND THEN PATCHED TO MATCH, OR AS NOTED.
7. EXISTING OPENINGS, WHICH ARE TO BE REUSED, SHALL BE MODIFIED OR ENLARGED TO SUIT THE NEW SYSTEMS AS REQUIRED. PROVIDE ALL REQUIRED CUTTING AND PATCHING.
8. IF ASBESTOS IS PRESENT, IT WILL BE REMOVED OR RENDERED HARMLESS UNDER SEPARATE CONTRACT BY THE OWNER.
9. THE DIVISION 26 CONTRACTOR SHALL BE RESPONSIBLE FOR PATCHING THE EXISTING WALLS TO MATCH THE ADJACENT SURFACES BEHIND ALL SURFACE MOUNTED EQUIPMENT.
10. CONTRACTOR SHALL BE RESPONSIBLE FOR ALL CIRCUITING. MAXIMUM LIGHTING LOAD PER 20A-1P CIRCUIT IS 1400 WATTS. MAXIMUM RECEPTACLE LOAD PER 20A-1P CIRCUIT SHALL BE (8) DUPLEXES. SIZE MOTOR OR EQUIPMENT CIRCUITS 125% OF RATED LOAD.
11. CONTRACTOR SHALL FIELD VERIFY ALL EQUIPMENT VOLTAGES AND LOADS PRIOR TO INSTALLING SERVICE TO EQUIPMENT.
12. DRAWINGS ARE BASED ON EXISTING RECORD DOCUMENT AND CASUAL FIELD OBSERVATION. REPORT ANY DISCREPANCIES TO ENGINEER FOR CLARIFICATION.

ABBREVIATIONS LEGEND

A	AMPS
AC	ABOVE COUNTER
ACU-	AIR CONDITIONING UNIT
AFF	ABOVE FINISHED FLOOR
AHJ	AUTHORITY HAVING JURISDICTION
AHU-	AIR HANDLING UNIT
AIC	AMPS INTERUPTING CAPACITY
AS	ABOVE SHELF
ATS	AUTOMATIC TRANSFER SWITCH
B-	BOILER
BC	BELOW COUNTER
BLDG	BUILDING
CHLR-	CHILLER
CND (C)	CONDUIT
CKT	CIRCUIT
CKT BKR	CIRCUIT BREAKER
CT-	COOLING TOWER
CU-	CONDENSING UNIT
CUH-	CABINET UNIT HEATER
DFU-	DUCT FURNACE
DISC	DISCONNECT
DWG	DRAWING
DWH-	DOMESTIC WATER HEATER
EBB-	ELECTRIC BASEBOARD
EC	ELECTRICAL CONTRACTOR
EF-	EXHAUST FAN
EM	EMERGENCY
EMT	ELECTRICAL METALLIC TUBING
EWC	ELECTRIC WATER COOLER
EXIST (E)	EXISTING
FLA	FULL LOAD AMPS
FLEX	FLEXIBLE CONDUIT
FLR	FLOOR
FLUOR	FLUORESCENT
FSES	FOOD SERVICE EQUIP. SUPPLIER
F/S	FIRE/SMOKE
FU-	FURNACE
GC	GENERAL CONTRACTOR
GFI	GROUND FAULT INTERUPTER
GND	GROUND
H-	HUMIDIFIER
HID	HIGH INTENSITY DISCHARGE
HOA	HAND-OFF-AUTO SELECTOR SWITCH
HP	HORSEPOWER
HR	HOUR
HVAC	HEATING/VENTILATING/AIR CONDITIONING
IG	ISOLATED GROUND
IMC	INTERMEDIATE METAL CONDUIT
JB	JUNCTION BOX
LC	LIGHT CONTROL
LT	LIGHT
LTG	LIGHTING
LT FLEX	LIQUID TIGHT FLEXIBLE METAL CONDUIT
MAX	MAXIMUM
MC	MECHANICAL CONTRACTOR
MCC	MOTOR CONTROL CENTER
MIN	MINIMUM
MLO	MAIN LUG ONLY
MT	MOUNT
MTD	MOUNTED
MTG	MOUNTING
MUAU-	MAKE-UP AIR UNIT
NC	NORMALLY CLOSED
NIC	NOT IN CONTRACT
NL	NIGHT LIGHT
NO	NORMALLY OPEN
NTS	NOT TO SCALE
P	POLE
P-	PUMP
PB	PULL BOX
PNL	PANEL
PRV-	POWER ROOF VENTILATOR
PVC	POLY VINYL CLORIDE
PWR	POWER
RECEPT	RECEPTACLE
RGC	RIGID GALVANIZED STEEL CONDUIT
RTU-	ROOF TOP UNIT
SF-	SUPPLY FAN
SPEC	SPECIFICATIONS
SW	SWITCH
SWBD	SWITCHBOARD
TCC	TEMPERATURE CONTROL CONTRACTOR
TR	TAMPER PROOF RECEPTACLE
TS	TAMPER PROOF SWITCH
TYP	TYPICAL
UF	UNDER FLOOR
UH-	UNIT HEATER
UL	UNDERWRITERS' LABORATORIES, INC.
UNO	UNLESS NOTED OTHERWISE
V	VOLTS
VL	VERIFY LOCATION WITH OWNER
W	WATTS
W/	WITH
W/O	WITHOUT
WP	WEATHER PROOF
XFMR	TRANSFORMER

LIGHTING FIXTURE SCHEDULE

TYPE	MANUFACTURER	CATALOG NO.	DESCRIPTION AND COMMENTS	BALLAST INFO	FIXTURE MOUNTING HEIGHT	LAMPS
LA	LITHONIA	CPX-2X4-4000LM-80-40K-SWL-MVOLT-NLIGHT	RECESSED 2X4 LED LIGHT FIXTURE.	0-10V	RECESSED	4000 LUMENS 36.7W 4000K LED
LAEM	LITHONIA	CPX-2X4-4000LM-80-40K-SWL-MVOLT-E10WLCP-NLIGHT	RECESSED 2X4 LED LIGHT FIXTURE WITH EMERGENCY BATTERY BACKUP.	0-10V	RECESSED	4000 LUMENS 36.7W,4000K LED
LB	LITHONIA	CLX-L96-6000LM-HEF-FDL-MVOLT-40K-80CRI-NLTAIR2 RES7	SURFACE MOUNTED LED LIGHT STRIP.	0-10V	SURFACE	6000 LUMENS 37W,4000K LED
LBEM	LITHONIA	CLX-L96-6000LM-HEF-FDL-MVOLT-40K-80CRI-E10WLCP-NLTAIR2 RES7	SURFACE MOUNTED LED LIGHT STRIP WITH EMERGENCY BATTERY BACKUP.	0-10V	SURFACE	6000 LUMENS 37W,4000K LED
LC	LITHONIA	CPRB-ALO13-UVOLT-SWW9-80CRI-NLTAIR2 RMSOD7-DBL	SUSPENDED LED HIGH BAY FIXTURE.	0-10V	SUSPENDED	12K/15K/18K LUMENS 37W,4000K LED
LCEM	LITHONIA	CPRB-ALO13-UVOLT-SWW9-80CRI-NLTAIR2 RMSOD7-DBL-RBAY BLDE40WCP M4	SUSPENDED LED HIGH BAY FIXTURE WITH EMERGENCY BATTERY BACKUP.	0-10V	SUSPENDED	12K/15K/18K LUMENS 37W,4000K LED
LD	JUNO	WF6-SWW5-90CRI-4000K-MW-M6	6" RECESSED LED DOWNLIGHT	0-10V	RECESSED	970 LUMENS 13W,4000K LED
LE	LITHONIA	WDGE2 LED-P2-40K-80CRI-T2M-MVOLT-SRM-DMG-DWHXD	LED WALLPACK	-	SURFACE	2000 LUMENS 19W,4000K LED
LF	LITHONIA	AFF-PEL-DWHGXD-UVOLT-L TP-SDRT-WT-CW	SINGLE HEAD EGRESS WALL MOUNTED LED LIGHT	-	SURFACE	635 LUMENS 20.4W,4000K LED
XA	SURELITES	APXH7R2	LED EXIT SIGN	-	-	LED

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CLINTON COUNTY MAINTENANCE DEPARTMENT BUILDING EXPANSION

1327 E. TOWNSEND RD. ST. JOHNS, MI 48879

PROJECT

MATRIX CONSULTING ENGINEERS, INC
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LANSING, MI 48906
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admin@matrixceinc.com
Matrix Project No. 24149.00

CONSULTANT

ELECTRICAL SYMBOLS ABBREV. + NOTES

SHEET TITLE

23-319

PROJECT NUMBER

E-100

SHEET NUMBER

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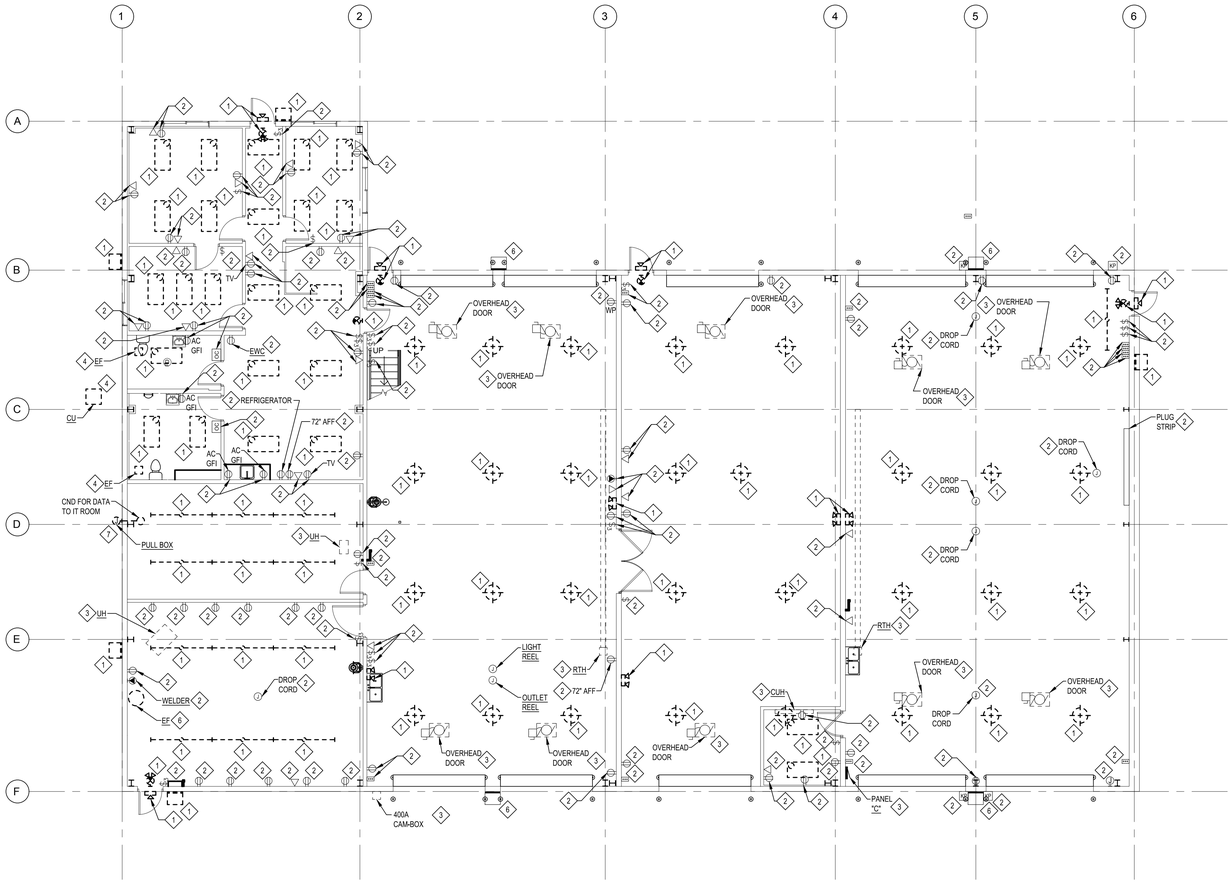
DEMOLITION NOTES

