



GREEN OAK CHARTER TOWNSHIP
10001 SILVER LAKE ROAD, BRIGHTON, MI 48116
PHONE: 810-231-1333 • FAX 810-231-5080

AGENDA

Green Oak Charter Township
Planning Commission
Regular Meeting
Thursday, March 7th, 2024
7:00 p.m.

1. Call to Order
2. The Pledge to the Flag
3. Roll Call of the Commission
4. Approval of the Agenda
5. Approval of February 15, 2024, Meeting Minutes
6. Call to the Public (Limited to agenda items only)

7. Business Items:
 - A. Public Hearing for Special Approval Use SAU 02-2024 Legacy Center – Wellness Center Building, New Phase 1F to allow for a school at this location. Legacy Park Planned Unit Development on a 90.77-acre site on tax parcel ID number 4716-20-100-003.
 - B. Site Plan Approval for parcel 4716-20-100-003 Phase 1F Legacy Center Wellness center.
 - C. Discussion on adding a New Section of the zoning ordinance Article IV. Supplementary Regulations Sec. 38-202. Event Barns.

8. Reports
 - A. Chairman Report
 - B. Township Board Representative
 - C. Zoning Board of Appeals Representative
 - D. Planning Consultant
 - E. Correspondence

9. Call to the Public
10. Adjournment

Posted: February 29, 2024

PLANNING COMMISSION

Cris Burkhalter, Planning Commission Chairperson
Dwayne Janke
Keith Lee
Lary Marshall
Doug Nale

Michael Sedlak, Twp. Board Rep.
Sarah Pearsall, Secretary

Green Oak Charter Township
Planning Commission
Regular Meeting Minutes
February 15, 2024

Approved: _____

The meeting was called to order by Mr. Burkhalter at 7:00 p.m.

Roll Call: Cris Burkhalter
 Dwayne Janke
 Keith Lee
 Lary Marshall
 Doug Nale
 Sarah Pearsall
 Michael Sedlak

Also Present: Debra McKenzie, Zoning Administrator
 Michelle Marin, Carlisle Wortman
 Rick Miner, CES

Guests: 14

APPROVAL OF AGENDA

**Motion by Pearsall, second by Nale
To approve the agenda as presented.**

**Voice Vote: Ayes: Unanimous
 Nays: None**

MOTION APPROVED

APPROVAL OF MINUTES

Mr. Marshall added a word to the minutes and the correction was made. Page 3, line 116 with the addition of the word "not".

**Motion by Marshall, second by Janke
To approve the January 18, 2024 minutes as amended.**

**Voice Vote: Ayes: Unanimous
 Nays: None**

MOTION APPROVED

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CALL TO THE PUBLIC – None

BUSINESS ITEMS

A. SP02-2024 Site plan approval for a new phase – Phase 1E – of the Legacy Park Planned Unit Development on a 90.77-acre site on tax parcel ID number 4716-20-100-003. Legacy Center – Field Hockey Field, Phase 1E

Ms. Marin referenced the Carlisle Wortman memo dated February 2, 2024. In general, the site plan lacks the details needed to demonstrate compliance with the overall approved Legacy Park PUD agreement. Carlisle Wortman recommended that the applicant address the following items before the Planning Commission takes action on the proposed site plan.

1. Applicant to provide bleacher dimensions.
2. Applicant to provide lengths and widths of all proposed walkways.
3. Applicant to provide lighting plan and photometric map that demonstrates compliance with Sec. 38-364 of the Zoning Ordinance, if new lighting is proposed.
4. Applicant shall provide parking calculations that indicate all uses and parking areas within the Legacy Center PUD area.
5. Applicant to provide landscaping plan that demonstrates compliance with Sec. 38-177 of the Zoning Ordinance.
6. We defer to the Township Engineer to review grading, drainage, and soil erosion and sedimentation control plans.
7. Applicant to provide sign details that demonstrate compliance with Article 9 of the Zoning Ordinance.

Mr. Miner referred to the CES memo dated February 15, 2024. The application they received for this item was an engineering review application, and Boss Engineering has addressed those items. There are a few site plan issues. Parking has been mentioned, they note improvements from previous phases are not complete, but they do have cash deposits to cover those. They have a concern with the onsite sewage system to handle the proposed expansions, the field hockey facility doesn't affect the sanitary. They have a concern with the number of spectators, tournaments, they know this is also being addressed by Boss Engineering and that information is forthcoming.

Brent LeVanway, Boss Engineering
Rodney Goble, The Legacy
Keely Tamer – Great Lakes Field Hockey

Mr. LeVanway explained phase 1E is consistent with the original PUD, it's straightforward, it's going to be a field hockey field, this will be the first one and it will be run by Great Lakes Field Hockey. There will be a retaining wall at the south end, that is also where the scoreboard will be mounted, it won't be visible from anywhere except on the field itself. The bleachers are minimal with seating for 84 people, and they will not be terraced earth, they will be bleachers and parking is 84. There is no lighting

99 proposed, strictly used during daylight hours. There are some additional sections of
100 sidewalks proposed too. There is no landscaping proposed but there is some in the
101 south area. They are pleased to address the concerns in Carlisle Wortman as those
102 come up.

103
104 Clerk Sedlak confirmed there is no night field hockey, there is no bleed over lighting
105 from the ball fields. Mr. Goble stated no, in the previous site plan amendment the
106 lighting was decreased and there are lit fields on the soccer and ball fields but that is all,
107 to the field hockey specifically there are no plans to light it.

108
109 Mr. Nale stated they are figuring 84 people, he could see them doing tournaments, it
110 seems awfully light.

111
112 Ms. Keely Tamer from Great Lakes Field Hockey explained it's developmental play and
113 growing the sport, it's not tournaments. There is just one field that is not a place that
114 tournaments would be held. 84 people at that field is realistic. Typically, they have
115 about 15-20 people on a team.

116
117 Mr. Nale questioned how does EMS access the site if someone was to get hurt? Mr.
118 LeVanway stated they have two options, they could park in the south parking lot and go
119 down the stairs, or park in the north parking lot which is at field level. He confirmed
120 there are approximately 30 stairs to go down on the south side.

121
122 Mr. Janke stated there are shortcomings as presented, are they working on those. Mr.
123 LeVanway explained the landscaping is already present in the south parking lot, and
124 there is no lighting, they have addressed the concerns by the discussion this evening.
125 Mr. Janke questioned the sign. Mr. LeVanway stated they haven't worked through that
126 detail yet, a scoreboard is not considered a sign, it will be a standard sports scoreboard,
127 and there is no visibility of the scoreboard from Winans Lake Road.

128
129 Mr. Lee questioned the total parking. Ms. Marin stated because there was a deviation
130 in the use, 84 is not a high number, however they are using the same area, all of the as
131 proposed uses is assessed for the total usage.

132
133 Mr. Marshall stated since it deviates from the PUD agreement do they go through an
134 amendment process for the PUD. Clerk Sedlak stated yes, and they can confirm that
135 with the Township Attorney.

136
137 Mr. Nale questioned the items on the outstanding punch list. Mr. Goble stated one is
138 like a dumpster enclosure and the topcoat of asphalt on the south parking lot. There
139 are cash bonds on all of the items. There are also items that have come off that list.
140 Mr. Gobel agreed the dumpster enclosure could be completed now.

141
142 **Motion by Pearsall, second by Marshall**
143 **To approve SP02-2024 Site plan for the field hockey field, phase 1E Legacy**
144 **Center.**

- 145 **1. Addresses all outstanding items in Planner's report dated February 2,**
146 **2024.**
147 **2. Addresses all outstanding comments in the engineer's report dated**

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February 15, 2024.

3. Also, if needed, an administration review with the attorney on the PUD Amendment.

**Roll Call Vote: Ayes: Unanimous
Nays: None**

MOTION APPROVED

B. SP03-2024 Legacy Center – Wellness Center Building, Phase 1F Site plan and special approval use application for a new phase – Phase 1F – of the Legacy Park Planned Unit Development on a 90.77-acre site on tax parcel ID number 4716-20-100-003.

Ms. Marin referred to the Carlisle Wortman memo dated February 2, 2024. Clerk Sedlak explained all of this information will be reviewed at the required public hearing, so he suggested they wait until then so all the information is heard at the same time as the public hears it.

**Motion by Sedlak, second by Marshall
To postpone until after the public hearing on March 7, 2024.**

**Voice Vote: Ayes: Unanimous
Nays: None**

MOTION APPROVED

C. Discussion on text amendment for Zoning Regulations on Wedding Event Barns.

Clerk Sedlak noted this is a highly welcomed idea but they need to set some criteria. The existing venue in Brighton Township is on a main paved thoroughfare. Having the location be off of a paved road is important. The applicant needs roughly 14 acres, so they need to discuss a minimum acreage requirement. They can create a zoning district that will meet the criteria.

Ms. Marin explained they do have sample language and best practices from other municipalities. She suggested setting a minimum acreage, must be on a paved road, and must be on sewer/water, to name a few. She will send the outline to the Commissioners so they can provide feedback.

Mr. Marshall noted the number of people allowed should be contingent on the size of the parcel and have some way of scaling that.

REPORTS

Chairman – None

Township Board Representative – Clerk Sedlak reported the new treasurer has

197 started and is doing a terrific job. They are at full tilt for the election, and they are in
198 need of election workers. They are being warned from people at high levels for
199 potential voting disruptions.

200 **Zoning Board of Appeals Representative** – None

201 **Planning Consultant** – Ms. Marin thanked the Commissioners for the welcome.

202 **Correspondence** – None

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204 **CALL TO THE PUBLIC** - None

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207 **ADJOURNMENT**

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209 The Planning Commission meeting adjourned at 7:50 p.m. due to no further business.

210

211

212 Respectfully Submitted,

213

214 *Kellie Angelosanto*

215

216 Kellie Angelosanto

217 Recording Secretary



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February 29, 2024

Via Email

Debra McKenzie
Planning & Zoning Administrator
Green Oak Township
1001 Silver Lake Rd.
Brighton, Michigan 48116
E-Mail:
debra.mckenzie@greenoaktownship.com

Re: SP03-2024-Legacy Center Wellness Center Building

Dear Ms. McKenzie:

As you know I am counsel to Legacy Center in this matter. This letter addresses comments raised by Carlisle/Wortman in their review letter dated February 2, 2023, regarding the special land use considerations for the proposed Livingston Christian School (the "School") tenancy in the proposed Legacy Center Wellness Building. After speaking with Mr. Montagno yesterday, I have a better understanding of his comments and thought it more efficient to respond in advance than to wait until the public hearing next week. I would appreciate it if you would include this letter in the materials to be given to the Planning Commission in preparation for the public hearing. The focus below is strictly on the special land use standards with respect to the School.

1. Will be harmonious and in ordinance with the general objectives or any specific objectives of the Township's Master Plan.

Schools are specifically allowed as a special land use (SLU) in the Village Mixed Use-2 (VMU-2) zoning district. A special land use is a use that is generally permissible in the district, but because of unique factors may require more detailed scrutiny and provides the Planning Commission with discretion to impose reasonable conditions. Schools are often special land uses. Indeed, the wellness building itself is a special land use in the VMU-2 district, but such health care uses were previously approve through the PUD. This special district encourages a mixture of uses, including commercial, business, recreational and residential. As the 2023 Master Plan states it is not desired that the entire property be developed for commercial uses. Although the term mixed-use is not defined in the Zoning Ordinance, the term typically refers to both vertical and horizontal mixed uses. The proposed school is a compatible use in a mixed-use building. Mr. Montagno states in his report that a school should be free standing. This is not required anywhere in the Zoning Ordinance. After discussing the matter with Mr. Montagno, it appears that the



Carlisle | Wortman
ASSOCIATES, INC.

117 NORTH FIRST STREET SUITE 70 ANN ARBOR, MI 48104 734.662.2200 734.662.1935 FAX

Date: July 31, 2023
Revised: December 22, 2023
Revised: February 2, 2024

Preliminary Site Plan / Special Approval Use Review for Green Oak Township, Michigan

Prepared for:	Planning Commission
Prepared by:	Paul Montagno, AICP Michelle Marin
Applicant:	Rodney Goble
Project Name:	Legacy Center – Wellness, Phase 1F
Plan Date:	May 1, 2023
Revised:	August 23, 2023, received October 12, 2023
Revised:	January 17, 2024
Location:	9299 Goble Drive
Zoning:	PUD (Village Mixed Use - 2)
Action Requested:	Preliminary Site Plan Approval

PROJECT and SITE DESCRIPTION

The applicant is requesting site plan approval for a new phase – Phase 1F – of the Legacy Park Planned Unit Development on a 90.77-acre site on tax parcel ID number 4716-20-100-003.

The subject site is zoned PUD Village Mixed Use - 2. It is located within the Legacy Park Open Space Planned Unit Development (PUD) district, a 285-acre PUD. The overall PUD is located north

*Benjamin R. Carlisle, President John L. Enos, Vice President Douglas J. Lewan, Principal
David Scurto, Principal Sally M. Elmiger, Principal R. Donald Wortman, Principal Craig Strong, Principal
Paul Montagno, Principal Megan Masson-Minock, Principal Laura Kreps, Principal
Richard K. Carlisle, Past President/Senior Principal*

Legacy Center – Wellness Building

February 2, 2024

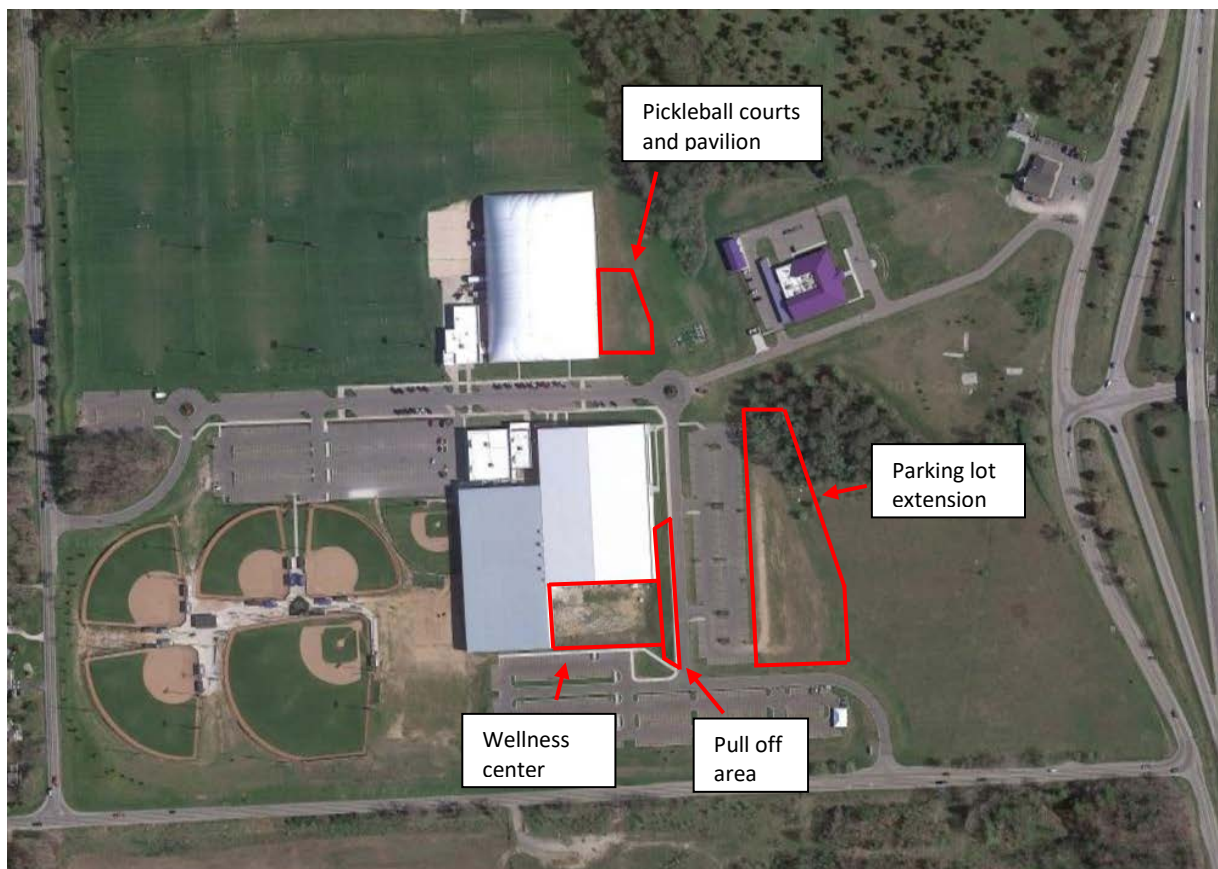
and south of Winans Lake Road between Whitmore Lake Road and Rickett Road. The parking lot and pickleball/tennis court areas of this subject site lie to the west of open space zoned PL – public land.

The site plan proposes three areas: a pickleball/tennis court area, a parking lot extension, and a wellness center building with medical facilities and a private school. A pull-off area is also proposed adjacent to the east side of the fieldhouse, providing a drop-off area outside the existing fieldhouse and the proposed wellness center. The pull-off area is preceded by a 47-car stacking lane that meanders through the parking lot.

The 107,035 sq-ft wellness center will include one below-grade level, an entry-level, and an upper level. Along with the existing sports buildings, this new building will bring the total building area to 310,169 sq-ft. The fitness facilities for Phase 1 of the Legacy Center project are exempt from the aggregate and single-user square foot limitations set forth in Section 38-138(g)(2)(b) of the Zoning Ordinance.

The lower level is proposed to include most of the fitness club spaces including strength training, spinning, yoga, boxing gymnastics, cardio, dance, pool area, locker rooms, laundry facilities, and a turf area. The entry-level is proposed to feature an urgent care, medical and physical therapy spaces, and several tenant spaces, including a café space. The upper level is proposed to house more fitness spaces, sixteen (16) classrooms, a cafeteria, and administrative offices.

Figure 1 Aerial Image of Subject Site and Vicinity



Source: NearMap

The project layout and proposed uses are generally consistent with the overall Legacy Park PUD agreement that was amended and approved by the Planning Commission and subsequently the Township Board on February 15, 2017. There are, however, several deviations from the approved PUD agreement.

The first deviation is the pickleball/tennis court area: the overall Legacy Park PUD agreement indicated that this area would instead be occupied by three (3) full-sized tennis courts and did not include a pavilion that is adjacent to the existing sanitary treatment area. We do not see these changes to be a significant change to the PUD.

A second deviation is the proposed entry-level café space and upper-level cafeteria. The PUD agreement only specifies food service establishments as being permitted in the commercial area in Phase 2. There are access doors to the cafeteria from both the common corridor and the school, indicating that cafeteria access will be shared among general wellness center members and/or staff and the students. The entry-level café and retail spaces are designed to service fitness club members, but the applicant notes that the general public will not be excluded from using the café or the cafeteria.

The pull-off area proposed to the west of the east parking lot and the stacking lane is also a deviation from the PUD Agreement. The applicant has indicated that the intent of the pull-off area and stacking spaces is to accommodate the proposed school use. A school is considered a Special Approval Use in the VMU District. According to the PUD agreement, Special Approval Uses listed in the VMU District could be allowed if the special use standards of the Zoning Ordinance are satisfied. Therefore, this use must be considered based on the process and criteria in Section 38-44 of the Zoning Ordinance. The applicant has applied for special approval use for the school. An evaluation of the special use standards is provided in the following section of this report.

Items to be Addressed: (1) *Planning Commission shall discuss deviations from the PUD Agreement.* (2) *The proposed school use must be considered by applying the process and criteria in Section 38-44 of the Zoning Ordinance.*

SPECIAL LAND USE CONSIDERATIONS

The applicant has applied for special use approval for the Livingston Christian School within the wellness center building. A school is a use that may be permitted under the PUD Agreement and the VMU-2 District, subject to special land use approval. According to Section 38-44(b), the Planning Commission shall hold a public hearing, notice of which shall be given in accordance with Section 103 of the Michigan Zoning Enabling Act, Public Act No. 110 of 2006. The Planning Commission may deny, approve, or approve with conditions a special approval use permit. According to Section 38-44(c), the Planning Commission shall review the proposed special approval use in terms of the standards stated and shall establish that such use and the proposed location meet the following standards:

1. Will be harmonious and in ordinance with the general objectives or any specific objectives of the Township’s Master Plan.

CWA Comment: This area of the Township is designated for village mixed-use. Per the master plan, the intent of the Village Mixed-Use district is to create a “village-like” atmosphere with areas of various uses that are interconnected, pedestrian friendly, and blend community-oriented business development with single-family residential, attached multiple-family residential, and senior citizen housing/services. While schools are contemplated as a potential component of the Village Mixed-Use district, the intent is for a walkable, free-standing neighborhood school that would not be located with other uses in a building and that would provide the dedicated outdoor recreation areas required for the students’ use. The proposed school is a private school that draws students from the region, not a local neighborhood school. The applicant indicated in the letter dated October 12, 2023, that students arrive by private car. They also note that students from the future neighborhood could attend the school; however, this is not a neighborhood school. The first Community Facilities and Services goal of the draft 2023 Master Plan indicates that all schools should be functional, safe, and accessible. The placement of this school within the Legacy Center Wellness Building is not functional, as discussed in this review.

2. Will be designed, constructed, operated, and maintained to be harmonious and appropriate in appearance with the existing or intended character of the general vicinity and will not change the essential character of the area.

CWA Comment: Prior to the inclusion of the proposed building and additional uses, current operations generate intense traffic. Schools tend to increase traffic significantly, particularly during early morning and mid-afternoon peak hours. The new August 28, 2023, trip generation study indicates a predicted increase in AM peak traffic as a result of the school use. It is unclear if the urgent care facility was included in this traffic study, as only an ITE medical office land use is identified in the analysis. The applicant response letter, dated January 19, 2024, does not offer clarity on this point. Further, the proposed stacking lane, which is intended for the school use, meanders through the parking lot, blocking parking spaces and impeding circulation.

The applicant indicated in the letter dated October 12, 2023, that the on-site availability of basketball, volleyball, baseball, softball, and soccer facilities far exceeds the recreation opportunities of many other schools; the applicant has not indicated how student use of the recreation facilities at Legacy Center will be balanced with the use of these facilities by club teams, fitness club members or if any separation of facility use is proposed during school hours. There do not appear to be any outdoor recreation areas specifically dedicated solely to the school. The absence of a dedicated area for the school will likely result in conflicts with the use of other designated outdoor use areas.

3. Will not be directly or indirectly hazardous or disturbing to existing or future uses, ecosystems, waterways, wetlands, etc.

CWA Comment: The school is proposed to be on the upper level of the wellness building, and it will share a lobby with fitness facilities. The letter from the applicant dated October 12, 2023, indicates that the students will have access to private entrances with doors that require scan cards for entry. However, these separate entrances are not indicated on the site plan, and the stairwell indicated for entry to the school requires first entering the general main entrance to the wellness building and passing by the urgent care entrance. This proposed use does not seem to blend in with the general character of the wellness building. The co-presence of school and medical facilities poses safety and privacy issues to users of both facilities.

