

# **PLANNING COMMISSION MEETING AGENDA**

## **January 5, 2023 THURSDAY 6:00 P.M.**

**Location: Kalamazoo Charter Township Hall, 1720 Riverview Drive, Kalamazoo, MI 49004**

### **AGENDA:**

- #1 Call to Order
- #2 Roll call and recognition of visitors
- #3 Approval of the agenda for the January 5, 2023 meeting.
- #4 Approval of the minutes for December 13, 2022 special meeting.
- #5 Public Comment (3-minute limit)
- #6 Scheduled Reviews: None.
- #7 Public Hearings: None.
- #8 New Business:
  - 8a. Presentation from Clerk Miller on SolSmart: Solar zoning ordinance review
  - 8b. Election of officers
  - 8c. 3713 W. Main – Kalsec PUD Expansion Site Plan Review
- #9 Old Business:
  - 9a. Home Occupation Ordinance
- #10 Open Discussion
  - 10a. Members of the Audience
- #11 COMMUNICATIONS: None.
- #12 REPORT OF THE TOWNSHIP BOARD REPRESENTATIVE.
- #13 REPORT OF THE TOWNSHIP ZBA REPRESENTATIVE.
- #14 COMMENTS FROM PLANNING COMMISSION MEMBERS.
- #15 REPORT OF THE PLANNER.
- #16 REPORT OF THE ZONING ADMINISTRATOR.
- #17 REPORT OF THE TOWNSHIP ATTORNEY.
- #18 ADJOURNMENT.

The public may attend this meeting for your information and comments. Please contact the Planning & Zoning Department if you have any questions at (269) 381-8085.

1 Kalamazoo Charter Township Planning Commission  
2 Minutes of a Meeting Conducted December 13, 2022  
3

4 A special meeting of the Planning Commission was conducted on December 13, 2022 commencing at  
5 6:00 p.m. at the Kalamazoo Charter Township Hall.  
6

7 Present were:

8 Fred Nagler, Chairman

9 Steve Leuty

10 Peter Morrison

11 Denise Hartsough

12 Chris Mihelich

13 Bill Chapman

14 Warren Cook

15 Absent was:

16 None.  
17

18 Also present were Planning Consultant Danielle Bouchard; Township Manager Dexter A. Mitchell;  
19 Township Attorney Roxanne Seeber and two members of the audience.  
20

21 **Approval of the Agenda**  
22

23 Leuty asked to add the minutes of the October 27, 2022 Planning Commission work session meeting to  
24 the agenda. Chapman moved, supported by Hartsough, to approve the agenda with the addition of the  
25 minutes. The motion passed unanimously.  
26

27 **Minutes**  
28

29 Hartsough moved, supported by Chapman, to approve the minutes of the October 6, 2022 Planning  
30 Commission meeting as submitted. The motion passed unanimously.  
31

32 Leuty moved, supported by Morrison, to approve the minutes of the October 27, 2022 Planning  
33 Commission work session meeting as submitted. The motion passed unanimously.  
34

35 **Public Comment**  
36

37 None.  
38

39 **Scheduled Reviews.**  
40

41 None.  
42

43 **New Business**  
44

45 *Special Land Use and Change in Use - Pinebrook Warren LLC, 521 E. Mosel.*  
46

47 Bouchard introduced the item indicating that the applicant is requesting to add an additional processing  
48 license to unused warehouse space at the existing grow and cultivation facility. She stated that the

1 applicant had received several prior approvals of the Township Planning Commission. At present, the  
2 following uses are authorized on the site:

- 3 • Class C (Maximum 2000 plants) adult use marijuana grow encompassing approximately 12,987  
4 square feet; and
- 5 • A Class C (Maximum 1500 plants) medical marijuana grow facility; and
- 6 • An adult use marijuana retailer encompassing about 3, 715 square feet;
- 7 • Warehousing space intended for the processing use at issue; and
- 8 • A Class C (maximum 2000 plants) adult use grow facility.

9  
10 Bouchard stated that modification to the facility as requested required a new special use approval,  
11 because it would result in an increase in the intensity of the use. She indicated that the applicant had  
12 submitted a site plan with little change for the additional processing facility. Bouchard indicated that  
13 overall the planners did not have a problem with the addition of a processing facility in the existing  
14 warehouse space. She suggested that the applicant address the additional traffic in order to allow the  
15 Planning Commission to make a determination on parking facilities on site. Bouchard had passed the  
16 application to the police department for review, and it had no comments at this time on the proposed  
17 addition.

18  
19 Applicant John McCleod appeared via ZOOM. He indicated that the desire was to use the existing  
20 warehouse space to undertake the processing of gummies and other packaging-type work that was  
21 presently being undertaken at its Warren, Michigan facility. There were no chemicals used and no  
22 extraction taking place. They intended to purchase extract from a third party, make and package items  
23 such as gummies or vape cartridges at the facility. He stated that, if approved, existing employees would  
24 use their down time to undertake the processing. It is really just a packaging facility, he stated. There  
25 would be no additional traffic or use of docking area because they will use the existing suppliers and  
26 transporters as needed. In response to an inquiry from Hartsough, McCleod stated that there were no  
27 changes in hours. They were open Monday to Saturday 9 to 9 with shortened hours on Sunday. Morrison  
28 inquired about the proposed activity. McCleod stated that it was really folding boxes and packaging  
29 gummies and vape cartridges. In response to an inquiry from Hartsough, the applicant stated that they  
30 were producing both gummies and vape cartridges on site, from purchased distillate. Morrison inquired  
31 about testing of the distillate. The applicant indicated that the distillate is tested and batched at the  
32 manufacturer, and is tracked through this process in the same batches so that the chain of custody could  
33 be easily followed.

34  
35 The Chairman opened a public hearing. Bouchard read an email received by Clerk Miller early in the day  
36 in which a citizen complained about the lighting at the facility. Bouchard had gone past the property on  
37 the way to the meeting and agreed that the exterior lights appear to be oriented horizontally to create  
38 light trespass onto the street. There were no additional public comments and the Chairman closed the  
39 public hearing.

40  
41 Leuty moved to approve the additional special land use at 521 E. Mosel to allow one marijuana processor  
42 on site subject to proof of applicable licenses or applications and compliance with all review and safety  
43 requirements of the Township Fire Marshal. Mihelich supported the motion and it passed unanimously.

44  
45 *Site plan review.* Bouchard indicated that the site was to remain stable from the exterior; subject to the  
46 placement of shielding to direct exterior lights onto the property and not out to the street. Fire Marshal  
47 Kowalski indicated that when the exterior painting was done to the building, a FDC sign was removed and  
48 had not been replaced. Additionally, the building now needed re-addressing in contrasting colors. In

1 response to an inquiry from Cook, the applicant's engineer (Andy, Callean Engineering) confirmed that  
2 there had been an additional small egress landing adding to the outside of the building. Kowalski did not  
3 have a problem with this addition, except that the applicant would need to connect the landing to the  
4 existing sidewalk or provide a sidewalk to the parking lot. In response to an inquiry from Mihelich,  
5 Kowalski confirmed that the entire building is sprinkled. McCleod stated that all of these items would be  
6 accomplished.

7  
8 Cook moved to approve the site plan as presented with the following changes to be administratively  
9 approved:

- 10 • add shields to the exterior lights; and
- 11 • add a sidewalk connecting the new concrete pad to the existing sidewalk or the parking lot; and
- 12 • make address numbers contrasting; and
- 13 • return FDC sign to prior location.

14 Mihelich supported the motion.

15  
16 Chapman stated that the applicant is one of many community members that supports his charity blind  
17 golf outing. None of the members felt this would be a conflict. There was no other discussion on the  
18 motion and it passed unanimously.

19  
20 **Old Business.**

21  
22 *Home Occupation Ordinance.*

23  
24 Bouchard had provided a red-and green-lined version of a new draft, which admittedly was hard to read.  
25 She highlighted the major changes to the draft ordinance, indicating that she had added criteria for  
26 approval for Class B home occupations. She had changed the traffic and/or parking numbers to an overall  
27 10-customer limitation. Traffic additions can be an enforcement problem, she said. She also allowed the  
28 Zoning Administrator to seek planning commission review of a Class B if there were traffic or other issues  
29 during the review process. She had added parameters to consider, such as availability of services, natural  
30 environment, and conservation of resources. If the Zoning Administrator is challenged as to the correct  
31 category, any application can be referred to the Planning Commission for review and approval.

32  
33 Bouchard outlined her thought process as to the cap of ten clients and/or customers per day. Cook felt  
34 that an applicant would be willing to limit the number of clients in order to retain the Class B status. If it  
35 appeared that there were more clients than ten per day, enforcement could take place. Chapman  
36 inquired as to a person who might be leaving their house to do something like a mobile dog grooming  
37 business. Bouchard stated that would be a Category A situation and not subject to zoning or planning  
38 commission review. Chapman inquired about a limitation on the hours of operation. Morrison stated  
39 that they were 8:00 a.m. to 8:00 p.m. for on-site activities. Chapman wondered whether the Township  
40 could limit activities during high volume traffic in areas, such as where there were schools.

41  
42 Hartsough noted that there is a dichotomy with respect to teaching of fine arts. Seeber stated that  
43 teaching fine arts is considered a residential use. The group next discussed parking. Bouchard stated that  
44 they were requiring one off-street space for each non-occupant employee and up to two for customers.  
45 The group discussed the potential that customers may park on the street in situations with narrow lots;  
46 and/or if there was not enough space for customer parking. Hartsough was a little concerned about a  
47 person who may want to operate a business on a smaller parcel. Perhaps the Township was depriving that  
48 person of a right that others had. Seeber stated that, to some extent, a person can only take advantage

1 of a home occupation within the parameters of their already-existing site. If they didn't have enough  
2 room for customer parking, they likely would not qualify for a home occupation, or they may have to  
3 lessen their expectations.

4  
5 Leuty commented that anyone could snub their nose at the parking requirements and just let their  
6 customers park on the street anyway. He was concerned about on-street parking if a fire engine could  
7 not get down the street. Bouchard stated that people are likely to park in the road regardless of the  
8 existence of a home occupation. They are trying to make the parameters fit the most situations, without  
9 over regulating. Leuty appreciated Section F, allowing the Zoning Administrator some flexibility.  
10 However, he still had a concern about up to ten customers per day. He felt that perhaps 5 per day would  
11 be better.

12  
13 Leuty wished for review and approval based on the facts of the site. Leuty gave an example on his street  
14 where a former owner was getting numerous short-term visitors during the day. There may have been  
15 twelve or fifteen additional cars on the cul-de-sac already and then adding ten more for a legal business  
16 was overkill. Bouchard was not sure that a person who was already having that number of visitors would  
17 have time for a home occupation. Hartsough stated that the number was only for the Zoning  
18 Administrator to determine a category.

19  
20 Bouchard stated that making site-specific approval requirements would be very difficult. Leuty stated  
21 that regular families might even make 7 or 8 trips up and down a street in a day. Adding up to twenty  
22 more trips would cause traffic problems in a lot of places. Hartsough stated that the idea is to strike a  
23 reasonable balance, moving customer cars off of the street and limiting the number of customers was an  
24 effort to also allow people to do their home businesses. Leuty inquired as to whether there was room  
25 for neighbors to complain and/or object. Bouchard stated that a review requirement, similar to gravel  
26 reviews, could be built in.

27  
28 Mihelich felt that the prior discussion had focused on dealing with impact to neighboring properties.  
29 There are a lot of diverse neighborhoods in the Township. Bouchard stated that she could add traffic  
30 considerations to Category B, which would likely put high traffic problems into a Category C. She would  
31 add a provision indicating that if the Zoning Administrator finds that traffic is more intense than what is  
32 normally anticipated, they would kick it up to category C and require special use approval. Leuty indicated  
33 that two kids almost died when they were knocked off of their bikes by one of the cars visiting across the  
34 street. He knows because he held a terrified child in the street after it happened.

35  
36 Leuty's real goal was to ensure that those who moved into neighborhoods seeking tranquility or who had  
37 tranquility in the past were not overburdened by home occupations. He indicated that the problem on  
38 Quarry Ridge stemmed from a traffic problem. In his mind, if the neighbors notice there should be a way  
39 to curtail some of the activity. Bouchard struggled to find a solution to Leuty's question. She could,  
40 perhaps, reduce the numbers to 5; but she could not curtail property rights based on what street a person  
41 lives on. Leuty suggested qualifying the license such that it could be eliminated or reduced if the  
42 neighbors complained. He also gave a suggestion of a wedding planner in which a bride groom and  
43 mother-in-law all came to the house. Did that count for one customer or three? He wondered. Mihelich  
44 stated that "up to ten" may be a way to address it. Chapman liked the idea of a 6-month review of  
45 complaints. Bouchard suggested that perhaps the "category B" could hold unless there are complaints,  
46 in which case categorization would need to be reviewed. She further stated that if there were complaints,  
47 an enforcement procedure would commence anyway. Bouchard stated that she would consider the  
48 suggestions and bulk up the requirements in Category B. All of the members approved of this idea.

1 Leuty next inquired as to how the ordinance amendment would help manage the controversies the  
2 Township is presently involved in, such as the dog grooming situation. The Chairman suggested that the  
3 particular one in question would be okay as a Category B. It was a much lower level of use than, say, a  
4 PetSmart with grooming offerings. Bouchard stated that the intent of splitting up the categories was to  
5 allow different mechanisms for review and approval. Nagler stated that the first step was to remove the  
6 “unless regulated elsewhere” language. The group approved of the direction the amendments were  
7 going and in general agreed that it was difficult to legislate or think about all of the “what-ifs”. Seeber  
8 spoke about ordinance enforcement and a potential defense of lawful nonconforming uses. Chapman  
9 inquired as to whether sidewalk repair could be required prior to a home business being operated.  
10 Bouchard stated that she could probably add that to Category C home occupations, but not to category  
11 Bs. There was additional discussion regarding different types of activities that may fall into the categories  
12 themselves. For example, “activities”, “occupations” and “occupations with employees”. Additionally,  
13 she stated, there may be “state regulated or permitted occupations” such as instruction in a fine art, which  
14 was allowed. Bouchard stated that she would go back to work, based on the information that had been  
15 provided at the meeting. She would produce a clean version for review for the next Planning Commission  
16 meeting.

17

18 **Open Discussion**

19

20 Chapman inquired about sidewalks in disrepair and the level of township liability if the same are not done.  
21 He stated that people in wheelchairs or on bikes may be injured based on poor condition of sidewalks.  
22 Leuty highlighted meetings he had regarding the matter over the last couple of weeks and indicated that  
23 the sidewalk Chapman was referring to was on the list for repair at some point.

24

25 Chapman stated that his wife had hired a mobile dog groomer, who came to their house and did their dog  
26 in her van in the yard. They were pleased with both the results and the price.

27

28 Hartsough commented on the lack of a crosswalk at Alamo and Nichols roads. Curb cuts are still there.  
29 She also spoke about the right turn lane from Nichols onto W. Main heading west, where the lane  
30 markings are painted differently from the way people drive. Mitchell noted to call the managing director  
31 of the RCKC regarding this.

32

33 Cook and Hartsough were sworn in as members of the Board of Review prior to the meeting.

34

35 Morrison had driven through downtown and was met with the city’s new bike lanes. He wasn’t sure they  
36 were well planned out.

37

38 **Audience Comments.**

39

40 None.

41

42 **Communications.**

43

44 None.

45

46 **Report of Township Board Representative**

47

48 Leuty stated that the Popeye’s rezoning had been approved by the Township Board.

1  
2 Bouchard indicated that she had sent a master plan snippet to the members for review. She still owed  
3 Chapman a tactile map; however, she didn't want to do one until the map was finalized. Morrison and  
4 Cook were encouraged to check their email addresses with Bouchard.

5  
6 Cook commented on the Southwest Michigan Planning Commission, which may be used as a gateway to  
7 get federal grants. They were about to release their plan of action. Bouchard stated that they would  
8 receive the 63-day notice of intent to plan and she would contact them with an update on the Township's  
9 planning process.

10  
11 There being no additional business to come before the Planning Commission, the meeting was adjourned  
12 by Nagler at 7:35 p.m.

13  
14  
15 **Kalamazoo Charter Township Planning Commission**

16  
17 The Kalamazoo Charter Township Planning Commission undertook the following actions at its meeting  
18 of December 13, 2022:

- 19
- 20 • approved special use for adult use marijuana processor/packager addition to the Cloud Cannabis  
21 site at 521 E. Mosel; approved site plan modification, with conditions.
  - discussed proposed Home Occupation amendment to the Zoning Ordinance.

To: Kalamazoo Township Planning Commission

From: Township Clerk Mark Miller

12/21/2022

Dear Planning Commission members:

Kalamazoo Township has a Climate Committee that has been making and implementing plans to improve sustainability in our township operations and to reach out to our residents to improve climate mitigation and resiliency across our community.

One part of this effort is to promote installation of renewable energy generation (especially solar photovoltaics) in the township, and one strategy to accomplish that is SolSmart.

SolSmart is a federally funded certification program. Getting certified at the bronze, silver, or gold levels tells potential customers and installers that we are “open for business” as a township for solar installation. We earn points towards certification by achieving various credits, or activities that will help streamline our application and inspection process.

One of the prerequisites is to have SolSmart staff review and report their findings on the existing provisions of our Zoning Ordinance as they apply to solar installations. We have done this several months ago. We earn a credit by having our Planning Commission review this report. This applies whether or not we go on to adopt any of the recommendations.

I ask that you carefully read the attached report, as preparation for the presentation members of the Climate Committee will make to the Planning Commission at your January meeting.

Thank you for your attention –

Mark E. Miller, Kalamazoo Township Clerk





# PZ-1 Zoning Review

## Community:

**PZ-1: Review zoning requirements and identify restrictions that intentionally or unintentionally prohibit solar PV development. Compile findings in a memo. (Required for Bronze)**

To assist your local government, the national solar experts at SolSmart have conducted a review of your community’s zoning and land use regulations to assess the use of best practices, possible barriers (i.e. height restrictions, set-back requirements, etc.) and gaps related to solar PV development. Below, please find the outcome of the review. By reading the narrative and signing the statement at the bottom of the page, your community will satisfy the PZ-1 pre-requisite and be one step closer to achieving SolSmart designation.

### Summary

The Kalamazoo Township [Zoning Code](#) was accessed and reviewed during August 2022. The code was accessed via the Kalamazoo Township [website](#).

- A search for “photovoltaic” yielded 1 result.
- A search for “solar” yielded 26 results.
- A search for “renewable energy” yielded 0 results.
- A search for “clean energy” yielded 0 results.

### Best Practice Review

Kalamazoo Township’s code was reviewed to determine if it incorporates best practice regulations for solar energy. Incorporating best practices improves transparency of processes and clarity of development standards and can enhance the growth of the local solar market in an organized and efficient manner

Purpose or Intent			
The code does NOT contain a purpose or intent for including solar energy regulations in the code.			
Code Language	Section: N/A		
N/A			
Reviewer Comments	Best Practice: <input type="checkbox"/>	Needs Improvement: <input checked="" type="checkbox"/>	Barrier: <input type="checkbox"/>
Suggested Language			
[LOCALITY NAME] has adopted the following regulations to encourage the efficient and effective development and use of solar energy systems while protecting the public health, safety, and welfare of [LOCALITY]’s citizens.			
Solar energy is a renewable energy resource and valuable economic resource that can be utilized throughout the [LOCALITY] for the following purposes (the following bullet points are optional depending on community goals and plans):			
1) To implement the following objectives of the Comprehensive Plan:			
a) Encourage the use of local renewable energy resources.			
b) Promote sustainable building design and practices.			

c) Encourage economic development while preserving the community's historic resources and character.

2) To meet the goals of the Climate Action Plan, Sustainability Plan, Clean Energy Resolution.

a) [REFERENCE GOALS OR TARGETS]

3) To decrease the community's reliance on fossil fuel power sources and reduce greenhouse gas emission/achieve carbon reduction goals.

a) [REFERENCE SPECIFIC GOALS OR TARGETS]

4) To enhance the reliability and resiliency of the local power grid and make more efficient use of the local electric distribution infrastructure.