1. DISCONNECT & REMOVE EXISTING LIGHT FIXTURE. ASSOCIATED CONDUIT & WIRE TO REMAIN.
2. EXISTING DEVICE TO REMAIN.
3. EXISTING EQUIPMENT TO REMAIN.
4. DISCONNECT & REMOVE EXISTING EQUIPMENT. REMOVE ASSOCIATED CONDUIT & WIRE.
5. EXISTING LIGHT FIXTURE TO REMAIN.
6. DISCONNECT & RELOCATE EXISTING EQUIPMENT. EXTEND ASSOCIATED CONDUIT & WIRE AS NEEDED.
7. CONTRACTOR SHALL DISCONNECT AND REMOVE EXISTING PULL BOX CONDUIT AND WIRE BACK TO SOURCE.



ELECTRICAL - FLOOR PLAN - DEMOLITION

SCALE: 1/8" = 1'-0"

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ELECTRICAL
FIRST FLOOR
PLAN
DEMOLITION

SHEET TITLE

23-319

PROJECT NUMBER

E-300

SHEET NUMBER

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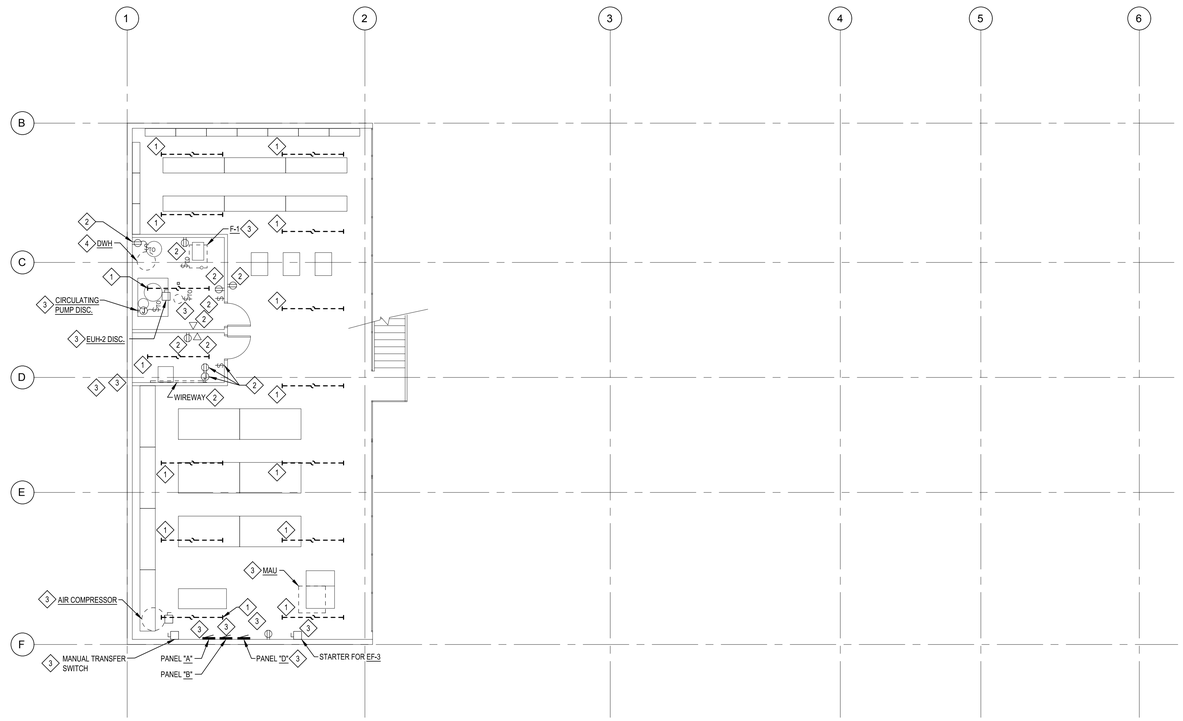
DEMOLITION NOTES

1. DISCONNECT & REMOVE EXISTING LIGHT FIXTURE. ASSOCIATED CONDUIT & WIRE TO REMAIN.
2. EXISTING DEVICE TO REMAIN.
3. EXISTING EQUIPMENT TO REMAIN.
4. DISCONNECT & REMOVE EXISTING EQUIPMENT. REMOVE ASSOCIATED CONDUIT & WIRE.



ELECTRICAL - MEEZANINE FLOOR PLAN - DEMOLITION

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ELECTRICAL
MEZZANINE PLAN
DEMOLITION

SHEET TITLE

23-319

PROJECT NUMBER

E-301

SHEET NUMBER

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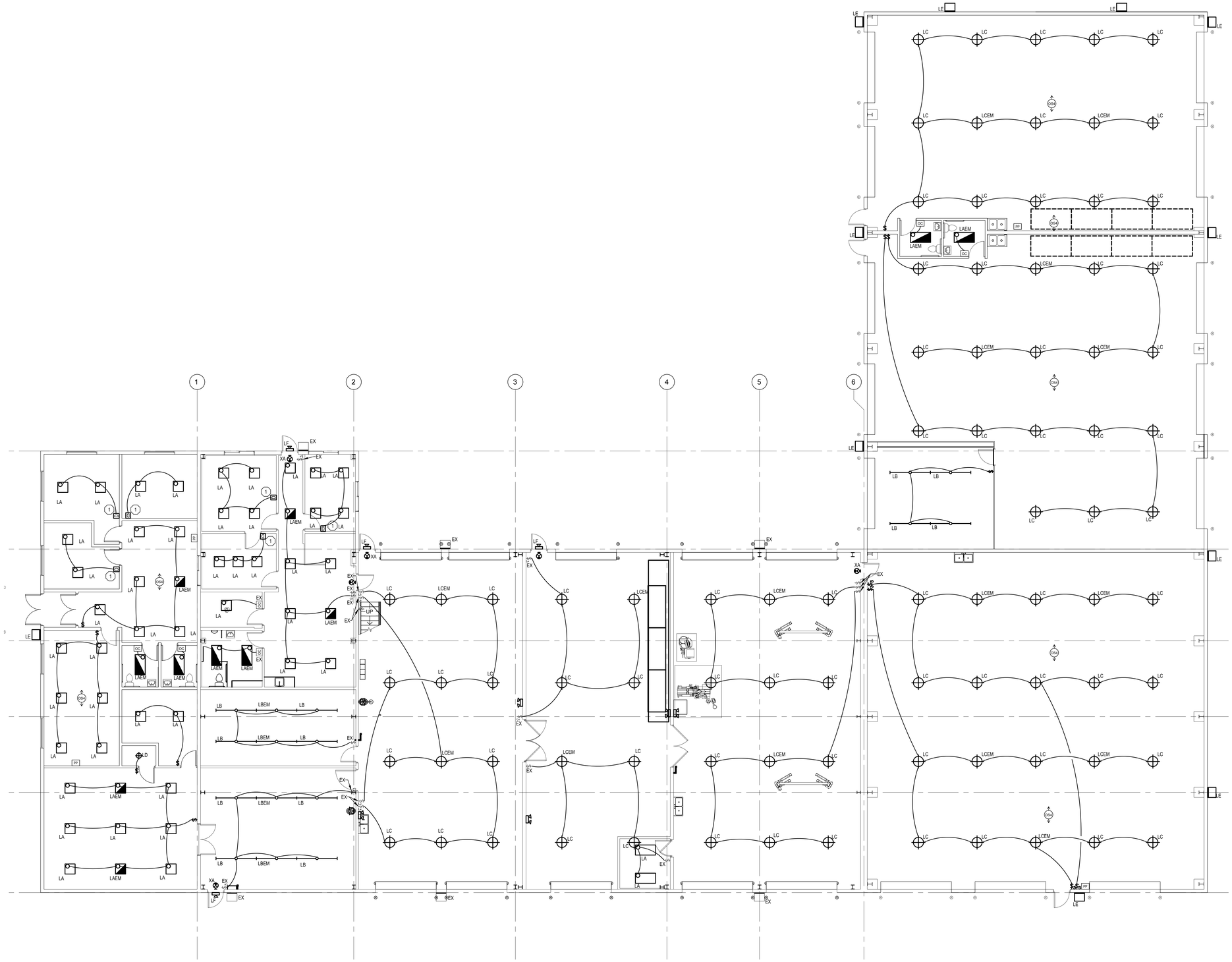
ELECTRICAL KEY NOTES

1. CONTRACTOR SHALL PROVIDE DIMMING SWITCH WITH INTEGRATED OCCUPANCY SENSOR.



ELECTRICAL - FLOOR PLAN - LIGHTING

0 1 5 10 20

SCALE: 1/8" = 1'-0"

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ELECTRICAL
FLOOR PLAN
LIGHTING