4. Will be an improvement in relation to property in the immediate vicinity and to the Township as a whole.

CWA Comment: The inclusion of the proposed school in this wellness center does not appear to be an improvement to the property or the broader Legacy Center area. It may instead pose a negative impact on the other uses planned for this PUD in the original PUD agreement, as patrons of these uses would now be required to contend with students and the subsequent parking and traffic generation, a use not typically located in the same building as busy business uses.

5. Will be served adequately by essential public services and facilities or that persons responsible for the establishment of the proposed use will provide adequately for such service or facility.

CWA Comment: A school and the associated cafeteria will put additional burdens on the site utilities. The number of fitness club members utilizing the full wellness center facilities is stated as 250 at any one time: a reduction from the 400 previously stated. On the October 12, 2023, letter, the applicant conversely indicated that the total number of fitness club members on-site in a 24-hour period would be 250. Details of how this reduced number of fitness club members on-site at one time will be maintained are not offered. Notably, the school use is expected to include 225 students and 49 staff, indicating that the school use on roughly half of the upper level will hold more users than that of the entire remaining wellness center. We defer to the Township Engineer to evaluate whether the existing sewage disposal system is designed to accommodate this number of students and fitness club members.

6. Will not create excessive additional public costs and will not be detrimental to the economic welfare of the Township; and

CWA Comment: The applicant indicated in the October 12, 2023, letter that the student body is predicted to primarily consist of Livingston County residents, but no details are offered on how student residency data is collected or if and how residency quotas are maintained. The updated traffic study offered by the applicant indicated that the wellness center with the proposed deviations from the approved PUD site plan will result in an increase in AM peak hour traffic generation when compared to the results of the 2018 traffic study.

7. Will be consistent with the intent and purposes of the Zoning Ordinance.

CWA Comment: The school use is not consistent with the uses established for this area by the Zoning Ordinance nor the PUD Agreement. The PUD was approved to host various indoor and outdoor recreation facilities. The inclusion of a school alters the character of the facility, which was intended to offer services to all demographics with staggered, all-day programming, and a diversity of activities within the health and fitness use category. An on-site school would concentrate use during school hours, posing additional challenges to patrons of the wellness center and medical facilities who enter or exit the facility alongside the students.

Items to be Addressed: The Planning Commission must review the proposed special approval use in terms of the recommended findings in the Zoning Ordinance and PUD Agreement.

AREA, WIDTH, HEIGHT, SETBACKS

The site plan proposes the construction of six (6) pickleball courts, one (1) full-sized tennis court, and one (1) twenty-five-foot by fifty-foot (25' x 50') pavilion that is ten and a half (10.5') feet tall. The proposed wellness center will be an addition to the existing basketball building and fieldhouse. The northern wall of the wellness center will be shared with the fieldhouse and the eastern wall will be shared with the basketball building. The south and west walls will follow the same building lines as these two existing adjoining buildings. The below dimensional requirements apply to the wellness center.

The following dimensional requirements apply to mixed-use buildings and non-residential uses within the VMU-2 zoning district. In this case, these dimensional requirements will apply to the wellness center building and the pavilion.

Table 1. Dimensional Standards

Area	Required	Provided	Compliance
Front yard setback	20 feet	299.49 feet	Complies
Rear yard setback	40 feet	416.36 feet	Complies
Maximum Building Height	3 stories (36 ft)	36 feet	Complies

Items to be addressed: None.

SITE ACCESS and CIRCULATION

Access to the subject site will be provided by existing access drives. Goble Drive, a private internal drive, provides access to all the parking lots and facilities within the Legacy Center PUD area. Goble Drive also provides access to public roads with access points on both Winans Lake Road and Rickett Road. There is a sidewalk that borders Goble Drive throughout most of the development, and now provides a pedestrian connection to Rickett Road. Crosswalks are indicated on locations where a sidewalk meets a road or drive. The parking lot extension will

include the construction of an access drive for the east parking lot. The plan also proposes the addition of an eight (8') foot-wide pedestrian sidewalk along a segment of Goble Drive, connecting Winans Lake Road to the proposed Wellness Center. An additional eight (8') foot wide sidewalk is shown to connect Winans Lake Road to the wellness center, with this sidewalk running alongside Goble Drive, south of the east parking lot. The site plan further depicts a short 56.20-foot long and eight (8') foot wide sidewalk segment to connect the existing sidewalk that fronts the existing field house and proposed wellness center with the east parking lot. A fourth sidewalk segment (seven feet wide) is proposed alongside the pull-off area to the west of the east parking lot, next to the existing field house and the wellness center. A fifth sidewalk segment (six feet wide) is depicted to connect the northwest corner of the east parking lot to Goble Drive. A sixth sidewalk segment (eight feet wide) is proposed to connect the parking area that lies north of the existing field house to the pickleball courts. Per our previous site plan review recommendation, the applicant added a raised pedestrian crosswalk along Goble Drive to connect the northwest end of the parking lot to the building facilities.

It appears that the parking lot will include two-way traffic that is accommodated by twenty-four (24') foot-wide drive aisles. A circulation map was provided by the applicant on sheet C5, indicating how emergency vehicle access will be provided either from the south of Winans Lake Road or north from Goble Drive from the Access drive off Whitmore Lake Road south of the Township fire department.

As noted above, there are no new site access points proposed. However, the introduction of new uses to the site that were not previously proposed, specifically the school use, will introduce a different type and intensity of traffic and congestion to a site that already experiences significant congestion. The updated traffic study offers several conclusions, predicting an increase in AM peak hours traffic and a decrease in PM hours traffic compared to the predicted traffic volume offered in the 2018 traffic study.

Items to be Addressed: None.

LIGHTING

The January 17, 2024 site plan includes a lighting plan and a photometric map on A-002 as well as the previous photometric map and lighting plan of the parking lot extension on Sheet C16. These two sheets offer conflicting information that the applicant should address by providing a single, updated lighting plan.

Sheet C16 indicates that four (4) wall-mounted lights will be placed on the east side of the wellness center, but Sheet A-002 shows an additional six (6) wall-mounted lights on the south side of the wellness center. Sheet A-002 indicates that the lights will be mounted at twelve (12) feet. Details on how these lights will be shielded are not offered.

Sheet A-002 indicates that seventeen (17) pole-mounted lights are proposed throughout the parking lot extension. Sheet C16 shows only eleven (11) pole-mounted parking lot lights of two (2) different varieties.

Both photometric plan sheets indicate that the pole-mounted lights are mounted at twenty-five (25') feet. Section 38-364(e)(1) indicates that the maximum height of pole light fixtures shall be twenty (20) feet. The applicant indicates that they are consistent with existing poles at the site. However, it is not clear that this was an approved deviation from the ordinance in the approved PUD.

The two photometric plan sheets also provide differing illumination values throughout the parking lot extension which should be clarified with a single new photometric grid. Furthermore, the photometric map only indicates the illumination for the parking lot extension and areas to the south and east of the proposed wellness center. Section 38-364 of the zoning ordinance requires the inclusion of a photometric grid overlaid on the proposed site plan, indicating the light intensity throughout the site.

The applicant indicated in their January 19, 2024, response letter that no new lighting is proposed for the pickleball and tennis court area.

Items to be addressed: (1) Applicant shall correct inconsistencies between two photometric plan sheets by including a single, updated photometric plan and grid. (2) Applicant shall reduce the height of the pole-mounted light fixtures to comply with Section 38-364. (3) Applicant shall include a photometric grid of the entire site plan area, as set forth in Section 38-364.

PARKING AND LOADING

The proposed parking area would be an extension of the existing east parking lot. The site plan also includes the construction of a ten-foot by twenty-foot (10' x 20') dumpster enclosure on the northwestern corner of the existing east parking lot. A pull-off area with an adjacent sidewalk is also proposed to the west of the existing east parking lot.

The parking calculations for this project must be assessed along with all other uses and parking needs that are within the Legacy Center project. The approved PUD Site Plan requires parking calculations to be determined by use, using the requirements of the Zoning Ordinance. To assess the adequacy of the parking for the Legacy Center site plan, the applicant should provide parking calculations that include all uses and parking within the approved Legacy Center PUD area. In the current absence of these total parking calculations, we offer the following discussion regarding the Phase 1F uses and designated parking areas.

Per our previous recommendation, the updated site plan calculates the required parking for the wellness center using the "Personal service establishment" use, which requires one space per three hundred (300) square feet of usable floor area plus one (1) space per each (2) employees, as referenced in Section 38-312. This new parking calculation is provided in Table 2.

Forty-seven (47) stacking spaces are provided. Sheet C13 includes a narrative description of the stacking spaces' functionality. However, the new traffic impact study did not determine the feasibility of the stacking spaces, so the stacking spaces are not to be included in the parking calculation.

Furthermore, in offering parking calculations for the pickleball and tennis court area, Sheet C13 references calculations recommended by the applicant. The Zoning Ordinance does not include calculations for tennis courts or similar uses, and we generally agree with the calculation offered by the applicant. However, the calculation used on Sheet C13 assumes six (6) total courts, excluding the one (1) proposed tennis court. As such, the calculations provided in Table 2 below calculate parking for seven (7) courts: six (6) pickleball and one (1) tennis court.

Table 2. Parking Calculations

Required	Provided	Compliance
<p><u>School</u>: 1 space / teacher + 1 space / 10 students + 1 space / employee = 15 teachers + (280 students / 10) + 6 employees = 49 spaces</p> <p><u>Medical office</u>: 1 space / 150 square feet of usable floor space (i.e. 80% of gross floor space) = (19,431 square feet x 80%) / 150 = 103.6 = 104 spaces</p> <p><u>Wellness Center</u>: 1 space / 300 square feet of usable floor area + 1 per 2 employees = (55,602 interior + 20,170 court area) / 300 UFA = 252.6 + ½ x 8 employees = 4 = 257 spaces</p> <p><u>Court area</u>: 8 people per court x 7 courts = 56 people 56 / 2 = 28 spaces</p> <p>Total = 438 spaces</p>	<p>214 spaces + 193 carryover spaces constructed in Phase 1D</p> <p>= 407 parking spaces</p>	<p>Does not comply</p>

Items to be addressed: Applicant shall provide parking calculations that indicate all uses and parking areas within the Legacy Center PUD.

LANDSCAPING

Sheet C10 includes an updated overall landscape plan. The plan indicates that five (5) honey locust, six (6) pin oak, and six (6) red maple trees will be planted in the parking lot area, near the wellness center, and near the proposed pickleball and tennis courts. The following landscape requirements apply to the subject site. As noted in Table 3, there are general site landscaping deficiencies.

Table 3. Landscape Calculations

Required	Provided	Compliance
1 tree per every 3,000 square feet of project area	2 trees	Does not comply
1 tree per every 300 square feet of parking lot area	14 trees	Does not comply

4,280 square feet / 300 = 14.27 trees = 15 trees		
20 square feet of interior landscaping per parking space 214 spaces x 20 square feet = 4,280 square feet	5,206 square feet of internal landscaping	Complies

Items to be addressed: Applicant shall adjust parking lot landscaping to comply with Section 38-177.

GRADING AND STORMWATER

Grading and drainage plans have been provided on sheets C6, C6A, C6B, and C6C and an overall stormwater management plan is provided on sheet C12 of the submittal. We defer to the Township Engineer to review this information.

Items to be Addressed: We defer to the Township Engineer to review grading, drainage, and stormwater plans.

FLOOR PLANS AND ELEVATIONS

Elevations of the proposed pavilion by the pickleball courts have been provided on sheet A-005. The pavilion includes eight (8) tube steel columns and overhead fabric sunshades mounted at ten-and-a-half (10'6") high. The building elevations for the proposed wellness center deviate from the elevations approved in the PUD agreement. Although inconsistent with the PUD agreement, the elevations do not appear to conflict with general design standards.

Items to be addressed: The Planning Commission shall consider proposed elevations that deviate from the PUD agreement.

RECOMMENDATIONS

In general, the site plan is consistent with the concept and layout of the approved PUD agreement. However, we recommend the following items be addressed before action is taken on the proposed site plan:

1. The Planning Commission should discuss deviations from the PUD Agreement.
2. The proposed school use must be considered by applying the process and criteria in Section 38-44 of the Zoning Ordinance.
3. The Planning Commission must review the proposed special approval use in terms of the recommended findings in the Zoning Ordinance and PUD Agreement.
4. Applicant shall correct inconsistencies between two photometric plan sheets by including a single, updated photometric plan and grid.

Legacy Center – Wellness Building

February 2, 2024

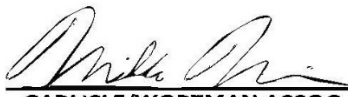
5. Applicant shall reduce the height of the pole-mounted light fixtures to comply with Section 38-364.
6. Applicant shall include a photometric grid of the entire site plan area, as set forth in Section 38-364.
7. Applicant shall provide parking calculations that indicate all uses and parking areas within the Legacy Center PUD area.
8. Applicant shall adjust parking lot landscaping to comply with Section 38-177.
9. We defer to the Township Engineer to review grading, drainage, and stormwater plans.
10. The Planning Commission shall consider proposed elevations that deviate from the PUD agreement.



CARLISLE/WORTMAN ASSOC., INC

Paul Montagno, AICP

Principal



CARLISLE/WORTMAN ASSOC., INC.

Michelle Marin

Community Planner

- cc. Mark St. Charles, Township Supervisor
Debra McKenzie, Planning & Zoning Administrator
Carol Rosati, Township Attorney
Leslie Zawada, Township Engineer
Rick Miner, Township Engineer
Kevin Gentry, Township Fire Chief
Rodney Goble, Applicant, (goble24@gmail.com)
Jon Stevens, Applicants Engineer, (jstevens@mcfategroup.com)



Dykema Gossett PLLC
39577 Woodward Avenue
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Tel: (248) 203-0700

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Direct Fax: (855) 236-1206

Email: AGreene@dykema.com

January 19, 2024

Via Hand Delivery

Debra McKenzie, Planning and Zoning
Administrator
Green Oak Township
10001 Silver Lake Road
Brighton, MI 48116

Re: Legacy Center Wellness Building—Preliminary Site Plan and Special Land Use Request

Dear Ms. McKenzie:

This letter includes the collective responses of the development team to the Second Review letter submitted by Carlisle/Wortman dated December 22, 2023 (the "Review Letter"). With respect to the 10 items to be addressed identified at the end of the letter (letter is not paginated), we note as follows:

1. Acknowledged. No response required.
2. We acknowledge the process and criteria to be applied. No response required.
3. We acknowledge the statement made regarding review of the special land use for the school, but we are not clear about the reference to "recommended findings" in the Zoning Ordinance and PUD Agreement and how that differs or should differ from the application of the criteria in Section 38-44 of the Zoning Ordinance. But otherwise, no response is required.
4. The photometric plan for the wellness center has been added to the plan set as Sheet A-002. The pickleball courts have no proposed lighting.
5. The proposed pole heights are consistent with the other existing poles throughout the site that were previously approved for other phases. This is included in a box note in the upper right corner on the [Parking Lot] Photometric Plan, Sheet C16.
6. The photometric plan for the wellness center has been added to the plan set as Sheet 16A. It includes information for the shielding of the lights on the exterior of the wellness center.
7. Parking calculations have been revised and are provided on Sheet C13. While we do not necessarily agree with the parking analysis in the Review Letter, the parking calculations have been revised to now consider the fitness center a "personal service establishment" and parking spaces are calculated accordingly. The owner has provided the number of employees for the fitness center to complete the parking calculations. The pickleball court

Debra McKenzie, Planning and Zoning
Administrator
Green Oak Township
January 19, 2024
Page 2

parking calculations have been separated from those of the fitness center and are based on the recommendations of the owner. Those calculations are also provided on Sheet C13.

8. Adjusted 'General Site' Landscaping per Section 38-177: Seven (7) trees have been added to the fenced in area around the pickle-ball court in recognition that this is considered by ordinance as an 'area of the site not already containing specific landscape requirements.' The tree species allocation in the plant list has also been adjusted.
9. Acknowledged. No response required.
10. Acknowledged. No response required.

The revised plan site plan is enclosed herewith for confirmation of the changes. We note that the Review Letter also contains the subjective views of the Township's Planning Consultant regarding the application of the special land use criteria for the school tenancy in a portion of the building. We disagree with those subjective views and believe they are not supported by any objective facts and will be prepared to address those matters at the public hearing on the special land use.

As previously explained, the School is currently operating out of a church property in Genoa Township and will continue to operate there. The School is just splitting up grades because it has reached its capacity at its current location. The School asked Genoa Township if it would provide any comments or observations regarding the current school operations and the Township Manager replied: "Genoa Township is pleased to report that we have received no complaints in regard to the operations of Livingston Christian School at Brighton Church of the Nazarene. In addition, to my knowledge, the School has been attentive to zoning and maintaining compliance with their special land use approval." Email is also attached hereto.

Please let us know when we would be placed on the Planning Commission agenda for a public hearing and consideration. We would like to move the project forward. Thank you.

Sincerely,

Dykema Gossett PLLC



Alan M. Greene

Enclosure

----- Original message -----

From: Kelly VanMarter <Kelly@genoa.org>

Date: 1/9/24 2:33 PM (GMT-05:00)

To: rwiegand <rwiegand@livingstonchristianschools.org>

Subject: RE: Livingston Christian Schools

Happy to help Rob! Genoa Township is pleased to report that we have received no complaints in regard to the operations of Livingston Christian School at Brighton Church of the Nazarene. In addition, to my knowledge, the School has been attentive to zoning and maintaining compliance with their special land use approval.

Hope this helps!

Kelly VanMarter, AICP

Township Manager

Genoa Charter Township

2911 Dorr Road, Brighton, Michigan 48116

Direct: (810) 588-6900, Phone: (810) 227-5225, Fax: (810) 227-3420

E-mail: kelly@genoa.org, Url: www.genoa.org

From: rwiegand <rwiegand@livingstonchristianschools.org>

Sent: Monday, January 8, 2024 3:52 PM

To: Kelly VanMarter <kelly@genoa.org>

Subject: Livingston Christian Schools

Happy New Year Kelly,

I hope this email finds you and your family well. I have a bit of a favor to ask. LCS is currently working with Brent LaVanway and Allen Greene, and we are in the process of acquiring a Special Use permit through Green Oaks Township to lease some space at the Legacy Center. Allen had a meeting with Green Oaks Township before the Holidays and they asked him about LCS's relationship with Genoa Township and if there had been any public complaints about the school (traffic, noise, etc) after we moved into the NAZ. I told Allen that as far as I knew, there were no complaints and I felt our relationship with Genoa Township was solid. Allen thought it would be a good idea if we were able to get a sentence or two from Genoa stating as much for our next meeting with Green Oaks Township.

So this is where I need the favor. If you haven't had any complaints and feel LCS's relationship with the Township is good, would be able to respond to this email with a sentence or two? Thank you.

In Christ's Service,

Rob Wiegand

Livingston Christian Schools

Sent from my Galaxy



3121 E. Grand River Howell, MI 48843
517.546.4836 fax 517.548.1670
www.bosseng.com

January 23, 2023

Ms. Debra Mckenzie
Planning and Zoning Administrator
10001 Silver Lake Road
Brighton, MI 48116

Re: 2nd Resubmittal of Legacy Center Phase 1F – Medical Wellness Center project for review and approval

Dear Ms. McKenzie,

Boss engineering, on behalf of Legacy Center LLC., is submitting for review and approval the Site Plan set for the Legacy Center Phase 1F project, located at the Legacy Center Sports Complex in Brighton, MI. This submittal is intended to address the comments provided in the reviews completed by CES on October 30, 2023 and Carlisle Wortman on December 22, 2023. Included with this submittal are six copies of the Site Plan rev.2 set with accompanying architectural plans, response letters to the CES and Carlisle Wortman reviews, and a USB flash drive containing the electronic versions of all the above-mentioned files.

We appreciate your time and please reach out to Boss Engineering with any questions.

Sincerely,
BOSS ENGINEERING COMPANY

A handwritten signature in black ink, appearing to read "Mark DeFriez". The signature is fluid and cursive.

Mark DeFriez, P.E.
Project Engineer

Legacy Center - Wellness

9299 Goble Drive
Brighton, MI 48116

Released For: Site Plan - Rev 2

Release Date: 01/17/2024
Project Number: 22-001



Project Team

Owner: Legacy Center
Contact: Rodney Goble
9299 Goble Drive, Brighton, MI 48116
(810) 231-9288 - goble24@gmail.com

Design Builder: The McFate Group
Architect: Contact: Jon M. Stevens, AIA
Contractor: Contact: Robert McFate
7136 Jackson Rd,
Ann Arbor, MI 48103
(734) 433-0020

Civil Engineer: Boss Engineering
Contact: Trevor Ehredt
3121 E. Grand River Ave,
Howell, MI 48843
(517) 546-4836

Structural Engineer: IMEG Engineers
Contact: Dawn Taylor
Contact: Lisa Butzlaff
33533 Twelve Mile Road, Ste 200
Farmington Hills, MI 48331
(248) 344-2800

Mechanical Plumbing Fire Protection: Sellinger Associates
Contact: Naum Popovski
19821 Farmington Road,
Livonia, MI 48152
(248) 482 0045

Electrical Engineer: ETS Engineering, Inc.
Contact: Scott Leo
418 1/2 S Washington Ave,
Royal Oak, MI 48067
(248) 744-0360

Geo Technical Engineer: G2 Consulting.
1350 Eisenhower Place
Ann Arbor, MI 48108
Attn: Mark Stapleton
(734) 390-9330

Pool Consultant: Baruzzini Aquatics
1281 Old US Highway 23
Brighton, MI 48114
Attn: Nick Palizzi
(810) 229-8996

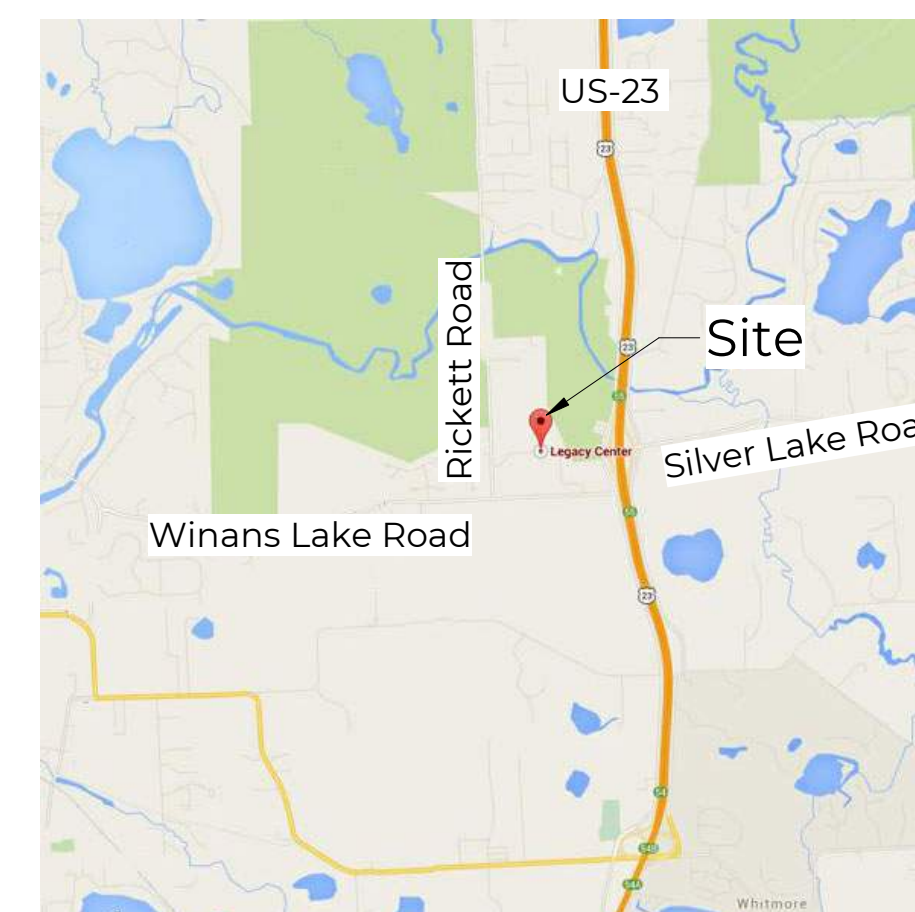
Project Description

This project consists of a Wellness Center addition at the Legacy Park Complex in Brighton, Michigan. It will include multiple tenant spaces within the complex. The Club at Legacy will be an upscale fitness club including strength training, spinning, yoga, cardio areas as well as pool area with hot and cold plunge tubs.