5) To promote consumer choice and allow residents and businesses to use local, renewable energy while displacing fossil fuel generation.

6) To improve air quality and protect public health.

### Definitions

The code does NOT contain definitions for solar energy.

**Code Language** | Section: Article 1.Rules of Construction and Definitions. Page 1-26

Solar Panels: Solar panels are flat panels that use arrays of photo voltaic cells to convert sunlight into electricity.

**Reviewer Comments** | Best Practice:  | Needs Improvement:  | Barrier:

The zoning code has one (1) solar-related definition, but solar energy systems are not defined. Definitions form the basis of understanding for the terms used throughout the solar energy section of the code and reduces the chance for misinterpretation. At a minimum, a local government should include definitions that distinguish between solar energy system type (roof-mounted vs ground-mounted) and use (accessory vs primary) to provide clarity and a foundation on which to specify permissible uses in specific zoning districts and provide development standards.

### Suggested Language

#### Definitions

1) Solar energy system: A device, array of devices, or structural design feature, the purpose of which is to provide for generation or storage of electricity from sunlight, or the collection, storage, and distribution of solar energy for space heating or cooling, daylight for interior lighting, or water heating.

2) Solar photovoltaic system: A solar energy system that converts solar energy directly into electricity, the primary components of which are solar panels, mounting devices, inverters, and wiring.

3) Grid-connected solar energy system: A solar photovoltaic system that is connected to an electric circuit served by an electric utility company.

4) Roof-mounted solar energy system: A solar photovoltaic system mounted on a rack that is ballasted on, or is attached to, the roof of a building or structure. Roof-mount systems are accessory to the primary use.

- 5) Ground-mounted solar energy system (Accessory Use): A solar photovoltaic system mounted on a rack or pole that is ballasted on, or is attached to, the ground and the system is accessory to the primary use.
- 6) Ground-mounted solar energy system (Primary Use): A solar photovoltaic system mounted on a rack or pole that is ballasted on, or is attached to, the ground and is the primary land use for the parcel(s) on which it is located. Primary use systems are permitted through a discretionary approval process.
- 7) Community-scale solar energy system: A solar photovoltaic system that qualifies for the [STATE COMMUNITY SOLAR PROGRAM NAME – if applicable].

Roof-mounted Accessory Use Solar			
The code explicitly permits accessory use roof-mounted solar PV systems as a by-right or allowed use.			
<b>Code Language</b>	Section: Article 2.4.b Page 2-5		
Roof or Building Mounted Private Solar Energy Panels			
1) Shall be considered an accessory use in all zoning districts subject to the requirements of this section.			
<b>Reviewer Comments</b>	Best Practice <input checked="" type="checkbox"/>	Needs Improvement <input type="checkbox"/>	Barrier <input type="checkbox"/>
N/A			
<b>Applicable SolSmart Credit: PZ-5, accessory use solar codified and allowed</b>			
<b>Suggested Language</b>			
N/A			

Roof-mounted Solar Height			
Option 1	The code does NOT exempt roof-mounted solar PV from height restrictions.		
Option 2	The code does NOT allow roof-mounted solar PV to exceed height restrictions by a defined number.		
<b>Code Language</b>	Section: Article 2.4.b Page 2-5		
2) Shall not project more than two (2) feet above the roof line. However, the solar panel when installed shall not exceed the maximum height allowed in the Zoning District. The use of flat mount solar panels or solar shingles is preferred.			
<b>Reviewer Comments</b>	Best Practice <input type="checkbox"/>	Needs Improvement <input type="checkbox"/>	Barrier <input checked="" type="checkbox"/>
The current zoning language indicates that solar equipment shall meet the height requirements for the zone that the system is installed in.			
Height restrictions are often imposed on buildings within specific zoning districts to satisfy several planning objectives such as protection of views, controlling neighborhood character, density, and access to sunlight. In many districts, buildings, particularly those with flat rooftops, are constructed up to the maximum allowed height, thereby limiting a buildings ability to install solar unless exemptions are provided. Many local governments exempt antennas, chimneys, flagpoles, and mechanical equipment from height limits to allow for their placement and use. Since solar panels are most efficient when installed at an angle equal to a location’s latitude, local governments should consider exempting solar energy systems from height restrictions. Alternatively, local governments can permit solar energy systems to exceed the maximum building height in all applicable districts.			

Height restrictions should not be a barrier for solar energy systems on pitched or sloped roofs. Solar energy systems are usually attached at the same slope as the roof but with a few inches in between to allow for space to access wiring and to promote airflow around the panels. There should be space, usually 3 feet, between the roof peak and the edge of the panels to allow for emergency access and ventilation opportunities in case of a fire.

**Applicable SolSmart Credit: PZ-6, roof-mounted solar exemptions**

**Suggested Language**

On a pitched/sloped roof, solar energy systems shall be installed parallel to the roof surface and may not extend beyond the edge of the roof peak.

*For flat roofs, local governments can select from one of the following two options depending on how the zoning ordinance addresses the height of rooftop appurtenances, chimneys, antennas, and/or rooftop mechanical equipment.*

*1. If the ordinance exempts certain features/structures from height limits, then it is recommended that roof-mounted solar energy systems also be exempted from height limits.*

*On a flat roof, solar energy systems are exempt from zoning district height limits.*

*2. If the ordinance does not include any exemptions, then it is recommended to allow roof-mounted solar energy systems to exceed a districts height limit.*

On a flat roof, solar energy systems are permitted to exceed the zoning district height limits by up to 10 feet.

**Ground-mounted Accessory Use Solar**

The code explicitly permits accessory use ground-mounted solar PV systems as a by-right or allowed use in at least 1 zoning district.

**Code Language** | Section: Article 2.4.a.1

**a. Ground Mounted On-Site Use Solar Energy Panels**

1) Up to 1,400 square feet of ground mounted Solar Energy Panels shall be permitted to locate on a residentially-used parcel as an accessory structure.

**Reviewer Comments** | Best Practice  | Needs Improvement  | Barrier

This aligns with SolSmart best practices. Sometimes a property is not suitable for a roof-mounted solar system because the building has structural limitations, or the rooftop is shaded. In these instances, a small ground-mounted solar PV system can still allow the property owner to install solar and enjoy the benefits.

**Applicable SolSmart Credit: PZ-7, accessory use ground-mounted solar codified and allowed in at least 1 zoning district**

**Suggested Language**

N/A

**Ground-mounted Solar Setbacks**

The code contains setback standards for accessory use ground-mounted solar PV.

**Code Language** | Section: Article 2.4.a.2

**a. Ground Mounted On-Site Use Solar Energy Panels**

2) A ground mounted Solar Energy Panel shall be located in the rear yard and shall meet the rear yard setback requirements applicable in the zoning district in which the Solar Energy Panels will be located.			
<b>Reviewer Comments</b>	Best Practice <input checked="" type="checkbox"/>	Needs Improvement <input type="checkbox"/>	Barrier <input type="checkbox"/>
Accessory use ground-mounted solar energy systems should have similar setback requirements to other residential accessory use structures. These setbacks generally allow accessory structures to be built closer to a property line than primary structures. Applying less restrictive setback requirements allow a ground-mounted solar PV system to operate efficiently through appropriate sizing, optimal siting, and ensuring access to adequate sunlight. Rural communities or those with large lots can be less restrictive and allow solar energy systems to encroach into established residential accessory use setbacks.			
<b>Applicable SolSmart Credit: PZ-8, accessory use ground-mounted solar exemptions</b>			
<b>Suggested Language</b>			
N/A			

<b>Ground-mounted Solar Placement</b>			
The code contains placement standards for accessory use ground-mounted solar PV.			
<b>Code Language</b>	Section: Article 2.4.a.2		
2) A ground mounted Solar Energy Panel shall be located in the rear yard and shall meet the rear yard setback requirements applicable in the zoning district in which the Solar Energy Panels will be located.			
<b>Reviewer Comments</b>	Best Practice <input checked="" type="checkbox"/>	Needs Improvement <input type="checkbox"/>	Barrier <input type="checkbox"/>
This aligns with SolSmart best practices.			
Rural communities or those with large lots can be less restrictive and allow solar energy systems in front yards.			
<b>Suggested Language</b>			
N/A			

<b>Ground-mounted Solar Lot Coverage/Impervious Surface</b>			
The code does NOT exempt accessory use ground-mounted solar PV from lot coverage and/or impervious surface standards.			
<b>Code Language</b>	Section: Article 2.4.a.3		
3) Ground mounted Solar Energy Panels shall be regulated as an accessory structure and shall meet all applicable accessory structure requirements and limitations of the ordinance (see Section 2.03, D.) and together with all other structures on the property shall not exceed the maximum lot coverage of the zoning district. Lot coverage for solar panels shall count the square footage of the panels in the operating position.			
<b>Reviewer Comments</b>	Best Practice <input type="checkbox"/>	Needs Improvement <input type="checkbox"/>	Barrier <input checked="" type="checkbox"/>
The current zoning language indicates that ground-mounted solar energy systems are subject to lot coverage limitations. Counting solar energy systems as lot coverage could limit the installation of solar energy systems, especially if many of the current lots at or are near the maximum lot coverage allowed under the code.			
<b>Applicable SolSmart Credit: PZ-8, accessory use ground-mounted solar exemptions</b>			
<b>Suggested Language</b>			
Ground-mounted solar energy systems are exempt from lot coverage and impervious surface requirements if the area under the system contains vegetative ground cover.			

<b>Ground-mounted Solar Primary Use</b>			
The code includes standards for primary use ground-mounted solar PV.			
<b>Code Language</b>	Section: Article 8.2.a and b		
<p>2. SOLAR FARMS AND SOLAR ENERGY SYSTEMS INTERCONNECTED TO THE POWER GRID</p> <p>a. Exempt On-Site Use Solar Energy Systems (50 kW): An On-Site Use solar energy system is intended to serve primarily an individual property. On-Site Use Solar Energy Systems of less than 50 kw shall be a permitted use in all zoning classifications subject to the requirements of Article 2, Section 2.03, D. Accessory Structures, 4. On-Site Use Solar Panels.</p> <p>b. Special Use Interconnected Solar Energy Systems or Solar Energy Systems that exceed 50 kW shall only be allowed in the RM-1, RM-2, RM-3, C-1, C-2, I-1, I-2 and PUD zoning districts as a special use approved by the Planning Commission. Such systems may be a principal use. In addition to any other requirements for special use approval, Solar Energy Systems under this section are subject to the following requirement...</p>			
<b>Reviewer Comments</b>	Best Practice <input type="checkbox"/>	Needs Improvement <input checked="" type="checkbox"/>	Barrier <input type="checkbox"/>
The code allows for on-site solar energy systems that intend to serve as primary property, but solar energy systems are not defined in the code. Defining solar energy systems as including ground-mounted solar would make the allowance of ground-mounted solar for primary use more explicit and clearer in the zoning code. Please see the suggested language for definitions at the beginning of this document.			
<b>Applicable SolSmart Credits: PZ-9, primary use ground-mounted solar pathway</b>			
<b>Suggested Language</b>			
Ground-mounted solar energy system (Primary Use): A solar photovoltaic system mounted on a rack or pole that is ballasted on, or is attached to, the ground and is the primary land use for the parcel(s) on which it is located. Primary use systems are permitted through a discretionary approval process.			

### **Barrier Review**

Solar energy standards should serve to guide and enable solar development, not create ambiguity or restrict solar development. Certain design and performance standards can create significant barriers to solar PV. The inclusion of any of the following standards are not best practices and will likely impact the local government’s ability to achieve SolSmart Gold designation. The statements containing NOT align with best practices.

<b>Roof-mounted Solar Screening</b>	
The code does NOT require screening for roof-mounted solar PV systems.	
<b>Code Language</b>	Section: N/A
N/A	
<b>Reviewer Comments</b>	
It is not a best practice to require screening for roof-mounted solar energy systems. Screening requirements may increase installation costs and decrease system efficiency. Solar PV performance depends on optimal siting of the system and clear access to solar radiation. Screening requirements could negatively impact system performance if the screening results in shading. Screening requirements could also hide the location of important system components that are necessary to shut off a system in case of a fire or other type of emergency.	

<b>Limits to System Visibility</b>	
The code includes standards to limit system visibility (e.g. not visible from public rights of way).	
<b>Code Language</b>	Section: Article 2.4.a.6
6) There shall be greenbelt screening around any ground mounted Solar Energy Panels and equipment associated with the system to obscure, to the greatest extent possible, the Solar Energy Panels from any adjacent residences. The greenbelt shall consist of shrubbery, trees, or other non-invasive, plant species that provide a visual screen. In lieu of a planting greenbelt, a decorative fence (meeting the requirements of this Ordinance applicable to fences) may be used.	
<b>Reviewer Comments</b>	
It is not a best practice to prohibit solar energy systems [on the street-facing side of a building] or [from being visible from public rights-of-way] or [from public view] or [from being visible from neighboring/adjacent properties]. In fact, it could severely limit where solar energy systems are installed. Solar PV performance depends on panel location with the best performance occurring when panels are located on a southerly exposure. Less than optimal siting for solar panels can decrease the amount of sunlight a system receives and thereby negatively impact performance.	
[The standard also appears subjective since there is no defined guidance on “least visibly obtrusive location” and “functional”. If a house faces south towards the principal street, the least visibly obtrusive location would be the north-facing rear roof. While the panels would still be functional, their performance would be severely restricted since system performance depends on panel location, with the best performance occurring when panels are located on a southerly exposure.]	

<b>Aesthetic Standards</b>	
The code does NOT include aesthetic standards for solar PV systems.	
<b>Code Language</b>	Section: N/A
N/A	
<b>Reviewer Comments</b>	
It is not a best practice to require systems to [blend into the architecture of the structure] or [be camouflaged from public view] or [be consistent with the color of roofing materials or architecture] or [be painted to match the color schemes or the building or structure] or [be constructed of dull or dark colors] or [be non-reflective]. Aesthetic requirements can increase installation costs but would most likely prohibit a solar energy system from being installed since key system components like solar panels cannot be altered or painted to blend into the architecture or color scheme of a building. Aesthetic requirements could also hide the location of important system components that are necessary to shut off a system in case of a fire or other type of emergency.	

<b>Glare, Glint, and/or Noise Standards</b>	
The code does NOT include glare, glint, and/or noise standards for solar PV systems.	
<b>Code Language</b>	Section: N/A
N/A	
<b>Reviewer Comments</b>	
It is not a best practice to require a glare study prior to the installation of a solar energy system. Solar PV panels are designed to absorb incoming solar radiation and limit the amount of reflected light. Solar panels are designed with anti-reflective glass. A glare study will increase installation costs	
It is not a best practice to suggest the placement of solar panels should be done to [reduce] or [minimize] glare. In fact, it could severely limit where solar energy systems are installed. Solar PV	

performance depends on panel location with the best performance occurring when panels are located on a southerly exposure. Less than optimal siting for solar panels can decrease the amount of sunlight a system receives and thereby negatively impact performance. Additionally, solar PV panels are designed to absorb incoming solar radiation and limit the amount of reflected light. Solar panels are designed with anti-reflective glass.

[The glare from a solar panel is similar to that of smooth water.](#) A glare study is recommended if solar panels will be sited close to an airport but otherwise the analysis is usually unnecessary, adding time and cost to a project.

It is not a best practice to [require an acoustic study] or [have maximum level of noise the system can produce]. Roof-mounted solar energy systems produce very minimal noise. An acoustic study will increase installation costs.

### Roof Space Coverage Limit

The code does NOT limit solar PV system coverage to a percentage/part of the available roof space.

<b>Code Language</b>	Section: N/A
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N/A

### Reviewer Comments

It is not a best practice to limit the coverage of a roof-mounted solar energy system. All buildings should have the opportunity to install a roof-mounted solar energy system to the maximum extent possible, so long as the roof is structurally capable of holding the load and applicable emergency access requirements are maintained. Maximizing a solar PV systems roof coverage is important goal since buildings are transitioning to electric appliances and systems and incorporating electric vehicle charging equipment.

### Prohibition on Flat or Low Sloped Roofs

The code does NOT prohibit solar PV systems on flat or low sloped roofs.

<b>Code Language</b>	Section: N/A
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N/A

### Reviewer Comments

It is not a best practice to prohibit solar energy systems on flat or low sloped roofs. All buildings should have the opportunity to install a roof-mounted solar energy system regardless of roof slope, so long as the roof is structurally capable of having a solar energy system. Many buildings with flat roofs like warehouses, data centers, distribution centers, and big box retail stores are excellent candidates for roof-mounted solar energy systems.

### Limits on Electricity Production

The code does NOT include limits on how much electricity a solar PV system can produce.

<b>Code Language</b>	Section: N/A
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N/A

### Reviewer Comments

It is not a best practice to include limits on the amount of electricity a solar energy system can produce. Regulations and policies like this are normally set by a state entity (Public Utility Commission/Public Service Commission) and/or local electric utility and are not appropriate for zoning codes.



<b>Limits on Electricity Consumption</b>	
The code does NOT include limits on where a solar PV system's energy is consumed.	
<b>Code Language</b>	Section: N/A
N/A	
<b>Reviewer Comments</b>	
It is not a best practice to include limits on where a solar energy system's electricity can be consumed. Regulations and policies like this are normally set by a state entity (Public Utility Commission/Public Service Commission) and/or local electric utility and are not appropriate for zoning codes.	

<b>Discretionary Review Process</b>	
The code does NOT identify a discretionary review process for accessory use solar PV.	
<b>Code Language</b>	Section: N/A
N/A	
<b>Reviewer Comments</b>	
<p>It is not a best practice to have a discretionary review process for accessory use solar PV. This has the potential to be an onerous and/or subjective process for roof-mounted solar energy systems and could increase a project's timeline and costs. Roof-mounted systems should be an allowed or by-right use and only need to go through the building permit process to ensure compliance with applicable building and electrical codes.</p> <p>[The zoning code indicates small solar energy systems are permitted as a conditional use in all zoning districts. Depending on the complexity of the conditional use permit process, the time it takes to permit a small solar energy system may increase the cost of the project and therefore decrease the ability of all residents and business to be able to access and afford solar. Permitting solar energy systems as a permitted use in all zoning districts can improve equitable access to solar by reducing installation time and costs.]</p> <p>[In addition to the need for building and electrical permits, roof-mounted solar energy systems also require a zoning certificate. It would be helpful to understand the complexity of the zoning approval process (what is required for the submission, what details are evaluated), timeline for approval for solar panels, and why the certificate is needed.]</p>	

**Additional Notes**

<p>The Kalamazoo Township Zoning Code provides some standards for the development of solar energy. The code could be enhanced by adding additional definitions for various types of solar systems, exemptions or an allowance to exceed a districts height requirement, less restrictive landscaping requirements, and greater clarity for large-scale ground-mounted systems.</p> <p>Many communities contain historic properties and historic districts with different jurisdictions and design standards that aim to preserve a community's character and heritage. These properties and districts are often regulated by specific design guidelines from the applicable authority having jurisdiction such as federal, state, or local. The design guidelines outline how a historic property may be modified and the process to gain approval for the modifications. These guidelines can include the best methods to incorporate a solar energy system on the building or property while maintaining the historical nature of the structure and surrounding neighborhood. Additional guidance can be found in</p>
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[The Secretary of the Interior’s Standards for Rehabilitation & Illustrated Guidelines on Sustainability for Rehabilitating Historic Buildings](#) – Solar Technology.

- [Installing Solar Panels on Historic Buildings](#) – Section 3: Public Policy Framework for Historic Preservation – 3.8 Sample Design Principals (pg. 15-16)

Please see [Best Practice Guidance for Solar and Zoning - Accessory Use](#) for additional recommendations.

I, [full name] as [title] of Lansing, MI, have received the zoning review and read its findings.

Signature: \_\_\_\_\_

Date: \_\_\_\_\_

**Please note that this review is not an endorsement or recommendation for changing and/or updating the zoning code. This is an informational review only.**

**If the local government has clarifying comments, please provide them in a memo to the SolSmart team.**



# Memorandum

**TO:** Kalamazoo Charter Township Planning Commission

**FROM:** Danielle Bouchard, AICP, Senior Planner

**SUBJECT:** Site Plan Review – Kalsec Expansion 3713 W. Main Street

**DATE:** December 27, 2022

The applicant, Kalsec, is seeking site plan approval to amend the existing planned unit development (PUD) and construct a new building on the site and an expansion of an existing building located at 3713 W. Main Street.