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E-400

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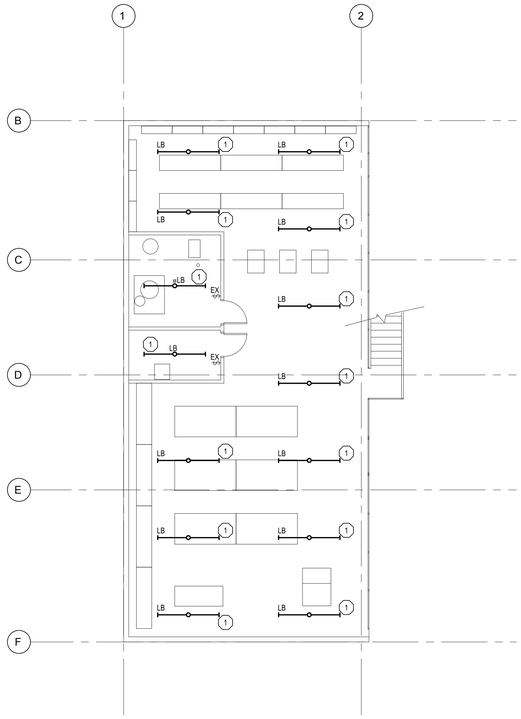
ELECTRICAL KEY NOTES

1. CONTRACTOR SHALL EXTEND CONDUIT AND WIRE AS NEEDED. CONTRACTOR SHALL REUSE EXISTING CIRCUIT.



N ELECTRICAL - MEZZANINE FLOOR PLAN - LIGHTING

0 1 5 10 20

SCALE: 1/8" = 1'-0"

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ELECTRICAL
MEZZANINE
FLOOR PLAN
LIGHTING

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23-319

PROJECT NUMBER

E-401

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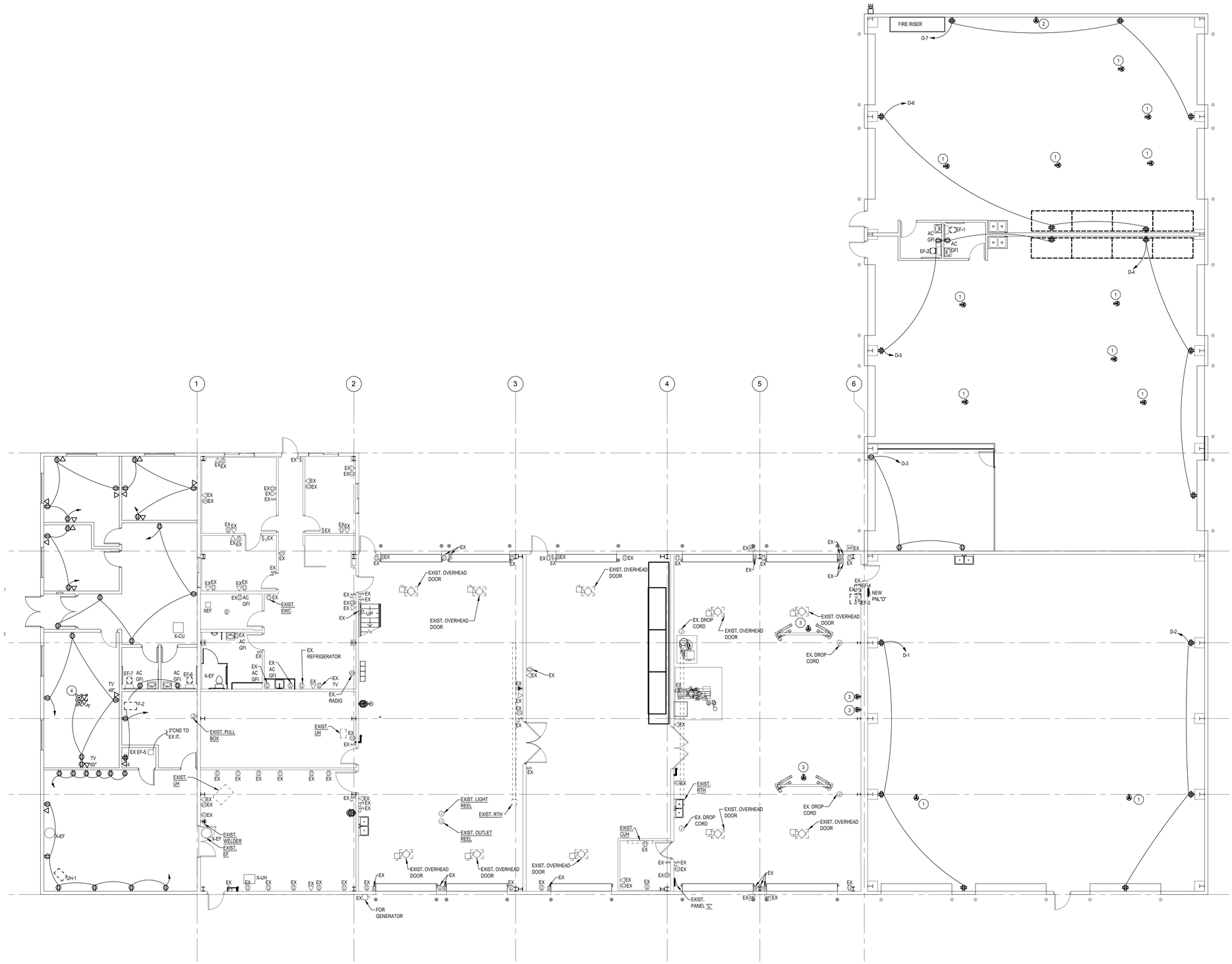

ELECTRICAL KEY NOTES

1. CONTRACTOR SHALL PROVIDE 15A, 120V RETRACTABLE CORD REEL. CONFIRM LOCATION WITH OWNER AND FIELD VERIFY ELECTRICAL LOADS OF EQUIPMENT.
2. CONTRACTOR SHALL PROVIDE 50A 208V 1 PHASE RECEPTACLE. CONFIRM LOCATION WITH OWNER AND FIELD VERIFY ELECTRICAL LOADS OF EQUIPMENT.
3. CONTRACTOR SHALL PROVIDE 20A 208V 1 PHASE RECEPTACLE. CONFIRM LOCATION WITH OWNER AND FIELD VERIFY ELECTRICAL LOADS OF EQUIPMENT.
4. CONTRACTOR SHALL PROVIDE FLUSH MOUNTED FLOOR BOX WITH TWO RECEPTACLES AND TWO DATA PORTS. PROVIDE 1-1/2 CONDUIT FOR DATA TO AVAILABLE CEILING SPACE.

ELECTRICAL - FLOOR PLAN - POWER

SCALE: 1/8" = 1'-0"

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ELECTRICAL FLOOR PLAN POWER

SHEET TITLE

23-319

PROJECT NUMBER

E-500

SHEET NUMBER

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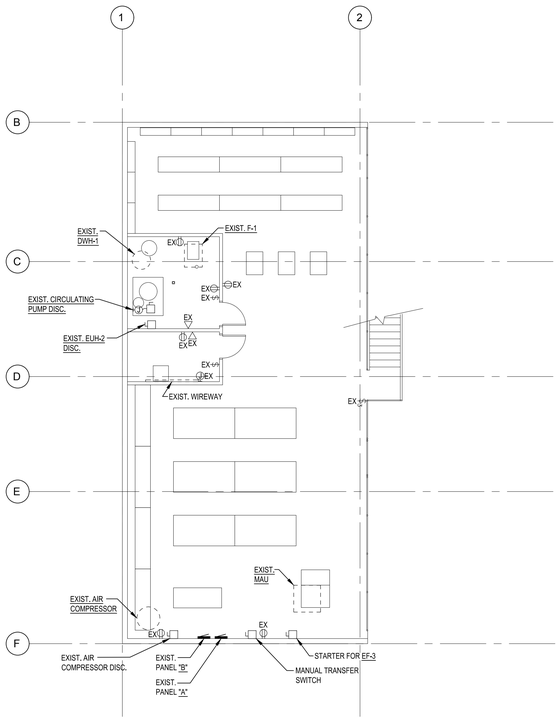
ELECTRICAL KEY NOTES

1. (INSERT TEXT HERE WITH "TEXT EDIT" COMMAND)



ELECTRICAL - MEZZANINE FLOOR PLAN - POWER

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ELECTRICAL MEZZANINE PLAN POWER

SHEET TITLE

23-319

PROJECT NUMBER

E-501

SHEET NUMBER

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EXISTING PANEL "A"

LOCATION:
SUPPLY FROM:
MOUNTING:
ENCLOSURE:
A.I.C. RATING:
NOTES:

VOLTS: 208 /120 PHASE: 3 WIRE: 4 AMPS: 250 MAIN:

BRKR A	BRKR P	DESCRIPTION	CIRCUIT VA	CIRCUIT	PHASE LOADS A	PHASE LOADS B	PHASE LOADS C	CIRCUIT	CIRCUIT VA	DESCRIPTION	BRKR A	BRKR P
20	1	O DOOR RM 111 (N)		1	0			2		O DOOR RM 110 (NE)	20	1
20	1	RM 111 LIGHTS		3		0		4		SPARE	20	1
20	1	RM 111 LIGHTS		5			0	6		RM110 LTS.	20	1
20	1	O DOOR RM 111 (S)		7	0			8		RM 110 LTS.	20	1
20	1	O DOOR RM 110 (SE)		9		0		10		FURNAEC, C.P. W.H. RM 202	20	1
20	1	OUTSIDE LIGHT RM 110		11			0	12		OFFICE AREA LIGHTS	20	1
20	1	O DOOR RM. 110 (SW)		13	0			14		OFFICE AREA LIGHTS	20	1
20	1	O DOOR RM. 110 (NW)		15		0		16		SHOP AND STORAGE LIGHTS	20	1
20	1	RM 110 REC.		17			0	18		BATHROOM GFIS	20	1
20	1	RM 103 REC.		19	0			20		OFFICE RCP.	20	1
20	1	OUTL;ET REEL RM 110 (S)		21		0		22		WATER COOLER	20	1
20	1	OUTLET REEL RM 110 (N)		23			0	24		COFFE MAKER RCP.	20	1
20	1	RM 109 RCP.		25	0			26		REFRIGERTAOR RCP.	20	1
20	1	RM 109 RCP.		27		0		28		MEETING ROOM RCP.	20	1
20	1	RM 109 RCP.		29			0	30		OFFICE RCP.	20	1
20	1	RM 109 RCP.		31	0			32		MEZZANINE LIGHTS	20	1
20	1	RM 109 RCP.		33		0		34		RM 202 REC.	20	1
20	1	RM 109 RCP.		35			0	36		RM 203 REC.	20	1
20	1	RM 109 RCP.		37	0			38		PANEL C	50	3
20	1	SPARE		39		0		40		-	-	-
20	1	SPARE		41			0	42		-	-	-
			CONNECTED		0	0	0	TOTAL CONNECTED LOAD			0 VOLT-AMPS	
			TOTAL CONNECTED		0						0.00 AMPS	