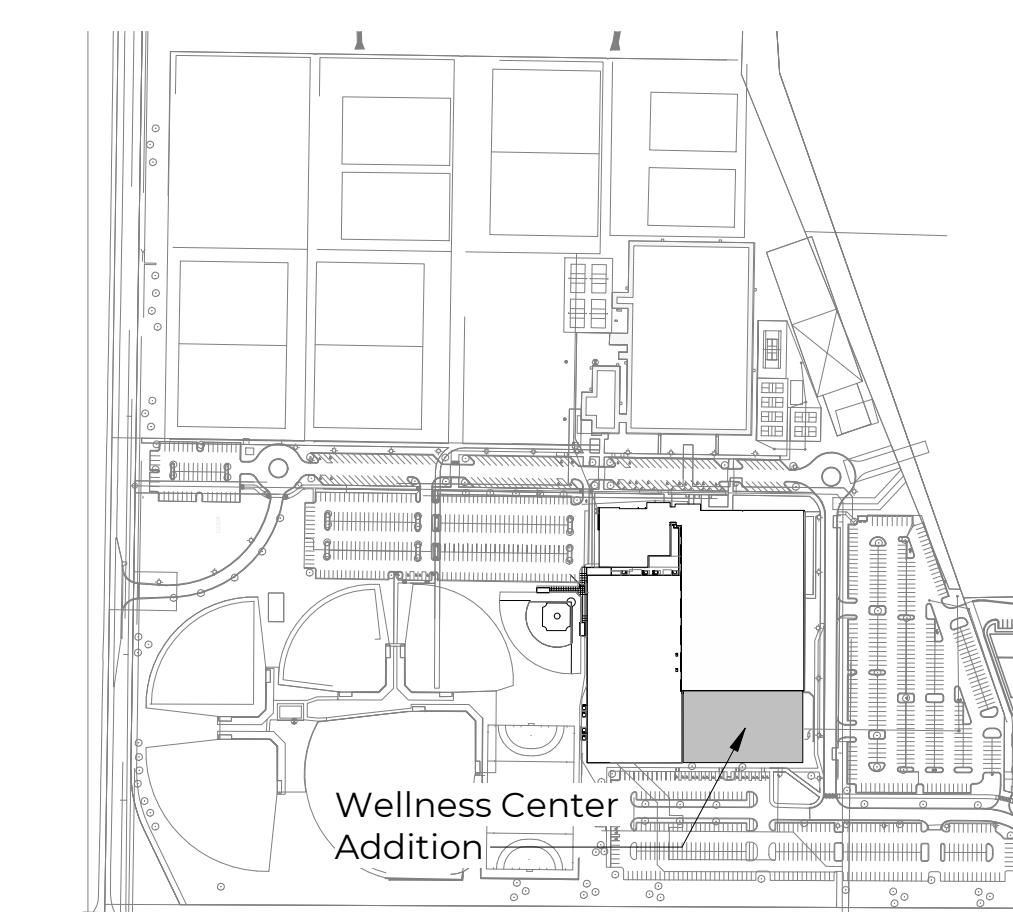
There will be an extension of Legacy Center on the Field level, Sports performance will allow training and sports rehabilitation. Trampoline and Gymnastics will be a permanent home for these exciting sports at the Legacy Center. There will also be a dance studio / multipurpose room.

Entry Level will feature 3-4 tenant spaces geared to attract a Physical Therapy business, Orthopedic and an Urgent Care Facility.

The Upper level will house more of the Club spaces as well as the Legacy Administration offices.



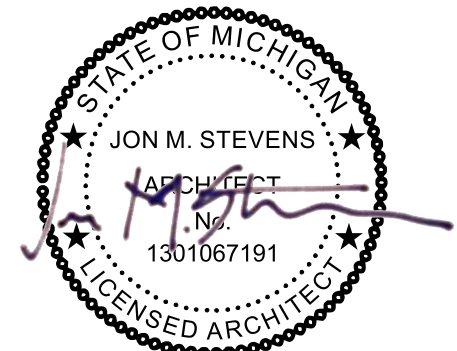
Vicinity Map



Key Plan



The McFate Group
7136 Jackson Rd. Ann Arbor, MI. 48103
www.mcfategroup.com | (734)-433-0020



Revision Schedule

#	Description	Revision Date
1	Owner Review	03/15/2023
2	Prelim Site Plan	05/01/2023
5	Site Plan - Rev 1	08/24/2023
6	Site Plan - Rev 2	01/17/2024

Job Title:
Legacy Center - Wellness
9299 Goble Drive
Brighton, MI 48116

Scale:
NOT FOR CONSTRUCTION

Project Code:
22-001

Issued Date:
01/17/2024

Issued for: Site Plan - Rev 2

Sheet Title:
Title Sheet

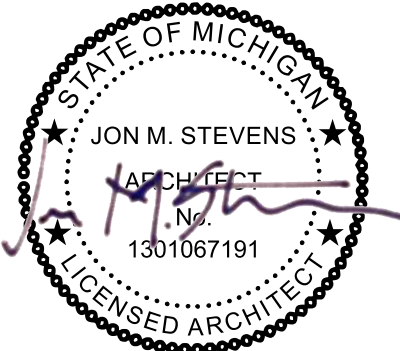
Drawing Number:
G-100

Drawing Index:

Sheet Number	Sheet Name	Current Revision Description	Current Revision Date
General			
G-100	Title Sheet	Site Plan - Rev 2	01/17/2024
G-101	Drawing Index	Site Plan - Rev 2	01/17/2024
G-110	Perspectives	Site Plan - Rev 2	01/17/2024
G-111	Perspectives	Site Plan - Rev 2	01/17/2024
G-113	Tenant Breakdown	Site Plan - Rev 2	01/17/2024
LS-100	Code Analysis Plan & Schedules	Site Plan - Rev 2	01/17/2024
LS-101	Level 1 Life Safety Plan	Site Plan - Rev 2	01/17/2024
LS-102	Level 2 Life Safety Plan	Site Plan - Rev 2	01/17/2024
LS-103	Level 3 Life Safety Plan	Site Plan - Rev 2	01/17/2024
Civil			
C-1	Cover Sheet	Site Plan - Rev 2	01/17/2024
C-2	General Notes and Legend	Site Plan - Rev 2	01/17/2024
C-3	Existing Condition & Demolition Plans	Site Plan - Rev 2	01/17/2024
C-4	Overall Site Plan	Site Plan - Rev 2	01/17/2024
C-5	Site Plan	Site Plan - Rev 2	01/17/2024
C-6	Overall Grading and Drainage Plan	Site Plan - Rev 2	01/17/2024
C-6a	Parking Lot Grading and Drainage Plan	Site Plan - Rev 2	01/17/2024
C-6b	Pickleball Courts Grading and Drainage	Site Plan - Rev 2	01/17/2024
C-6c	Medical Center Grading and Drainage Plan	Site Plan - Rev 2	01/17/2024
C-7	Utility Plan	Site Plan - Rev 2	01/17/2024
C-8	Soil Erosion and Sedimentation Control Plan	Site Plan - Rev 2	01/17/2024
C-9	Site Landscape Plan	Site Plan - Rev 2	01/17/2024
C-10	Overall Landscape Plan	Site Plan - Rev 2	01/17/2024
C-11	Construction Details	Site Plan - Rev 2	01/17/2024
C-12	Stormwater Management	Site Plan - Rev 2	01/17/2024
C-13	Parking Calculation Plan	Site Plan - Rev 2	01/17/2024
C-14	Sanitary Sewer Profile	Site Plan - Rev 2	01/17/2024
C-15	Pickleball & Parking lot storm profile	Site Plan - Rev 2	01/17/2024
C-16	Photometric Plan	Site Plan - Rev 2	01/17/2024
Architectural			
A-001	Overall Site Plan	Site Plan - Rev 2	01/17/2024
A-002	Site Photometric	Site Plan - Rev 2	01/17/2024
A-005	Pickleball Covered Area	Site Plan - Rev 2	01/17/2024
A-101	Overall Level 1 (Field) Floor Plan	Site Plan - Rev 2	01/17/2024
A-102	Overall Level 2 (Entry) Floor Plan	Site Plan - Rev 2	01/17/2024
A-103	Overall Level 3 (Upper Level) Floor Plan	Site Plan - Rev 2	01/17/2024
A-110	Primary Level 1 Floor Plan	Site Plan - Rev 2	01/17/2024
A-120	Primary Level 2 Floor Plan	Site Plan - Rev 2	01/17/2024
A-130	Primary Level 3 Floor Plan	Site Plan - Rev 2	01/17/2024
A-150	Primary Roof Plan	Site Plan - Rev 2	01/17/2024
A-300	Exterior Elevations	Site Plan - Rev 2	01/17/2024
A-301	Exterior Material Palette	Site Plan - Rev 2	01/17/2024
A-302	Exterior Light Fixtures	Site Plan - Rev 2	01/17/2024
A-350	Building Section	Site Plan - Rev 2	01/17/2024
A-351	Building Section	Site Plan - Rev 2	01/17/2024
A-352	Building Section	Site Plan - Rev 2	01/17/2024
A-400	Field House Elevation	Site Plan - Rev 2	01/17/2024



The McFate Group
 7136 Jackson Rd. Ann Arbor, MI. 48103
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Revision Schedule

#	Description	Revision Date
2	Prelim Site Plan	05/01/2023
5	Site Plan - Rev 1	08/24/2023
6	Site Plan - Rev 2	01/17/2024

Job Title:
Legacy Center - Wellness
 9299 Goble Drive
 Brighton, MI 48116



Project Code:
 22-001

Issued Date:
 01/17/2024

Issued for:
 Issued for: Site Plan - Rev 2

Sheet Title:
Drawing Index

Drawing Number:
G-101

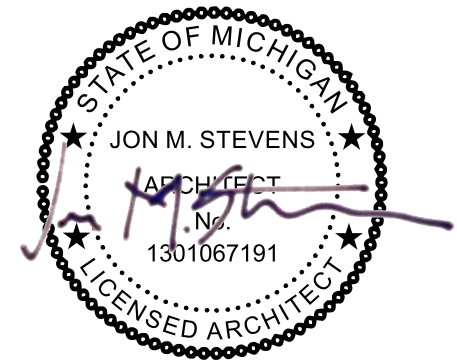
Scales listed are for 22x34 drawing size



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 7136 Jackson Rd. Ann Arbor, MI. 48103
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Consultant:



Revision Schedule

#	Description	Revision Date
2	Prelim Site Plan	05/01/2023
5	Site Plan - Rev 1	08/24/2023
6	Site Plan - Rev 2	01/17/2024

Job Title:
Legacy Center - Wellness
 9299 Goble Drive
 Brighton, MI 48116

Seal:
NOT FOR CONSTRUCTION

Project Code:
 22-001

Issued Date:
 01/17/2024

Issued for:
 Issued for: Site Plan - Rev 2

Sheet Title:
Perspectives

Drawing Number:
G-110

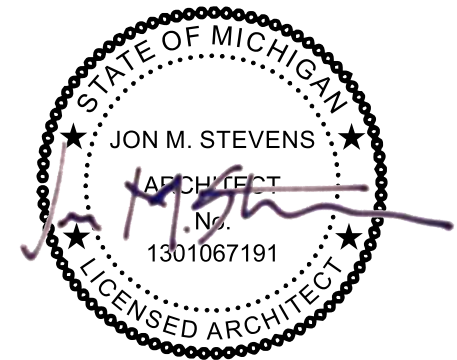
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M

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7136 Jackson Rd. Ann Arbor, MI. 48103
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Consultant:



Revision Schedule

#	Description	Revision Date
2	Prelim Site Plan	05/01/2023
5	Site Plan - Rev 1	08/24/2023
6	Site Plan - Rev 2	01/17/2024

Job Title:
Legacy Center - Wellness
9299 Goble Drive
Brighton, MI 48116

Project Code:
22-001

Issued Date:
01/17/2024

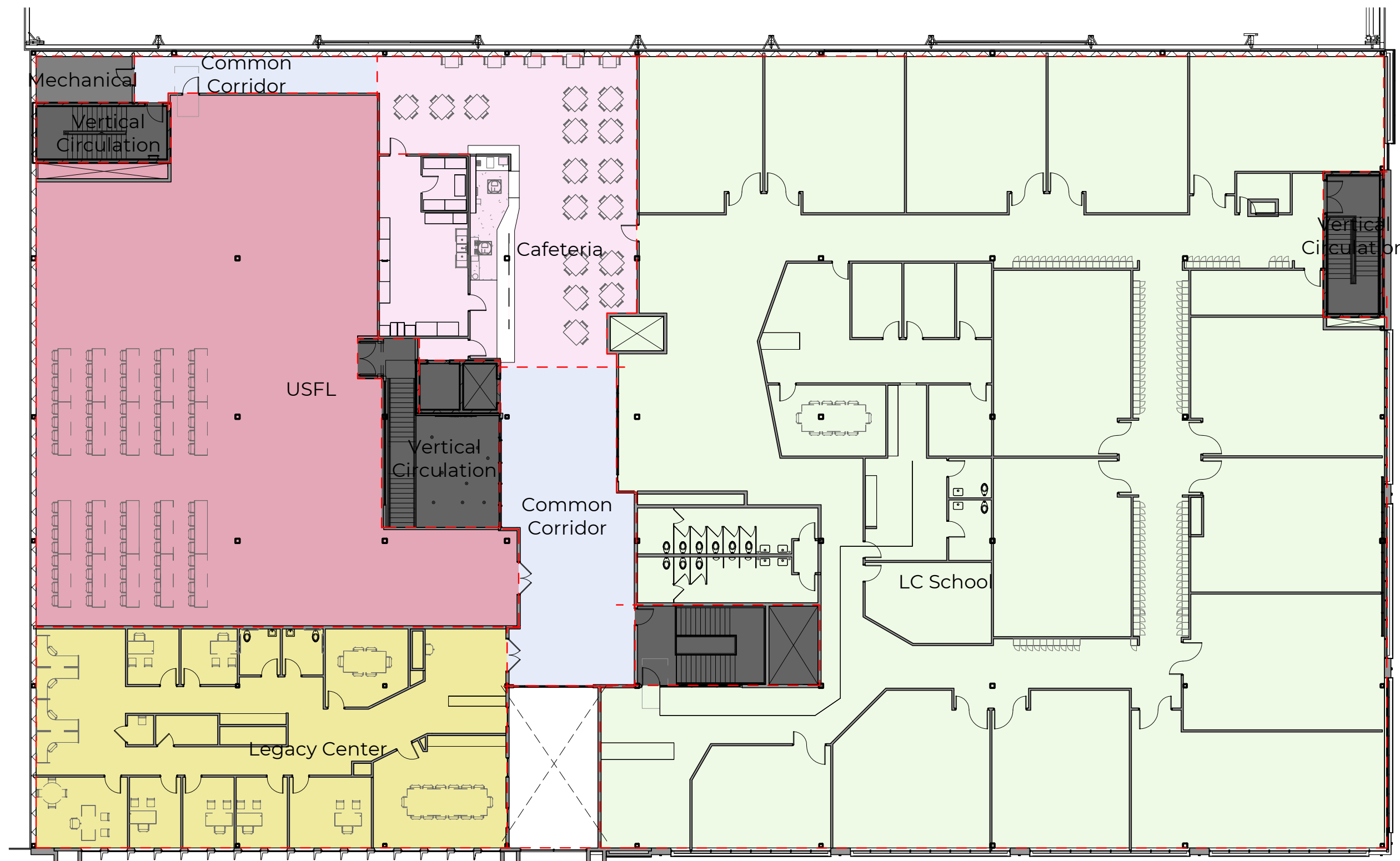
Issued for: Site Plan - Rev 2

Sheet Title:
Perspectives

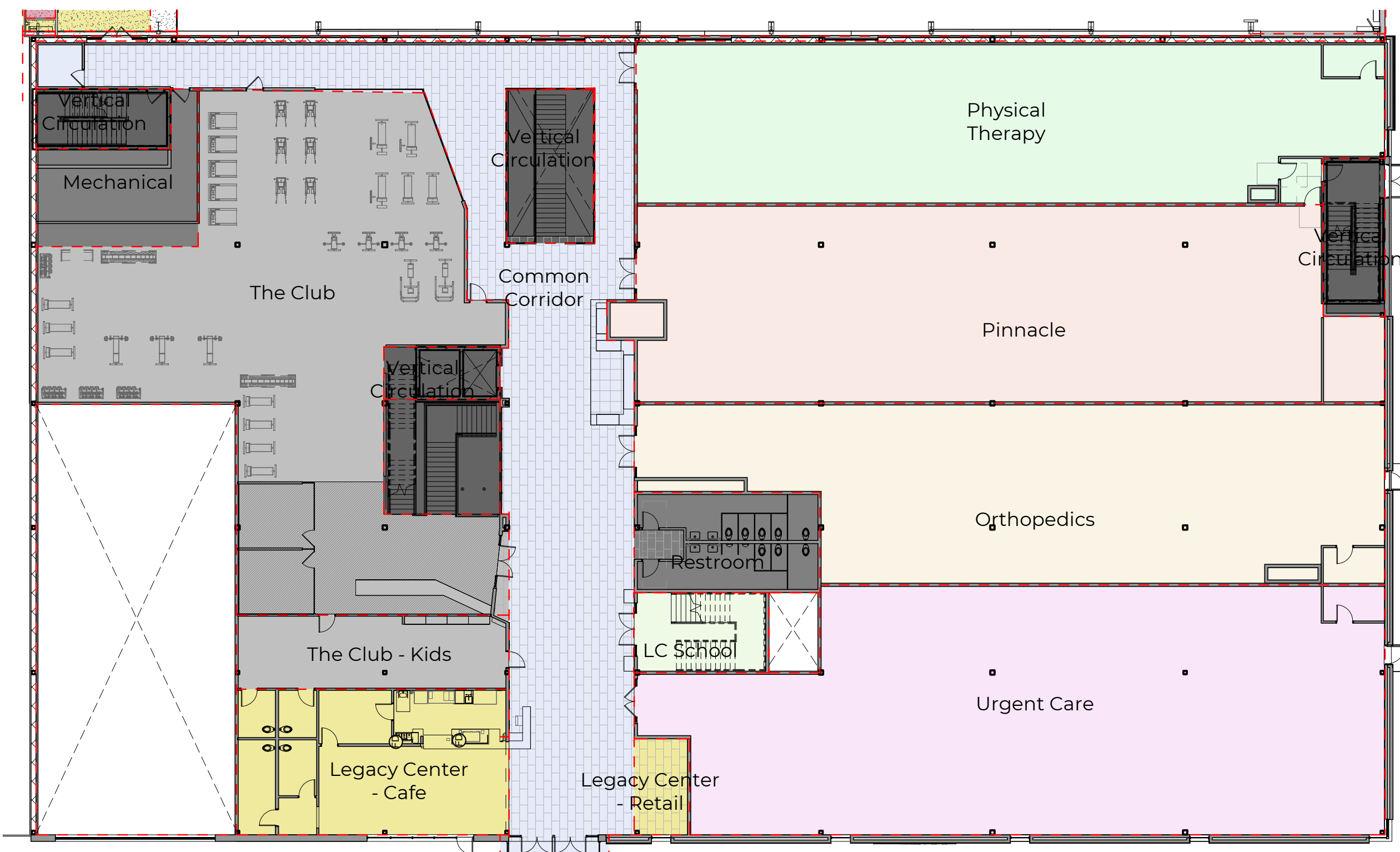
Drawing Number:
G-111

NOT FOR CONSTRUCTION

Scales listed are for 22x34 drawing size



3 Upper Level
G-113 1" = 20'-0"



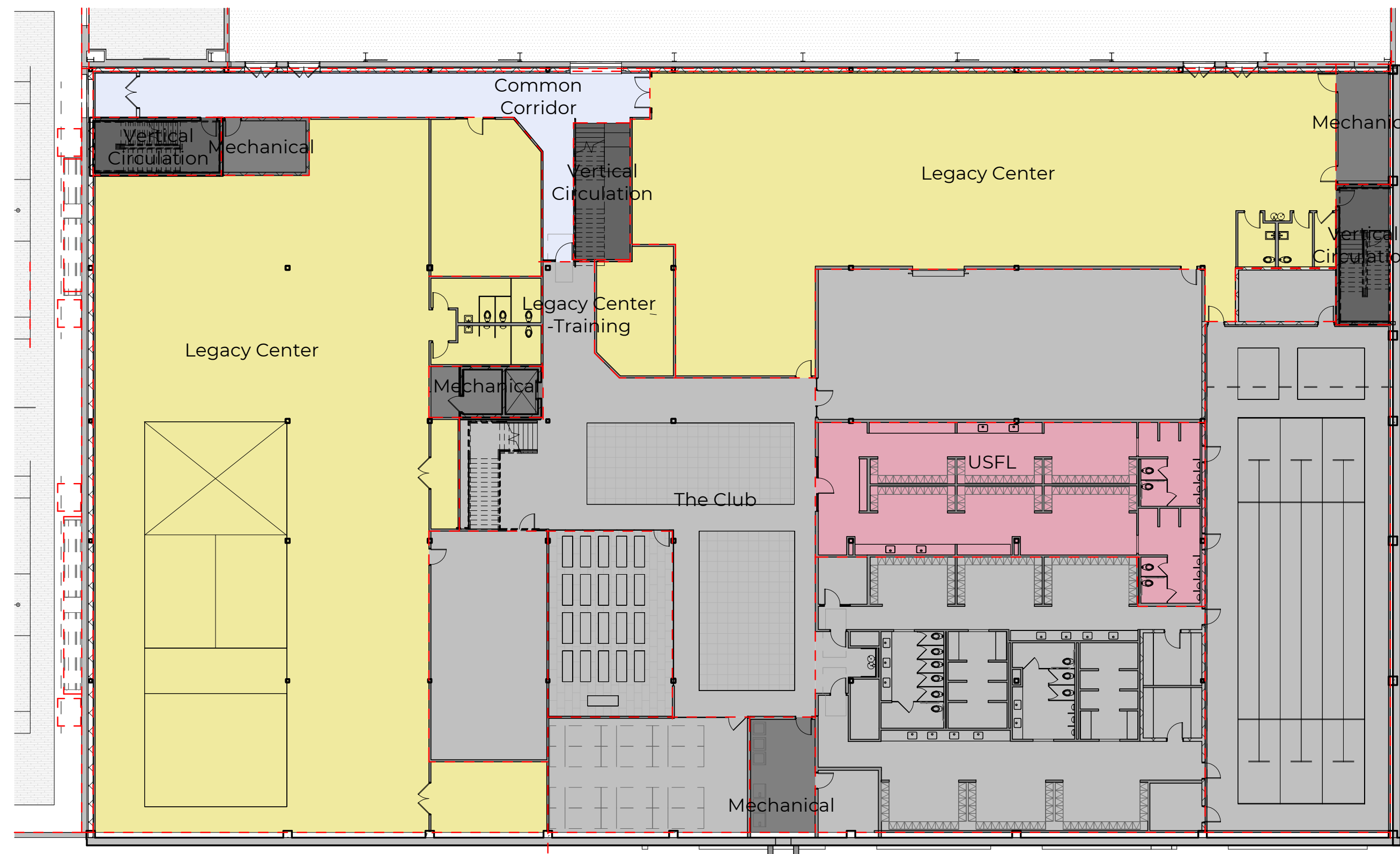
1 Entry Level
G-113 1" = 20'-0"