## OVERVIEW

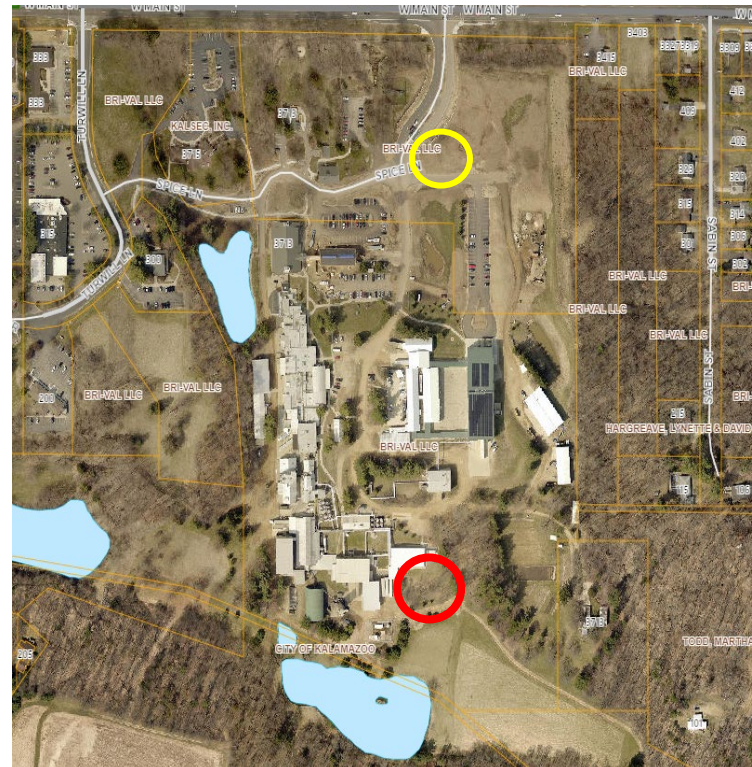
The applicant is proposing to construct:

- A building expansion approximately 12,864 square feet in size
- A new building approximately 254 square feet in size

The building expansion is intended for a warehouse and CO2 extraction (in the red circle area on the image to the right). The new building is intended for a new security guard shack located on the north side of the existing site (the yellow circle area on the image to the right).

We understand that in 2020, the applicant pursued approval for various site improvements to the 3713 W. Main Street location. As such, a condition of approval included the construction of a new sidewalk along W. Main. To date, the sidewalk has **not** been constructed. Although, the applicant has indicated that plans for the new sidewalk are underway. We defer to the applicant to provide a schedule of proposed construction of the required sidewalk.

We defer to the Planning Commission to determine whether the sidewalk shall be a condition of this approval, or if the applicant shall be required to construct the required sidewalk prior to any new approvals or improvements taking place on the site.





## PROPOSED IMPROVEMENTS

As stated above, the applicant is proposing a 12,864 square foot extension to building 401 at the existing Kalsec facility. Further, the applicant is proposing an additional building to the site, of approximately 254 square feet in size. The location of the proposed 12,864 square foot addition is on the south side of existing building 401.

Further, proposed improvements include a concrete area surrounding the proposed building addition, as well as two 750-gallon septic tanks.

## USE OF THE PROPERTY

The property is currently zoned PUD, planned unit development. Ordinance Article 21.00 discusses details related to PUDs in the Township. The overall intent of the PUD District is to:

*“...provide a degree of flexibility so as to achieve development that is in accord with the Township’s Master Plan; economy and efficiency in the use of land, natural resources, energy, and in the provision of public services and utilities; useful open space particularly suited to the proposed development; conservation of natural features; and, development that satisfies the needs of Township residents.”*

Further, Section 26.04 discusses the review and approval requirements relating to the PUDs in the Township.

## SITE PLAN REVIEW

The Schedule of Regulations: Section 21.03.D, includes the following provisions:

Regulation	PUD	Site Plan Conditions	Compliance with Ordinance Standards
Front Yard Setback	50 ft.	1,427 ft.	Yes
Side Yard Setback	40 ft.	406 ft.	Yes
Rear Yard Setback	40 ft.	~173 ft.	Yes
Maximum Lot Coverage	60%	~5%	Yes
Building Height (addition)	35 ft.	>35 ft.	No
Building Height (new building)		~13'5"	Yes

Due to the non-compliant nature of the proposed building expansion, the applicant has applied for a variance from the Kalamazoo Township Zoning Board of Appeals for the proposed building height.

### Off-Street Parking

Parking requirements are regulated by Section 4.01(D)(6) of the Township Zoning Ordinance. The following table provides analysis of the required off-street parking per ordinance and the existing parking conditions at 3713 W. Main.

Regulation Type: Off Street Parking	Required	Site Plan Conditions	Compliance with Ordinance Standards
General Industrial or Manufacturing Uses	1 space per 750 sq. ft. of gross floor area	190 spaces	Yes

A site visit conducted on November 16, 2022 concluded that much of the current paved parking spaces on the site are underutilized. Further, many employees tend to park in spaces not designated specifically for parking, along the site’s internal gravel drives.



Section 21.05.D notes the following:

*The planned unit development shall be designed to minimize the impact of traffic generated by the proposed development on surrounding uses. In determining whether this requirement has been met, consideration shall be given to:*

1. *Access to major thoroughfares.*
2. *Estimated traffic to be generated by the proposed development and the potential increase in traffic congestion.*
3. *Proximity and relation to intersections.*
4. *Adequacy of driver site distances.*
5. *Location of and access to off-street parking.*
6. *Required vehicular turning movements.*
7. *Provisions for pedestrian traffic.*
8. *Proposals to alleviate traffic congestion, traffic safety concerns, and other traffic impacts.*

The applicant has provided written statement that increased traffic is not anticipated as a result of the proposed building expansion, due to the warehousing nature of the expansion. However, site plans note that the existing gravel area surrounding Building 401 will be expanded to accommodate truck traffic patterns. We defer to the applicant to provide additional detail on the anticipated truck traffic.

### **Landscaping**

The Zoning Ordinance provides landscaping and open space standards pertaining to PUDs in the Township. It is not likely that the proposed building expansion and construction of new security guard shack will have an affect on existing site operations, or to adjacent sites. Therefore, we do not recommend additional landscaping above and beyond current landscaping conditions.

### **Lighting**

No new lighting is proposed as a component of the proposed site plan. If the applicant plans to implement new light fixtures, a lighting plan shall be submitted to the Township Planning & Zoning staff for review.

### **Site Circulation**

As previously stated, the Planning Commission shall determine if the required sidewalk along W. Main shall be a condition of this site plan approval, or if the construction of the sidewalk shall be complete prior to this approval.

The proposed building addition will include a gravel driveway connecting the new addition to the existing gravel drive. Section 2.20.D.4 states internal circulation routes intended for trucks shall be a minimum of 31 feet wide. Internal circulation routes not intended for truck traffic shall be a minimum of 24 feet wide. Existing conditions note the internal circulation route is approximately 17 feet wide. Given the PUDs previous approval, we are not recommending expansion of the internal gravel drive. However, we defer to the Township Fire Marshal for comment on the internal gravel drive width for safety vehicle access.

Site plans note a new gravel area surrounding the proposed building expansion. The existing gravel drive is planned to be extended to accommodate truck movement pattens. We defer to the Township Engineer for comment on the proposed expanded gravel area.



The proposed building addition also includes one loading dock. The proposed loading area location and corresponding dimensions of the loading area shall be included on site plans.

**Signage**

Signage is not proposed as a component of this site plan review. Administrative review of site signage can be conducted at a later date. Signage shall require a separate review and approval by Kalamazoo Township planning and zoning.

**Trash Disposal**

Section 2.22 outlines the requirements for trash removal and collection. The applicant notes the no new trash receptacles will be part of the project.

**Other Agency Reviews**

Additional reviews conducted by the Township’s Fire Marshal and Engineer will be provided as a separate document as soon as available.

**Other PUD Requirements**

The Township Zoning Ordinance Section 26.04 outlines the requirements for modifications to an existing PUD. We find that the proposed improvements will not largely affect the current character or use of the site, nor affect surrounding properties. Standards set forth for a “Phase 2 Final Review and Recommendation” (Section 26.04.F) will be utilized for this review and approval process.

However, a PUD Agreement is now required by Township Zoning Ordinance. To continue the Township’s longstanding partnership with Kalsec, we are not requiring a PUD Agreement to be put into place at this time. Section 26.04.L.5 describes the information that shall be included in PUD Agreements. If such Agreement has already been put into effect, the applicant shall obtain a copy of the Agreement and submit to the Township to keep for file. We defer to the applicant to consult with their attorneys if a PUD Agreement is advised at this time.

**RECOMMENDATIONS**

Based on the submitted site plan, dated December 15, 2022, we recommend approval of the proposed site plan for the 12,864 square foot expansion of building 401 and the construction of the new 254 square foot guard shack located at 3713 W. Main, the Kalsec planned unit development; pending a favorable review from the Township Engineer and safety personnel.

Please feel free to reach out to Danielle Bouchard, AICP at [dbouchard@mcka.com](mailto:dbouchard@mcka.com) if you have any questions regarding this review.

Respectfully Submitted,

**McKenna**

Danielle Bouchard, AICP  
Senior Planner

December 19, 2022

Kalamazoo Charter Township  
Planning and Zoning  
[planner@ktwp.org](mailto:planner@ktwp.org)  
1720 Riverview Drive  
Kalamazoo, MI 49004

Re: Site Plan Review Response  
Kalsec Building 401 Expansion  
3713 W. Main Street, Kalamazoo, MI

To whom it may concern,

Site Plan Review comments were received for Kalsec Building 401 Expansion and new proposed guard shack. Our responses to indicated items can be found below.

Comments received from McKenna dated November 18, 2022 are as follows;

- 1) A detailed use statement for the building #401 expansion.

**Byce Response:** Building 401 will be a warehouse and CO2 extraction building.

- 2) The location of the proposed guard shack as it relates to the entire site.

**Byce Response:** Please refer to sheet C200 – Overall Site Plan for location of guard shack.

- 3) The required sidewalk along W. Main shall be added to site plans.

**Byce Response:** Please refer to sheet C200 – Overall Site Plan for location of proposed sidewalk.

- 4) Details on the current number of parking spaces shall be provided on site plans.

**Byce Response:** Current parking count has been provided to the plans and is expected to be sufficient for any increased parking requirements. Please refer to notes on Sheet C200 – Overall Site Plan.

- 5) A detailed statement as it relates to the anticipated impact on traffic generated by the proposed building expansion.

**Byce Response:** No increased traffic flow with the expanded building.

- 6) Lighting details – if applicable.

**Byce Response:** No new exterior lighting is planned on site or building as part of the addition other than a small, low hanging light at each of the two exit doors.

- 7) Trash disposal details – if applicable.

**Byce Response:** No new trash receptacles will be part of the project.

- 8) All requirements as noted by the Township Fire Marshal and Township Engineer shall be included on site plans.

**Byce Response:** Will comply.

- 9) A variance application for the proposed >35 ft. tall building expansion shall be submitted to the Township.

**Byce Response:** Variance application has been submitted to the Zoning Board of Appeals and is pending approval.

- 10) If a PUD Agreement is advised by the applicant's legal counsel, the agreement shall be submitted to the Township for review and File.

**Byce Response:** Will comply.

McKenna has also noted that the Planning Commission shall determine if the required sidewalk along W. Main will be a condition of site plan approval, or if the construction of the sidewalk shall be completed prior to approval. Byce & Associates, Inc. understands this.

Comments received from Prein & Newhof dated November 23, 2022 are as follows;

### **Grading**

- 1) Provide gravel drive widths

**Byce Response:** Gravel drive width dimensions have been added to the plan for both existing and proposed gravel drives.

- 2) Provide new storm calculations for the new impervious area being added to the site



**Byce Response:** Refer to Stormwater Management Design Package and summary on C410 – Enlarged Utility Plan.

### Drainage

- 1) Provide new storm calculations for the new impervious area being added to the site.

**Byce Response:** Please refer to Stormwater Management Design Package.

- 2) Provide existing and additional storm capacity.

**Byce Response:** Existing storm capacity has been calculated for Limits of Disturbance and historical data regarding existing site storage capacity was tracked down from a January 2019 survey.

### Soil Erosion Control

- 1) Provide locations of silt fence installation.

**Byce Response:** Silt fence limits have been added to C310 – Enlarged Site, Grading, & SESC Plan

### Water Main

- 1) Provide size of all watermain and water services.

**Byce Response:** Known existing water main sizes and all proposed water main sizes have been added to the plans. Refer to C410 – Enlarged Utility Plan.

- 2) Hydrants and service connections must meet City of Kalamazoo Specifications. The proposed connection shall be coordinated with the City of Kalamazoo Department of Public Services – Steve Skalski (269) 337-8601

**Byce Response:** Please refer to Notes 7,8, and 9 on C410 – Enlarged Utility Plan. Existing fire hydrant is no longer being relocated.

- 3) Watermain is proposed under building foundations

**Byce Response:** Acknowledged, however no watermain is proposed under building foundations. Please refer to Sheet C410 – Enlarged Utility Plan.

### Sanitary Sewer

- 1) Two 750 gallon septic tanks are proposed for separate domestic and process sanitary. What is the purpose of this?

**Byce Response:** The septic tanks are an additional measure that Kalsec uses on all their buildings as a precautionary measure for unforeseen spill containment from spice extraction processes.

- 2) Ensure the existing septic tank at the receiving office is not damaged or disturbed with the proposed building construction.

**Byce Response:** No proposed change to existing septic tanks near receiving office.

- 3) Provide labels for existing and proposed sanitary sewer and proposed structures are labeled properly.

**Byce Response:** Please refer to Sheet C410 – Enlarged Utility Plan.

- 4) Note: the amount of utilities placed under building foundations is not advised, but not a requirement for approval.

**Byce Response:** Acknowledged, however there is only one sanitary line proposed under building foundations to connect to existing system.

We look forward to obtaining Site Plan approval.

Sincerely,

BYCE & ASSOCIATES, INC.