EXISTING PANEL "B"

LOCATION:
SUPPLY FROM:
MOUNTING:
ENCLOSURE:
A.I.C. RATING:
NOTES:

VOLTS: 208 /120 PHASE: 3 WIRE: 4 AMPS: 250 MAIN:

BRKR A	BRKR P	DESCRIPTION	CIRCUIT VA	CIRCUIT	PHASE LOADS A	PHASE LOADS B	PHASE LOADS C	CIRCUIT	CIRCUIT VA	DESCRIPTION	BRKR A	BRKR P
20	3	MAU 1		1	0			2		AIR COMPRESSOR	30	3
-	-	-		3		0		4		-	30	-
-	-	-		5			0	6		-	30	-
30	3	AIR COMPRESOR		7	0			8		HOIST ROOM 110	20	2
-	-	-		9		0		10		-	-	-
-	-	-		11			0	12		HOIST RCP. ROOM 110	20	1
30	2	SPARE		13	0			14		ROOM 110 & 111 RCP.	20	1
-	-	-		15		0		16		WELDER EXHASUT FAN	20	1
20	2	UNIT HEATER RM 118		17			0	18		WELDER RCP. 109 & 111	60	2
-	-	-		19	0			20		-	-	-
20	1	SPARE		21		0		22		FURN PLUGS	20	1
20	1	SPARE		23			0	24		FURN PLUGS	20	1
20	3	EXHAUST FAN		25	0			26		SPARE	20	1
-	-	-		27		0		28		SPARE	20	1
-	-	-		29			0	30		SPARE	20	1
25	3	WATER HEATER ROOM 202		31	0			32		SPARE	20	1
-	-	-		33		0		34		SPARE	20	1
-	-	-		35			0	36		SPARE	20	1
20	1	SPARE		37	0			38		SPARE	20	1
20	1	SPARE		39		0		40		SPARE	20	1
20	1	SPARE		41			0	42		SPARE	20	1
			CONNECTED		0	0	0	TOTAL CONNECTED LOAD			0 VOLT-AMPS	
			TOTAL CONNECTED		0						0.00 AMPS	

EXISITNG PANEL "D"

LOCATION:
SUPPLY FROM:
MOUNTING:
ENCLOSURE:
A.I.C. RATING:
NOTES:

VOLTS: 208 /120 PHASE: 3 WIRE: 4 AMPS: 250 MAIN:

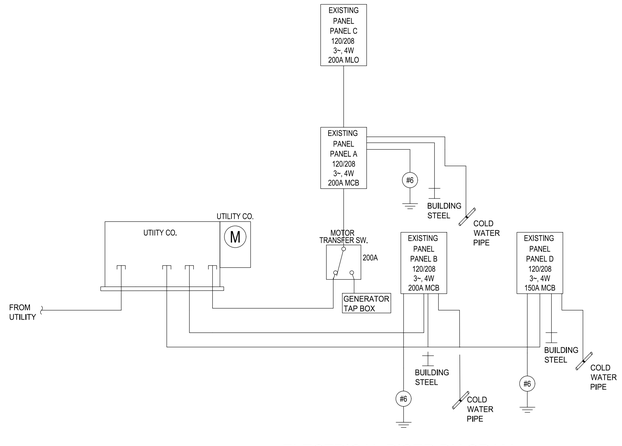
BRKR A	BRKR P	DESCRIPTION	CIRCUIT VA	CIRCUIT	PHASE LOADS A	PHASE LOADS B	PHASE LOADS C	CIRCUIT	CIRCUIT VA	DESCRIPTION	BRKR A	BRKR P
20	1	SPARE		1	0			2		SPARE	20	1
20	1	SPARE		3		0		4		SPARE	20	1
20	1	SPARE		5			0	6		SPARE	20	1
20	1	SPARE		7	0			8		SPARE	20	1
20	1	SPARE		9		0		10		SPARE	20	1
20	1	SPARE		11			0	12		SPARE	20	1
20	1	SPARE		13	0			14		SPARE	20	1
20	1	SPARE		15		0		16		SPARE	20	1
20	1	SPARE		17			0	18		SPARE	20	1
20	1	SPARE		19	0			20		SPARE	20	1
20	1	SPARE		21		0		22		SPARE	20	1
20	1	SPARE		23			0	24		SPARE	20	1
20	1	SPARE		25	0			26		SPARE	20	1
20	1	SPARE		27		0		28		SPARE	20	1
20	1	SPARE		29			0	30		SPARE	20	1
20	1	SPARE		31	0			32		SPARE	20	1
20	1	SPARE		33		0		34		SPARE	20	1
20	1	SPARE		35			0	36		SPARE	20	1
20	1	SPARE		37	0			38		SPARE	20	1
20	1	SPARE		39		0		40		SPARE	20	1
20	1	SPARE		41			0	42		SPARE	20	1
			CONNECTED		0	0	0	TOTAL CONNECTED LOAD			0 VOLT-AMPS	
			TOTAL CONNECTED		0						0.00 AMPS	

EXISITING PANEL "C"

LOCATION:
SUPPLY FROM:
MOUNTING:
ENCLOSURE:
A.I.C. RATING:
NOTES:

VOLTS: 208 /120 PHASE: 3 WIRE: 4 AMPS: 250 MAIN:

BRKR A	BRKR P	DESCRIPTION	CIRCUIT VA	CIRCUIT	PHASE LOADS A	PHASE LOADS B	PHASE LOADS C	CIRCUIT	CIRCUIT VA	DESCRIPTION	BRKR A	BRKR P
20	1	ROOM 112		1	0			2		DROP CORD (S.E.)	20	1
20	1	RADIANT HEATER		3		0		4		O. DOOR (S)	20	1
20	1	SPACE CKT J-BOX		5			0	6		ROOM 112 RCP.	20	1
20	1	ROOM 112 RCP.		7	0			8		OUTSIDE LIGHT (S)	20	1
20	1	O DOOR (N) RCP.		9		0		10		O.DOOR(S)	20	1
20	1	OUTSIDE LIGHT (N)		11			0	12		PAINEL RCP.	20	1
20	1	ROOM 113 RCP.		13	0			14		ROOM 112 RCP.	20	1
20	1	ROOM 113 B. BOARD HEAT		15		0		16		DROP CORD (N.W.)	20	1
20	1	ROOM 113 LIGHTS		17			0	18		O. DOOR (N)	20	1
20	1	DROP CORD (S.W.)		19	0			20		ROOM 112 LIGHTS	20	1
20	1	SPARE		21		0		22		DROP CORD (N.E)	20	1
20	1	SPARE		23			0	24		ROOM 112 LIGHTS	20	1
20	1	SPARE		25	0			26		SPARE	20	1
20	1	SPARE		27		0		28		SPARE	20	1
20	1	SPARE		29			0	30		SPARE	20	1
			CONNECTED		0	0	0	TOTAL CONNECTED LOAD			0 VOLT-AMPS	
			TOTAL CONNECTED		0						0.00 AMPS	



ELECTRICAL RISER DIAGRAM

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ELECTRICAL RISER + PANEL SCHEDULES