Rentable Area Legend

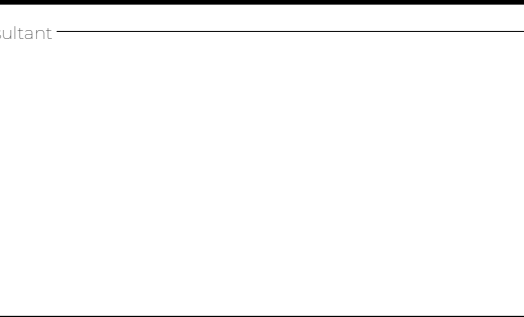
- Cafeteria
- Common Corridor
- LC School
- Legacy Center
- Legacy Center - Cafe
- Legacy Center - Retail
- Mechanical
- Orthopedics
- Physical Therapy
- Pinnacle
- Restroom
- The Club
- The Club - Kids
- Urgent Care
- USFL
- Vertical Circulation

Wellness Center Area Breakdown

Name	Usuable Area (SF)
Field Level	
Common Corridor	1171
Legacy Center	15919
Legacy Center -Training	374
Mechanical	931
The Club	15926
USFL	2109
Vertical Circulation	862
Field Level	37293
Entry Level	
Common Corridor	4428
LC School	381
Legacy Center - Cafe	1397
Legacy Center - Retail	187
Mechanical	616
Orthopedics	4192
Physical Therapy	4211
Pinnacle	5042
Restroom	655
The Club	5216
The Club - Kids	712
Urgent Care	5846
Vertical Circulation	1787
Entry Level	34669
Upper Level	
Cafeteria	2721
Common Corridor	1686
LC School	20418
Legacy Center	3666
Mechanical	160
USFL	6584
Vertical Circulation	1880
Upper Level	37117
Grand total	109079



2 Field Level
G-113 1" = 20'-0"



Revision Schedule

#	Description	Revision Date
4	Owner Review	06/19/2023
5	Site Plan - Rev 1	08/24/2023
6	Site Plan - Rev 2	01/17/2024

Legacy Center - Wellness
9299 Goble Drive
Brighton, MI 48116

NOT FOR CONSTRUCTION

Project Code: 22-001

Issue Date: 01/17/2024

Issued for: Site Plan - Rev 2

Tenant Breakdown

Drawing Number: **G-113**

Plot Date/Time: 1/17/2024 1:51:57 PM File Path: C:\Revit Local Files\LEOW23_CS_jstevensZSYNQ.rvt

Occupant Load (Table 1004.1.1)

BOX - PROJ - Schedule	Level	Use	Area	% of Total	Floor Area per Occupant	Net or Gross	Design Occupant Load	Comments
Field Level								
Yes	Field Level	Business	2842 SF	3%	100	Gross	29	
Yes	Field Level	Common Corridor	1144 SF	1%				
Yes	Field Level	Exercise Room	5995 SF	6%	50	Gross	120	
Yes	Field Level	Exercise Room	9045 SF	9%	50	Gross	181	
Yes	Field Level	Exercise Room	869 SF	1%	50	Gross	18	
Yes	Field Level	Exercise Room	878 SF	1%	50	Gross	18	
Yes	Field Level	Exercise Room	1038 SF	1%	50	Gross	21	
Yes	Field Level	Exercise Room	2249 SF	2%	50	Gross	45	
Yes	Field Level	Locker Room	5877 SF	6%	50	Gross	118	
Yes	Field Level	Mechanical	159 SF	0%	200	Gross	1	
Yes	Field Level	Mechanical	193 SF	0%	200	Gross	1	
Yes	Field Level	Mechanical	208 SF	0%	200	Gross	2	
Yes	Field Level	Pool	2180 SF	2%	50	Gross	44	
Yes	Field Level	Pool Deck	1388 SF	1%	15	Gross	93	
Yes	Field Level	Restroom	207 SF	0%				
Yes	Field Level	Restroom	389 SF	0%				
Yes	Field Level	Unconcentrated	667 SF	1%	15	Net	45	
Yes	Field Level	Vertical Circulation	289 SF	0%				
Yes	Field Level	Vertical Circulation	221 SF	0%				
Yes	Field Level	Vertical Circulation	360 SF	0%				
Yes	Field Level	Vertical Circulation	281 SF	0%				
Entry Level								
Yes	Entry Level	Business	19138 SF	18%	100	Gross	192	
Yes	Entry Level	Business	705 SF	1%	100	Gross	8	
Yes	Entry Level	Business	1390 SF	1%	100	Gross	14	
Yes	Entry Level	Common Corridor	4652 SF	4%				
Yes	Entry Level	Exercise Room	5397 SF	5%	50	Gross	108	
Yes	Entry Level	Mechanical	403 SF	0%	200	Gross	3	
Yes	Entry Level	Vertical Circulation	486 SF	0%				
Yes	Entry Level	Vertical Circulation	288 SF	0%				
Yes	Entry Level	Vertical Circulation	315 SF	0%				
Yes	Entry Level	Vertical Circulation	157 SF	0%				
Yes	Entry Level	Vertical Circulation	457 SF	0%				
Yes	Entry Level	Vertical Circulation	376 SF	0%				
Yes	Entry Level	Vertical Circulation	144 SF	0%				
Yes	Entry Level	Vertical Circulation	22 SF	0%				
Upper Level								
Yes	Upper Level	Business	6520 SF	6%	100	Gross	66	
Yes	Upper Level	Business	3677 SF	3%	100	Gross	37	
Yes	Upper Level	Common Corridor	2199 SF	2%				
Yes	Upper Level	Education	19589 SF	18%	50	Gross	392	
Yes	Upper Level	Kitchen	645 SF	1%	200	Gross	4	
Yes	Upper Level	Kitchen	629 SF	1%	200	Gross	4	
Yes	Upper Level	Mechanical	165 SF	0%	200	Gross	1	
Yes	Upper Level	Unconcentrated	609 SF	1%	15	Net	41	
Yes	Upper Level	Unconcentrated	332 SF	0%	15	Net	23	
Yes	Upper Level	Vertical Circulation	607 SF	1%				
Yes	Upper Level	Vertical Circulation	155 SF	0%				
Yes	Upper Level	Vertical Circulation	528 SF	0%				
Yes	Upper Level	Vertical Circulation	65 SF	0%				
Yes	Upper Level	Vertical Circulation	40 SF	0%				
Yes	Upper Level	Vertical Circulation	10 SF	0%				
Yes	Upper Level	Vertical Circulation	73 SF	0%				
Grand total			106248 SF	100%			1629	

Applicable Codes and Life Safety Information

Building Code: 2015 Michigan Building Code
Mechanical Code: 2015 Michigan Mechanical Code
Electrical Code: 2014 National Electrical Code (NEC)
Plumbing Code: 2015 Michigan Plumbing Code
Energy Code: 2015 Michigan Uniform Energy Code
Use Group: A-3 Assembly
 B Business
 S Storage
 E Education

Construction Type: II B
Height, Building: A-3: Allowable: 75'-0" / 3 (36) Stories above grade
 Actual: 2 stories above grade - see elevations
 (504.3) 32' to top of parapet, 36' to top of screen wall

Area, Building: Allowable: Unlimited (MBC 507.3)
 Actual : Existing Basketball Arena: 76,380 SF
 Existing Fieldhouse: 101,722 SF
 Existing Baseball Center: 17,734 SF
New Wellness Center: 114,333 SF
 Building Total: 310,169 SF

Work Area: 114,333 SF

Fire Suppression: Fully suppressed, Per NFPA 13; 2013 Ed. and AHJ
 Light Hazzard required, Ordinary hazzard (Group 2) provided

Fire Alarm: Per Section 907.2.1.1 Fire alarm systems for assembly occupancies with an occupant load of 1,000 or more must include an emergency voice/alarm communication system.

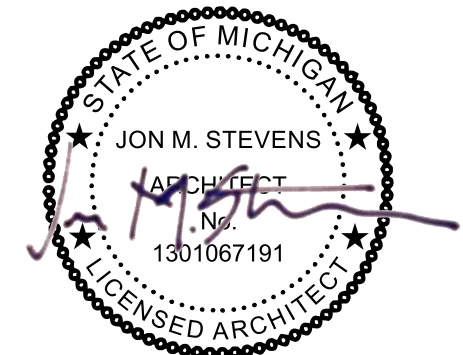
Emergency Responder Radio Coverage System: Per MBC Section 916 MI Rehab 1102.3
 As required by Fire Marshall

Travel Distance: Fully Sprinklered = 250'-0"

Required Spearation of Occupancies - Fully Sprinklered (508.4)
 Legacy Club to Office spaces:
 A-3 Assembly -----> B Business 1 Hour Separation
 Legacy Club to School
 A-3 Assembly -----> E Education None
 B Business -----> E Education 1 Hour Separation



The McFate Group
 7136 Jackson Rd. Ann Arbor, MI. 48103
 www.mcfategroup.com | (734)-433-0020



Revision Schedule

#	Description	Revision Date
1	Owner Review	03/15/2023
2	Prelim Site Plan	05/01/2023
5	Site Plan - Rev 1	08/24/2023
6	Site Plan - Rev 2	01/17/2024

Job Title: **Legacy Center - Wellness**
 9299 Goble Drive
 Brighton, MI 48116

NOT FOR CONSTRUCTION

Project Code: 22-001

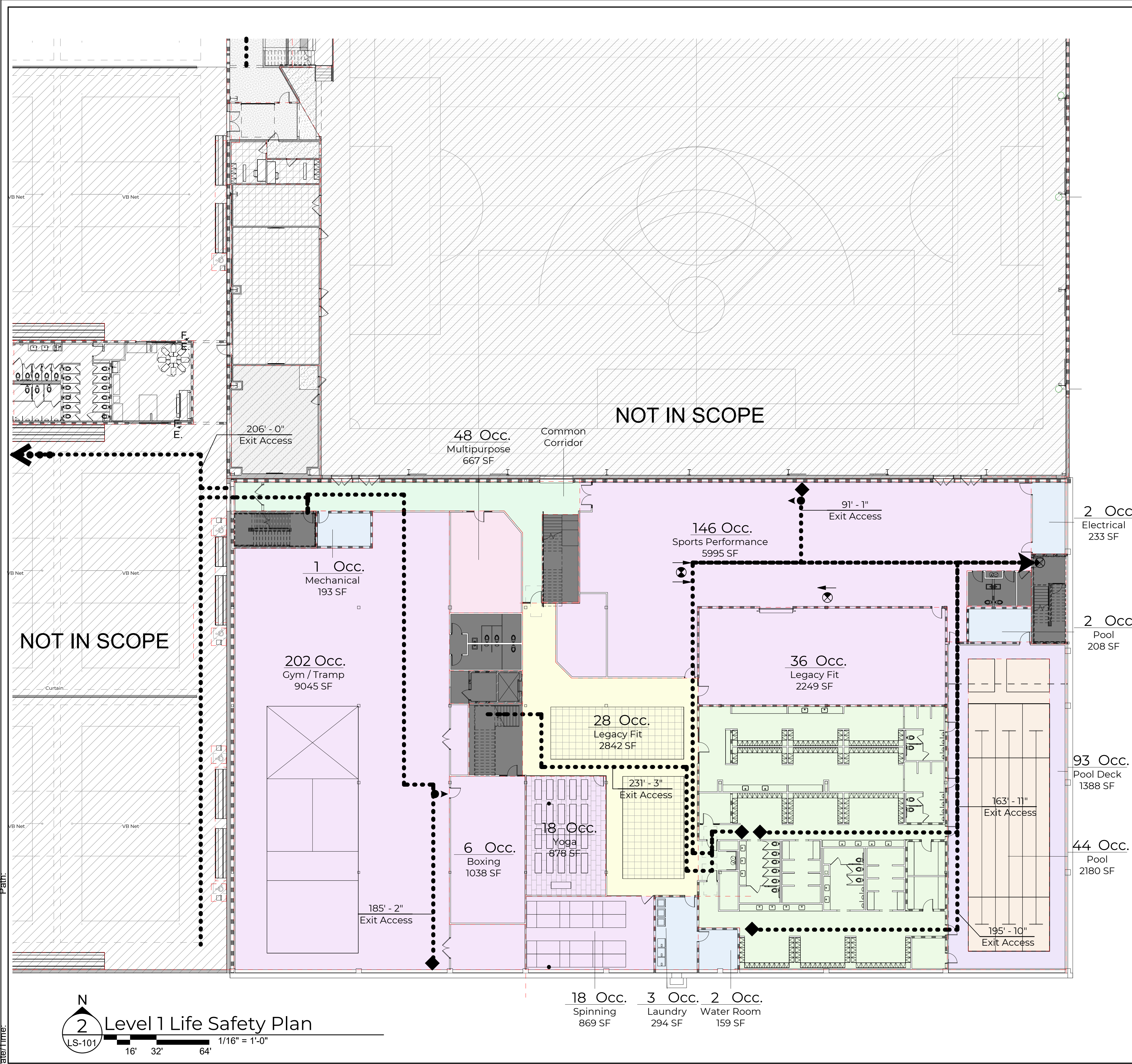
Ding Date: 01/17/2024

Issued for: Site Plan - Rev 2

Sheet Title: **Code Analysis Plan & Schedules**

Drawing Number: **LS-100**

Plot Date/Time: 1/17/2024 1:52:14 PM File Path: C:\Revit Local Files\LECW23_CS_jstevens\ZSYNQ.rvt



Applicable Codes and Life Safety Information:

Building Code: 2015 Michigan Building Code
Mechanical Code: 2015 Michigan Mechanical Code
Electrical Code: 2014 National Electrical Code (NEC)
Plumbing Code: 2015 Michigan Plumbing Code
Energy Code: 2015 Michigan Uniform Energy Code
Use Group: A-3 Assembly
 B Business
 S Storage
 E Education

Construction Type: II B
Height, Building: A-3: Allowable: 75'-0" / 3 (36) Stories above grade
 (504.3) Actual: 2 stories above grade - see elevations
 32' to top of parapet, 36' to top of screen wall

Area, Building: Allowable: Unlimited (MBC 507.3)
 Actual : Existing Basketball Arena: 76,380 SF
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 Existing Baseball Center: 17,734 SF
New Wellness Center: 114,333 SF
 Building Total: 310,169 SF

Work Area: 114,333 SF

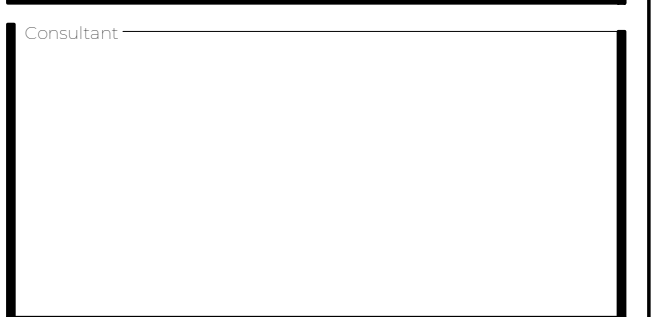
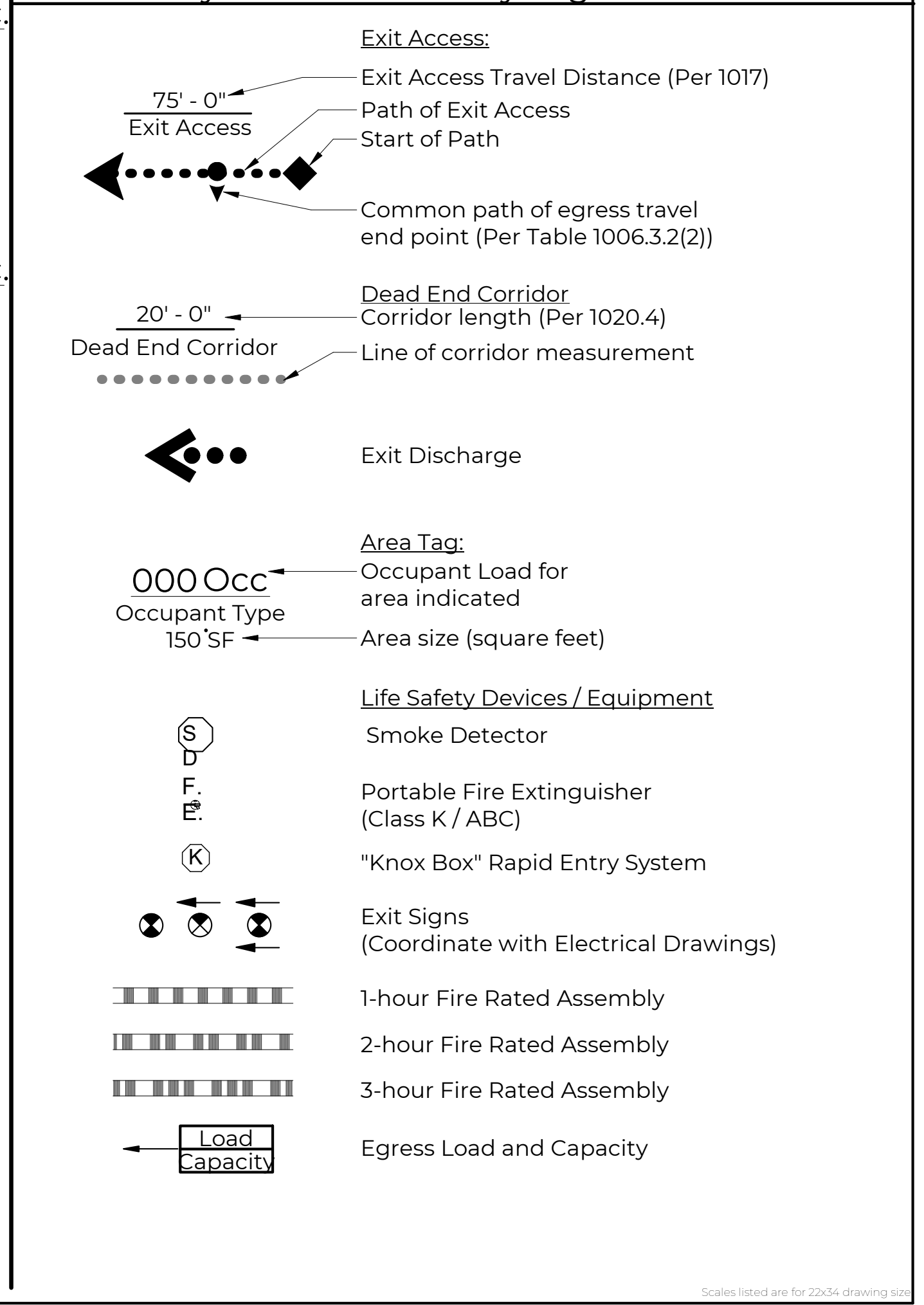
Fire Suppression: Fully suppressed, Per NFPA 13; 2013 Ed. and AHJ
 Light Hazzard required, Ordinary hazzard (Group 2)
 provided

Fire Alarm: Per Section 907.2.1.1 Fire alarm systems for assembly
 occupancies with an occupant load of 1,000 or more
 must include an emergency voice/alarm
 communication system.