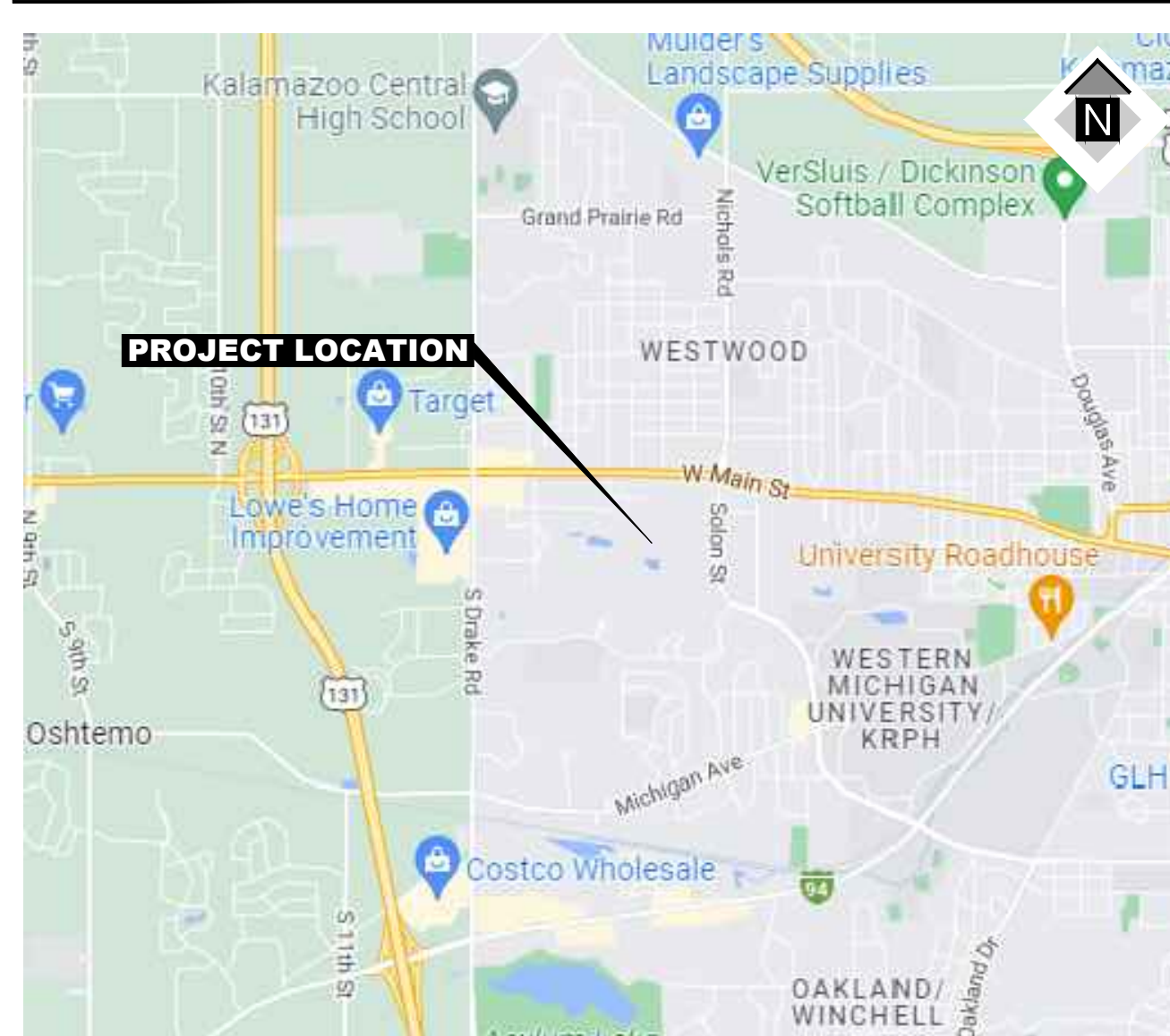
Maghan Homan  
Civil Engineer

c: file

# Building 401 Addition for: **KALSEC**

3713 WEST MAIN STREET · KALAMAZOO, MICHIGAN 49005

**VICINITY MAP**



**OVERALL SITE PLAN**



**PROJECT INFORMATION**

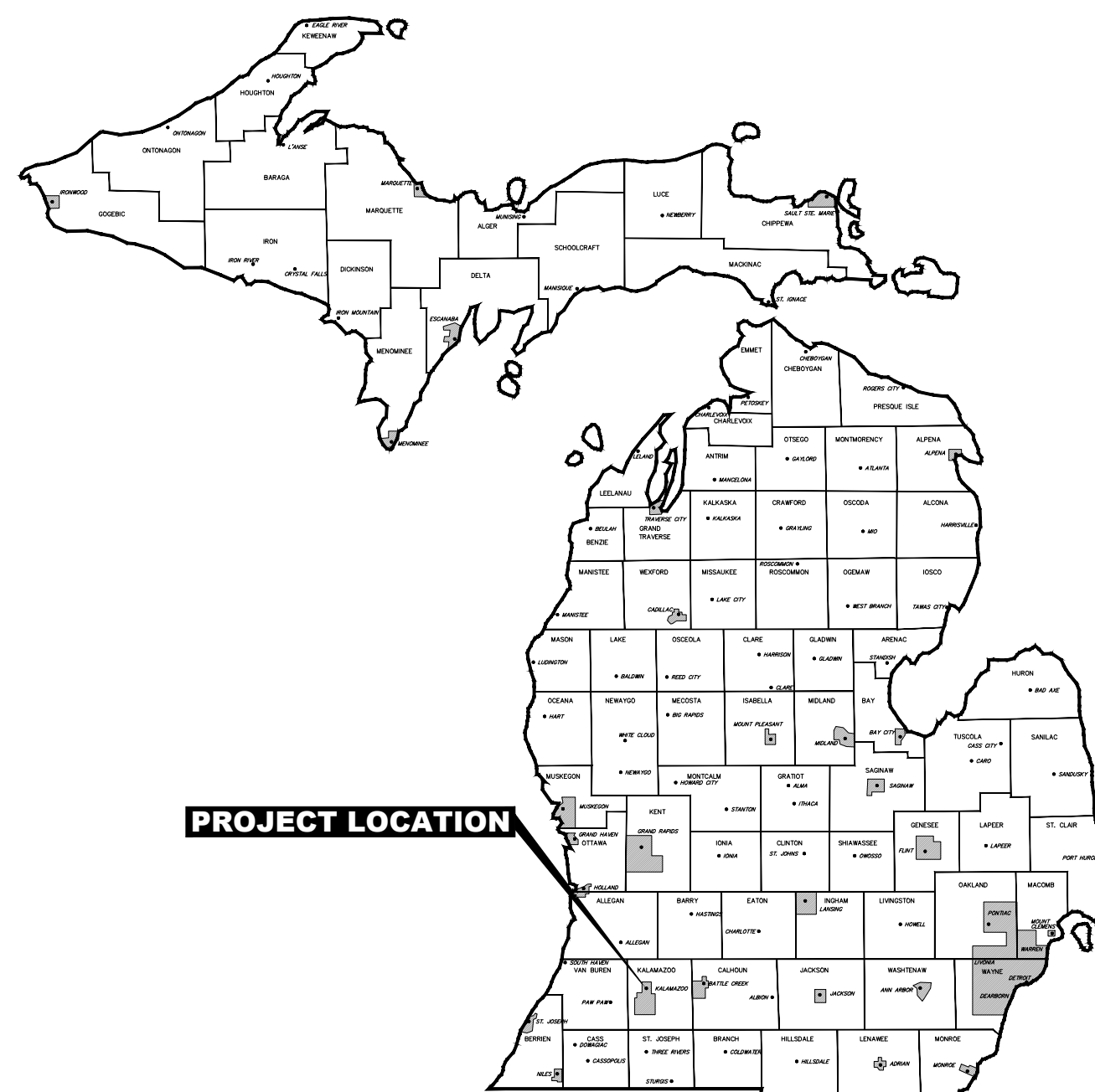
**OWNER:**  
 Kalsec

**SITE ADDRESS:**  
 3713 West Main Street  
 Kalamazoo, MI 49005

**LEGAL DESCRIPTION:**

1024540 3906 18 415 016 SEC 18-2-11 COM AT THE E 1/4 COR OF SEC 18 TH N 89 DEG 16 MIN 41 SEC W 967.3 FT ALG THE E & W 1/4 LI OF SD SEC TO A PT 1683.6 FT E OF THE C 1/4 POST OF SD SEC TH S 00 DEG 06 MIN 41 SEC E 1411 FT TO POB TH CONT S 00 DEG 06 MIN 41 SEC E 457.10 FT TH S 89 DEG 53 MIN 19 SEC W 299.84 FT TO THE NLY LI OF THE CITY OF KALAMAZOO ROW AS RECD IN LIBER 788 ON PAGE 1556 TH N 53 DEG 19 MIN 36 SEC W 81.70 FT ALG SD NLY LI TH N 69 DEG 47 MIN 30 SEC W 657.06 FT ALG SD NLY LI TO THE E LI OF PROPERTY DESC IN DEED RECD IN LIBER 1059 ON PAGE 1450 TH N 324.55 FT ALG SD E LI TO THE SE COR OF BRIARWOOD VALLEY #1 PLAT AS RECD IN LIBER 32 ON PAGE 1 TH N 4 DEG 58 MIN 37 SEC W 339.68 FT ALG THE E LI OF SD PLAT TH N 29 DEG 31 MIN W 450 FT ALG SD E PLAT LI TH N 52 DEG 05 MIN 55 SEC W 84.73 FT ALG SD E PLAT LI TH N 00 DEG 03 MIN E 164 FT ALG SD E PLAT LI TH N74 DEG 01 MIN 23 SEC E 34.76 FT ALG SD E PLAT LI TH S 8 DEG 51 MIN 30 SEC E 65.20 FT ALG SD W LI TH S 27 DEG 36 MIN 42 SEC E 45.28 FT ALG SD W LI TH S 32 DEG 39 MIN 50 SEC E 19.28 FT ALG SD W LI TH S 40 DEG 40 MIN 54 SEC E 106.77 FT ALG SD W LI TO THE S LI OF SD PROP TH N 84 DEG 02 MIN 42 SEC E 201.74 FT ALG SD S LI TH S 6 DEG 31 MIN 29 SEC E 54.92 FT TH S 89 DEG 16 MIN 41 SEC E 621.79 FT PAR WITH SD E & W 1/4 LI TH S 00 DEG 08 MIN 37 SEC W 240.01 FT TH S 89 DEG 16 MIN 41 SEC E 383.62 FT PAR WITH SD 1/4 LI TO THE W LI OF THE E 7 1/2 OF THE W 1/2 OF THE NE 1/4 OF SD SE 1/4 TH S 00 DEG 22 MIN 54 SEC E 610.07 FT ALG SD W LI THE S 89 DEG 53 MIN 19 SEC W 61.16 FT TO POB. 28 A MOL

**MICHIGAN LOCATION MAP**



**DRAWING LIST**

- G001 Cover Sheet
- Survey (By Others)
- CIVIL
  - C110 Enlarged Demolition Plan
  - C200 Overall Site Plan
  - C310 Enlarged Site, Grading & SESC Plan
  - C410 Enlarged Utility Plan
  - C600 Details
  - C610 Details
- ARCHITECTURAL
  - A210 First Floor Plan
  - A215 Mezzanine Plan
  - A310 Roof Plan
  - A600 Exterior Elevations
  - A601 Exterior Elevations

Building 401 Addition for:  
**KALSEC**  
 3713 WEST MAIN STREET · KALAMAZOO, MICHIGAN 49005

19100212  
 2022.12.19 SITE PLAN APPROVAL  
**COVER SHEET**

H:\19100212 Kalsec Building 401\Drawings\BCH-54-212.dwg last saved 12-15-2022  
 Plotted Mon, 12-19-2022 at 8:17am by maghan.homan

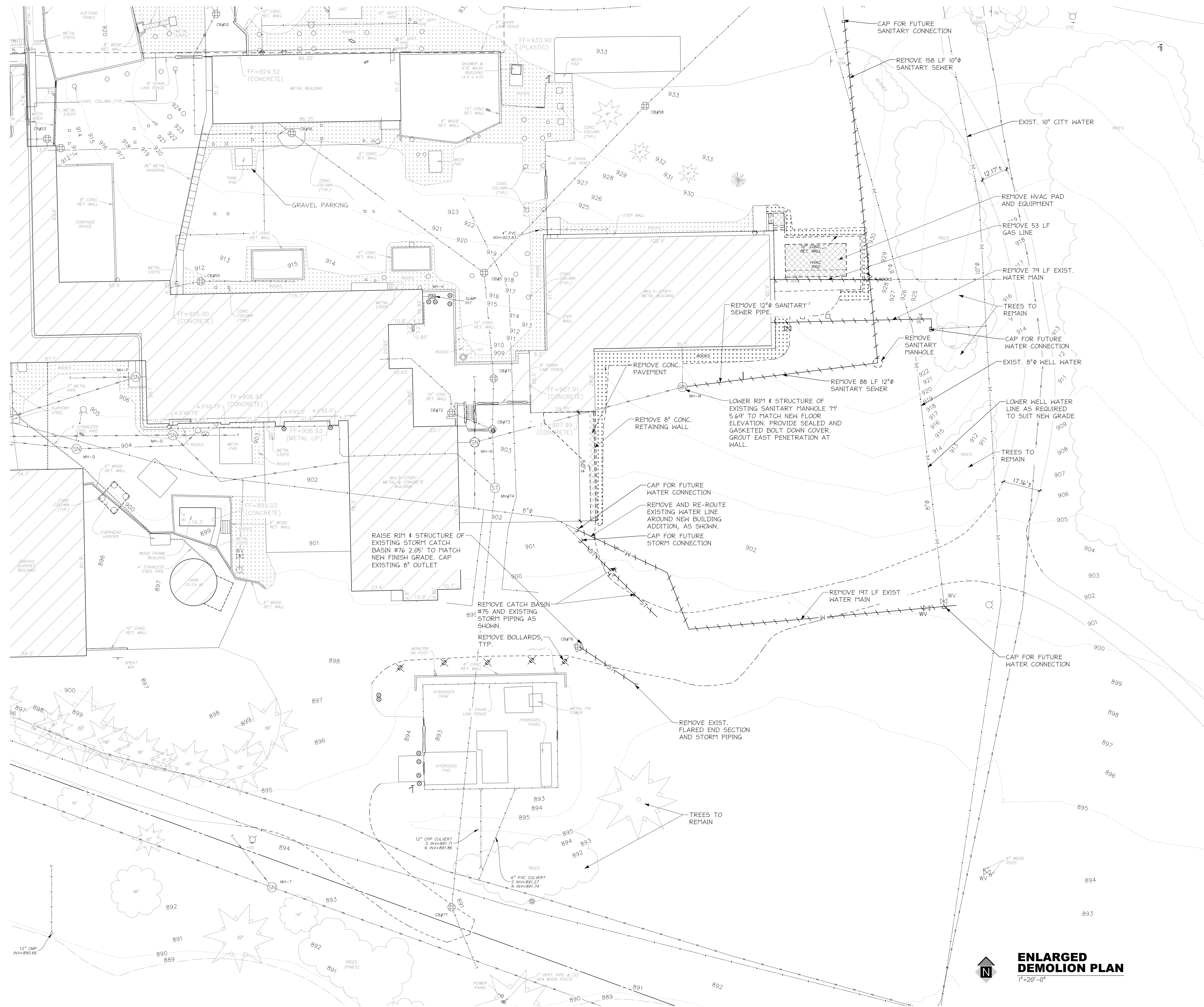
**DEMOLITION NOTES:**

- UTILITIES & CONSTRUCTION TO COMPLY WITH REQUIREMENTS OF LOCAL AND STATE AUTHORITIES HAVING JURISDICTION.
- CONTRACTOR SHALL OBTAIN ALL NECESSARY PERMITS PRIOR TO START OF WORK. OBTAIN PART 91 SOIL EROSION & SEDIMENTATION CONTROL PERMIT AND MAINTAIN COPY ON SITE AT ALL TIMES.
- HOOK-UP AND TIE IN TO EXISTING UTILITIES TO MEET LOCAL REQUIREMENTS FOR EACH UTILITY INVOLVED: WATER, SEWER, STORM, GAS, ELECTRIC, PHONE, ETC..
- VERIFY EXISTING SITE CONDITIONS AND FIELD VERIFY ALL DIMENSIONS.
- FURNISH ALL EQUIPMENT, MATERIALS, LABOR AND SERVICES NECESSARY TO COMPLETE ALL SITE DEMOLITION REQUIRED.
- NOTATIONS ARE MADE IN VARIOUS PLACES ON THE DRAWINGS TO CALL ATTENTION TO DEMOLITION WHICH IS REQUIRED; HOWEVER, THESE DRAWINGS ARE NOT INTENDED TO SHOW EACH AND EVERY ITEM TO BE REMOVED. THE CONTRACTOR AND THE SUBCONTRACTORS FOR THE VARIOUS TRADES SHALL REMOVE THE MATERIALS RELATED TO THEIR RESPECTIVE TRADES AS REQUIRED TO PERMIT THE CONSTRUCTION OF THE NEW WORK AS SHOWN.
- PROTECT ALL EXISTING WORK WHICH IS TO REMAIN AND RESTORE IN AN APPROVED MANNER ANY SUCH WORK WHICH BECOMES DAMAGED.
- RUBBISH AND DEBRIS RESULTING FROM THE WORK SHALL BE REMOVED IMMEDIATELY FROM THE SITE BY THE CONTRACTOR.

Building 401 Addition for:  
**KALSEC**  
3713 WEST MAIN STREET · KALAMAZOO, MICHIGAN 49005

2022.12.19 - SITE PLAN APPROVAL  
**ENLARGED DEMOLITION PLAN**

19100212  
**C110**



**LEGEND:**

- PROPERTY LINE
- PROPERTY LINE OTHERS
- BUILDING SETBACK
- RIGHT OF WAY (R.O.W.)
- ⊙ EXISTING POWER POLE
- ⊕ EXISTING CURB INLET
- EXISTING MANHOLE
- ⊙ EXISTING YARD LIGHT
- ⊕ EXISTING HYDRANT
- ⊕ EXISTING SIGN
- EXISTING TREE LINE
- UTILITIES TO BE REMOVED
- EXISTING FENCE
- ⊗ ITEMS TO BE REMOVED
- ⊗ REMOVE GRAVEL
- ⊗ REMOVE CONCRETE
- EXISTING CONTOUR
- EXISTING STORM
- EXISTING WATER MAIN

**ENLARGED DEMOLITION PLAN**  
1"=20'-0"

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**SITE NOTES:**

1. CONSTRUCTION TO BE IN COMPLIANCE WITH REQUIREMENTS OF STATE AND LOCAL AUTHORITIES HAVING JURISDICTION.
2. CONTRACTOR SHALL OBTAIN ALL REQUIRED PERMITS PRIOR TO START OF WORK.
3. VERIFY ALL EXISTING SITE CONDITIONS AND FIELD VERIFY ALL DIMENSIONS.
4. ANY DISCREPANCIES BETWEEN FIELD SITE CONDITIONS AND PLANS SHALL BE REPORTED TO THE PROJECT MANAGER IMMEDIATELY.
5. ALL CONSTRUCTION DETAILS ILLUSTRATED ON DETAIL SHEETS SHALL BE APPLIED TO PROPOSED WORK SCOPE, AS APPLICABLE.
6. SITE PROJECT SCOPE TO INCLUDE DEMOLITION ACTIVITY, AS REQUIRED TO FACILITATE CONSTRUCTION OF PROPOSED WORK.
7. CONTRACTOR SHALL PROVIDE AS-BUILT DOCUMENTATION OF ALL WORK TO PROJECT MANAGER UPON PROJECT COMPLETION.
8. KNOX BOX SIZE SHALL BE A "3200" SERIES OR LARGER. VAULT SHALL BE MOUNTED UNOBSTRUCTED AND VISIBLE APPROXIMATELY FIVE FEET (60") FROM GROUND LEVEL NEAR A MAIN ACCESS DOOR. DEVICES MAY ONLY BE PURCHASED AT [HTTPS://WWW.KNOXBOX.COM](https://www.knoxbox.com).
9. FIRE DEPARTMENT CONNECTIONS (FDC) SHALL HAVE KNOX 5" LOCKING STORZ FDC PLUGS MODEL 5602.



**SITE DATA:**

ZONING:	PUD - PLANNED UNIT DEVELOPMENT
UNDERLYING DISTRICT:	AG - AGRICULTURAL
PARCEL ID:	06-18-415-016
PARCEL AREA:	23.80 ACRES (1,036,728 SF)
DEVELOPMENT AREA:	1.69 ACRES (73,614 SF)
TOTAL PUD AREA:	133 ACRES
DIMENSIONAL SETBACKS:	
PERIMETER ALONG PUBLIC ROAD:	50 FT
PERIMETER NOT ALONG ROAD:	40 FT
ALONG INTERNAL/LOCAL ROAD:	50 FT
BETWEEN PARKING LOT & PROPERTY LINE:	
ADJACENT TO ROAD:	50 FT
NOT FRONTING ON ROAD:	20 FT
MAX. BUILDING HEIGHT:	35 FT*
*VARIANCE APPLICATION PENDING APPROVAL FOR 52 FT HEIGHT PROPOSED.	
APPROVED EXIST. NEARBY SILO:	60+ FT HT.
BUILDING 401 ADDITION:	
ADDITIONAL BUILDING COVERAGE:	12,864 SF
NUMBER OF STORIES:	1
PARKING:	
EXISTING PARKING:	190 SPACES
REQUIRED PARKING:	1 SPACE PER 750 SF GFA 17 SPACES

**LEGEND:**

---	PROPERTY LINE
- - - - -	BUILDING SETBACK
- - - - -	RIGHT OF WAY (ROW)
[Pattern]	NEW CONCRETE
[Pattern]	NEW BITUMINOUS
[Pattern]	NEW HEAVY DUTY BITUMINOUS
[Pattern]	NEW GRAVEL
[Pattern]	INTERIOR LANDSCAPING
- - - - -	ITEMS PLANNED FOR FUTURE
---	FENCE
⊕	POWER POLE
⊙	EXISTING POWER POLE
○	MANHOLE / CATCH BASIN
• c.o.	CLEANOUT
⊕	EXISTING MANHOLE
⊕	EXISTING STORM CATCH BASIN
⊕	EXISTING ROUND STORM CATCH BASIN
⊕	HYDRANT
⊕	GATE VALVE
⊕	EXISTING WATER VALVE
⊕	EXISTING WATER MANHOLE
⊕	EXISTING LIGHT POLE
⊕	EXISTING YARD LIGHT
⊕	SIGN
⊕	EXISTING SIGN
⊕	EXISTING POWER POLE

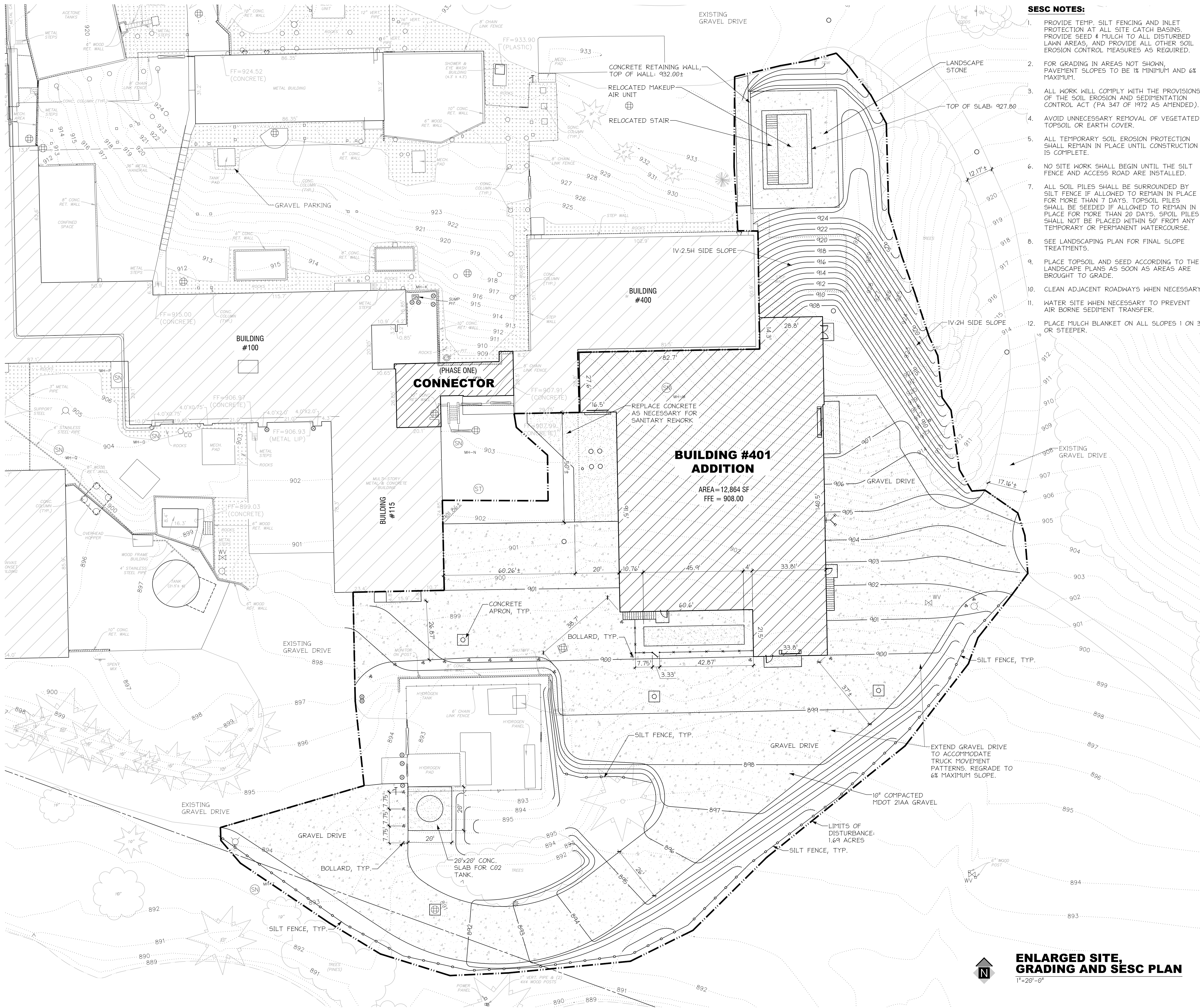
**OVERALL SITE PLAN**  
1"=80'-0"

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**BYCE**  
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Building 401 Addition for:  
**KALSEC**  
 3713 WEST MAIN STREET · KALAMAZOO, MICHIGAN 49005

19100212  
**C200**  
 2022.12.15 SITE PLAN APPROVAL  
**OVERALL SITE PLAN**



**SESC NOTES:**

1. PROVIDE TEMP. SILT FENCING AND INLET PROTECTION AT ALL SITE CATCH BASINS. PROVIDE SEED & MULCH TO ALL DISTURBED LAWN AREAS, AND PROVIDE ALL OTHER SOIL EROSION CONTROL MEASURES AS REQUIRED.
2. FOR GRADING IN AREAS NOT SHOWN, PAVEMENT SLOPES TO BE 1% MINIMUM AND 6% MAXIMUM.
3. ALL WORK WILL COMPLY WITH THE PROVISIONS OF THE SOIL EROSION AND SEDIMENTATION CONTROL ACT (PA 347 OF 1972 AS AMENDED).
4. AVOID UNNECESSARY REMOVAL OF VEGETATED TOPSOIL OR EARTH COVER.
5. ALL TEMPORARY SOIL EROSION PROTECTION SHALL REMAIN IN PLACE UNTIL CONSTRUCTION IS COMPLETE.
6. NO SITE WORK SHALL BEGIN UNTIL THE SILT FENCE AND ACCESS ROAD ARE INSTALLED.
7. ALL SOIL PILES SHALL BE SURROUNDED BY SILT FENCE IF ALLOWED TO REMAIN IN PLACE FOR MORE THAN 7 DAYS. TOPSOIL PILES SHALL BE SEED IF ALLOWED TO REMAIN IN PLACE FOR MORE THAN 20 DAYS. SPOIL PILES SHALL NOT BE PLACED WITHIN 50' FROM ANY TEMPORARY OR PERMANENT WATERCOURSE.
8. SEE LANDSCAPING PLAN FOR FINAL SLOPE TREATMENTS.
9. PLACE TOPSOIL AND SEED ACCORDING TO THE LANDSCAPE PLANS AS SOON AS AREAS ARE BROUGHT TO GRADE.
10. CLEAN ADJACENT ROADWAYS WHEN NECESSARY.
11. WATER SITE WHEN NECESSARY TO PREVENT AIR BORNE SEDIMENT TRANSFER.
12. PLACE MULCH BLANKET ON ALL SLOPES 1 ON 3 OR STEEPER.