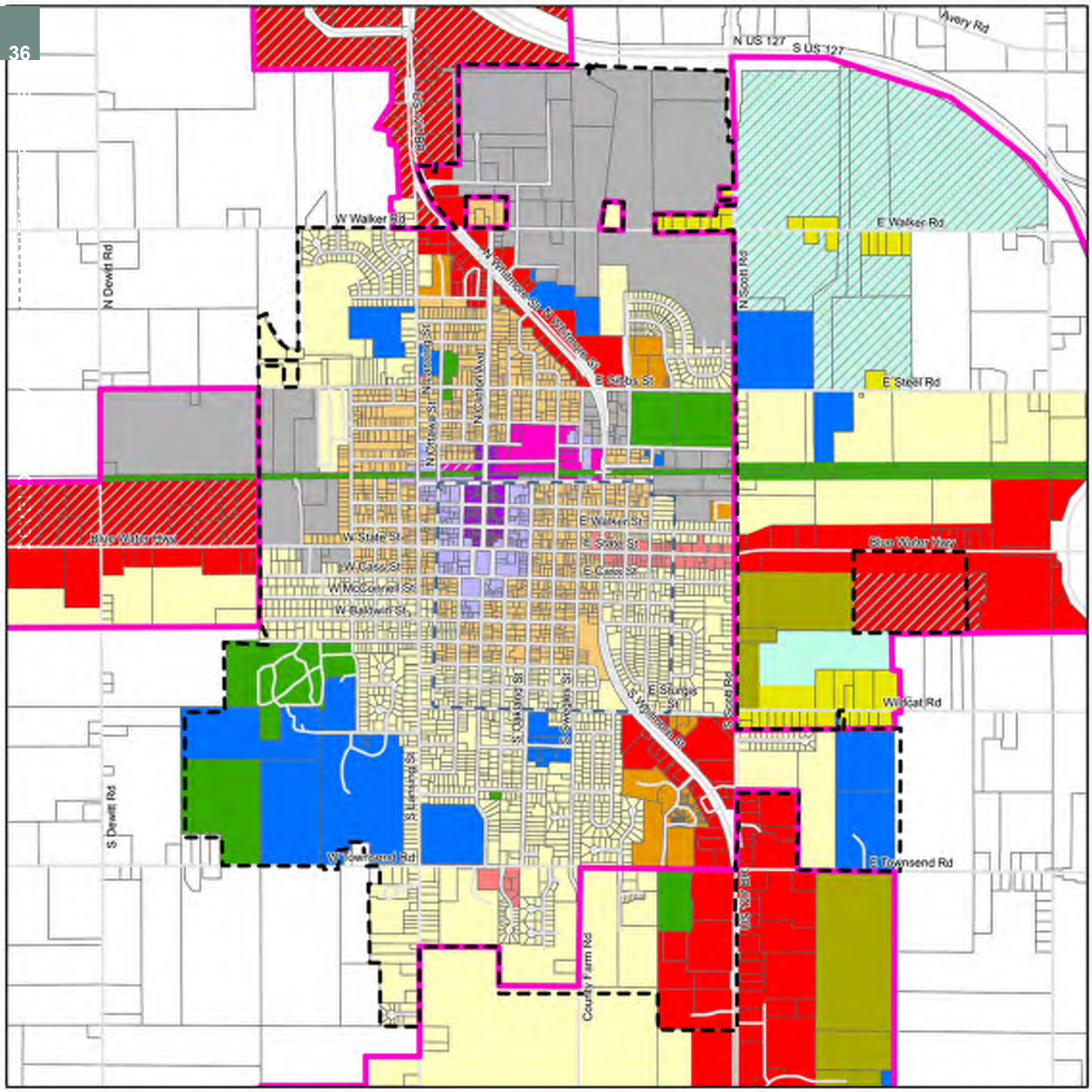
SHEET TITLE

23-319

PROJECT NUMBER

E-600

SHEET NUMBER



Future Land Use

City of St. Johns, Michigan

May 1, 2020

LEGEND

- City Boundary
- Old Village Overlay
- Joint Planning Areas

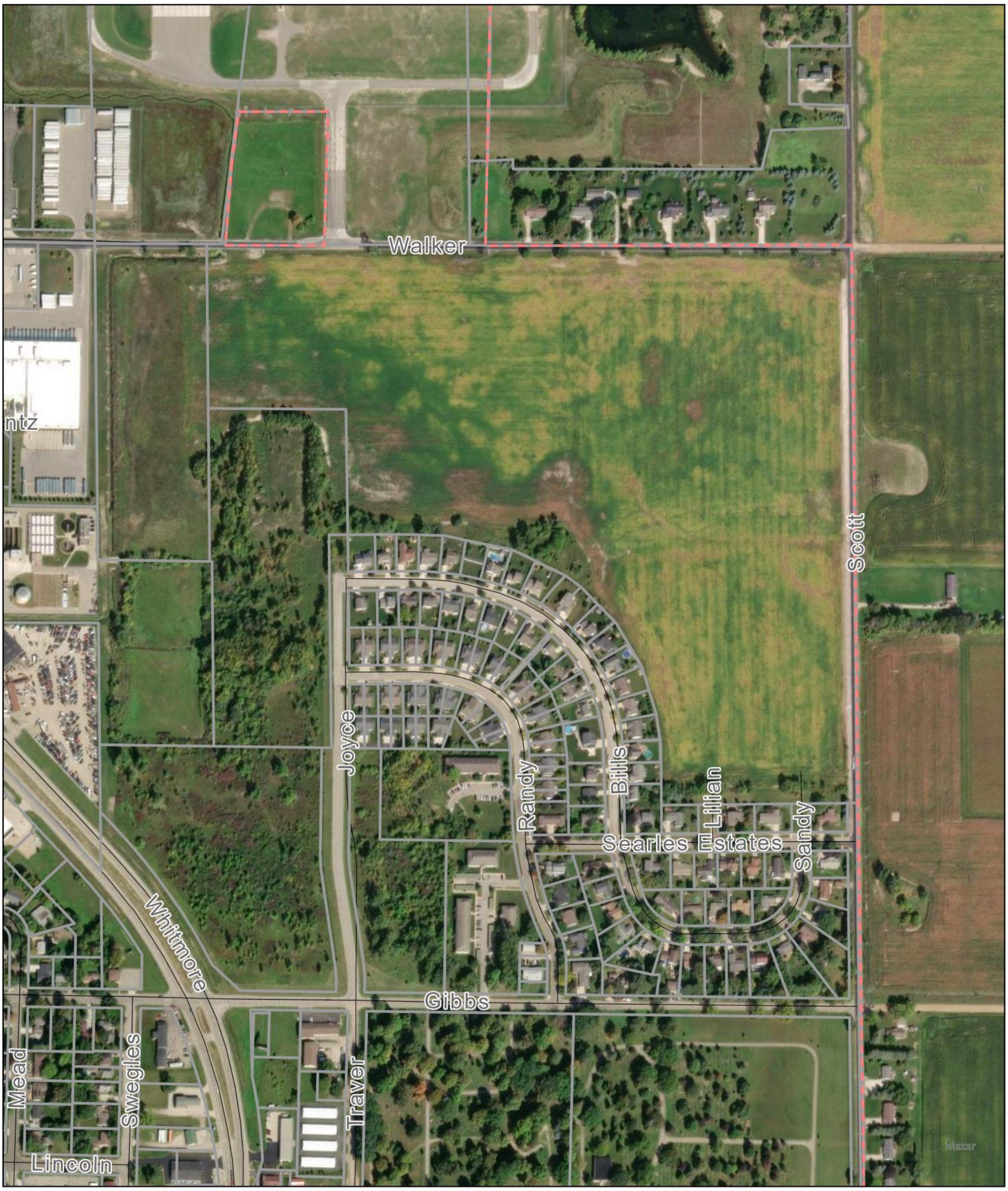
Citywide Community Character Districts

- Parks, Open Space, and Greenways
- Rural Estate
- Modern Spacious Residential
- Traditional Walkable Residential
- Multiple Family Residential
- Public / Institutional
- Core Downtown
- Downtown Edge / Mixed Use
- Flexible Redevelopment
- Community Commercial
- Gateway Commercial
- Commercial / Industrial
- Industrial
- Agriculture-Energy/Industrial
- Agriculture-Energy

0 500 1,000 Feet

Basemap Source: Michigan Center for Geographic Information, v. 17a. Data Source: City of St. Johns 2020. McKenna 2020.

MCKENNA



Aerial Map
Searles Estate

City of St. Johns, Michigan

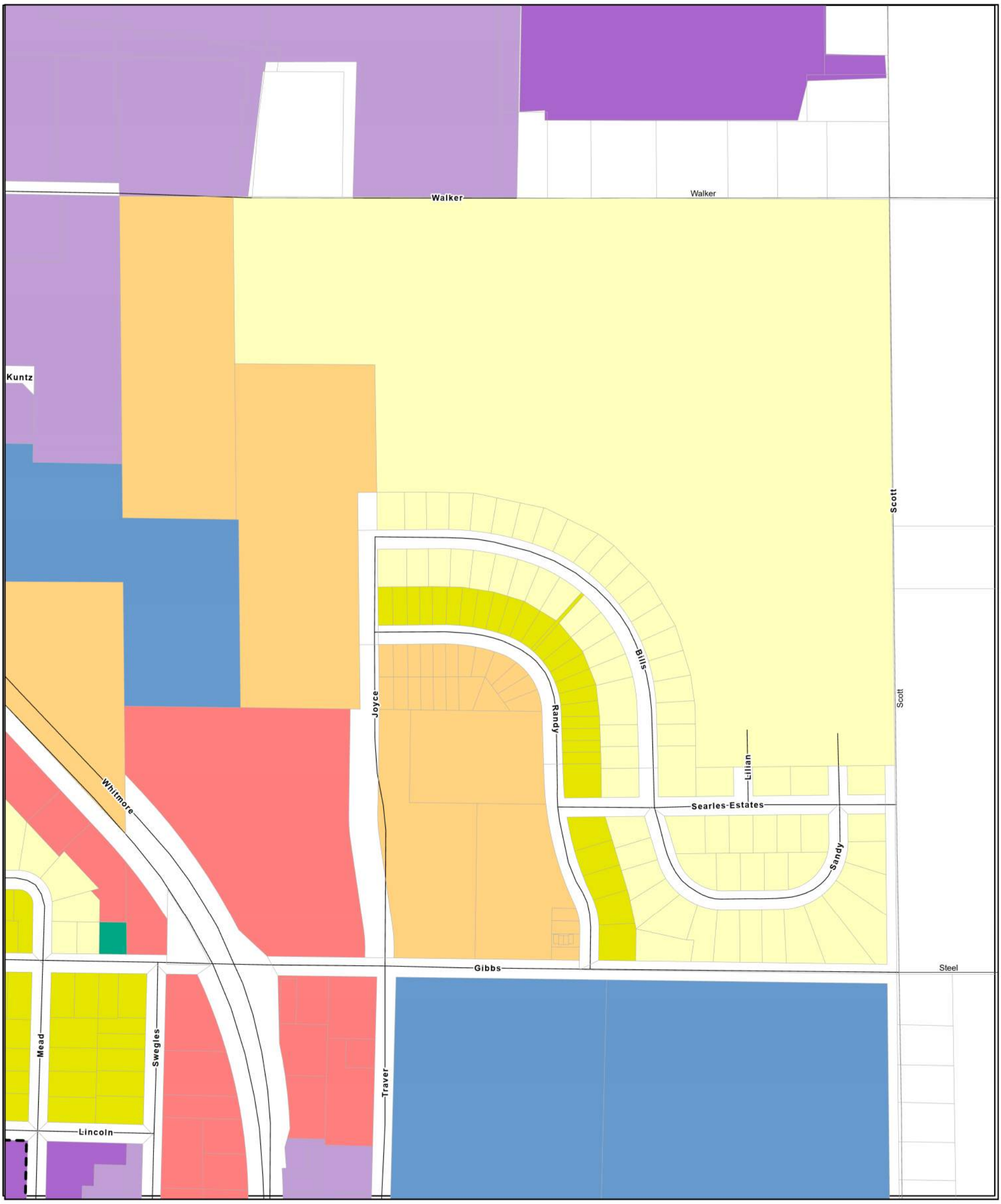
September 25, 2024

LEGEND

- City of St. Johns Boundary
- City of St. Johns Parcels
- City of St. Johns Roads

Basemap Source: Michigan Center for Geographic Information, v. 17a.
Data Source: Clinton County 2021. McKenna 2024.

MCKENNA



Zoning Map
Searles Estate

City of St. Johns, Michigan

September 24, 2024

LEGEND

- R1 - Low Density Residential
- R2 - Medium Density Residential
- R3 - High Density Residential
- CBD - Central Business District
- GC - General Commercial
- MU - Mixed Use
- I1 - Industrial - High Performance
- I2 - Industrial - Liberal Performance
- O - Office
- MC - Municipal Center
- Parking Reduction District
- Parking Exempt District
- OwnerAddresses_Clip1 selection

0 180 360 540
Feet

Basemap Source: Michigan Center for Geographic Information, v. 17a.
Data Source: Clinton County 2021. McKenna 2024.