Emergency Responder Radio Coverage System: Per MBC Section 916 MI Rehab 1102.3
 As required by Fire Marshall

Travel Distance: Fully Sprinklered = 250'-0"

Life Safety Plan & Fire Safety Legend



Revision Schedule

#	Description	Revision Date
1	Owner Review	03/15/2023
2	Prelim Site Plan	05/01/2023
5	Site Plan - Rev 1	08/24/2023
6	Site Plan - Rev 2	01/17/2024

Legacy Center - Wellness

9299 Goble Drive
 Brighton, MI 48116

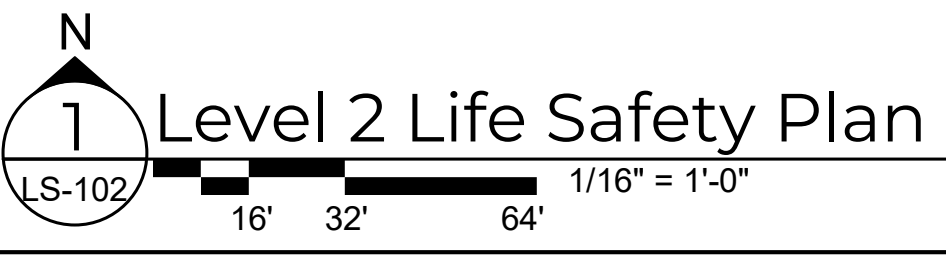
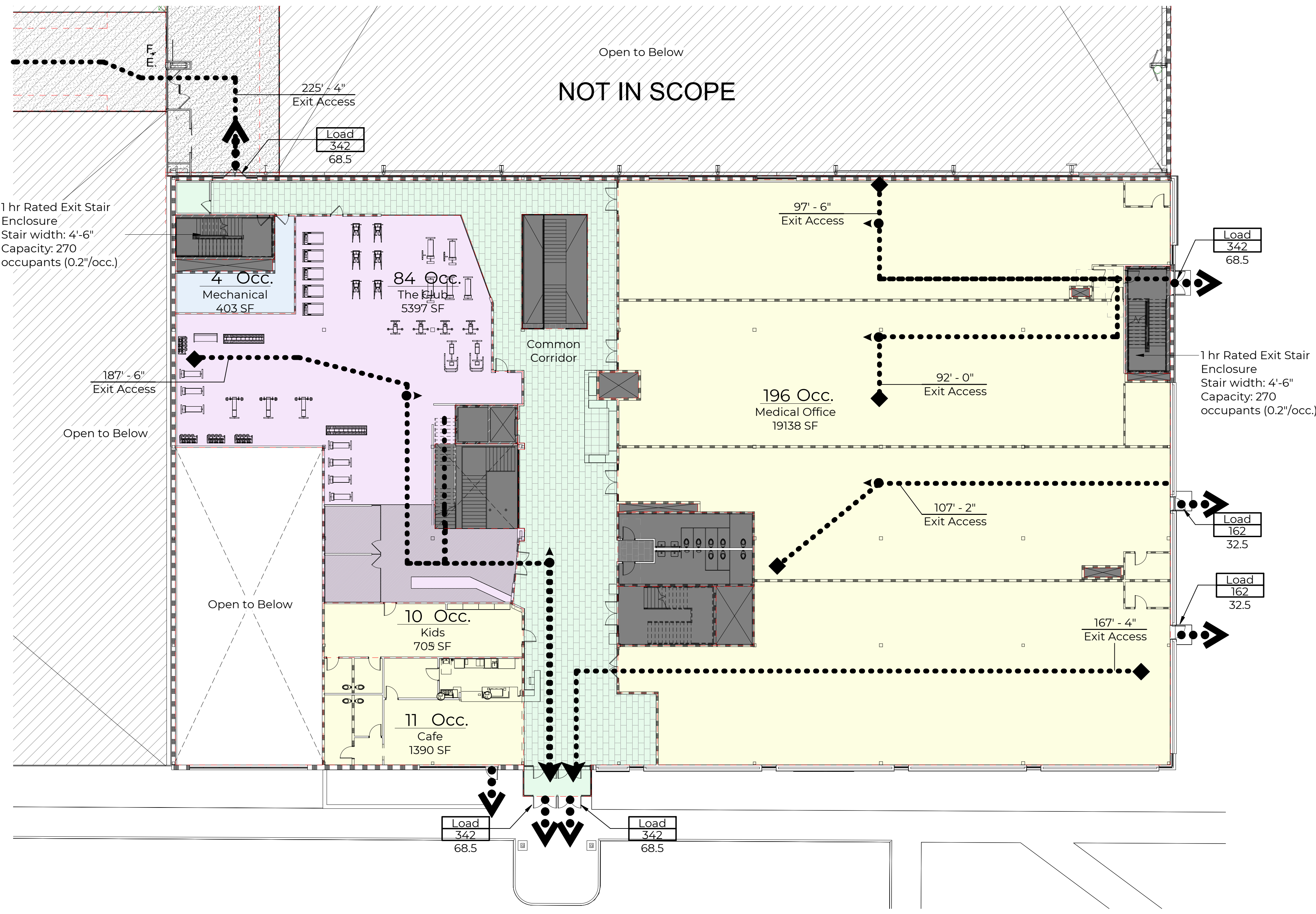
NOT FOR CONSTRUCTION

Project Code: 22-001
 Issue Date: 01/17/2024
 Issued for: Site Plan - Rev 2

Level 1 Life Safety Plan

Sheet Number: **LS-101**

File Path: C:\Revit Local Files\LEGW23_CS_jstevensZSYNQ.rvt
 Date/Time: 1/17/2024 1:52:27 PM
 Plot Date/Time:



Applicable Codes and Life Safety Information:

Building Code: 2015 Michigan Building Code
Mechanical Code: 2015 Michigan Mechanical Code
Electrical Code: 2014 National Electrical Code (NEC)
Plumbing Code: 2015 Michigan Plumbing Code
Energy Code: 2015 Michigan Uniform Energy Code
Use Group: A-3 Assembly, B Business, S Storage, E Education

Construction Type: II B
Height, Building: A-3: Allowable: 75'-0" / 3 (36') Stories above grade (504.3)
 Actual: 2 stories above grade - see elevations 32' to top of parapet, 36' to top of screen wall

Area, Building: Allowable: Unlimited (MBC 507.3)
 Actual: Existing Basketball Arena: 76,380 SF
 Existing Fieldhouse: 101,722 SF
 Existing Baseball Center: 17,734 SF
New Wellness Center: 114,333 SF
 Building Total: 310,169 SF

Work Area: 114,333 SF

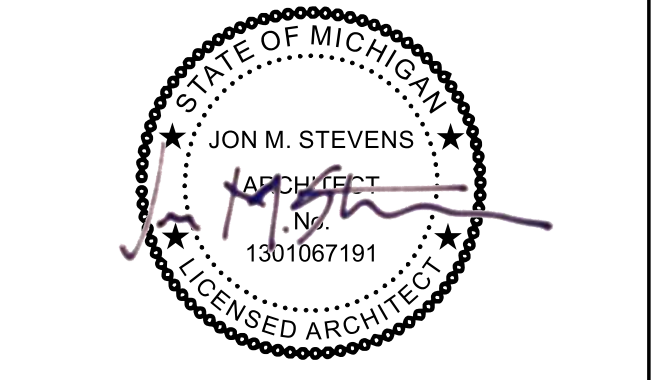
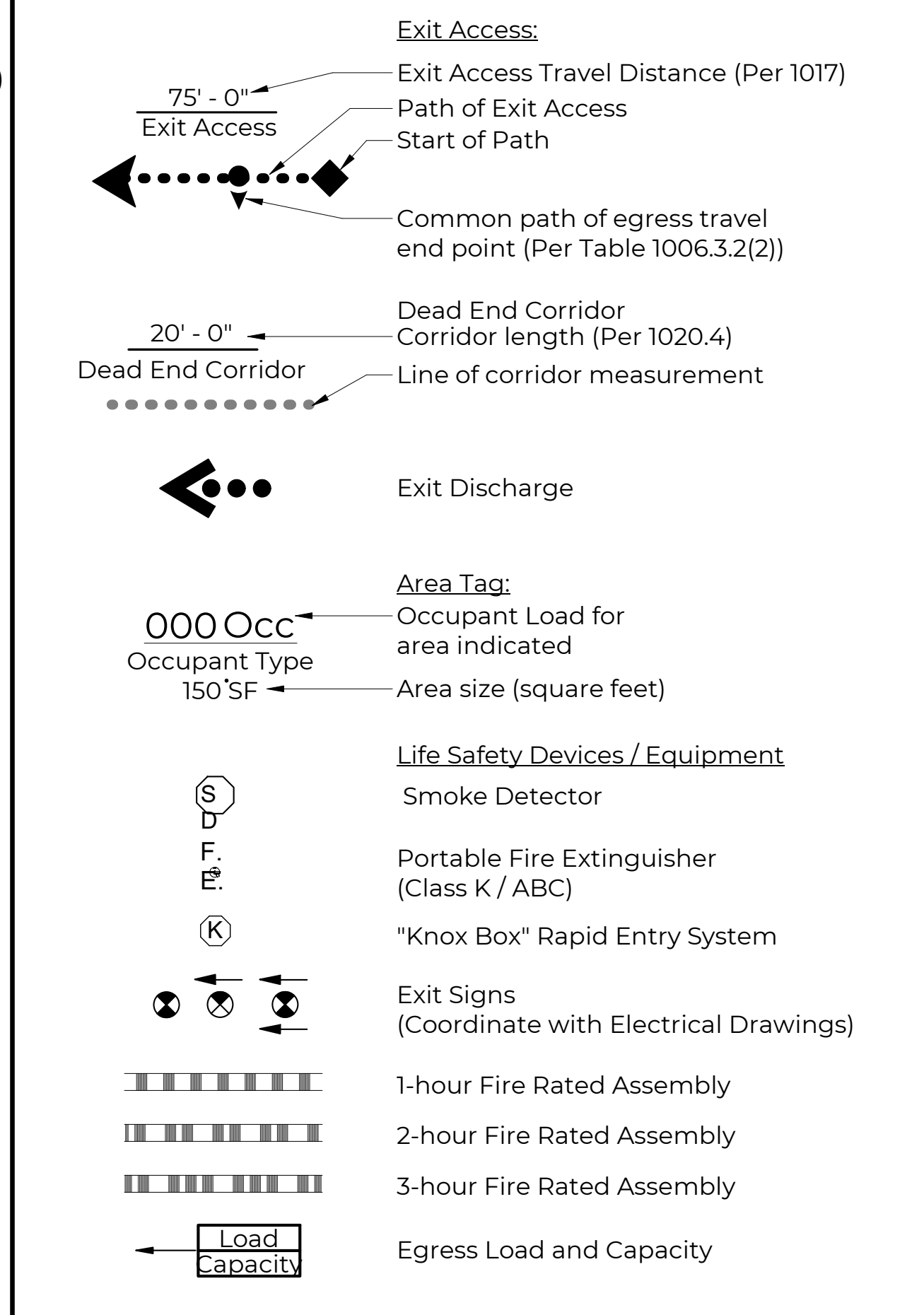
Fire Suppression: Fully suppressed, Per NFPA 13; 2013 Ed. and AHJ Light Hazard required, Ordinary hazard (Group 2) provided

Fire Alarm: Per Section 907.2.1.1 Fire alarm systems for assembly occupancies with an occupant load of 1,000 or more must include an emergency voice/alarm communication system.

Emergency Responder Radio Coverage System: Per MBC Section 916 MI Rehab 1102.3 As required by Fire Marshall

Travel Distance: Fully Sprinklered = 250'-0"

Life Safety Plan & Fire Safety Legend



Revision Schedule

#	Description	Revision Date
1	Owner Review	03/15/2023
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Legacy Center - Wellness
 9299 Goble Drive
 Brighton, MI 48116

NOT FOR CONSTRUCTION

Project Code: 22-001

Issued Date: 01/17/2024

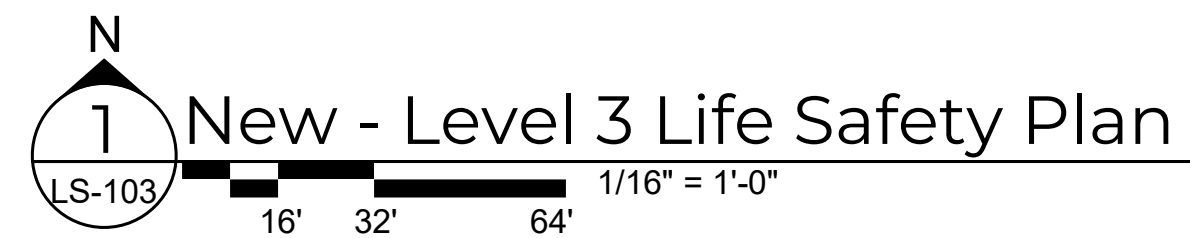
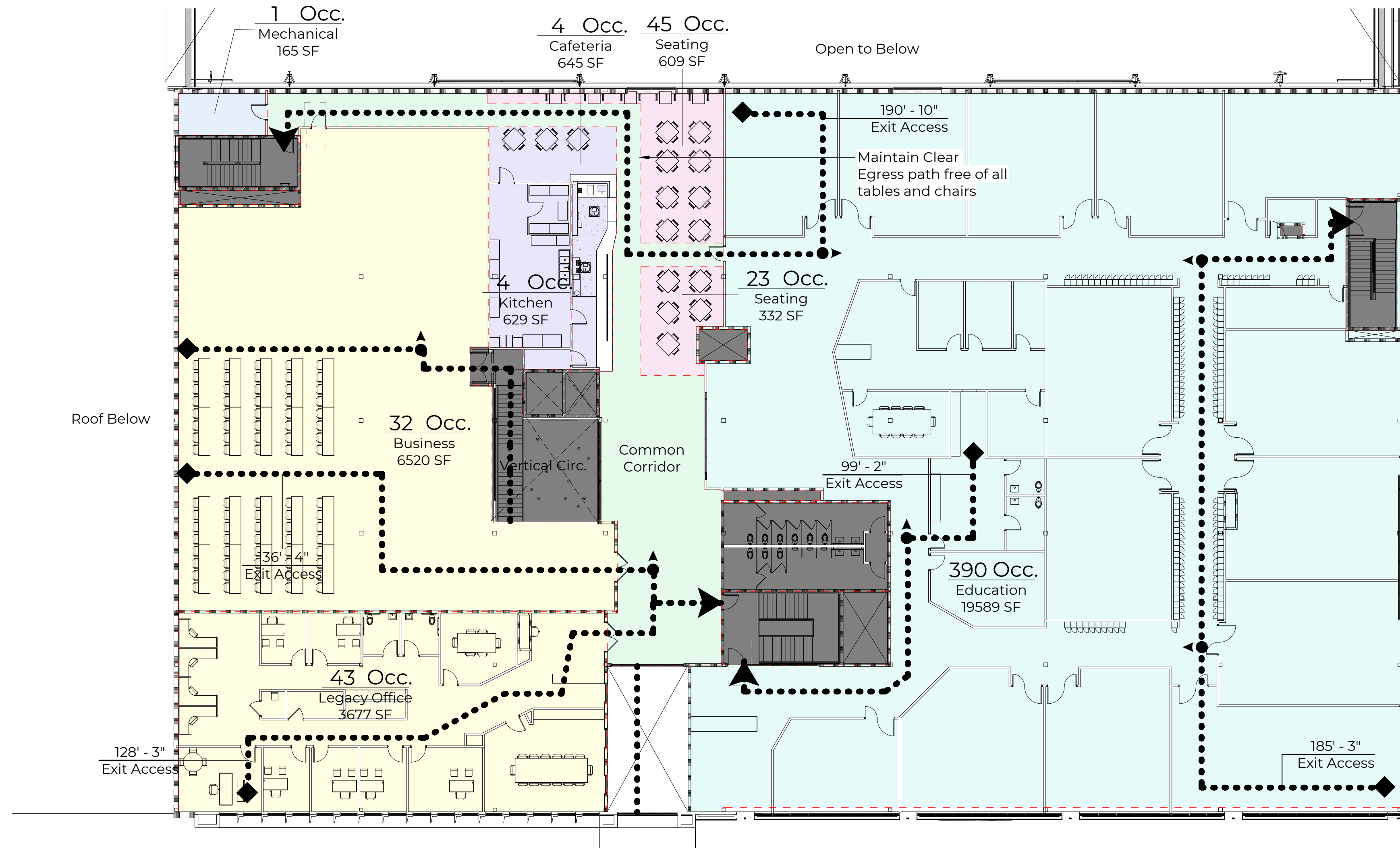
Issued for: Site Plan - Rev 2

Level 2 Life Safety Plan

LS-102

Scales listed are for 22x34 drawing size

Plot Date/Time: 1/17/2024 1:52:32 PM File Path: C:\Revit Local Files\LEGW23_CS_jstevens\ZSYNQ.rvt



Applicable Codes and Life Safety Information:

Building Code: 2015 Michigan Building Code
Mechanical Code: 2015 Michigan Mechanical Code
Electrical Code: 2014 National Electrical Code (NEC)
Plumbing Code: 2015 Michigan Plumbing Code
Energy Code: 2015 Michigan Uniform Energy Code
Use Group: A-3 Assembly
 B Business
 S Storage
 E Education

Construction Type: II B
Height, Building: A-3: Allowable: 75'-0" / 3 (36') Stories above grade
 (504.3) Actual: 2 stories above grade - see elevations
 32' to top of parapet, 36' to top of screen wall

Area, Building: Allowable: Unlimited (MBC 507.3)
 Actual : Existing Basketball Arena: 76,380 SF
 Existing Fieldhouse: 101,722 SF
 Existing Baseball Center: 17,734 SF
New Wellness Center: 114,333 SF
 Building Total: 310,169 SF

Work Area: 114,333 SF

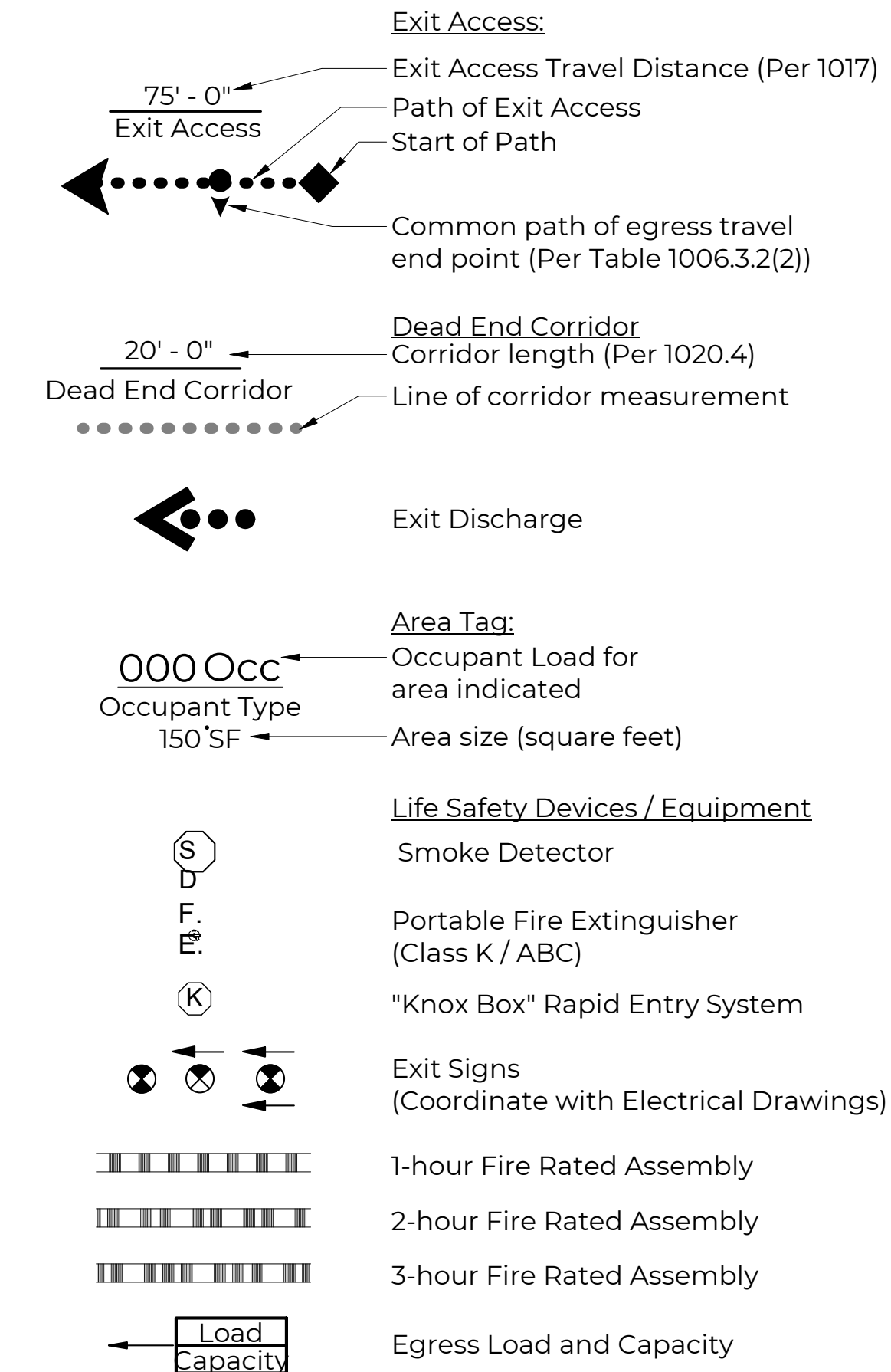
Fire Suppression: Fully suppressed, Per NFPA 13; 2013 Ed. and AHJ
 Light Hazzard required, Ordinary hazzard (Group 2) provided

Fire Alarm: Per Section 907.2.1.1 Fire alarm systems for assembly occupancies with an occupant load of 1,000 or more must include an emergency voice/alarm communication system.

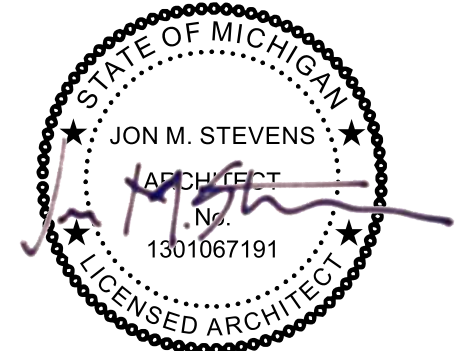
Emergency Responder Radio Coverage System: Per MBC Section 916 MI Rehab 1102.3
 As required by Fire Marshall

Travel Distance: Fully Sprinklered = 250'-0"

Life Safety Plan & Fire Safety Legend



The McFate Group
 7136 Jackson Rd. Ann Arbor, MI. 48103
 www.mcfategroup.com | (734)-433-0020



Revision Schedule

#	Description	Revision Date
2	Prelim Site Plan	05/01/2023
5	Site Plan - Rev 1	08/24/2023
6	Site Plan - Rev 2	01/17/2024

Legacy Center - Wellness

9299 Goble Drive
 Brighton, MI 48116

NOT FOR CONSTRUCTION

Project Code: 22-001

Issued Date: 01/17/2024

Issued for: Site Plan - Rev 2

Level 3 Life Safety Plan

Drawing Number:
LS-103

Scales listed are for 22x34 drawing size

PROPERTY DESCRIPTION:

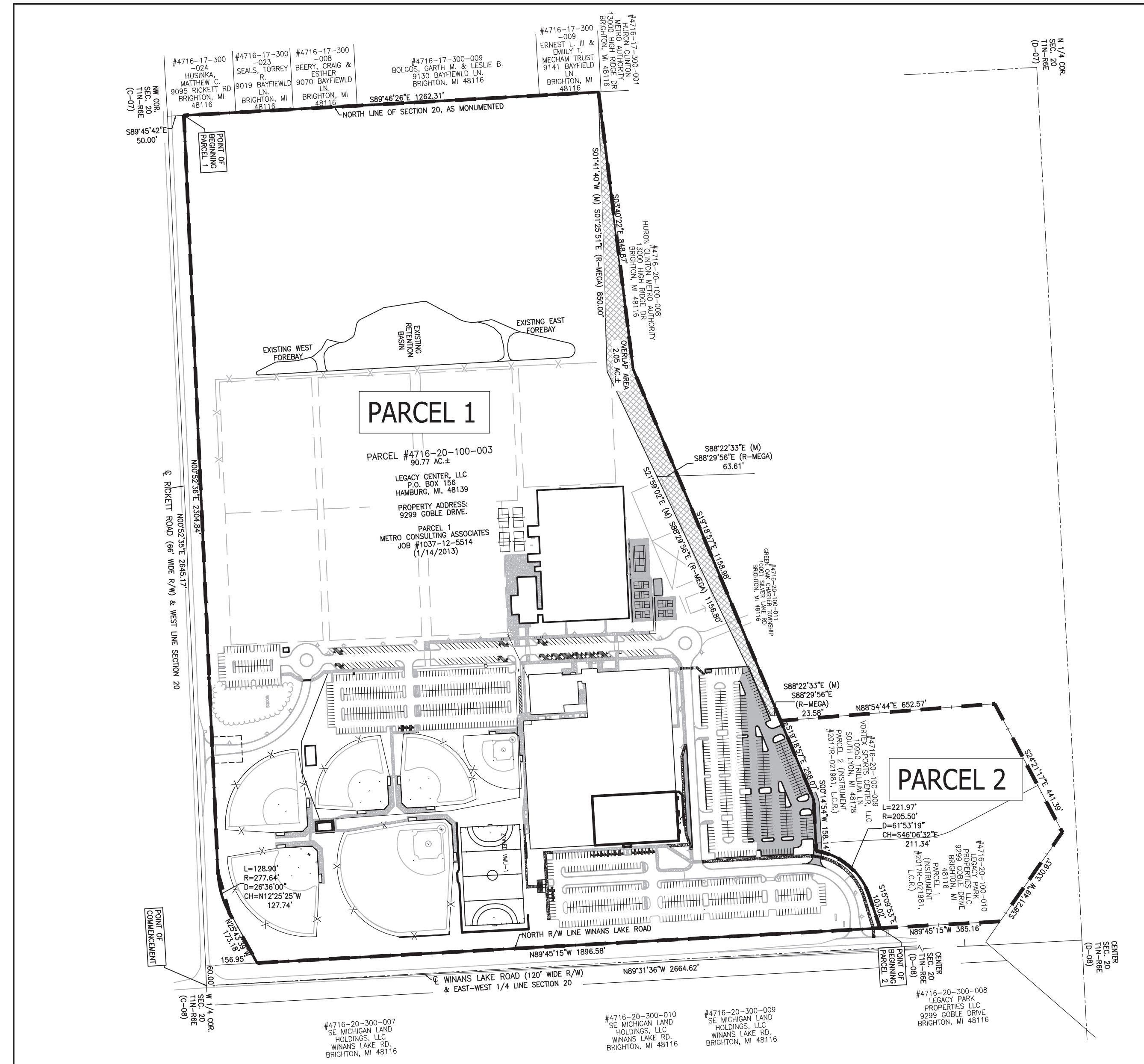
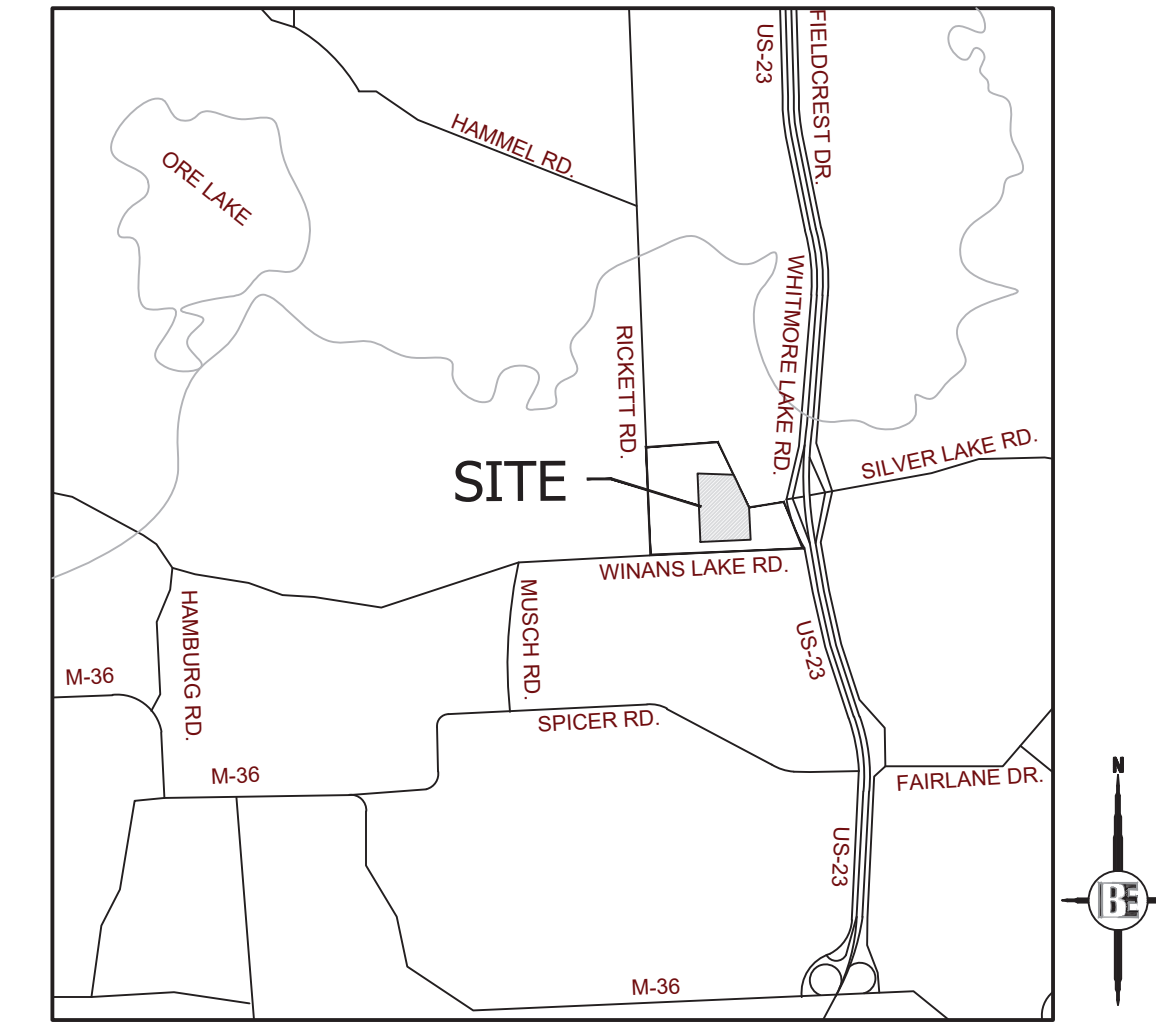
PARCEL 1:
 A PARCEL OF LAND LOCATED IN THE NORTHWEST 1/4 OF SECTION 20, T01N, R06E, GREEN OAK TOWNSHIP, LIVINGSTON COUNTY, MICHIGAN, BEING MORE PARTICULARLY DESCRIBED AS FOLLOWS: COMMENCING AT THE WEST 1/4 CORNER OF SAID SECTION 20; THENCE N00°52'35"E 2645.17 FEET ALONG THE WEST LINE OF SECTION 20 AND CENTERLINE OF RICKETT RD (VARIABLE WIDTH) TO THE NORTHWEST CORNER OF SAID SECTION 20; THENCE S89°46'26"E 50.00 FEET ALONG THE NORTH LINE OF SAID SECTION 20 (AS MONUMENTED) TO THE POINT OF BEGINNING; THENCE CONTINUING S89°46'26"E 1262.31 FEET; THENCE S03°40'22"E 848.87 FEET; THENCE S19°18'57"E 1158.98 FEET; THENCE S19°18'57"E 258.07 FEET; THENCE S00°14'54"W 158.14 FEET; THENCE ALONG A NON-TANGENTIAL CURVE TO THE RIGHT 221.97 FEET, HAVING A RADIUS OF 205.50 FEET, A CENTRAL ANGLE OF 61°53'19" AND A LONG CHORD BEARING AND DISTANCE OF S46°06'32"E 211.34 FEET; THENCE S15°09'53"E 103.02 FEET TO THE NORTH RIGHT-OF-WAY LINE OF WINANS LAKE ROAD (120 FEET WIDE); THENCE N89°45'15"W 1896.58 FEET ALONG SAID NORTH RIGHT-OF-WAY; THENCE N25°43'39"W 173.18 FEET; THENCE ALONG A CURVE TO THE RIGHT 128.90 FEET, HAVING A RADIUS OF 277.64 FEET, A CENTRAL ANGLE OF 26°36'00" AND A LONG CHORD BEARING AND DISTANCE OF N12°25'25"W 127.74 FEET; THENCE N00°52'35"E 2304.84 FEET ALONG THE EAST RIGHT-OF-WAY LINE OF SAID RICKETT ROAD (VARIABLE WIDTH) TO THE POINT OF BEGINNING, CONTAINING 90.76 ACRES OF LAND, MORE OR LESS. SUBJECT TO EASEMENTS AND RESTRICTIONS OF RECORD, IF ANY.

PARCEL 2:
 A PARCEL OF LAND LOCATED IN THE NORTHWEST 1/4 OF SECTION 20, T01N, R06E, GREEN OAK TOWNSHIP, LIVINGSTON COUNTY, MICHIGAN, BEING MORE PARTICULARLY DESCRIBED AS FOLLOWS: COMMENCING AT THE WEST 1/4 CORNER OF SAID SECTION 20; THENCE N00°52'35"E 60.00 FEET ALONG THE WEST LINE OF SECTION 20 AND CENTERLINE OF RICKETT ROAD; THENCE S89°45'15"E 2053.53 FEET ALONG THE NORTH RIGHT-OF-WAY LINE OF WINANS LAKE ROAD (120 FEET WIDE) TO THE POINT OF BEGINNING; THENCE N15°09'53"W 103.02 FEET; THENCE ALONG A CURVE TO THE LEFT 221.97 FEET, HAVING A RADIUS OF 205.50 FEET, A CENTRAL ANGLE OF 61°53'19" AND LONG CHORD BEARING AND DISTANCE OF N46°06'32"W 211.34 FEET; THENCE N00°14'54"E 158.14 FEET; THENCE N19°18'57"W 258.07 FEET; THENCE N89°54'44"E 652.57 FEET; THENCE THE FOLLOWING TWO (2) COURSES ALONG THE WEST RIGHT-OF-WAY LINE OF US-23: 1) S24°21'17"E 441.39 FEET; AND 2) S38°21'49"W 330.93 FEET TO THE NORTH RIGHT-OF-WAY LINE OF SAID WINANS LAKE ROAD; THENCE N89°45'15"W 365.16 FEET ALONG SAID NORTH RIGHT-OF-WAY LINE TO THE POINT OF BEGINNING, CONTAINING 9.40 ACRES OF LAND, MORE OR LESS. SUBJECT TO EASEMENTS AND RESTRICTIONS OF RECORD, IF ANY.

SITE PLAN & SPECIAL USE FOR LEGACY CENTER PHASE ONE "F"

MEDICAL BUILDING WITH FITNESS CLUB & LIVINGSTON CHRISTIAN SCHOOLS

PART OF THE NW 1/4, SECTION 20 GREEN OAK TOWNSHIP, LIVINGSTON COUNTY, MICHIGAN



OVERALL SITE MAP
NO SCALE

UTILITY QUANTITIES	
STORM SEWER	
12" ADS HP	578 LF
STRUCTURE (CATCH BASIN OR MANHOLE)	7
SANITARY SERVICE	
8" PVC SDR 26 SANITARY SEWER PIPE	803 LF
6" PVC SDR 23.5 SANITARY SEWER LEAD	24 LF
MANHOLE STRUCTURE	1
SANITARY GREASE TRAP	1

PAVING QUANTITIES	
2" MDOT 13A	9185 SY
2" MDOT 1100L	9185 SY
21AA LIMESTONE (6" UNDER ASPHALT)	9185 SY
CLASS II SAND (12" UNDER ASPHALT)	9185 SY
TYPE F CURB	1850 LF
21AA LIMESTONE (6" UNDER CURB)	1850 LF
4" CONCRETE SIDEWALK	511 SY
SESC QUANTITIES	
INLET PROTECTION FILTERS	7
SILT FENCE	2098 LF
MULCH BLANKET	1700 SY
AGGREGATE TRACKING MAT	279 SY

UTILITY CONTACTS

CABLE	ELECTRIC	GAS
AT&T/DIRECT TV	DTE ENERGY	CONSUMERS ENERGY
1251 LAWSON DR.	1095 LAWSON DR.	1000 GRAND OAKS DR.
HOWELL, MI 48843	HOWELL, MI 48843	HOWELL, MI 48843
517-997-1898	248-427-2200	800-477-5050
TELEPHONE	SEWER AND WATER	
AT&T	LIVINGSTON COUNTY WATER AUTHORITY	
1251 LAWSON DR.	10405 MERRILL RD. P.O. BOX 157	
HOWELL, MI 48843	HAMBURG, MI 48139	
517-997-1898	810-231-1333	

PERMITS & APPROVALS		
AGENCY	DATE SUBMITTED	DATE APPROVED
• TOWNSHIP SITE PLAN APPROVAL	5/1/23	PENDING
• TOWNSHIP SPECIAL USE	5/1/23	PENDING
• TOWNSHIP ENGINEERING	-	-
• SESC	-	-
• NPDES SESC NOC	-	-

INDEMNIFICATION STATEMENT

THE CONTRACTOR SHALL HOLD HARMLESS THE DESIGN PROFESSIONAL, MUNICIPALITY, COUNTY, STATE AND ALL OF ITS SUB CONSULTANTS, PUBLIC AND PRIVATE UTILITY COMPANIES, AND LANDOWNERS FOR DAMAGES TO INDIVIDUALS AND PROPERTY, REAL OR OTHERWISE, DUE TO THE OPERATIONS OF THE CONTRACTOR AND/OR THEIR SUBCONTRACTORS.

ARCHITECT:

THE MCFATE GROUP
 7136 JACKSON ROAD
 ANN ARBOR, MI 48103
 CONTACT: JON STEVENS
 PHONE: (734) 433-0020

PREPARED FOR:

LEGACY CENTER, LLC.
 9299 GOBLE DRIVE
 BRIGHTON, MI 48116
 CONTACT: MR. RODNEY GOBLE
 PHONE: (810) 231-9288
 EMAIL: GOBLE24@GMAIL.COM

PREPARED BY:

BEBOSS Engineering
 Engineers Surveyors Planners Landscape Architects
 3121 E. GRAND RIVER AVE.
 HOWELL, MI. 48843
 517.546.4836 FAX 517.548.1670
 CONTACT: BRENT LAVANWAY
 PHONE: 517.546.4836



SHEET INDEX	
SHEET NO.	DESCRIPTION
GENERAL (BY THE MCFATE GROUP)	
G-100	TITLE SHEET
G-101	DRAWING INDEX
G-110	PERSPECTIVES
G-111	PERSPECTIVES
G-113	TENANT BREAKDOWN
LS-100	CODE ANALYSIS PLAN & SCHEDULES
LS-101	LEVEL1 LIFE SAFETY PLAN
LS-102	LEVEL2 LIFE SAFETY PLAN
LS-103	LEVEL3 LIFE SAFETY PLAN
CIVIL	
C1	COVER SHEET
C2	GENERAL NOTES & LEGEND
C3	EXISTING CONDITION & DEMOLITION PLAN
C4	OVERALL SITE PLAN
C5	SITE PLAN
C6	OVERALL DRAINAGE PLAN
C6A	PARKING LOT GRADING & DRAINAGE PLAN
C6B	PICKLEBALL COURTS GRADING & DRAINAGE PLAN
C6C	MEDICAL CENTER GRADING & DRAINAGE PLAN
C7	UTILITY PLAN
C8	SOIL EROSION & SEDIMENTATION CONTROL PLAN
C9	SITE LANDSCAPE PLAN
C10	OVERALL LANDSCAPE PLAN
C11	CONSTRUCTION DETAILS
C12	STORMWATER MANAGEMENT PLAN
C13	PARKING CALCULATION PLAN
C14	SANITARY SEWER PROFILE
C15	PICKLEBALL & PARKING LOT STORM PROFILE
C16	PHOTOMETRIC PLAN
ARCHITECTURAL (BY THE MCFATE GROUP)	
A-001	OVERALL SITE PLAN
A-002	SITE PHOTOMETRIC
A-005	PICKLEBALL COVERED AREA
A-101	OVERALL LEVEL1 (FIELD) FLOOR PLAN
A-102	OVERALL LEVEL2 (ENTRY) FLOOR PLAN
A-103	OVERALL LEVEL3 (UPPER LEVEL) FLOOR PLAN
A-110	PRIMARY LEVEL1 FLOOR PLAN
A-120	PRIMARY LEVEL2 FLOOR PLAN
A-130	PRIMARY LEVEL3 FLOOR PLAN
A-150	PRIMARY ROOF PLAN
A-300	EXTERIOR ELEVATIONS
A-301	EXTERIOR MATERIAL PALETTE
A-302	EXTERIOR LIGHT FIXTURES
A-350	BUILDING SECTION
A-351	BUILDING SECTION
A-352	BUILDING SECTION
A-400	FIELD HOUSE ELEVATION

2	MD	BL	PER TOWNSHIP REVIEW	1/23/24
1	MD	BL	PER TOWNSHIP REVIEW	10/11/23
NO	BY	CK	REVISION	DATE

C1

GENERAL NOTES

- THE CONTRACTOR IS RESPONSIBLE FOR OBTAINING ALL REQUIRED TOWNSHIP, COUNTY, AND STATE OF MICHIGAN PERMITS.
- A GRADING PERMIT FOR SOIL EROSION-SEDIMENTATION CONTROL SHALL BE OBTAINED FROM THE GOVERNING AGENCY PRIOR TO THE START OF CONSTRUCTION.
- IF DUST PROBLEM OCCURS DURING CONSTRUCTION, CONTROL WILL BE PROVIDED BY AN APPLICATION OF WATER, EITHER BY SPRINKLER OR TANK TRUCK.
- ALL CONSTRUCTION AND MATERIALS SHALL BE IN ACCORDANCE WITH LOCAL MUNICIPAL STANDARDS AND SPECIFICATIONS.
- PAVED SURFACES, WALKWAYS, SIGNS, LIGHTING AND OTHER STRUCTURES SHALL BE MAINTAINED IN A SAFE, ATTRACTIVE CONDITION AS ORIGINALLY DESIGNED AND CONSTRUCTED.
- ALL BARRIER-FREE FEATURES SHALL BE CONSTRUCTED TO MEET ALL LOCAL, STATE AND A.D.A. REQUIREMENTS. WHERE EXISTING CONDITIONS AND/OR THE REQUIREMENTS OF THE PLANS WILL RESULT IN FINISHED CONDITIONS THAT DO NOT MEET ADA REQUIREMENTS, THE CONTRACTOR SHALL NOTIFY THE DESIGN ENGINEER PRIOR TO WORK COMMENCING.
- ANY DISCREPANCY IN THIS PLAN AND ACTUAL FIELD CONDITIONS SHALL BE REPORTED TO THE DESIGN ENGINEER PRIOR TO THE START OF CONSTRUCTION. CONTRACTOR SHALL BE RESPONSIBLE FOR VERIFICATION OF ALL SETBACKS, EASEMENTS AND DIMENSIONS SHOWN HEREON PRIOR TO BEGINNING CONSTRUCTION.
- THE CONTRACTOR SHALL CONTACT ALL OWNERS OF EASEMENTS, UTILITIES AND RIGHT-OF-WAY, PUBLIC OR PRIVATE, PRIOR TO THE START OF CONSTRUCTION.
- THE CONTRACTOR SHALL COORDINATE WITH ALL OWNERS TO DETERMINE THE LOCATION OF EXISTING LANDSCAPING, IRRIGATION LINES & PRIVATE UTILITY LINES. THE CONTRACTOR IS RESPONSIBLE FOR ANY DAMAGE TO EXISTING LANDSCAPING, IRRIGATION LINES, AND PRIVATE UTILITY LINES.
- THE CONTRACTOR SHALL REMOVE ALL TRASH AND DEBRIS FROM THE SITE UPON COMPLETION OF THE PROJECT.
- THE CONTRACTOR SHALL MAINTAIN THE SITE IN A MANNER SO THAT WORKMEN AND PUBLIC SHALL BE PROTECTED FROM INJURY, AND ADJOINING PROPERTY PROTECTED FROM DAMAGE.
- THE CONTRACTOR SHALL KEEP THE AREA OUTSIDE THE "CONSTRUCTION LIMITS" BROOM CLEAN AT ALL TIMES.
- THE CONTRACTOR SHALL CALL MISS DIG A MINIMUM OF 72 HOURS PRIOR TO THE START OF CONSTRUCTION.
- ALL PAVEMENT REPLACEMENT AND OTHER WORKS COVERED BY THESE PLANS SHALL BE DONE IN ACCORDANCE WITH THE REQUIREMENTS OF THE TOWNSHIP, INCLUDING THE LATEST MICHIGAN DEPARTMENT OF TRANSPORTATION (MDOT) SPECIFICATIONS FOR HIGHWAY CONSTRUCTION.
- THE CONTRACTOR IS RESPONSIBLE FOR ALL DAMAGE TO EXISTING UTILITIES.
- NO ADDITIONAL COMPENSATION WILL BE PAID TO THE CONTRACTOR FOR ANY DELAY OR INCONVENIENCE DUE TO THE MATERIAL SHORTAGES OR RESPONSIBLE DELAYS DUE TO THE OPERATIONS OF SUCH OTHER PARTIES DOING WORK INDICATED OR SHOWN ON THE PLANS OR IN THE SPECIFICATION OR FOR ANY REASONABLE DELAYS IN CONSTRUCTION DUE TO THE ENCOUNTERING OR EXISTING UTILITIES THAT MAY OR MAY NOT BE SHOWN ON THE PLANS.
- DURING THE CONSTRUCTION OPERATIONS, THE CONTRACTOR SHALL NOT PERFORM WORK BY PRIVATE AGREEMENT WITH PROPERTY OWNERS ADJACENT TO THE PROJECT.
- IF WORK EXTENDS BEYOND NOVEMBER 15, NO COMPENSATION WILL BE DUE TO THE CONTRACTOR FOR ANY WINTER PROTECTION MEASURES THAT MAY BE REQUIRED BY THE ENGINEER.
- NO TREES ARE TO BE REMOVED UNTIL MARKED IN THE FIELD BY THE ENGINEER.
- THE CONTRACTOR SHALL BE RESPONSIBLE FOR ANY DAMAGE TO THE PROPERTY BEYOND THE CONSTRUCTION LIMITS INCLUDING BUT NOT LIMITED TO EXISTING FENCE, LAWN, TREES AND SHRUBBERY.
- TRAFFIC SHALL BE MAINTAINED DURING CONSTRUCTION. THE CONTRACTOR SHALL BE RESPONSIBLE FOR PROVIDING ALL SIGNS AND TRAFFIC CONTROL DEVICES. FLAG PERSONS SHALL BE PROVIDED BY THE CONTRACTOR IF DETERMINED NECESSARY BY THE ENGINEER. ALL SIGNS SHALL CONFORM TO THE MICHIGAN MANUAL OF UNIFORM TRAFFIC CONTROL DEVICES AT NO COST TO THE TOWNSHIP. NO WORK SHALL BE DONE UNLESS THE APPROPRIATE TRAFFIC CONTROL DEVICES ARE IN PLACE.
- ALL DEMOLISHED MATERIALS AND SOIL SPOILS SHALL BE REMOVED FROM THE SITE AT NO ADDITIONAL COST, AND DISPOSED OF IN ACCORDANCE WITH LOCAL, STATE AND FEDERAL REGULATIONS.
- ANY EXISTING APPURTENANCES SUCH AS MANHOLES, GATE VALVES, ETC. SHALL BE ADJUSTED TO THE PROPOSED GRADE AND SHALL BE CONSIDERED INCIDENTAL TO THE CONTRACT.
- ALL PERMANENT SIGNS AND PAVEMENT MARKINGS SHALL BE INSTALLED IN ACCORDANCE WITH THE LATEST REVISION OF THE MICHIGAN MUTCD MANUAL AND SHALL BE INCIDENTAL TO THE CONTRACT.
- IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO ENSURE THAT ALL ITEMS REQUIRED FOR CONSTRUCTION OF THE PROJECT ARE INCLUDED IN THE CONTRACT. ANY ITEMS NOT SPECIFICALLY DESIGNATED IN THE PLANS SHALL BE CONSIDERED INCIDENTAL TO THE CONTRACT.
- THE CONTRACTOR IS RESPONSIBLE FOR HAVING A SET OF APPROVED CONSTRUCTION PLANS, WITH THE LATEST REVISION DATE, ON SITE PRIOR TO THE START OF CONSTRUCTION; IN THE EVENT OF ANY QUESTIONS PERTAINING TO THE INTENT OF THE CONSTRUCTION PLANS OR SPECIFICATIONS, THE CONTRACTOR SHALL CONTACT THE DESIGN ENGINEER FOR A FINAL DETERMINATION FROM THE DESIGN ENGINEER.
- THE CONTRACTOR, NOT THE OWNER OR THE ENGINEER, ARE RESPONSIBLE FOR THE MEANS, METHODS, AND SEQUENCE OF CONSTRUCTION. THE CONTRACTOR IS RESPONSIBLE FOR SAFE EXECUTION OF THE PROJECT SCOPE IN ACCORDANCE WITH THE APPROVED CONSTRUCTION PLANS.
- THE CONTRACTOR IS RESPONSIBLE FOR PRESERVING CONSTRUCTION STAKING AS NECESSARY. CONTRACTOR TO NOTIFY CONSTRUCTION SURVEYOR OF REPLACEMENT STAKES NEEDED WHICH SHALL BE AT THE CONTRACTORS EXPENSE.
- THE OWNER AND/OR CONTRACTOR SHALL BE RESPONSIBLE FOR COORDINATING FRANCHISE UTILITY SERVICES (CABLE, ELECTRIC, GAS, ETC.) OWNER AND/OR CONTRACTOR SHALL WORK WITH UTILITY COMPANIES ON FURNISHING SITE UTILITY LAYOUTS AND PROVIDING CONDUIT CROSSINGS AS REQUIRED.
- DAMAGE TO ANY EXISTING UTILITIES OR INFRASTRUCTURE (INCLUDING PAVEMENT, CURB, SIDEWALK, ETC.) SHALL PROMPTLY BE REPLACED IN KIND AND SHALL BE AT THE CONTRACTORS EXPENSE.
- COORDINATION OF TESTING SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR AND PER ALL CITY/TOWNSHIP/COUNTY REQUIREMENTS. COPIES OF ALL TEST REPORTS SHALL BE FURNISHED TO THE DESIGN ENGINEER.
- PRIOR TO THE START OF CONSTRUCTION, PROTECTION FENCING SHALL BE ERECTED AROUND THE TREE DRIPLINE OF ANY TREES INDICATED TO BE SAVED WITHIN THE LIMITS OF DISTURBANCE.
- THE CONTRACTOR SHALL MAINTAIN DRAINAGE OF THE PROJECT AREA AND ADJACENT AREAS. WHERE EXISTING DRAINAGE FACILITIES ARE IMPACTED/DISTURBED DUE TO CONSTRUCTION, THE CONTRACTOR SHALL PROVIDE ANY NECESSARY TEMPORARY DRAINAGE PROVISIONS.
- SOIL BORING LOGS ARE REPRESENTATIVE OF SPECIFIC POINTS ON THE PROJECT SITE, AND IF PROVIDED TO THE CONTRACTOR ARE FOR INFORMATIONAL PURPOSES ONLY.
- WHERE CITY/TOWNSHIP STANDARD CONSTRUCTION DETAILS/SPECIFICATIONS ARE PROVIDED AND ARE IN CONFLICT WITH NOTES AND SPECIFICATIONS HEREIN, THE CITY/TOWNSHIP STANDARD SHALL GOVERN.