**GRADING NOTES:**

1. WHERE PAVEMENT IS BEING REPLACED RECORD EXISTING ELEVATIONS AND MATCH EXISTING ELEVATIONS WITH NEW PAVEMENT.
2. SPOT ELEVATIONS SHOWN AT CURB AND GUTTER ARE AT THE FLOW LINE.
3. EXISTING GRADES ARE TO BE RECORDED BY THE CONTRACTOR IN AREAS OF SIDEWALK AND PAVEMENT REPLACEMENT. NEW FINISH GRADES TO MATCH RECORDED EXISTING GRADE.
4. VERIFY LOCATIONS OF ALL BELOW GRADE UTILITIES PRIOR TO BEGINNING WORK. CALL 'MISS DIG' 72 HOURS BEFORE YOU DIG AT 1-800-482-7171.
5. ALL NEW PAVEMENT SURFACES ARE INTENDED TO DRAIN FREELY WITH NO SURFACE WATER PONDING. IF THIS CANNOT BE ACHIEVED USING THE PROPOSED GRADES, NOTIFY THE OWNER'S REPRESENTATIVE, OR THE ENGINEER, IMMEDIATELY FOR RESOLUTION.
6. ALL NEW PAVEMENT ELEVATIONS AT EXTERIOR DOORS SHALL MATCH EXISTING FINISH FLOOR ELEVATIONS, TYPICAL.
7. FINISH GRADE SLOPE AT ALL BARRIER FREE PARKING SPACES AND ACCESS AISLES SHALL NOT EXCEED 2% IN ALL DIRECTIONS, TYPICAL.
8. ADJUST TOP ELEVATIONS OF EXISTING MANHOLES, CATCH BASIN DRAIN INLETS, VAULT COVERS, ETC. AS REQUIRED TO MATCH PROPOSED FINISH GRADES, TYPICAL.
9. IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO VERIFY ALL REQUIRED EARTHWORK VOLUMES BASED ON PROPOSED FINISH GRADES. IF FILL IS REQUIRED, THE CONTRACTOR SHALL INCLUDE THE REQUIRED VOLUME OF IMPORTED CLASS II SAND IN THE BASE BID PROPOSAL. IF EXCESS SOILS NEED TO BE SPOILED, THE CONTRACTOR SHALL INCLUDE TRANSPORT AND DISPOSAL OF SURPLUS SOILS OFF SITE IN THE BASE BID PROPOSAL. NO CONTRACT COST ADJUSTMENTS WILL BE CONSIDERED FOR EARTHWORK REQUIRED TO BALANCE THE SITE.

**LEGEND:**

- PROPERTY LINE
- BUILDING SETBACK
- RIGHT OF WAY (ROW)
- [Pattern] NEW CONCRETE
- [Pattern] NEW BITUMINOUS
- [Pattern] NEW HEAVY DUTY BITUMINOUS
- [Pattern] NEW GRAVEL
- [Pattern] INTERIOR LANDSCAPING
- ITEMS PLANNED FOR FUTURE
- FENCE
- SILT FENCE
- SWALE
- GRADE BREAK
- EXISTING SPOT ELEVATION
- SPOT ELEVATION
- MATCH EXISTING ELEVATION
- EXISTING CONTOUR
- CONTOUR
- MANHOLE/CATCH BASIN
- CLEANOUT
- TREE PROTECTION FENCE
- ← DRAINAGE FLOW DIRECTION
- POWER POLE
- EXISTING POWER POLE
- EXISTING MANHOLE
- EXISTING STORM CATCH BASIN
- EXISTING ROUND STORM CATCH BASIN
- HYDRANT
- GATE VALVE
- EXISTING WATER VALVE
- EXISTING WATER MANHOLE

**ENLARGED SITE, GRADING AND SESC PLAN**  
1"=20'-0"

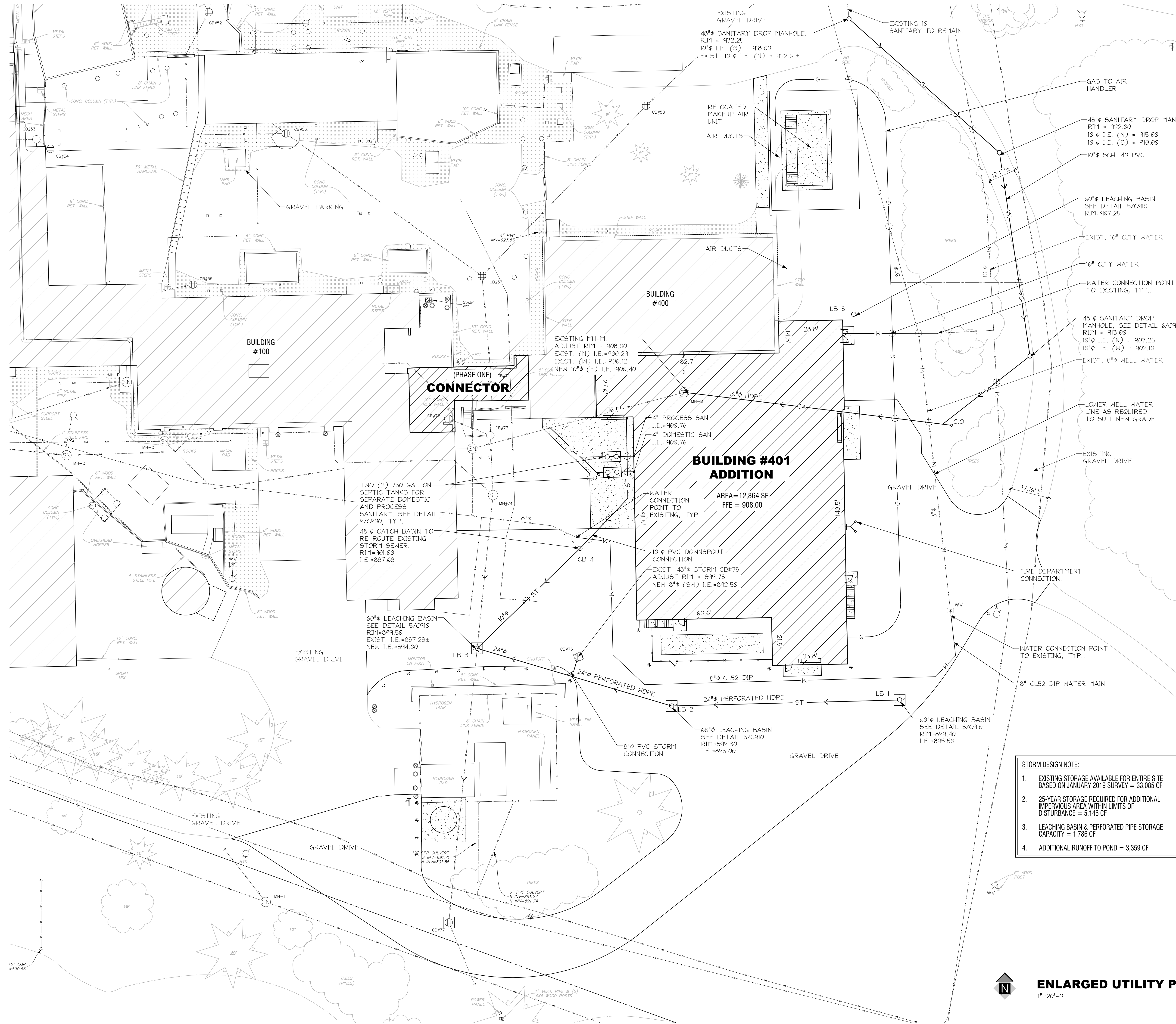
Building 401 Addition for:  
**KALSEC**  
3713 WEST MAIN STREET · KALAMAZOO, MICHIGAN 49005

19100212  
2022.12.19 SITE PLAN APPROVAL  
**ENLARGED SITE, GRADING, & SESC PLAN**

**C310**

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 Plotted Fri, 12-15-2022 at 8:17am by mgphn.korman



- UTILITY NOTES:**
- UTILITIES & CONSTRUCTION TO COMPLY WITH REQUIREMENTS OF LOCAL AND STATE AUTHORITIES HAVING JURISDICTION.
  - CONTRACTOR SHALL OBTAIN ALL NECESSARY PERMITS FROM LOCAL AUTHORITY HAVING JURISDICTION PRIOR TO BEGINNING CONSTRUCTION ACTIVITIES.
  - UTILITIES SHOWN ARE APPROXIMATE LOCATIONS DERIVED FROM AVAILABLE UTILITY RECORDS & SURVEY. THEY SHALL NOT BE INTERPRETED AS EXACT OR ASSUMED TO BE THE ONLY UTILITIES IN THE RESPECTIVE AREAS. FIELD VERIFY EXISTING UTILITIES PRIOR TO START OF WORK.
  - HOOK-UP AND TIE IN TO EXISTING UTILITIES TO MEET LOCAL REQUIREMENTS FOR EACH UTILITY INVOLVED: WATER, SEWER, STORM, GAS, ELECTRIC, PHONE, ETC.
  - STORM SEWER PIPE TO BE RIGID DUAL WALL, SMOOTH LINED, HDPE WITH WATER TIGHT JOINTS.
  - SANITARY SEWER PIPE TO BE CPVC SDR26. MAINTAIN 3'-6" MINIMUM COVER ON PIPES.
  - WATER MAIN TO BE CEMENT LINED DUCTILE IRON PIPE, CLASS 52. MAINTAIN 5'-0" MINIMUM COVER. SATISFY ALL REQUIREMENTS OF THE CITY OF KALAMAZOO 2021 WATER CONSTRUCTION STANDARDS.
  - PUBLIC WATER LINE WILL BE INSPECTED BY THE CITY OF KALAMAZOO ENGINEERING. CONTRACTOR TO CARRY AN ALLOWANCE OF \$1,000. FOR SUCH INSPECTIONS. CONTRACTOR TO OBTAIN SERVICES OF A LICENSED SURVEYOR TO SURVEY CITY WATER LINE AND PROVIDE LEGAL DESCRIPTION OF WATER MAIN EASEMENT AFTER INSTALLATION.
  - PROPOSED WATER MAIN CONNECTION SHALL BE COORDINATED WITH THE CITY OF KALAMAZOO DEPARTMENT OF PUBLIC SERVICES
  - NOTE TO CONTRACTOR: CALL "MISS DIG" THREE FULL WORKING DAYS BEFORE YOU DIG TOLL FREE AT 1-800-428-7171 OR CALL HDIG FREE FROM YOUR AT4T CELLULAR PHONE. FOR UTILITIES LOCATION ON THE GROUND.
  - MAINTAIN 18" VERTICAL CLEARANCE BETWEEN WATER AND SANITARY/STORM SEWER PIPE CROSSINGS.
  - ALL MANHOLES SHALL BE DESIGNED TO RESIST FLOATION AND SHALL BE WATER TIGHT.

**LEGEND:**

---	PROPERTY LINE
SA	SANITARY
SA	EXISTING SANITARY
ST	STORM
ST	EXISTING STORM
W	WATER MAIN
W	EXISTING WATER MAIN
G	GAS
G	EXISTING GAS
E	ELECTRIC OVERHEAD
E	EXISTING ELECTRIC OVERHEAD
---	ELECTRIC UNDERGROUND
---	EXISTING ELECTRIC UNDERGROUND
PR	PROCESS SANITARY
CA	COMPRESSED AIR
N	NITROGEN
CND	CONDENSATE
STM	STEAM
CW	COLD WATER
HW	HOT WATER
SW	SOFT WATER

**STORM DESIGN NOTE:**

- EXISTING STORAGE AVAILABLE FOR ENTIRE SITE BASED ON JANUARY 2019 SURVEY = 33,085 CF
- 25-YEAR STORAGE REQUIRED FOR ADDITIONAL IMPERVIOUS AREA WITHIN LIMITS OF DISTURBANCE = 5,146 CF
- LEACHING BASIN & PERFORATED PIPE STORAGE CAPACITY = 1,786 CF
- ADDITIONAL RUNOFF TO POND = 3,359 CF

**BYCE**  
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 TEL: 269-381-6170  
 FAX: 269-381-6176

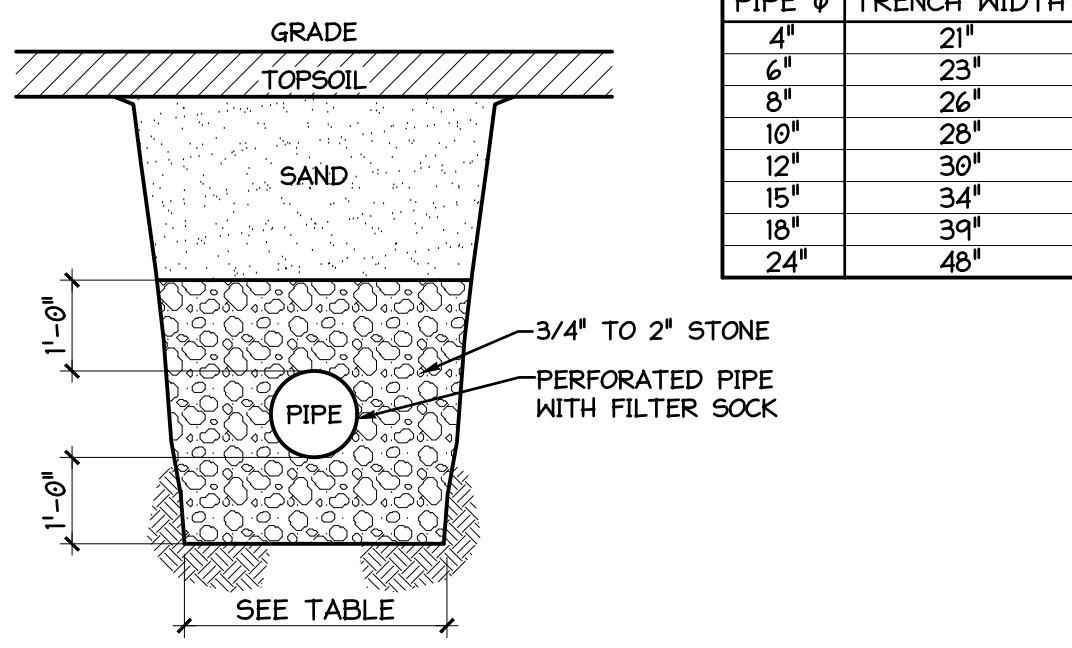
Building 401 Addition for:  
**KALSEC**  
 3713 WEST MAIN STREET · KALAMAZOO, MICHIGAN 49005

2022.12.15 SITE PLAN APPROVAL  
**ENLARGED UTILITY PLAN**

**ENLARGED UTILITY PLAN**  
 1"=20'-0"

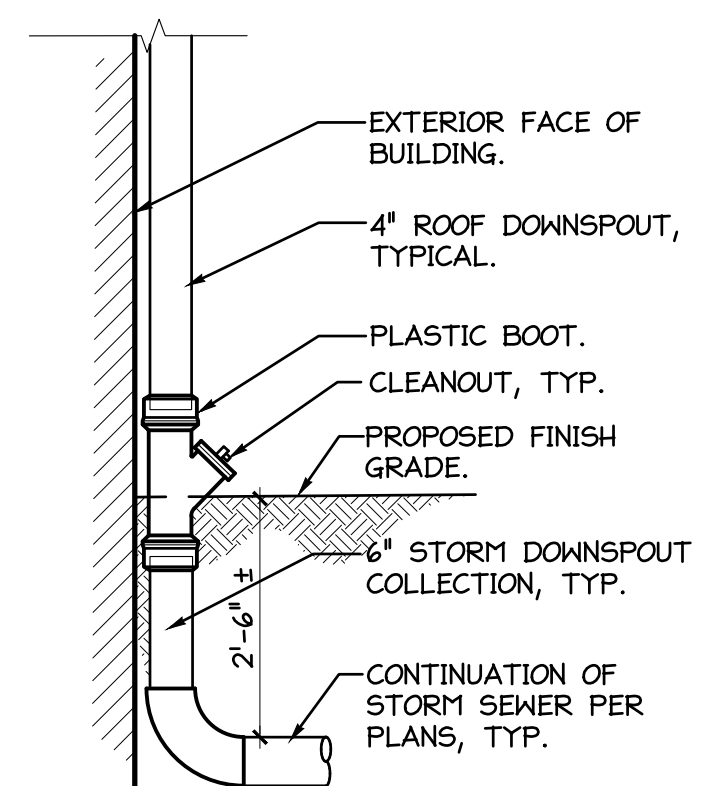
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**C410**

ACTIVITY	PROPOSED CONSTRUCTION SCHEDULE											
	YEAR 2023						YEAR 2024					
	J	F	M	A	M	J	J	A	S	O	N	D
TEMP. EROSION CONTROL	◆	◆	◆	◆	◆	◆						
TOPSOIL STRIPPING & STOCKPILE	◆	◆	◆	◆	◆	◆						
SITE GRADING & UTILITIES	◆	◆	◆	◆	◆	◆						
BUILDING CONSTRUCTION							◆	◆	◆	◆	◆	◆
FINISHED GRADING							◆	◆	◆	◆	◆	◆
PERMANENT EROSION CONTROL							◆	◆	◆	◆	◆	◆
SITE CLEAN-UP							◆	◆	◆	◆	◆	◆
SITE STABILIZATION							◆	◆	◆	◆	◆	◆
REMOVE TEMPORARY CONTROLS							◆	◆	◆	◆	◆	◆