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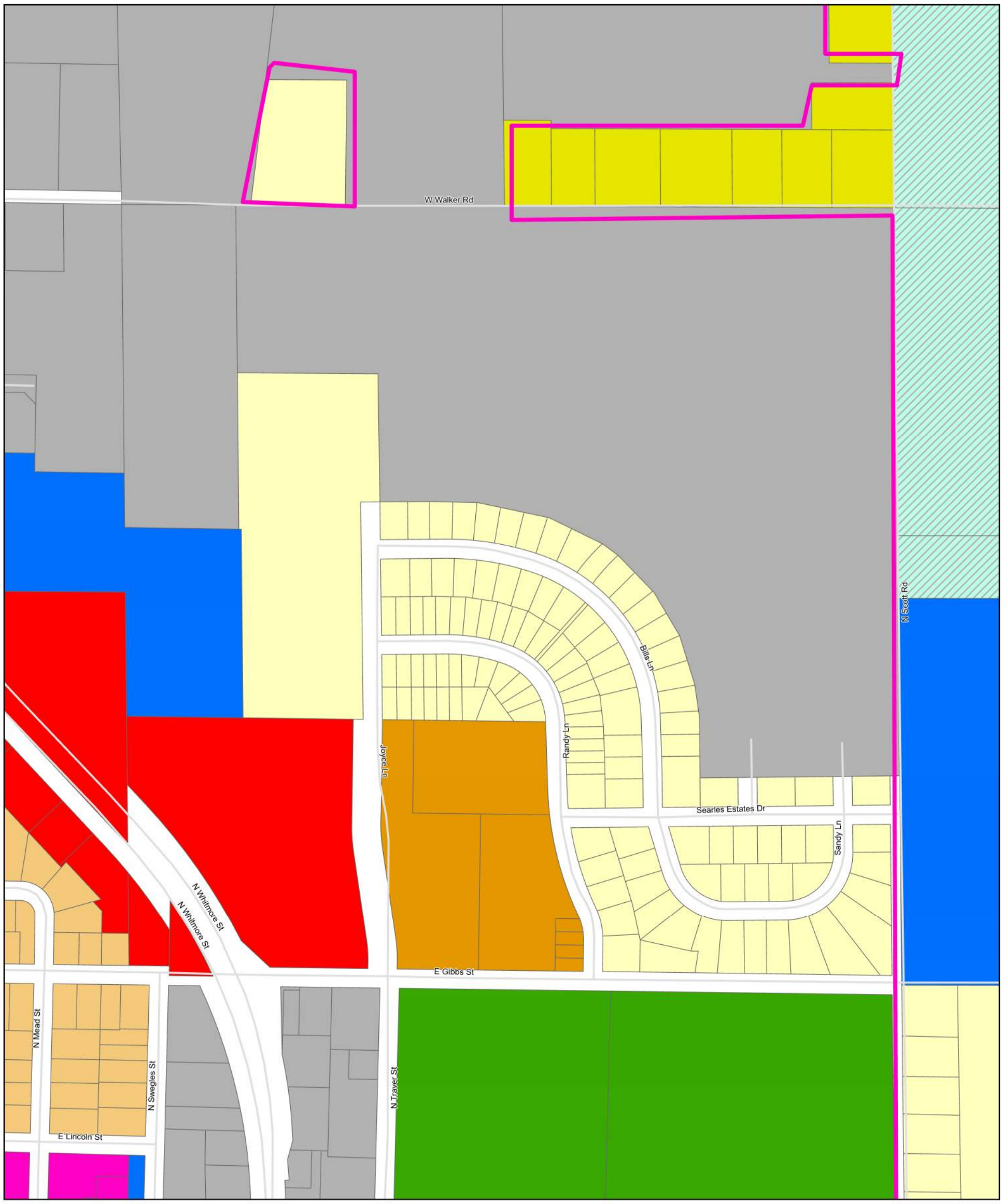

Future Land Use
Searles Estate

City of St. Johns, Michigan

September 24, 2024

LEGEND

- Municipal Boundaries
- Old Village Overlay
- Joint Planning Areas
- Parcels
- Parks, Open Space, and Greenways
- Rural Estate
- Modern Spacious Residential
- Traditional Walkable Residential
- Multiple Family Residential
- Public / Institutional
- Downtown Core
- Downtown Edge / Mixed Use
- Flexible Redevelopment
- Community Commercial
- Gateway Commercial
- Commercial / Industrial
- Industrial
- Agriculture-Energy/ Industrial
- Agriculture-Energy
- Bingham Township Planning Area/Rural Preservation

0 500 1,000 Feet

Basemap Source: Michigan Center for Geographic Information, v. 17a.
Data Source: Clinton County 2021. McKenna 2024.

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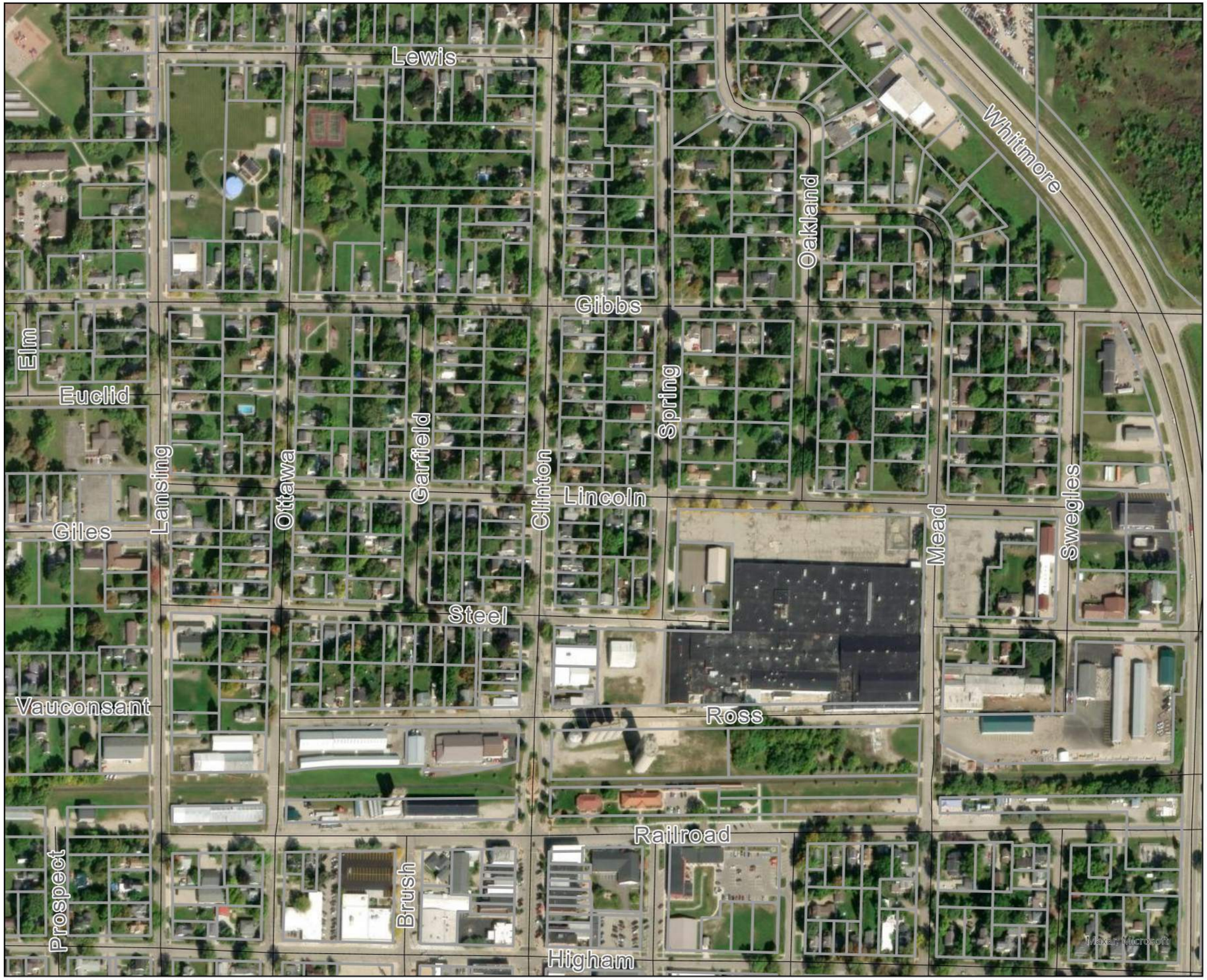