INDEMNIFICATION STATEMENT

THE CONTRACTOR SHALL HOLD HARMLESS THE DESIGN PROFESSIONAL, MUNICIPALITY, COUNTY, STATE, AND ALL OF ITS SUB CONSULTANTS, PUBLIC AND PRIVATE UTILITY COMPANIES, AND LANDOWNERS FOR DAMAGES TO INDIVIDUALS AND PROPERTY, REAL OR OTHERWISE, DUE TO THE OPERATIONS OF THE CONTRACTOR AND/OR THEIR SUBCONTRACTORS.

GENERAL GRADING & SESC NOTES

- THE CONTRACTOR SHALL HAVE IN PLACE ALL REQUIRED EROSION CONTROL METHODS AS INDICATED ON THE CONSTRUCTION PLANS AND AS REQUIRED BY GENERAL PRACTICE. SPECIFIC MEANS, METHODS AND SEQUENCES OF CONSTRUCTION MAY DICTATE ADDITIONAL SOIL EROSION CONTROL MEASURES BE NEEDED. THE CONTRACTOR SHALL COORDINATE WITH THE DESIGN ENGINEER ON THESE ANTICIPATED METHODS. ADDITIONAL SOIL EROSION CONTROL METHODS SHALL BE INCIDENTAL TO THE SCOPE OF WORK.
- ACTUAL FIELD CONDITIONS MAY DICTATE ADDITIONAL OR ALTERNATE SOIL EROSION CONTROL MEASURES BE UTILIZED. THE CONTRACTOR SHALL NOTIFY THE ENGINEER OF ANY DEFICIENCIES OR FIELD CONDITIONS THAT WARRANT ADDITIONAL AND/OR ALTERNATIVE SESC MEASURES BE UTILIZED.
- AT THE CLOSE OF EACH DAY, THE CONTRACTOR SHALL BE RESPONSIBLE FOR ENSURING ALL CONSTRUCTION OPERATIONS, MATERIALS, DEBRIS, ETC ARE CONTAINED ON-SITE.
- AT THE CLOSE OF EACH WORKING DAY, ALL DRAINAGE STRUCTURES SHALL BE FREE OF DIRT AND DEBRIS AT THE FLOW LINE.
- ALL SOIL EROSION CONTROL MEASURES SHALL BE INSTALLED IN ACCORDANCE PER MDEGLE REGULATIONS AND BEST PRACTICES. ALL SOIL EROSION CONTROL MEASURES SHALL BE MAINTAINED BY THE CONTRACTOR.
- THE SOIL EROSION CONTROL MEASURES SHALL BE KEPT IN PLACE UNTIL SUCH A TIME THAT THE SITE IS DETERMINED TO BE ESTABLISHED WITH ACCEPTABLE AMOUNT OF VEGETATIVE GROUND COVER.
- ALL AREAS DISTURBED BY THE CONTRACTOR BEYOND THE NORMAL CONSTRUCTION LIMITS OF THE PROJECT SHALL BE SODDED OR SEEDED AS SPECIFIED OR DIRECTED BY THE ENGINEER.
- AFTER REMOVAL OF TOPSOIL, THE SUBGRADE SHALL BE COMPACTED TO 95% OF ITS UNIT WEIGHT.
- ALL GRADING IN THE PLANS SHALL BE DONE AS PART OF THIS CONTRACT. ALL DELETERIOUS MATERIAL SHALL BE REMOVED FROM THE SUBGRADE PRIOR TO COMPACTING.
- ALL ROOTS, STUMPS AND OTHER OBJECTIONABLE MATERIALS SHALL BE REMOVED AND THE HOLE BACKFILLED WITH SUITABLE MATERIAL. WHERE GRADE CORRECTION IS REQUIRED, THE SUBGRADE SHALL BE CUT TO CONFORM TO THE CROSS-SECTION AS SHOWN IN THE PLANS.
- ALL EXCAVATION UNDER OR WITHIN 3 FEET OF PUBLIC PAVEMENT, EXISTING OR PROPOSED SHALL BE BACKFILLED AND COMPACTED WITH SAND (MDOT CLASS II).

GENERAL LANDSCAPE NOTES

- ALL PLANT MATERIAL SHALL CONFORM TO THE REQUIREMENTS AND SPECIFICATIONS OF THE GOVERNING MUNICIPALITY. ALL STOCK SHALL BE NURSERY GROWN, CONFORMING TO ANSI Z60.1 "AMERICAN STANDARD FOR NURSERY STOCK", AND IN ACCORDANCE WITH GOOD HORTICULTURAL PRACTICE. STOCK SHALL EXHIBIT NORMAL GROWTH HABIT AND BE FREE OF DISEASE, INSECTS, EGGS, LARVAE, & DEFECTS SUCH AS KNOTS, SUN-SCALD, INJURIES, ABRASIONS, OR DISFIGUREMENT. ALL PLANT MATERIAL SHALL BE SUBJECT TO THE APPROVAL OF THE LANDSCAPE ARCHITECT.
 - ALL PLANT MATERIALS SHALL BE BALLED AND BURLAPPED OR CONTAINER STOCK. NO BARE ROOT STOCK IS PERMITTED. ALL PLANT BALLS SHALL BE FIRM, INTACT, AND SECURELY WRAPPED AND BOUND.
 - ALL PLANT BED MATERIALS SHALL BE EXCAVATED OF ALL BUILDING MATERIALS, OTHER EXTRANEIOUS OBJECTS, AND POOR SOILS TO A MINIMUM DEPTH OF 12-INCHES AND BACKFILLED TO GRADE WITH SPECIFIED PLANTING MIX (SEE BELOW).
 - PLANTING MIXTURE SHALL CONSIST OF 5 PARTS TOPSOIL FROM ON-SITE (AS APPROVED), 4 PARTS COARSE SAND, 1 PART SPHAGNUM PEAT MOSS (OR APPROVED COMPOST), AND 5 LBS OF SUPERPHOSPHATE FERTILIZER PER CU. YD. OF MIX. INGREDIENTS SHALL BE THOROUGHLY BLENDED FOR UNIFORM CONSISTENCY.
 - ALL PLANT BEDS AND INDIVIDUAL PLANTS, NOT OTHERWISE NOTED SHALL BE MULCHED WITH A 4-INCH LAYER OF SHREDED BARK MULCH. EDGE OF MULCH BEDS AS SHOWN. DECIDUOUS TREES IN LAWN AREAS SHALL RECEIVE A 5-FT DIAMETER CIRCLE OF MULCH AND CONIFER TREES 8-FT (PLANTED CROWN OF TREE) UNLESS OTHERWISE NOTED.
 - LANDSCAPE STONE SHALL BE INSTALLED WHERE NOTED OR INDICATED (HATCHED). STONE SHALL BE 3/4"-1-1/4" WASHED RIVER GRAVEL OR AS SELECTED AND SHALL BE INSTALLED TO A MINIMUM DEPTH OF 3-INCHES.
 - ALL LANDSCAPE BEDS, UNLESS OTHERWISE NOTED SHALL BE INSTALLED OVER WEED BARRIER FABRIC - WATER PERMEABLE FILTRATION FABRIC OF NON-WOVEN POLYPROPYLENE OR POLYESTER FABRIC. FABRIC SHALL BE OF SUITABLE THICKNESS FOR APPLICATION.
 - ALL PLANTS AND PLANT BEDS SHALL BE THOROUGHLY WATERED UPON COMPLETION OF PLANTING AND STAKING OPERATIONS.
 - THE CONTRACTOR SHALL GUARANTEE ALL PLANT MATERIALS FOR A PERIOD OF 1 YEAR FROM THE DATE THE WORK IS ACCEPTED, IN WRITING, BY THE LANDSCAPE ARCHITECT. THE CONTRACTOR SHALL REPLACE, WITHOUT COST TO THE OWNER, WITHIN A SPECIFIED PERIOD OF TIME, ALL DEAD PLANTS, AND ALL PLANTS NOT IN A VIGOROUS, THRIVING CONDITION, AS DETERMINED BY THE LANDSCAPE ARCHITECT, DURING AND AT THE END OF THE GUARANTEE PERIOD. REPLACEMENT STOCK SHALL CONFORM TO THE ORIGINAL SPECIFICATIONS.
 - EDGING SHALL BE PROVIDED FOR ALL LANDSCAPE BEDS NOT ADJACENT TO CONCRETE PAVEMENT. EDGING SHALL BE BLACK ALUMINUM EDGING, 3/16-INCH X 4-INCH. INSTALL PER MANUFACTURER'S INSTRUCTIONS, ALL EDGING SHALL BE INSTALLED IN STRAIGHT LINES OR SMOOTH CURVES WITHOUT IRREGULARITIES.
 - SOD SHALL BE DENSE, WELL ROOTED TURF, FREE OF WEEDS. IT SHALL BE COMPRISED OF A BLEND OF AT LEAST TWO KENTUCKY BLUE GRASSES AND ONE FESCUE. IT SHALL HAVE A UNIFORM THICKNESS OF 3/4-INCH AT TIME OF PLANTING, AND CUT IN UNIFORM STRIPS NOT LESS THAN 10-INCHES BY 18-INCHES. SOD SHALL BE KEPT MOIST AND LAID WITHIN 36-HOURS AFTER CUTTING.
- IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO ESTABLISH A DENSE LAWN OF PERMANENT GRASSES, FREE OF LUMPS AND DEPRESSIONS. ALL SODDED AREAS THAT BROWN-OUT OR HAVE NOT FIRMLY KNITTED TO THE SOIL BASE WITHIN A PERIOD OF 1 MONTH SHALL BE REPLACED BY THE CONTRACTOR, AT NO COST TO THE OWNER.
12. ALL AREAS OF THE SITE THAT BECOME DISTURBED DURING CONSTRUCTION AND ARE NOT TO BE PAVED, STONED, LANDSCAPED, OR SODDED SHALL BE SEEDED AND MULCHED.
- SEED MIXTURE SHALL BE AS FOLLOWS:
 KENTUCKY BLUEGRASS (CHOOSE 3 VARIETIES - ADLPHI, RUGBY, GLADE, OR PARADE) 30%
 RUBY RED OR DAWSON RED FINE FESCUE 30%
 ATLANTA RED FESCUE 20%
 PENNINE PERENNIAL RYE 20%
- THE ABOVE SEED MIXTURE SHALL BE SOWN AT A RATE OF 250 LBS PER ACRE. PRIOR TO SEEDING, THE TOPSOIL SHALL BE FERTILIZED WITH A COMMERCIAL FERTILIZER WITH A 10-0-10 ANALYSIS:
 10% NITROGEN - MIN 25% FROM A UREA FORMALDEHYDE SOURCE
 0 % PHOSPHATE
 10% POTASH - SOURCE POTASSIUM SULFATE OR POTASSIUM NITRATE
- THE FIRST FERTILIZER APPLICATION SHALL BE AT A RATE OF 10 LBS PER 1000 SQ FT OF BULK FERTILIZER.
- IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO ESTABLISH A DENSE LAWN OF PERMANENT GRASSES, FREE OF LUMPS AND DEPRESSIONS. ANY PART OF THE AREA THAT FAILS TO SHOW A UNIFORM GERMINATION SHALL BE RE-SEEDED AND SUCH RE-SEEDING SHALL CONTINUE UNTIL A DENSE LAWN IS ESTABLISHED. DAMAGE TO SEEDED AREAS RESULTING FROM EROSION SHALL BE REPAIRED BY THE CONTRACTOR.

- ALL AREAS OF THE SITE SCHEDULED FOR SEEDING OR SODDING SHALL FIRST RECEIVE A 6-INCH LAYER OF CLEAN, FRIABLE TOPSOIL. THE SOIL SHALL BE DISCED AND SHALL BE GRADED IN CONFORMANCE WITH THE GRADING PLAN.
- IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO VERIFY THE LOCATION OF ALL UTILITIES AND TO INFORM THE LANDSCAPE ARCHITECT OF ANY CONFLICTS PRIOR TO COMMENCING LANDSCAPING.

GENERAL UTILITY NOTES

- BEDDING SHALL EXTEND A MINIMUM OF 4" BELOW THE PIPE, UNLESS OTHERWISE NOTED ON THE PLANS. BEDDING SHALL BE OF UNIFORM GRADATION MDOT 6A4 STONE OR MDOT CLASS II GRANULAR MATERIAL FOR SANITARY AND STORM PIPE AND MDOT CLASS II GRANULAR MATERIAL ONLY FOR WATERMAIN.
- WHERE UNSTABLE GROUND CONDITIONS ARE ENCOUNTERED, STONE BEDDING SHALL BE USED AS DIRECTED BY THE ENGINEER.
- BACKFILL SHALL BE OF A SUITABLE MATERIAL AND SHALL BE FREE OF ANY ORGANIC MATERIALS AND ROCKS.
- BACKFILL ABOVE THE PIPE SHALL BE OF GRANULAR MATERIAL MDOT CLASS II TO A POINT 12" ABOVE THE TOP OF THE PIPE. WHERE THE TRENCH IS NOT WITHIN THE INFLUENCE OF THE ROAD, SUITABLE SITE MATERIAL MAY BE COMPACTED AND UTILIZED FROM A POINT 12" ABOVE THE PIPE TO GRADE. WHERE THE TRENCH IS WITHIN A 1:1 INFLUENCE OF THE ROAD, GRANULAR MATERIAL, MDOT CLASS II OR III, IS TO BE PLACED AND COMPACTED IN LAYERS NOT EXCEEDING 12" IN THICKNESS. COMPACTION SHALL BE 95% AS DETERMINED BY AASHTO T99.
- 18" MINIMUM VERTICAL SEPARATION AND 10' HORIZONTAL SEPARATION IS TO BE MAINTAINED BETWEEN WATERMAIN AND SANITARY/STORM SEWER TO THE MAXIMUM EXTENT POSSIBLE.

GENERAL STORM NOTES

- ALL STORM PIPE LENGTHS ARE SHOWN FROM C/L TO C/L OF STRUCTURE OR FROM C/L OF STRUCTURE TO DISCHARGE END OF FLARED END SECTION.
- STORM PIPE MATERIALS SHALL BE AS FOLLOWS:
 2.1. PP(POLYPROPYLENE): SHALL MEET THE REQUIREMENTS OF ASTM F2881.
- STORM PIPE JOINTS SHALL MEET THE REQUIREMENTS OF ASTM D3212. HDPE AND PP PIPE GASKETS SHALL MEET THE REQUIREMENTS OF ASTM F477.
- ALL STORM PIPE TO HAVE WATERTIGHT PREMIUM JOINTS, UNLESS OTHERWISE NOTED ON THE PLANS.
- STORM DRAINAGE STRUCTURES SHALL BE FURNISHED WITH STEPS WHICH SHALL BE STEEL ENCASED WITH POLYPROPYLENE PLASTIC OR EQUIVALENT. STEPS SHALL BE SET AT 16" CENTER TO CENTER.
- ALL FLARED END SECTIONS 15" AND LARGER SHALL BE FURNISHED WITH AN ANIMAL GRATE.
- FLARED END SECTIONS DISCHARGING STORM WATER SHALL RECEIVE A MINIMUM OF 10 SQ YDS OF PLAIN COBBLESTONE RIP RAP WITH A MINIMUM STONE SIZE OF 6" AND SHALL BE PLACED ON A GEOTEXTILE FABRIC WRAP.
- ALL CATCH BASINS WITHIN THE ROADWAY SHALL INCLUDE INSTALLATION OF 6" DIAMETER PERFORATED PIPE SUBDRAIN.
- STORM DRAINAGE STRUCTURE COVERS SHALL BE OF THE FOLLOWING (OR APPROVED EQUAL):
 COVER USE FRAME GRATE/BACK TYPE 'B'
 'A' MANHOLE 1040 TYPE 'B'
 'D' PARKING LOTS 1040/5100 TYPE 'M1' GRATE OR 5105 TYPE 'M1' GRATE
 'E' LAWN 1040 TYPE 'O2' GRATE

GENERAL SANITARY NOTES

- ALL SANITARY PIPE LENGTHS ARE SHOWN FROM C/L OF STRUCTURE TO C/L OF STRUCTURE.
- SANITARY PIPE MATERIALS SHALL BE AS FOLLOWS:
 2.1. PVC SDR-26 (SANITARY MAIN)
 2.2. PVC SDR-23.5 (SANITARY LEADS)
- ALL PVC SDR SANITARY SEWER PIPE SHALL MEET THE REQUIREMENTS OF ASTM D3034 AND D2241. PVC SCHD 40 PIPE SHALL MEET THE REQUIREMENTS OF ASTM D1785. GASKET JOINTS FOR SANITARY PIPE SHALL MEET THE REQUIREMENTS OF ASTM D3139 AND D3212.
- SANITARY STRUCTURES SHALL BE FURNISHED WITH STEPS WHICH SHALL BE STEEL ENCASED WITH POLYPROPYLENE PLASTIC OR EQUIVALENT. STEPS SHALL BE SET AT 16" CENTER TO CENTER.
- ALL NEW MANHOLES SHALL BE MINIMUM 4" DIAMETER. PRECAST MANHOLE SECTIONS AND AN ECCENTRIC CONE. PRECAST MANHOLE JOINTS SHALL BE INSTALLED WITH BUTYL ROPE MEETING THE REQUIREMENTS OF ASTM C990.
- MANHOLES SHALL BE CONSTRUCTED WITH FLOW CHANNEL WALLS THAT ARE FORMER, AT A MINIMUM, TO THE SPRINGLINE OF THE PIPE.
- ALL NEW MANHOLES SHALL HAVE AN APPROVED FLEXIBLE, WATERTIGHT SEALS WHERE PIPES PASS THROUGH MANHOLE WALLS.
- WHEREVER AN EXISTING MANHOLE IS TO BE TAPPED, THE STRUCTURE SHALL BE CORED AND A KOR-N-SAL BOOT UTILIZED FOR THE PIPE CONNECTION.
- ALL MANHOLES SHALL BE PROVIDED WITH WATERTIGHT COVERS. COVERS TO BE EJCO 1040 TYPE 'A' SOLID COVER.
- A MAXIMUM OF 12" OF GRADE ADJUSTMENT RINGS SHALL BE USED TO ADJUST THE FRAME ELEVATION. BUTYL ROPE SHALL BE USED BETWEEN EACH ADJUSTMENT RING.
- SANITARY SEWER LATERALS SHALL HAVE A MINIMUM SLOPE OF 1.0%.
- CLEANOUTS SHALL BE INSTALLED EVERY 100', AT ALL BENDS AND STUBS.