STORM PIPE Ø	MINIMUM TRENCH WIDTH
4"	21"
6"	23"
8"	26"
10"	28"
12"	30"
15"	34"
18"	39"
24"	48"

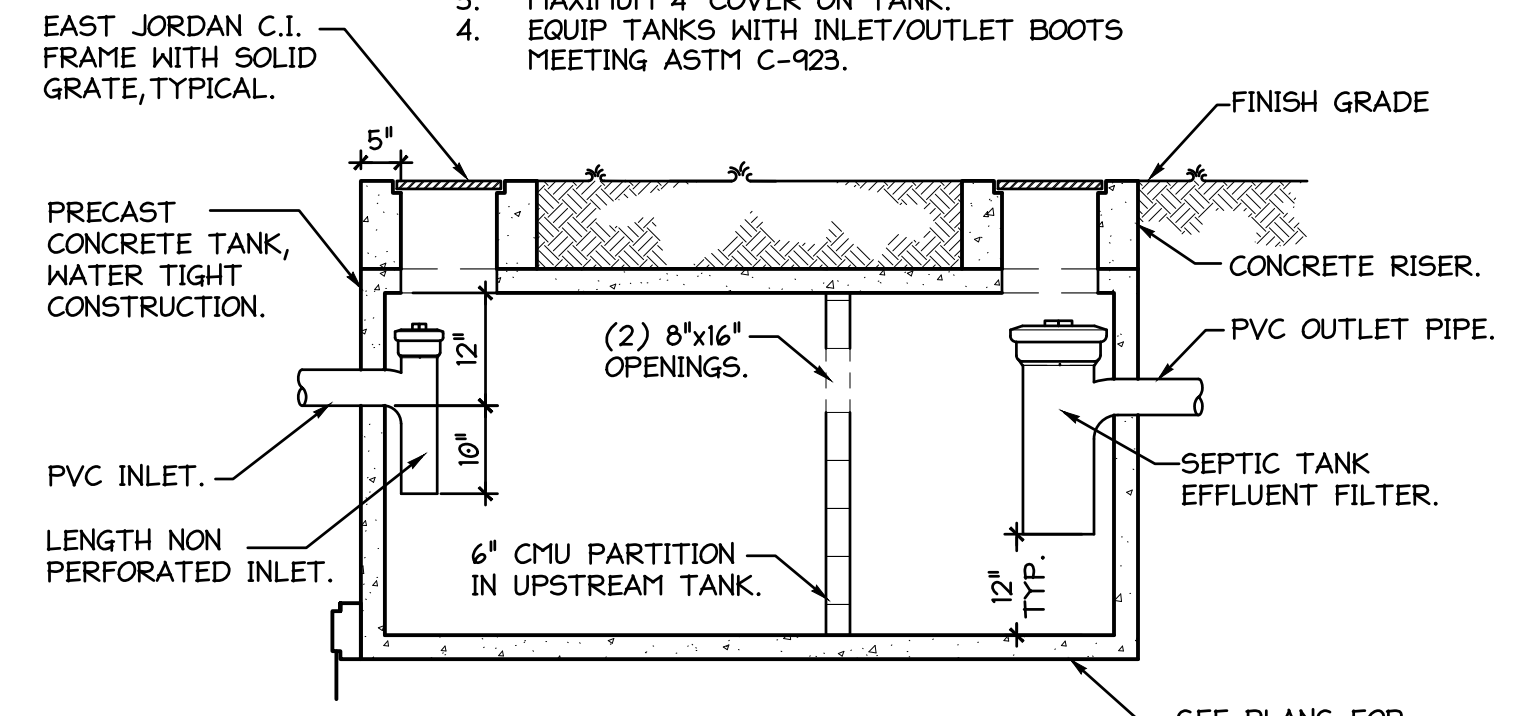
**12 STORM PIPE TRENCH**  
C600 1/2"=1'-0"



**9 DOWNSPOUT CONNECTION**  
C600 1/2"=1'-0"

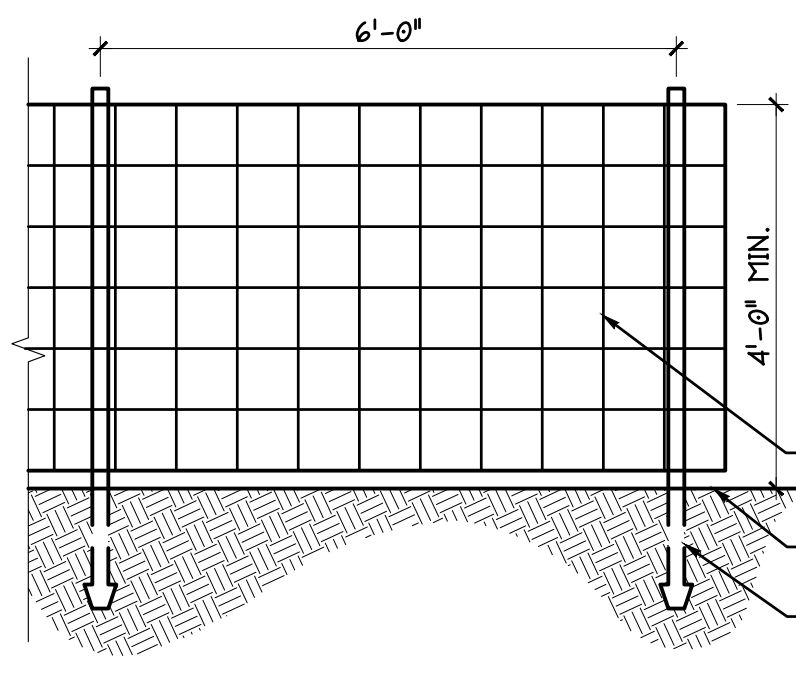
**SEPTIC TANK NOTES:**

1. OUTLET INVERT @ 2' BELOW INLET INVERT.
2. USE 3,500 PSI CONCRETE, TYPICAL.
3. MAXIMUM 4' COVER ON TANK.
4. EQUIP TANKS WITH INLET/OUTLET BOOTS MEETING ASTM C-923.

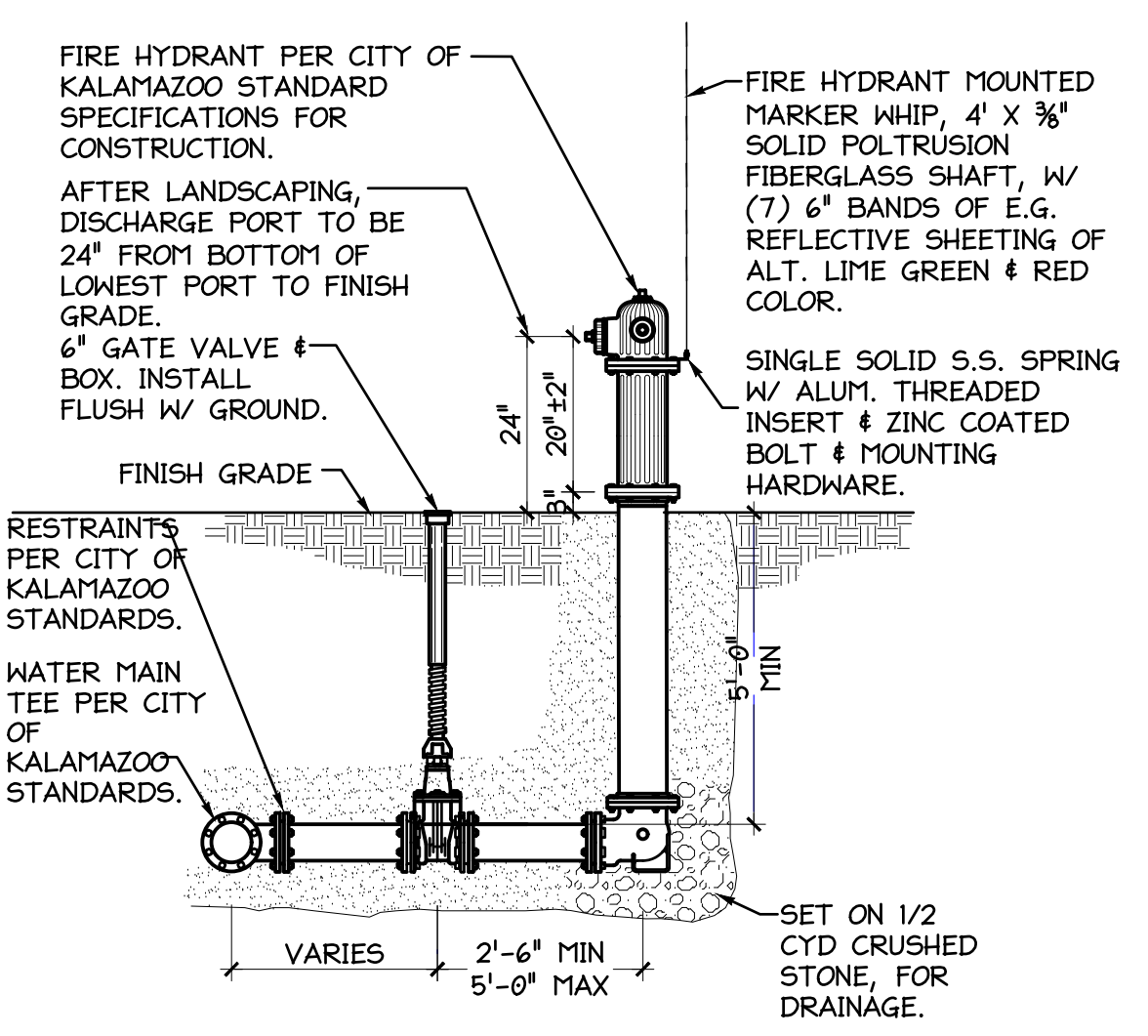


**10 SANITARY SEPTIC TANK**  
C600 1/2"=1'-0"

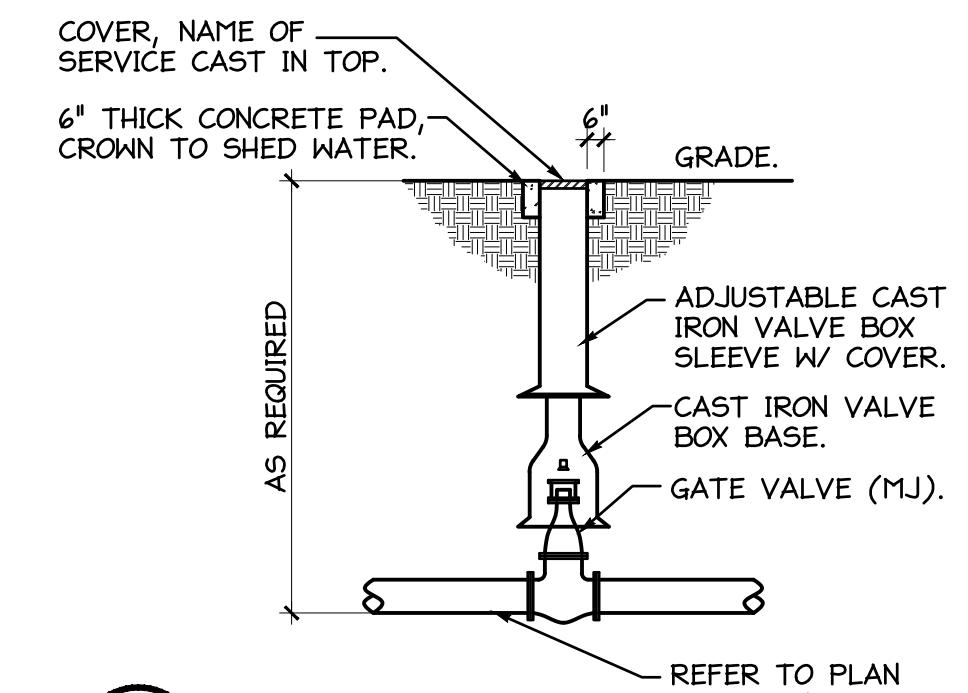
- NOTES:**
- DAMAGING PARTIAL TREE ROOTS WILL ULTIMATELY RESULT IN A PROPORTIONAL LOSS OF TREE CANOPY.
  - PROTECTION ZONE SHALL EXTEND TO PERIMETER DRIP LINE UNLESS NOTED OTHERWISE ON PLAN.
  - DO NOT STRIP TOPSOIL & VEGETATION WITHIN TREE PROTECTION ZONES.
  - TREE PROTECTION FENCING SHALL REMAIN IN PLACE UNTIL PROJECT COMPLETION.
  - FARM TYPE GALVANIZED WIRE FENCE FABRIC
  - EXISTING GRADE
  - 1/4" TYPE METAL POSTS OR EQUAL @ 6' O.C.



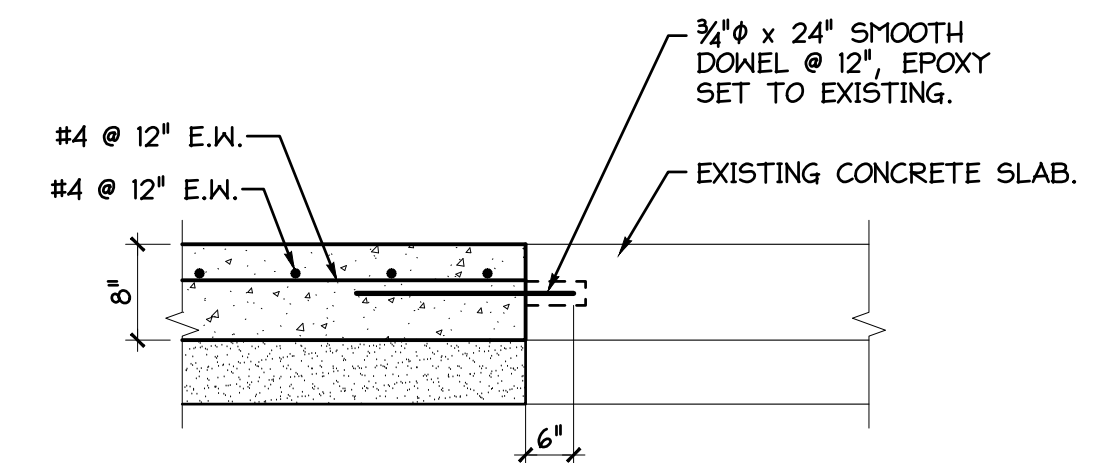
**11 TREE PROTECTION FENCE**  
C600 1/2"=1'-0"