Aerial Map
North of Downtown

City of St. Johns, Michigan

September 25, 2024

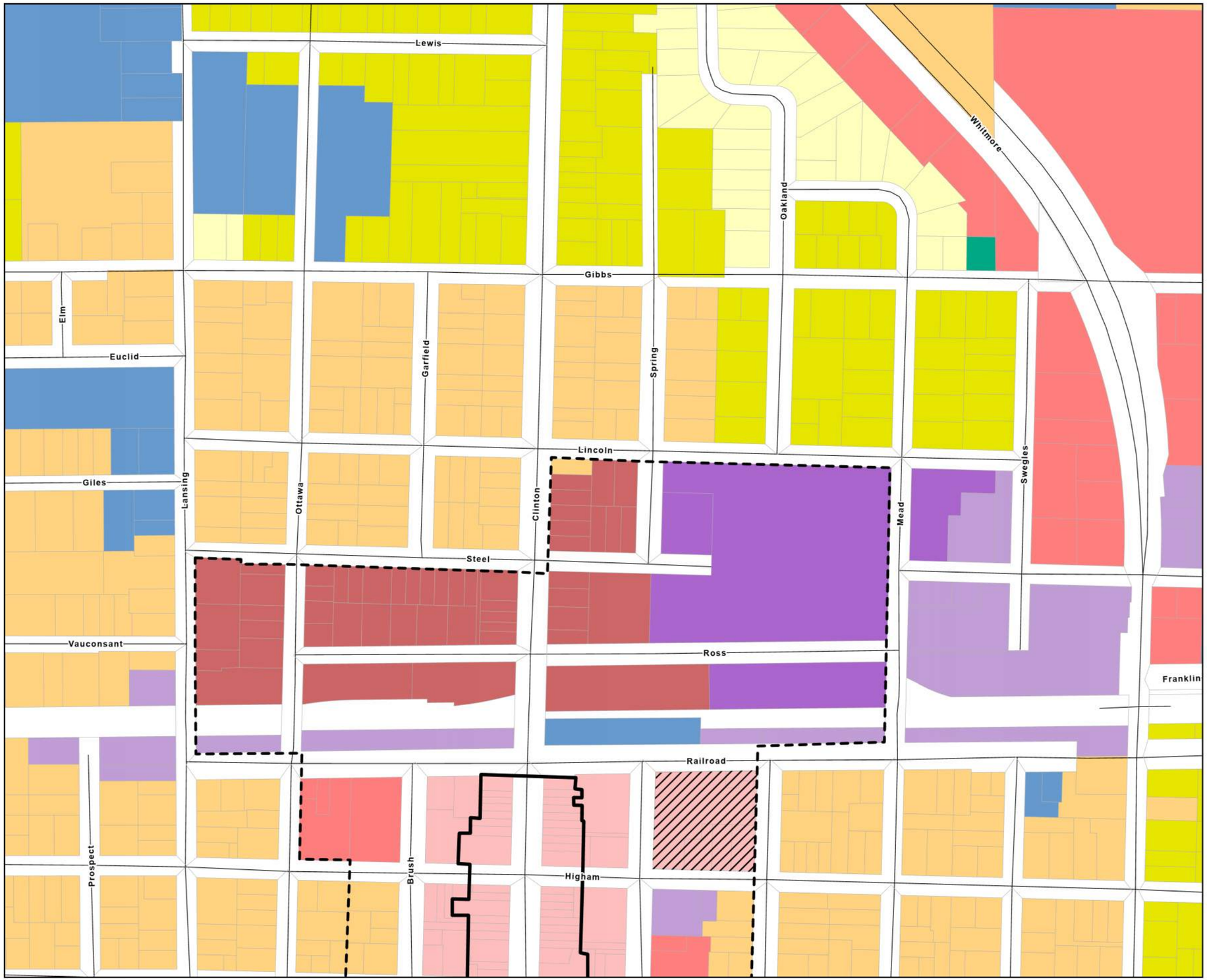
LEGEND

- City of St. Johns Boundary
- City of St. Johns Parcels
- City of St. Johns Roads

0 500 1,000
Feet

Basemap Source: Michigan Center for Geographic Information, v. 17a.
Data Source: Clinton County 2021. McKenna 2024.

MCKENNA



Zoning Map
North of Downtown

City of St. Johns, Michigan

September 24, 2024

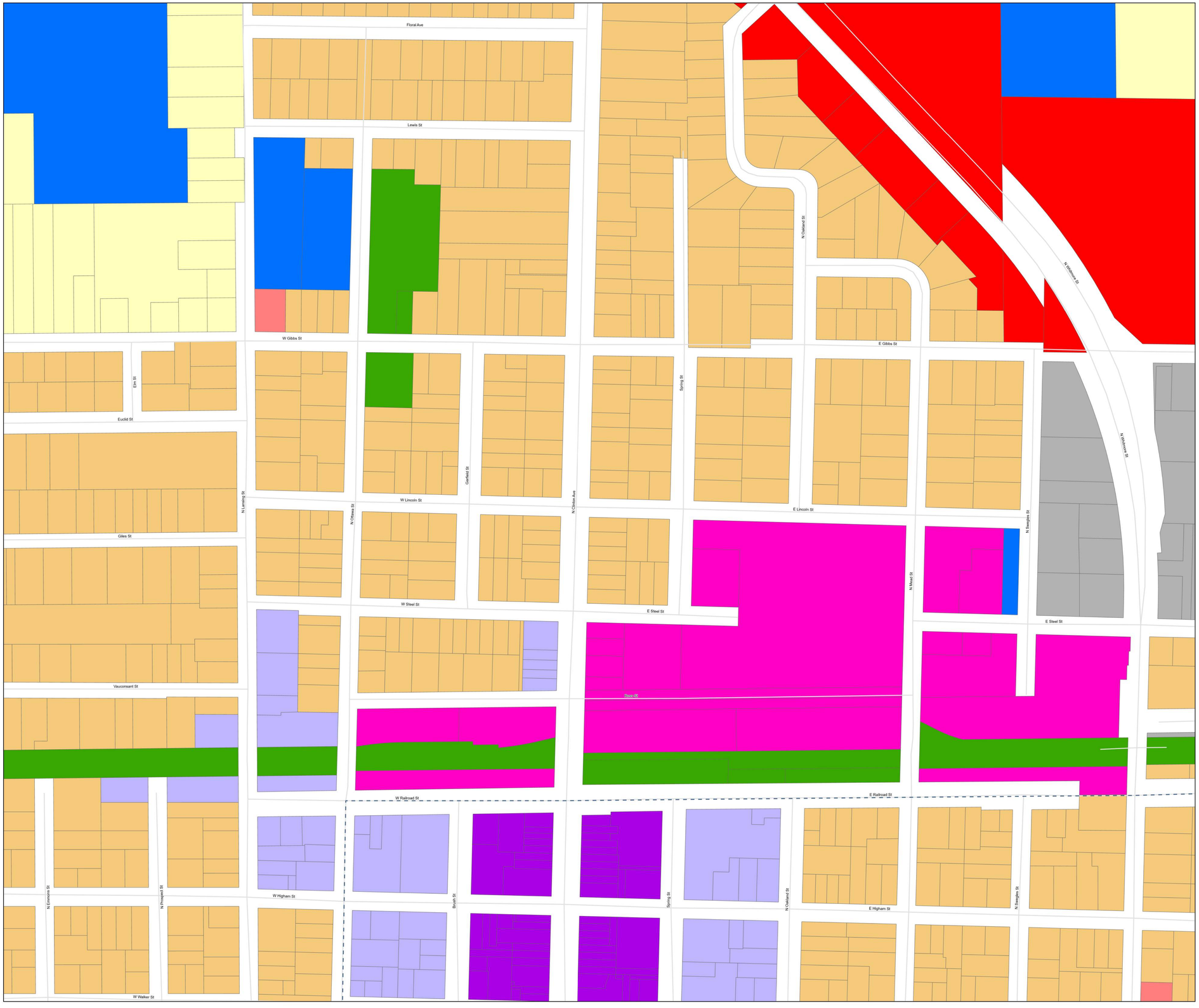
LEGEND

- R1 - Low Density Residential
- R2 - Medium Density Residential
- R3 - High Density Residential
- CBD - Central Business District
- GC - General Commercial
- MU - Mixed Use
- I1 - Industrial - High Performance
- I2 - Industrial - Liberal Performance
- O - Office
- MC - Municipal Center
- Parking Reduction District
- Parking Exempt District
- OwnerAddresses_Clip1 selection

0 500 1,000
Feet

Basemap Source: Michigan Center for Geographic Information, v. 17a.
Data Source: Clinton County 2021. McKenna 2024.

MCKENNA



Future Land Use North of Downtown

City of St. Johns, Michigan

September 24, 2024

LEGEND

- Municipal Boundaries
- Old Village Overlay
- Joint Planning Areas
- Parcels
- Parks, Open Space, and Greenways
- Rural Estate
- Modern Spacious Residential
- Traditional Walkable Residential
- Multiple Family Residential
- Public / Institutional
- Downtown Core
- Downtown Edge / Mixed Use
- Flexible Redevelopment
- Community Commercial
- Gateway Commercial
- Commercial / Industrial
- Industrial
- Agriculture-Energy/Industrial
- Agriculture-Energy
- Bingham Township Planning Area/Rural Preservation

0 500 1,000
Feet

Basemap Source: Michigan Center for Geographic Information, v. 17a.
Data Source: Clinton County 2021. McKenna 2024.

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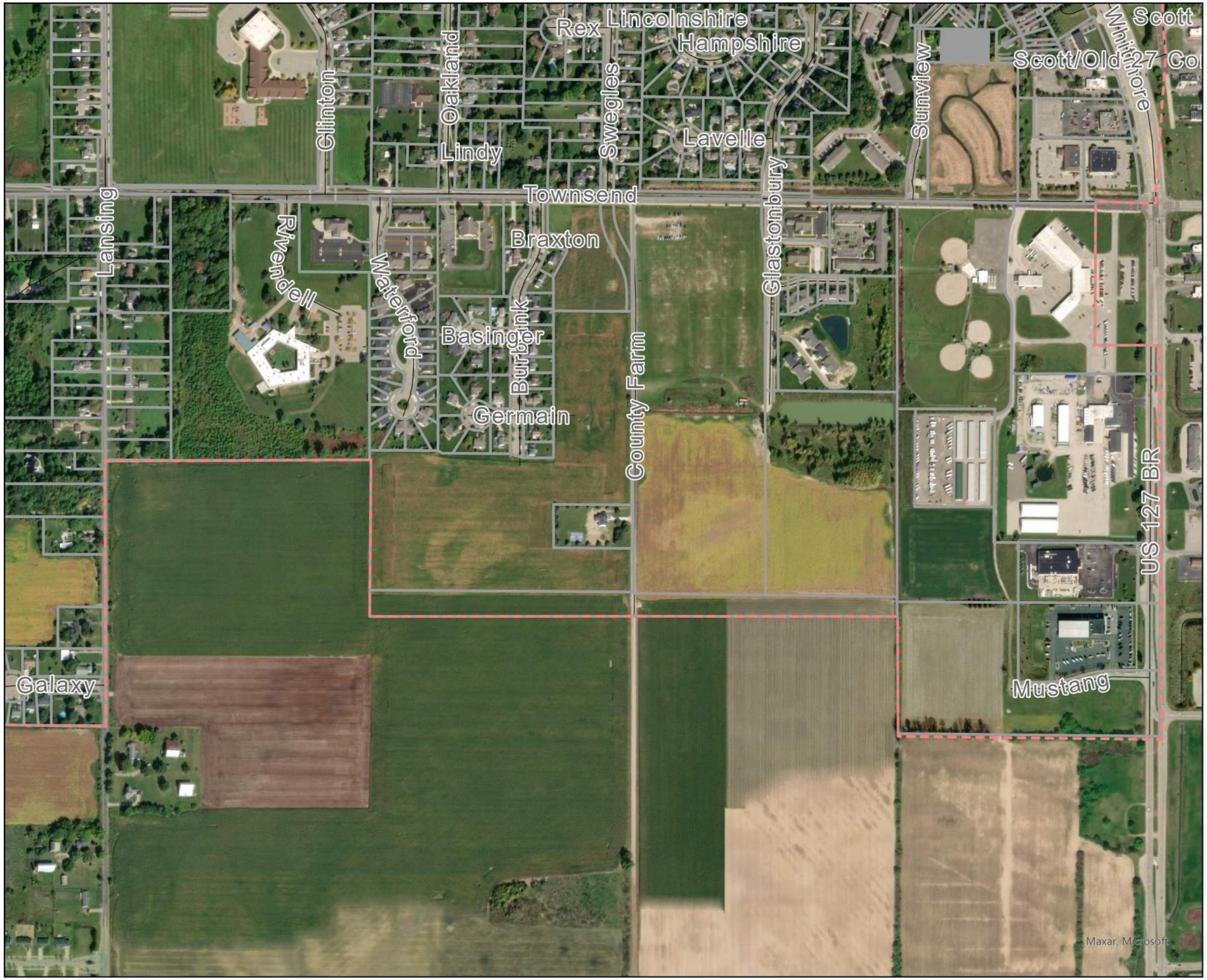