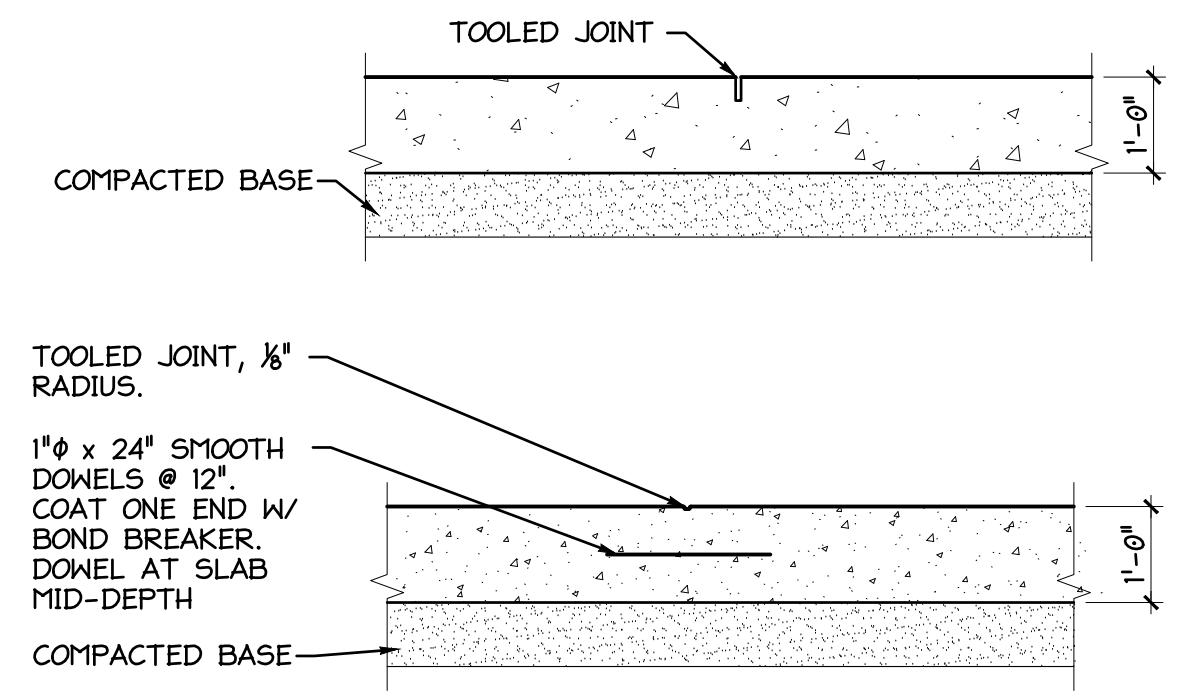
**13 FIRE HYDRANT**  
C600 NOT TO SCALE



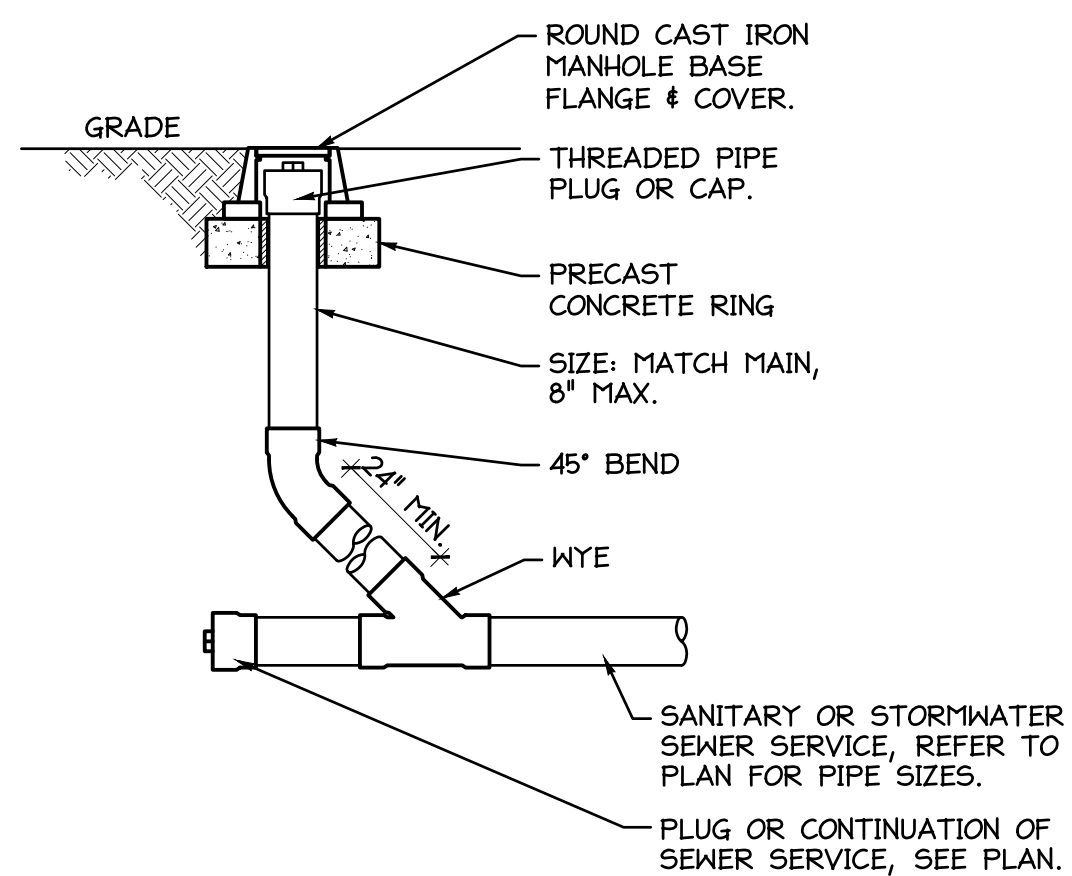
**5 VALVE BOX**  
C600 NOT TO SCALE



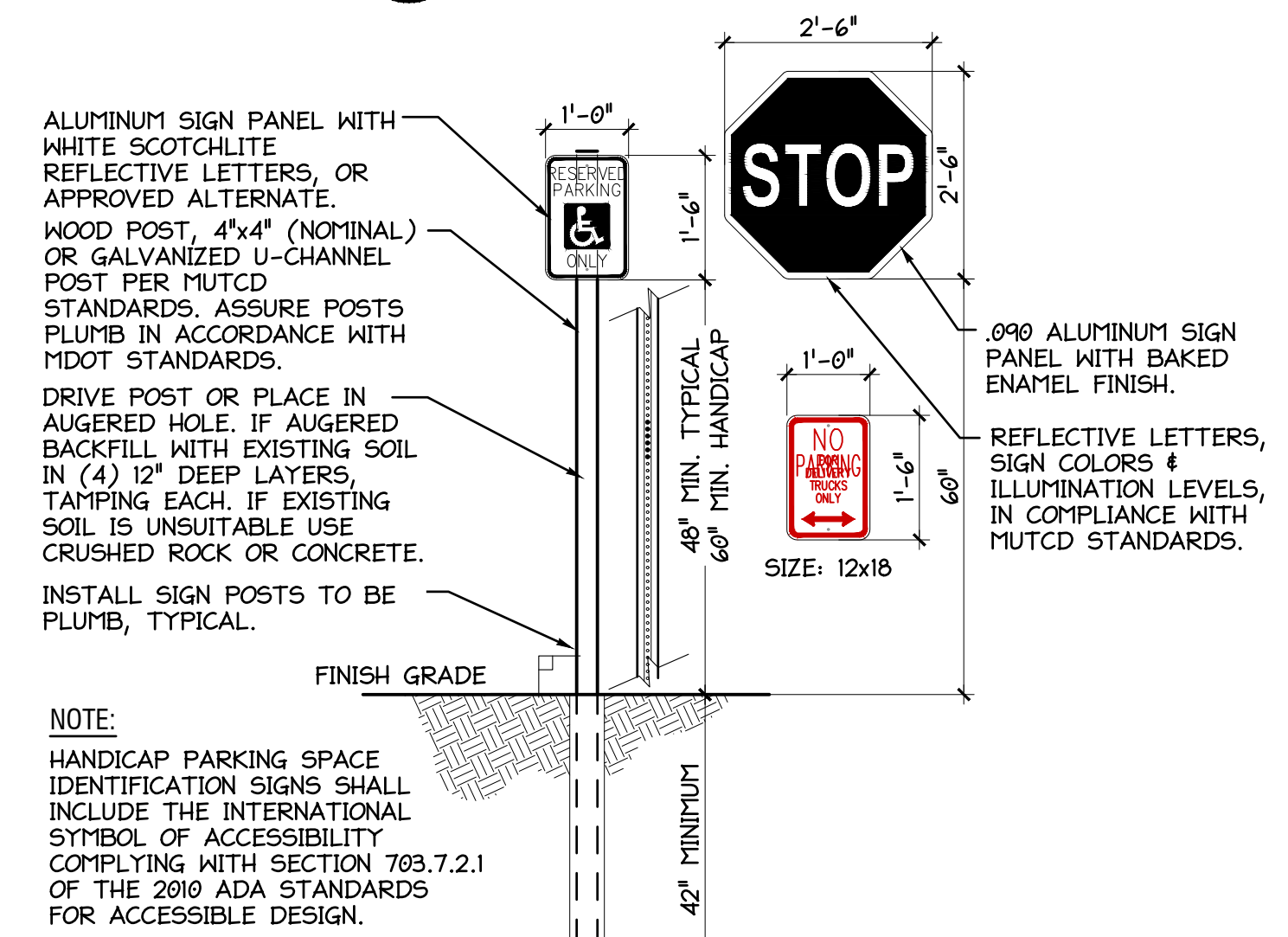
**1 NEW CONCRETE @ EXIST.**  
C600 1/2"=1'-0"



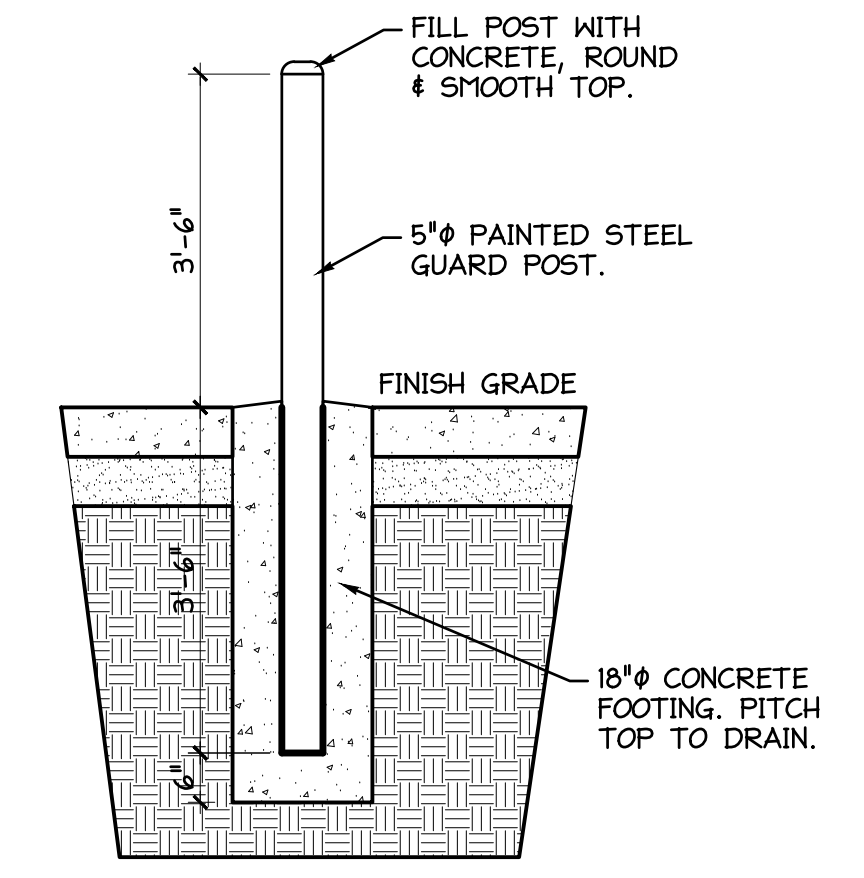
**6 CONCRETE JOINTS**  
C600 1/2"=1'-0"



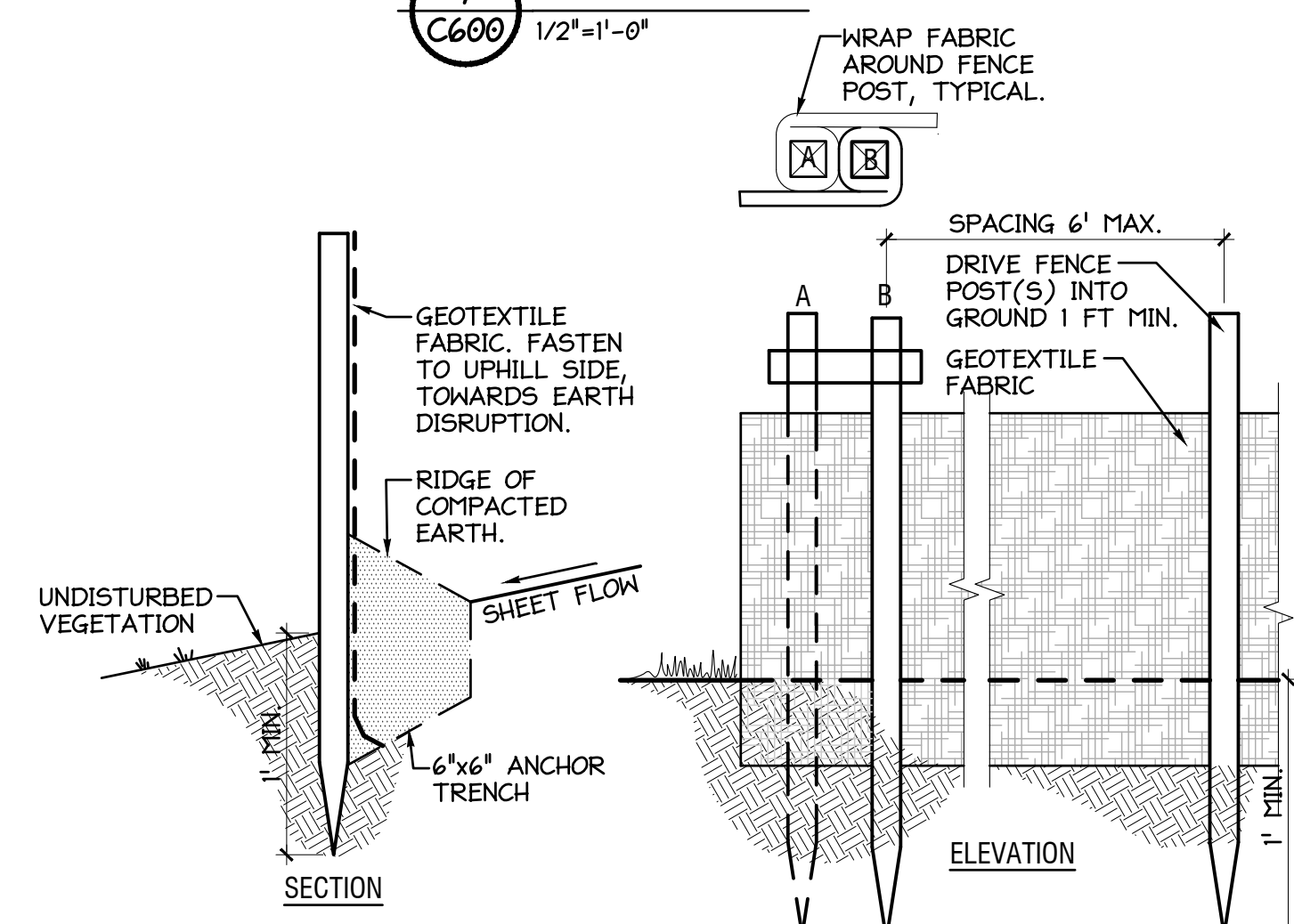
**7 CLEANOUT**  
C600 1/2"=1'-0"



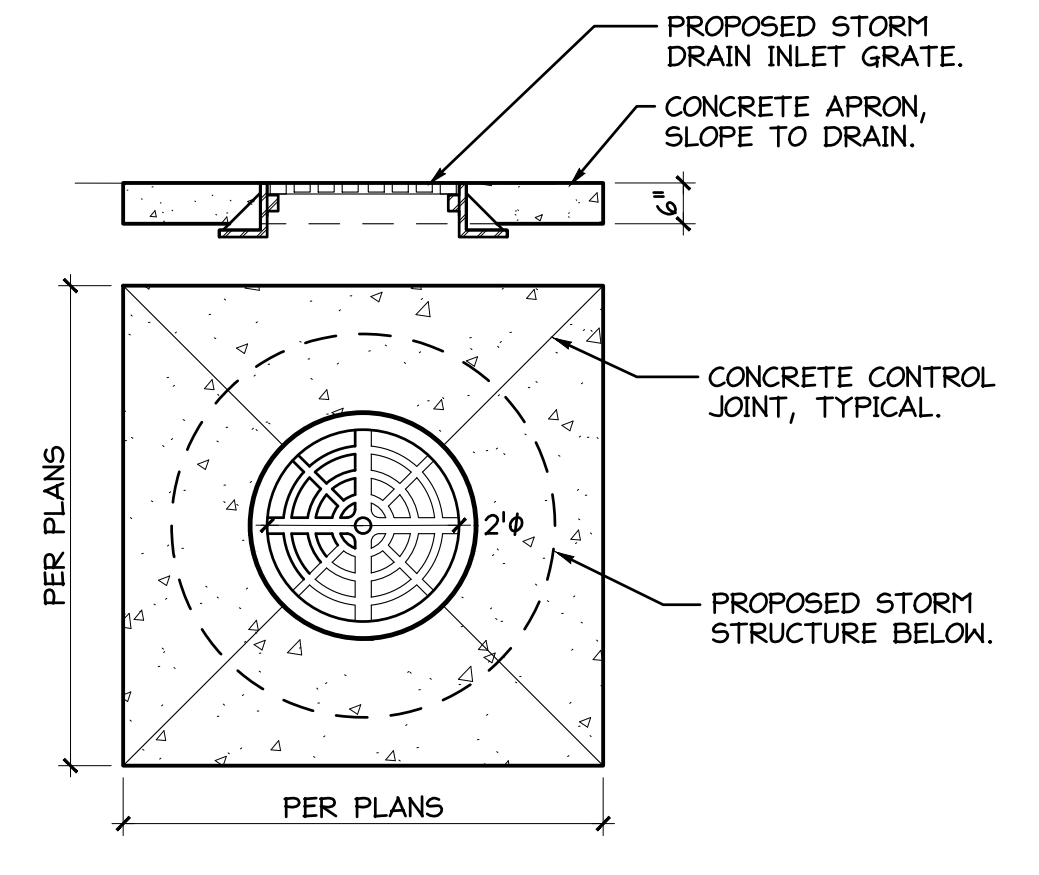
**2 SIGN DETAIL**  
C600 1/2"=1'-0"



**3 CONCRETE FILLED BOLLARD**  
C600 1/2"=1'-0"



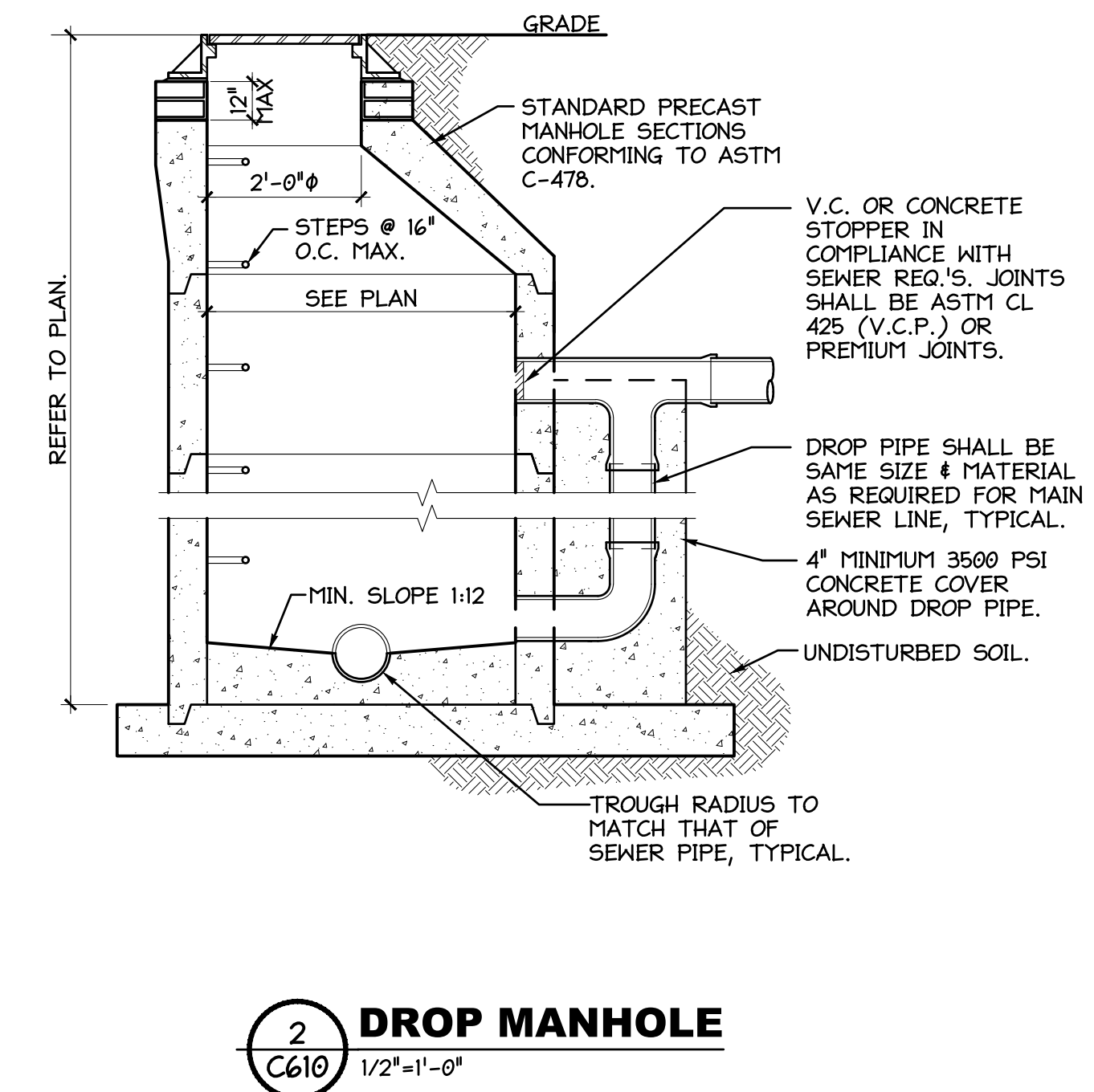
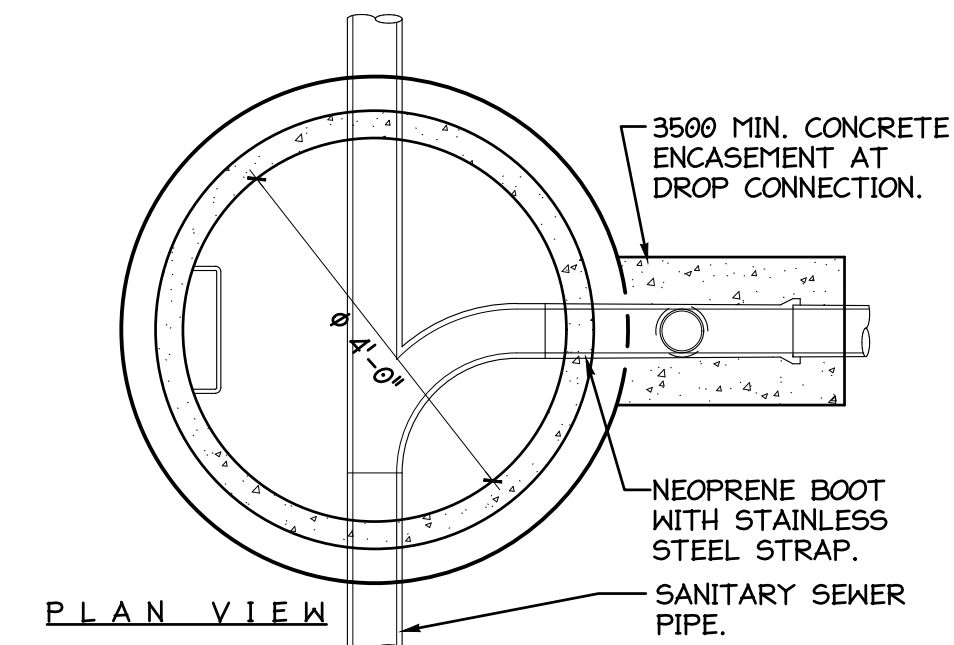
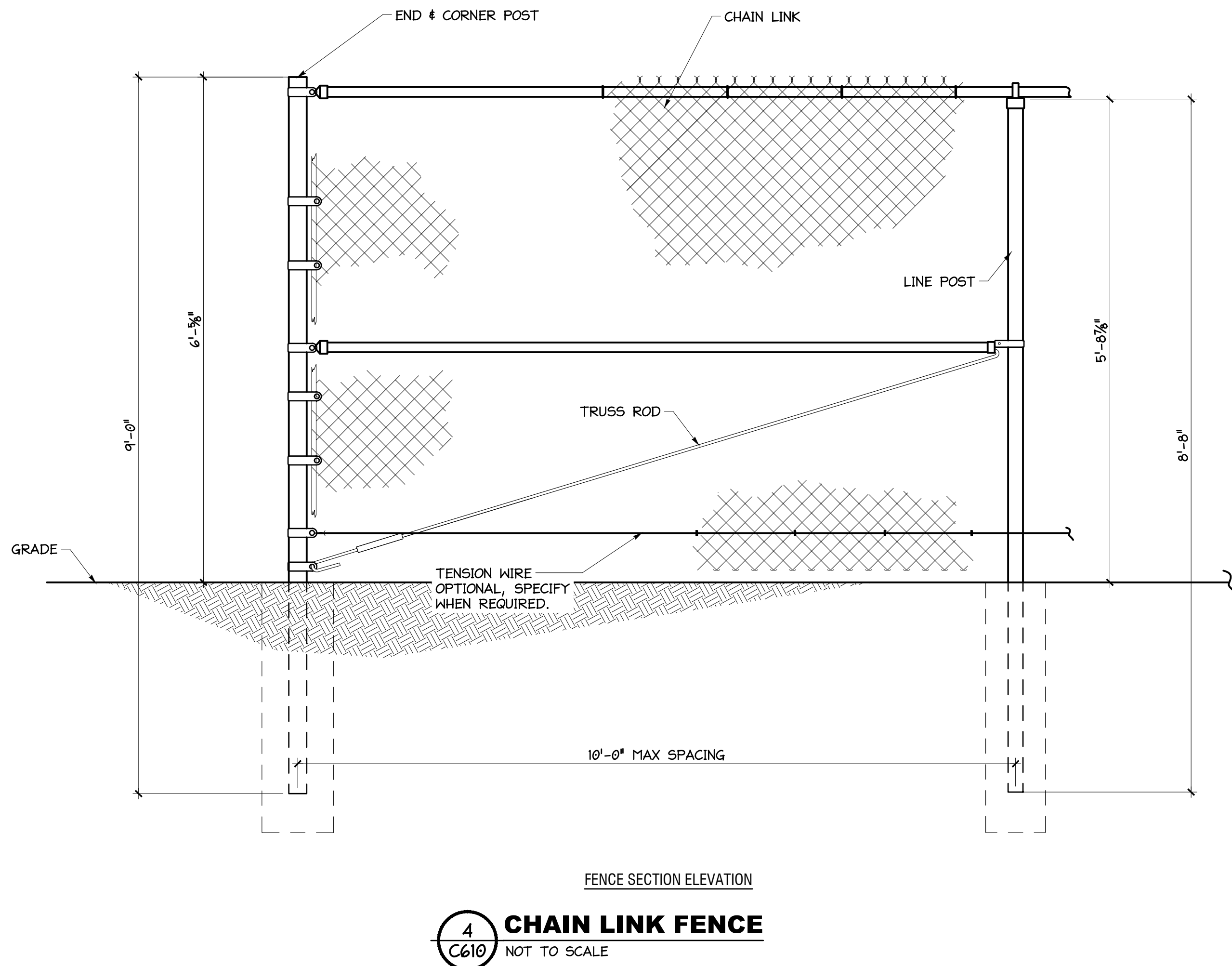
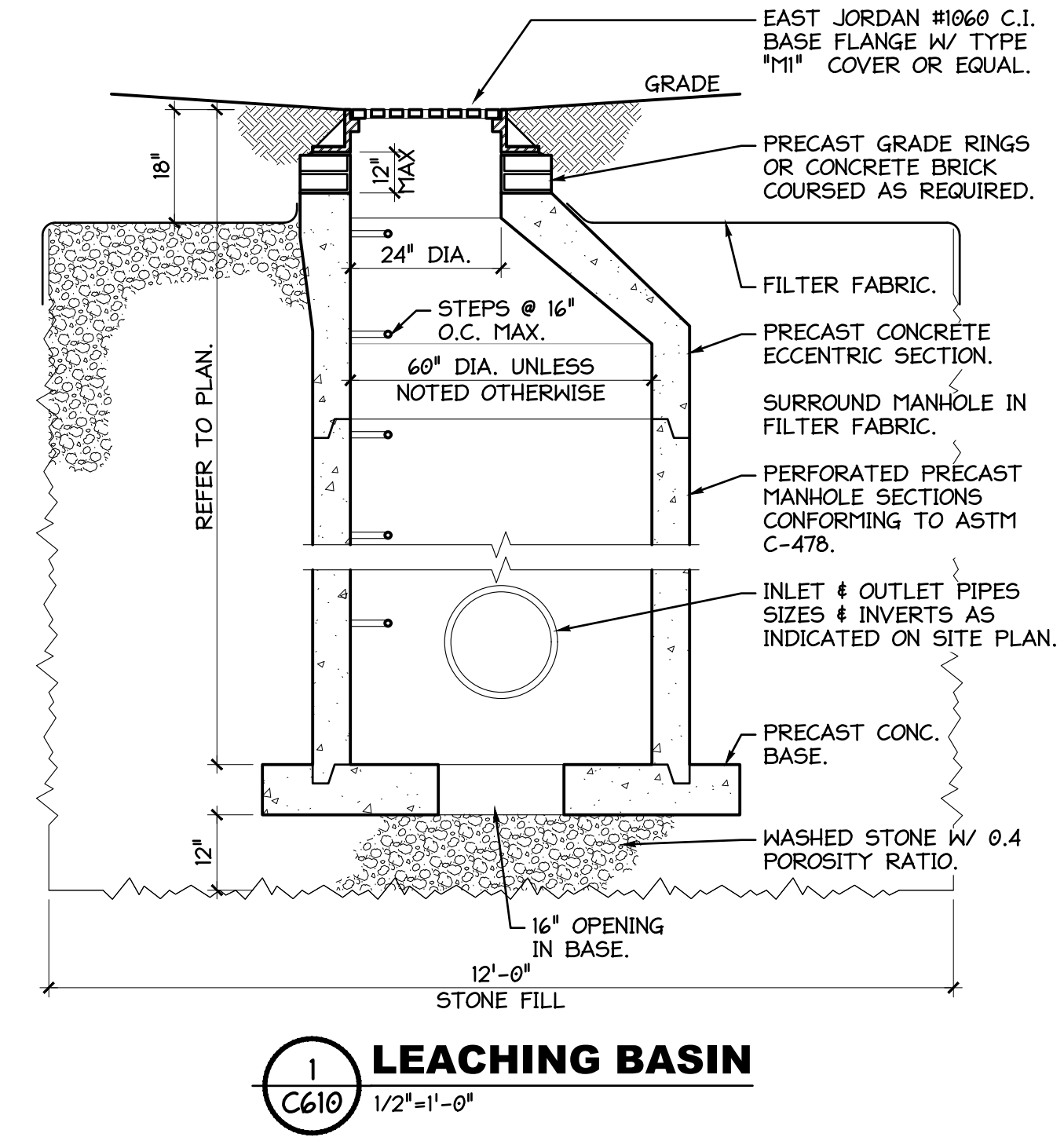
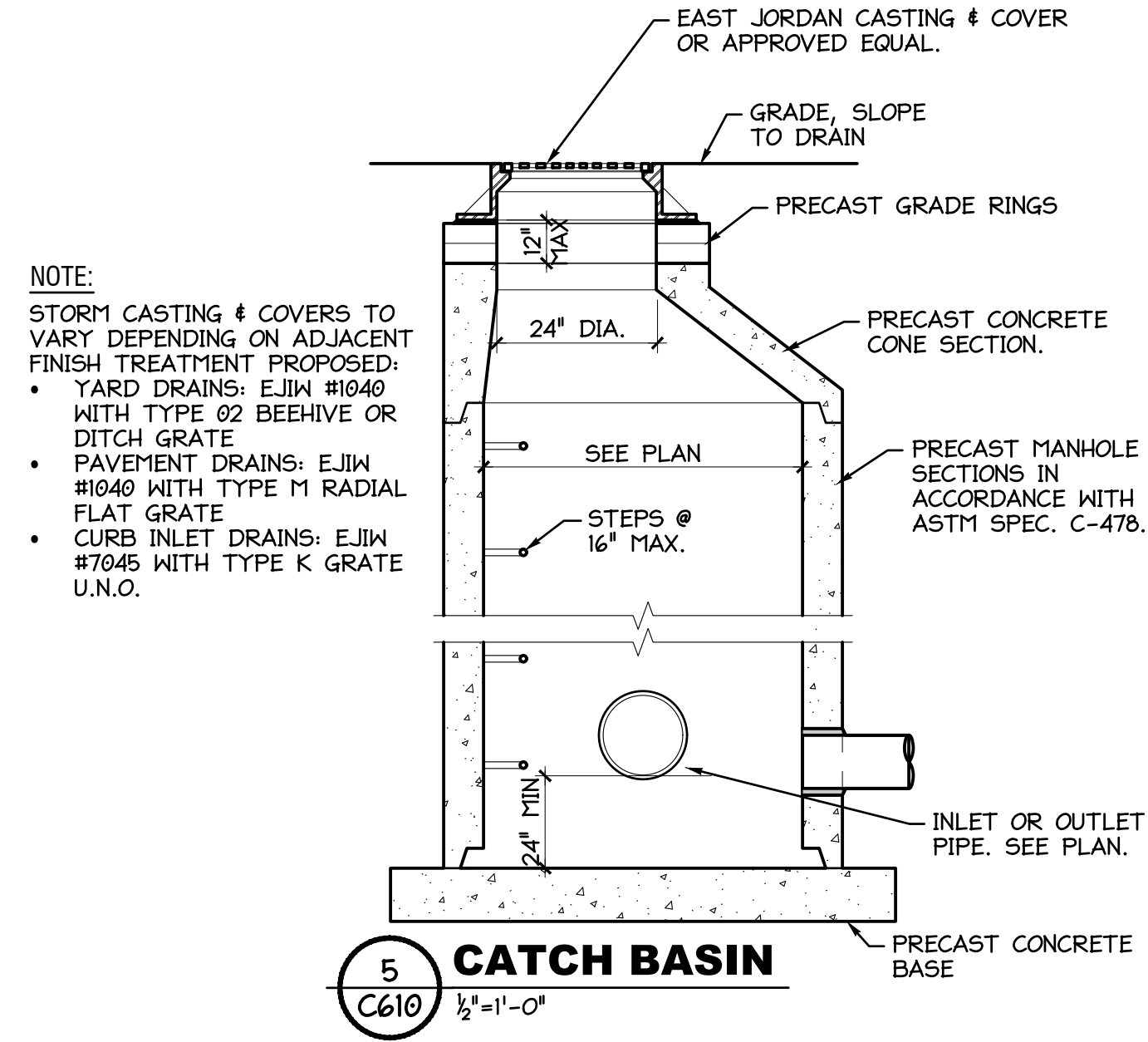
**8 SILT FENCE DETAIL**  
C600 NOT TO SCALE



**4 CONCRETE APRON**  
C600 1/2"=1'-0"

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Building 401 Addition for:  
**KALSEC**  
 3713 WEST MAIN STREET · KALAMAZOO, MICHIGAN 49005

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**Section 2.08 Home Occupations**

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**A. Applicability**

The term "home occupation" means an occupation or profession carried on in the home by resident members of the household where such use is clearly incidental and secondary to the principal use of the dwelling as a residence.

**B. General Requirements**

All home occupations shall be subject to the applicable requirements of the zoning district in which they are located, in addition to the following general requirements, unless otherwise specified elsewhere in this Ordinance.

1. Any business activity must be clearly incidental to the use of the dwelling as a residence.
2. The exterior appearance of any structure shall not be altered due to the business activity nor to support a home occupation.
3. No business activity shall be conducted in such a manner so as to cause the premises to differ from a residential character, whether by the use of colors, materials, construction, lighting, signs (except as permitted in this Section), or the emission of sounds or vibrations. Further, the home occupation shall not involve the storage, use or sale of hazardous, flammable, toxic, or explosive substances, other than types, sizes, and amounts commonly found in dwellings for hobby or domestic purposes.
4. The delivery and pickup of goods and materials used and/or produced in the operation of a home occupation shall be limited to the customary activity of the United States Postal Service and/or alternative private package services common to residential property in the area.
5. No traffic shall be generated by such home occupation in greater volumes than would normally be expected on a road of its specific classification as determined by the Road Commission of Kalamazoo County. Any need for parking generated by the conduct of such home occupation shall be provided by an off-street area.
6. A home occupation may be subject to annual inspection by the Building Official, Township Zoning Administrator and/or Township Fire Marshal, and shall be subject to termination if found not to be in compliance with the Zoning Ordinance.
7. No outdoor display and/or storage of materials, goods, supplies, or equipment used in the home occupation shall be allowed on the premises in any zoning district.
8. Sign. One non-illuminated nameplate, not more than two (2) square feet in area, shall be allowed per residence to identify a home occupation. The permitted sign shall not be located in any road right-of-way and shall not obstruct the clear vision of drivers. No other sign shall be used on the premises to advertise a home occupation.
9. The total area within the principal dwelling devoted to home occupations shall not exceed one-quarter of the usable residential floor area of the dwelling unit.
10. One detached accessory building may be used by a Category C home occupation, provided that there is no external evidence of the business activity. Any accessory building used for a home occupation shall be in full compliance with the standards for accessory buildings, as provided in Section 2.03 of this Ordinance.
11. The levels of waste and scrap generated by the home occupation for transfer as part of the municipality's residential trash collection and disposal services shall not exceed fifty (50) gallons per week.

### **C. Activities Not Considered a Home Occupation**

1. Bed-and-breakfast inns, roadside stands, garage or yard sales, auto service or repair garages, restaurants and bars, or similar establishments and/or activities as determined by the Township Zoning Administrator or Planner shall not be permitted or considered a home occupation.

### **D. Home Occupation Regulatory Categories**

All home occupations shall be classified and regulated in three categories and subject to the following standards, in addition to the general requirements listed in sub- section A, above.

#### **1. Category A - Almost No Nuisance Potential:**

This category of home occupation recognizes it is customary for dwelling occupants to perform office and similar work as incidental to residential use of a dwelling unit. Category A is referred to as a "no impact" home occupation. No aspects of the home occupation shall be visible on the exterior of the residence and there shall be no significant impact on surrounding properties. Category A home occupations are automatically permitted without permit application, review, or approval.

- a. A Category A home occupation includes activities such as:
  - receiving or initiating electronic or other video communication
  - telephone calls, mail, or electronic mail
  - preparing or maintaining business records
  - word or data processing
- b. Examples of Category A home occupations include:
  - telecommuting/ telework
  - word processing
  - accounting
  - internet sales
  - novelist or book editor
  - tutor or instructor of music, crafts or fine arts, where some clients come to the dwelling at different times for individual instruction
  - other similar endeavors
- c. Category A work includes work performed for an employer in another location (telecommuting or telework) as well as work by a person residing in the dwelling unit that engages in the same type of activity under their own business. No customers or other non-resident employees shall be permitted to come to the dwelling, unless protected under State law. Category A home occupations shall not take place in a detached garage or detached accessory structure.

#### **2. Category B - Limited Nuisance Potential:**

This category of home occupation is largely indistinguishable from customary residential use of a dwelling unit but with off-street parking space(s). These home occupations are authorized by issuance of a Zoning Permit by the Zoning Administrator once conformance with standards specified in this Section are achieved. They are permitted in any dwelling unit in any district that allows single-family and two-family dwellings by an owner of the property, or by a renter of the property with the owner's written consent.

- a. A Category B home occupation includes activities such as:
  - any Category A home occupation that meets Category B requirements for off-street parking
  - financial, marketing or other professional services to customers or clients
  - small item repair
  - small scale food preparation and craft making

Retail sales of products on the premises shall not be permitted.

- b. Examples of Category B home occupations include:
  - professionals like a lawyer, doctor, architect, or engineer
  - small item repair
  - sewist, artist or small crafts maker
  - other similar endeavors

- c. Category B home occupations shall not take place in a detached garage or detached accessory structure. No retail sales are permitted and not more than two (2) customers/clients/patients are permitted at any time for service trade and by appointment only, with a maximum of ten (10) customers/clients/patients per day; hours of operation shall be between 8am and 8pm. Should complaints regarding any Category B home occupation arise, the classification and status of the home occupation shall be subject to review and approval by the Kalamazoo Township Zoning Administrator or, at their discretion, the Kalamazoo Township Planning Commission.

### **3. Category C - Up to Moderate Nuisance Potential:**

This category of home occupation allows residents of a single-family or two-family dwelling unit in the R-1 and R-2 Districts to conduct economic activities on their property at a scale greater than in a home occupation Category A or B, but significantly less than a full-scale commercial or industrial enterprise. Because of the greater potential for nuisance impacts, the Planning Commission shall approve the home occupation by means of a Special Land Use Permit (SLUP). Standards for Special Land Use review and approval are specified in Section 26.03.

- a. Category C includes all home occupation uses permitted in Categories A and B that desire the additional employee(s), accessory structures, parking of a special vehicle, or retail sales. Permitted activities include:
  - small scale creation and sale of products
  - repair of small appliances and bicycles
  - sales and distribution of some products created elsewhere
- b. Examples of Category C home occupations permitted by SLUP include:
  - making and retail sales of candles, toys, and t-shirts
  - small appliance and bicycle repairs
  - operation of network marketing businesses on behalf of a third party, without any sales events at the home
  - other similar endeavors
- c. Category C home occupations may have up to two non-occupant employees, who park on up to two off-street parking spaces. The home occupation may take place in a detached garage or detached accessory structure. Retail sales are permitted and not more than three customers/clients/ patients may be present at any time, hours of operation are limited to between 8 AM to 8 PM, or as limited per special land use approval, such as by appointment only.

## **E. Off-Street Parking and Commercial Vehicle Parking**

1. All vehicle parking required for conduct of the home occupation shall be off-street as specified below, and per all requirements as specified by the Road Commission of Kalamazoo County.
  - a. Category A: No off-street parking spaces are required.
  - b. Category B: Up to 2 off-street parking spaces shall be required for customers/clients/patients.
  - c. Category C: One off-street space per each non-occupant employee permitted and up to 3 off-street parking spaces shall be required for customers/clients/patients.

## **F. Permits and Administration**

1. No permit shall be required for the operation of a Category A home occupation. A permit shall be required for the operation of a Category B and Category C home occupation in accordance with the standards of this Ordinance. The initial application for a home occupation shall be made on a form to be provided by the Township. The applicant shall submit a sketch plan, drawn to scale, showing property lines; building footprints; sidewalks; driveways; off-street parking areas; and other salient features. Upon receipt of a completed application and sketch plan, the Township shall review the application for completeness and compliance with the Zoning Ordinance. A special land use permit application shall be provided by the Township for those seeking approval of a Category C home occupation. The special land use request shall be reviewed against criteria for granting special land use approval, as specified in Section 26.03.C. If a home occupation is found the operating outside the standards of this Ordinance, the Township may require the business owner to file an application for a home occupation or cease operation of the home occupation.

## **G. Home Occupation Review**

The review procedures, standards, and required information in this Section are intended to provide a consistent and uniform method of review of proposed home occupation applications, to ensure full compliance with the regulations and standards contained in this Ordinance and other applicable ordinances and laws, including the Michigan Building Code, as amended, and to prevent adverse impact on adjoining or nearby properties.

### **1. Standards for Home Occupation Review and Approval**

For Category B home occupations, the Township Zoning Administrator shall consider the following criteria for granting approval of a home occupation:

- a. Compatibility to adjacent properties and land uses.
  - b. The amount of traffic generated by the home occupation. Particularly, the anticipated traffic generated by a home occupation located on a private road or local road, as classified by the Road Commission of Kalamazoo County.
  - c. Off-street parking needs and locations.
  - d. Availability of public services, in that the proposed home occupation shall be adequately served by public utilities and that no excessive use of public utilities is anticipated.
  - e. Compatibility of the natural environment. The proposed home occupation shall be compatible with the natural environment and conserve natural resources and energy.
2. In the event the Township Zoning Administrator is challenged by their interpretation of the above criteria, or that the Zoning Administrator seeks interpretation of any part of this Section, the Planning Commission shall have final determination.