Aerial Map South

City of St. Johns, Michigan

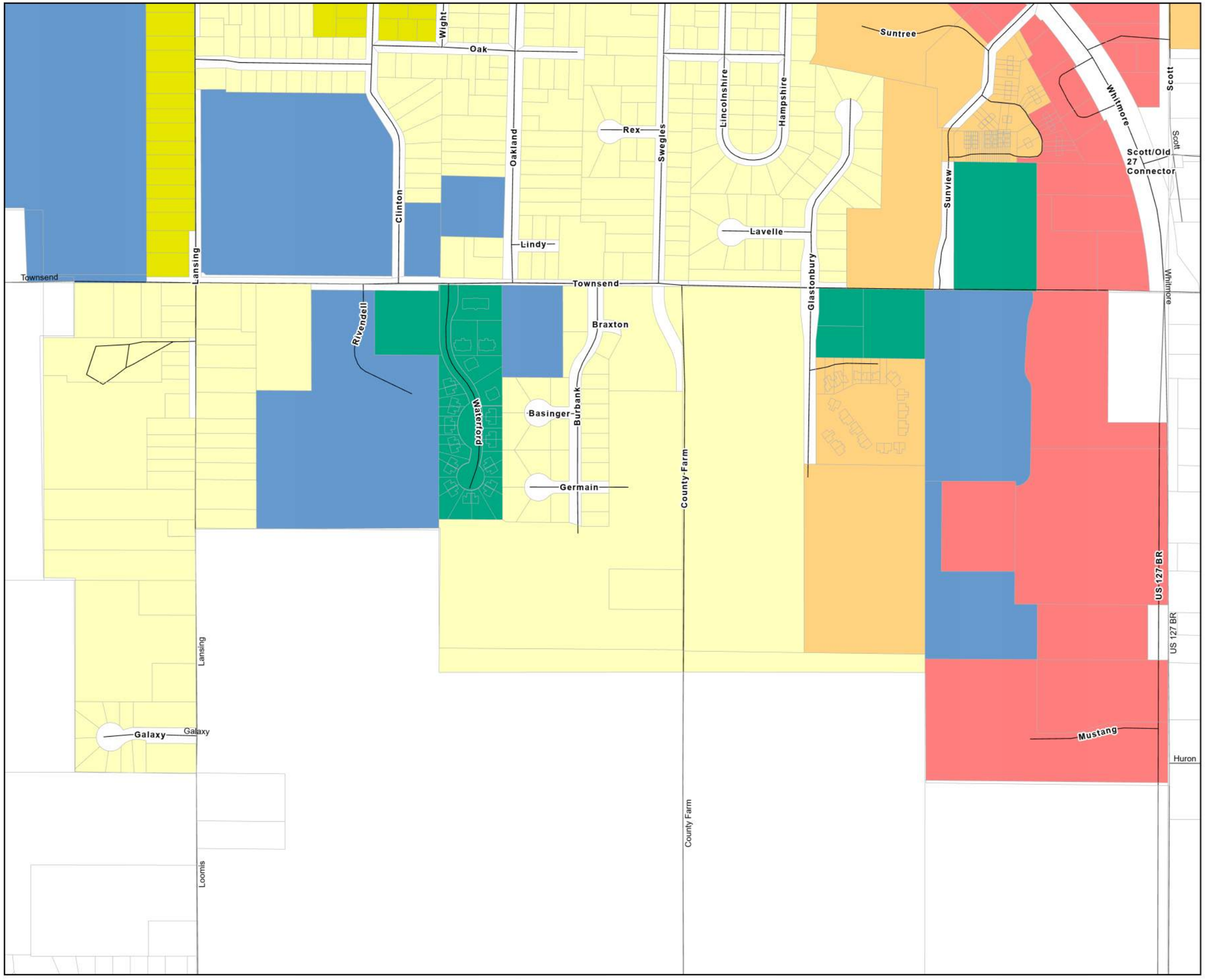
September 25, 2024

LEGEND

- City of St. Johns Boundary
- City of St. Johns Parcels
- City of St. Johns Roads

Basemap Source: Michigan Center for Geographic Information, v. 17a.
Data Source: Clinton County 2021. McKenna 2024.

MCKENNA



Zoning Map South

City of St. Johns, Michigan

September 24, 2024

LEGEND

- R1 - Low Density Residential
- R2 - Medium Density Residential
- R3 - High Density Residential
- CBD - Central Business District
- GC - General Commercial
- MU - Mixed Use
- I1 - Industrial - High Performance
- I2 - Industrial - Liberal Performance
- O - Office
- MC - Municipal Center
- Parking Reduction District
- Parking Exempt District
- OwnerAddresses_Clip1 selection

0 500 1,000 Feet

Basemap Source: Michigan Center for Geographic Information, v. 17a.
Data Source: Clinton County 2021. McKenna 2024.

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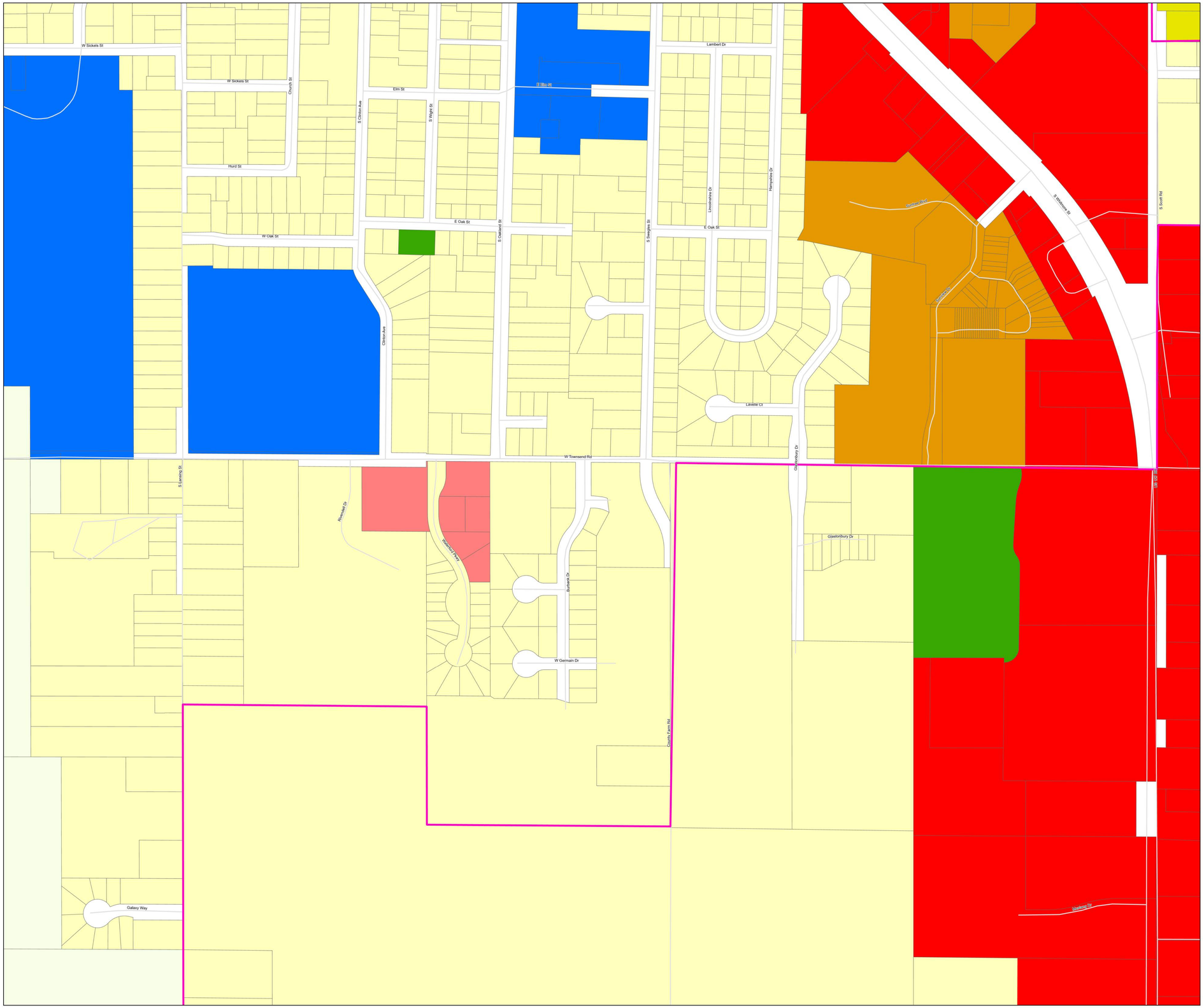

Future Land Use South

City of St. Johns, Michigan

September 24, 2024

LEGEND

- Municipal Boundaries
- Old Village Overlay
- Joint Planning Areas
- Parcels
- Parks, Open Space, and Greenways
- Rural Estate
- Modern Spacious Residential
- Traditional Walkable Residential
- Multiple Family Residential
- Public / Institutional
- Downtown Core
- Downtown Edge / Mixed Use
- Flexible Redevelopment
- Community Commercial
- Gateway Commercial
- Commercial / Industrial
- Industrial
- Agriculture-Energy/Industrial
- Agriculture-Energy
- Bingham Township Planning Area/Rural Preservation

0 775 Feet

Basemap Source: Michigan Center for Geographic Information, v. 17a.
Data Source: Clinton County 2021. McKenna 2024.

MCKENNA