LINES & HATCHES LEGEND

PROPOSED (PR)	EXISTING (EX)	DESCRIPTION
		CONTOUR
		SPOT ELEVATION
		SANITARY SEWER
		SANITARY LEAD
		FORCE MAIN
		PRESSURE SEWER
		STORM SEWER
		WATER MAIN
		WATER LEAD
		FIBER OPTIC
		OVERHEAD WIRE
		CABLE
		ELECTRIC
		GAS
		TELEPHONE
		FENCE
		SILT FENCE
		WETLAND BOUNDARY
		LIMITS OF GRADING/CLEARING
		LIMITS OF DRAINAGE
		MODIFIED CURB
		CONCRETE
		HIGH STRENGTH CONCRETE
		ASPHALT
		HIGH STRENGTH ASPHALT
		WETLAND
		SANITARY SEWER LABEL
		STORM SEWER LABEL
		WATER MAIN LABEL
		SOIL EROSION CONTROL MEASURE (P=PERMANENT, T=TEMPORARY)

LIGHTING LEGEND

PROPOSED (PR)	EXISTING (EX)	DESCRIPTION
		DOUBLE FIXTURE LIGHT POLE
		SINGLE FIXTURE LIGHT FIXTURE
		WALL MOUNTED LIGHT FIXTURE
		GROUND LIGHT FIXTURE
		FOOT CANDLES ON SITE
		FOOT CANDLES OFF SITE
		FOOT CANDLES CONTOURS
		CANOPY MOUNTED LIGHT FIXTURE

LANDSCAPE LEGEND

	EXISTING CONIFER TREE		EXISTING DECIDUOUS TREE
	PROPOSED CONIFER TREE		PROPOSED DECIDUOUS TREE
	PROPOSED TREE PROTECTION		PROPOSED ORNAMENTAL TREE
	PROPOSED DECIDUOUS SHRUBS		PROPOSED GRASSES & PERENNIALS
	PROPOSED LANDSCAPE BOULDER		

ABBREVIATIONS

FFE	FINISHED FLOOR ELEVATION
BFE	BASEMENT FLOOR ELEVATION
GFE	GARAGE FLOOR ELEVATION
FG	FINISHED GRADE
T/A	TOP OF ASPHALT
T/C	TOP OF CONCRETE/CURB
T/W	TOP OF WALK
T/P	TOP OF PIPE
B/P	BOTTOM OF PIPE
F/L	FLOW LINE
RIM	RIM ELEVATION (AT FLOW LINE)
INV	INVERT ELEVATION
MH	MANHOLE
CB	CATCH BASIN
RY	REAR YARD
YD	YARD DRAIN
RD	ROOF DRAIN
FES	FLARED END SECTION
CMP	CORRUGATED METAL PIPE
GPP	CORRUGATED PLASTIC PIPE
RCP	REINFORCED CONCRETE PIPE
HDPE	HIGH DENSITY POLYETHYLENE
PVC	POLYVINYL CHLORIDE
DIP	DUCTILE IRON PIPE
GV	GATE VALVE
QVW	GATE VALVE IN WELL
GVB	GATE VALVE IN BOX
HYD	HYDRANT
FDC	FIRE DEPARTMENT CONNECTION
UP	UTILITY POLE
NFV	NOT FIELD VERIFIED
TR	TO BE REMOVED
L	LIBER
P	PAGE
L.C.R.	LIVINGSTON COUNTY RECORDS
(M&R)	MEASURED AND RECORD
L.O.B.	POINT OF BEGINNING

SYMBOL LEGEND

	STORM DRAINAGE FLOW
	GUY WIRE
	POWER POLE
	TRANSFORMER PAD
	ELECTRICAL RISER
	U.G. ELECTRIC MARKER
	ELECTRICAL METER
	AIR CONDITIONING UNIT
	TELEPHONE RISER
	U.G. TELEPHONE MARKER
	GAS RISER
	U.G. GAS MARKER
	GAS METER
	CABLE TV RISER
	U.G. CABLE TV MARKER
	MAILBOX
	WELL
	WATER MANHOLE
	GATE VALVE (EXISTING)
	GATE VALVE (PROPOSED)
	HYDRANT (EXISTING)
	HYDRANT (PROPOSED)
	CATCH BASIN (EXISTING)
	YARD CATCH BASIN (EXISTING)
	CATCH BASIN (PROPOSED)
	STORM MANHOLE (EXISTING)
	STORM MANHOLE (PROPOSED)
	END SECTION (EXISTING)
	END SECTION (PROPOSED)
	SANITARY MANHOLE (EXISTING)
	SANITARY MANHOLE (PROPOSED)
	PUMP CHAMBER
	TRAFFIC SIGN
	SIGN (EXISTING)
	SIGN (PROPOSED)
	SOIL BORING
	STEEL ROD SET
	STEEL ROD OR PIPE FOUND
	WOOD LATH SET
	HUB SET
	MONUMENT FOUND
	SECTION CORNER
	GAS PUMP
	ANTENNA
	SATELLITE DISH
	NEWSPAPER BOX
	PARKING METER
	PHONE BOOTH
	HANDICAP SYMBOL
	BENCHMARK
	LIGHT POLE

THE LOCATION AND ELEVATION OF EXISTING UNDERGROUND UTILITIES AS SHOWN ON THESE DRAWINGS ARE ONLY APPROXIMATE. NO GUARANTEE IS MADE FOR THE ACCURACY THEREOF. THE CONTRACTOR SHALL BE RESPONSIBLE FOR DETERMINING THE EXACT LOCATION AND ELEVATION OF ALL UTILITIES IN THE FIELD PRIOR TO CONSTRUCTION. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE LOCATION OR DEPTH DIFFERS SIGNIFICANTLY FROM THE PLANS.

BEFORE ANY DIGGING CALL M.S.S. DIG
 1-800-487-7171
 or visit www.mssdig.com

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PROJECT: LEGACY CENTER - WELLNESS BUILDING
 PREPARED FOR: LEGACY CENTER, LLC
 9299 COBBLE DRIVE
 BRIGHTON, MI 48116
 (810) 231-9298

TITLE: GENERAL NOTES & LEGEND

NO.	DATE	REVISION PER	BY
1	1/23/24	PER TOWNSHIP REVIEW	TE
2	10/11/23	PER TOWNSHIP REVIEW	TE
1	NO BY		
NO BY			

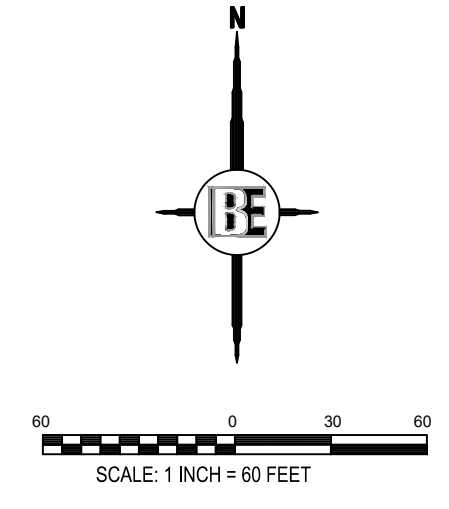
DESIGNED BY: TE
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 SCALE: NO SCALE
 JOB NO: 23-046-1
 DATE: 5/1/23
 SHEET NO. C2

ENTER, LLC
 OX 156
 MI, 48139

(ADDRESS:
 BLE DRIVE.

CEL
 _TING ASSOCIATES
 37-12-5514
 4/2013)

SEE SHEET 2 FOR GENERAL
 NOTES AND LEGEND



THE LOCATION AND ELEVATION OF EXISTING UNDERGROUND UTILITIES AS SHOWN ON THESE DRAWINGS ARE ONLY APPROXIMATE. NO CONTRACTOR SHALL BE RESPONSIBLE FOR DETERMINING THE EXACT LOCATION, DEPTH, OR ELEVATION OF EXISTING UTILITIES PRIOR TO CONSTRUCTION. THE CONTRACTOR SHALL BE RESPONSIBLE FOR VERIFYING THE LOCATION AND DEPTH OF UTILITIES SHOWN ON THESE DRAWINGS. THE CONTRACTOR SHALL BE RESPONSIBLE FOR VERIFYING THE LOCATION AND DEPTH OF UTILITIES SHOWN ON THESE DRAWINGS. THE CONTRACTOR SHALL BE RESPONSIBLE FOR VERIFYING THE LOCATION AND DEPTH OF UTILITIES SHOWN ON THESE DRAWINGS.



PARCEL INFORMATION:
 PARCEL ID: #4716-20-100-003
 ZONING: PUD/WMU-2
 ACREAGE: 90.77 AC. ±
 ADDRESS: 9299 GOBLE DR., BRIGHTON, MI 48116

- GENERAL SURVEY NOTES:**
1. SURVEY AND FLOODPLAIN INFORMATION PROVIDED BY OTHERS.
 2. BENCHMARK #226: "X" ON TOP OF CONCRETE LIGHT POLE BASE ELEV. 908.82 (NAVD 88)
 3. PER REVIEW OF FLOOD RATE MAPS 26093C0457D AND 26093C0459D THE SITE IS WITHIN FLOOD ZONE "X" WHICH ARE AREAS OF 0.2% ANNUAL CHANCE OF FLOOD.

SOIL INFORMATION

- BA-BOYER OSHTEMO LOAMY SAND 0%-2%
- BB-BOYER OSHTEMO LOAMY SAND 2%-6%
- BC-BOYER OSHTEMO LOAMY SAND 6%-12%
- BE-BOYER OSHTEMO LOAMY SAND 18%-25%
- BwA-BRONSON LOAMY SAND 0%-2%
- FoA-FOX SANDY LOAM 0%-2%

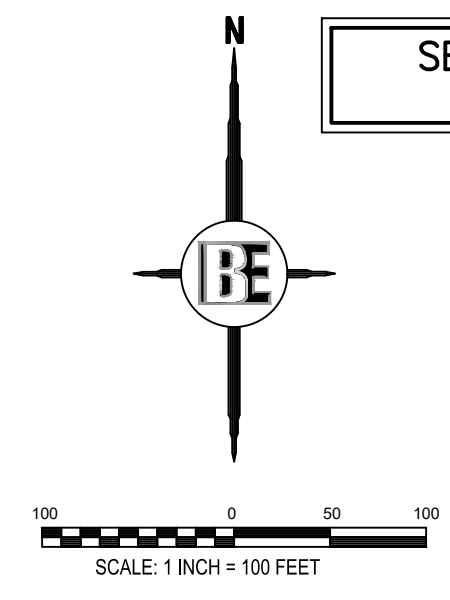
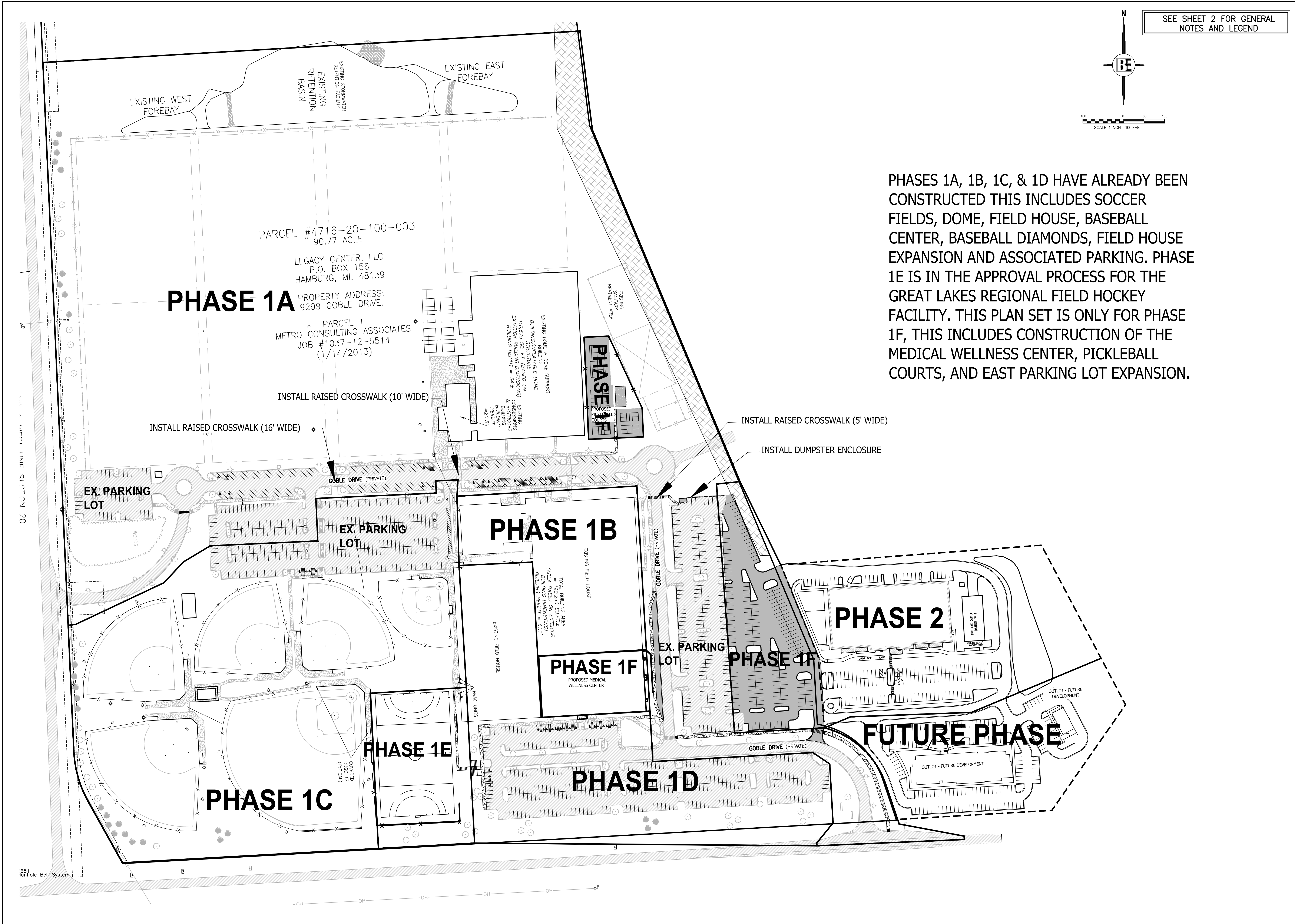
DISPOSAL NOTE:
 CONTRACTOR RESPONSIBLE FOR PROPER DISPOSAL OF DEBRIS AND DEMOLISHED MATERIAL GENERATED FROM CONSTRUCTION ACTIVITIES. DISPOSAL MUST BE IN COMPLIANCE WITH ALL LOCAL, STATE AND FEDERAL REGULATIONS

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NO	BY	DATE	REVISION
2	MD	1/23/24	PER TOWNSHIP REVIEW
1	MD	10/11/23	PER TOWNSHIP REVIEW
NO	BY	DATE	REVISION

DESIGNED BY: TE
 DRAWN BY: TE
 CHECKED BY: BL
 SCALE: 1"=60'
 JOB NO: 23-046-1
 DATE: 5/1/23
 SHEET NO. C3



SEE SHEET 2 FOR GENERAL NOTES AND LEGEND

PHASES 1A, 1B, 1C, & 1D HAVE ALREADY BEEN CONSTRUCTED THIS INCLUDES SOCCER FIELDS, DOME, FIELD HOUSE, BASEBALL CENTER, BASEBALL DIAMONDS, FIELD HOUSE EXPANSION AND ASSOCIATED PARKING. PHASE 1E IS IN THE APPROVAL PROCESS FOR THE GREAT LAKES REGIONAL FIELD HOCKEY FACILITY. THIS PLAN SET IS ONLY FOR PHASE 1F, THIS INCLUDES CONSTRUCTION OF THE MEDICAL WELLNESS CENTER, PICKLEBALL COURTS, AND EAST PARKING LOT EXPANSION.

THE LOCATION AND ELEVATION OF EXISTING UNDERGROUND UTILITIES AS SHOWN ON THESE DRAWINGS ARE ONLY APPROXIMATE. NO GUARANTEE IS MADE FOR THE LOCATION OR DEPTH OF UTILITIES. THE CONTRACTOR SHALL BE RESPONSIBLE FOR DETERMINING THE EXACT LOCATION AND DEPTH OF UTILITIES PRIOR TO CONSTRUCTION. THE CONTRACTOR SHALL BE RESPONSIBLE FOR OBTAINING ALL NECESSARY PERMITS AND APPROVALS FROM THE LOCAL, STATE, AND FEDERAL AGENCIES. THE CONTRACTOR SHALL BE RESPONSIBLE FOR OBTAINING ALL NECESSARY PERMITS AND APPROVALS FROM THE LOCAL, STATE, AND FEDERAL AGENCIES. THE CONTRACTOR SHALL BE RESPONSIBLE FOR OBTAINING ALL NECESSARY PERMITS AND APPROVALS FROM THE LOCAL, STATE, AND FEDERAL AGENCIES.

BE Engineering, Inc.
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1-800-442-7171
www.be-engineering.com

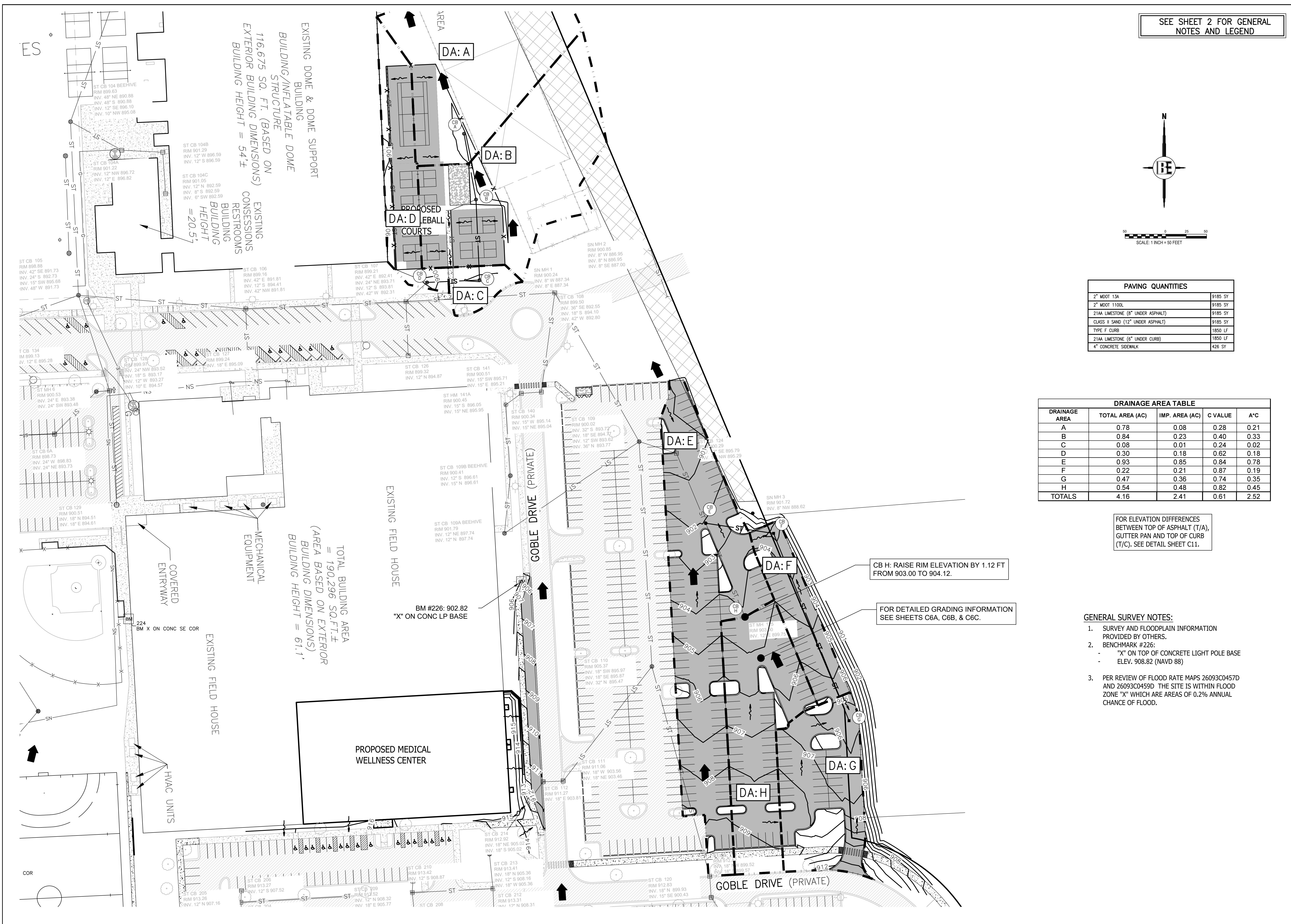
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3121 E. GRAND RIVER AVE.
HOWELL, MI. 48843
517.546.4836 FAX 517.548.1670

PROJECT: LEGACY CENTER - WELLNESS BUILDING
PREPARED FOR: LEGACY CENTER, LLC
9299 GOBLE DRIVE
BRIGHTON, MI 48116
(810) 231-9298

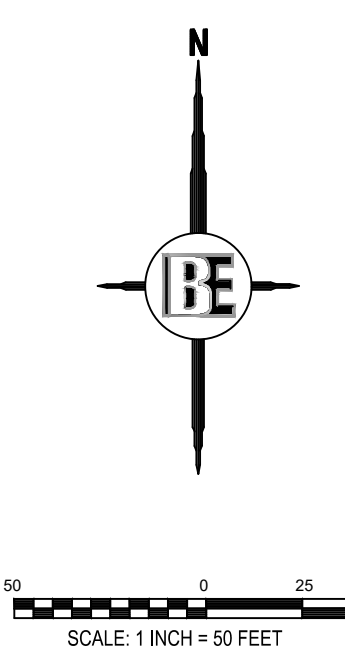
TITLE: OVERALL SITE PLAN

NO.	DATE	REVISION	BY	PER
2	1/23/24	PER TOWNSHIP REVIEW	TE	TE
1	10/11/23	PER TOWNSHIP REVIEW	TE	TE
NO		BY		

DESIGNED BY: TE
DRAWN BY: TE
CHECKED BY:
SCALE: 1" = 100'
JOB NO: 23-046-1
DATE: 5/1/23
SHEET NO. **C4**



SEE SHEET 2 FOR GENERAL NOTES AND LEGEND



PAVING QUANTITIES	
2" MDOT 13A	9185 SY
2" MDOT 1100L	9185 SY
21AA LIMESTONE (8" UNDER ASPHALT)	9185 SY
CLASS II SAND (12" UNDER ASPHALT)	9185 SY
TYPE F CURB	1850 LF
21AA LIMESTONE (6" UNDER CURB)	1850 LF
4" CONCRETE SIDEWALK	426 SY

DRAINAGE AREA TABLE				
DRAINAGE AREA	TOTAL AREA (AC)	IMP. AREA (AC)	C VALUE	A°C
A	0.78	0.08	0.28	0.21
B	0.84	0.23	0.40	0.33
C	0.08	0.01	0.24	0.02
D	0.30	0.18	0.62	0.18
E	0.93	0.85	0.84	0.78
F	0.22	0.21	0.87	0.19
G	0.47	0.36	0.74	0.35
H	0.54	0.48	0.82	0.45
TOTALS	4.16	2.41	0.61	2.52

GENERAL SURVEY NOTES:

- SURVEY AND FLOODPLAIN INFORMATION PROVIDED BY OTHERS.
- BENCHMARK #226:
 - "X" ON TOP OF CONCRETE LIGHT POLE BASE
 - ELEV. 908.82 (NAVD 88)
- PER REVIEW OF FLOOD RATE MAPS 26093C0457D AND 26093C0459D THE SITE IS WITHIN FLOOD ZONE "X" WHICH ARE AREAS OF 0.2% ANNUAL CHANCE OF FLOOD.

THE LOCATION AND ELEVATION OF EXISTING UNDERGROUND UTILITIES AS SHOWN ON THESE DRAWINGS ARE ONLY APPROXIMATE. NO WARRANTY IS MADE BY THE ENGINEER FOR THE ACCURACY, COMPLETENESS OR SUFFICIENCY OF THE INFORMATION. THE CONTRACTOR SHALL BE RESPONSIBLE FOR DETERMINING THE EXACT LOCATION AND DEPTH OF ALL UTILITIES CROSSINGS IN THE FIELD PRIOR TO CONSTRUCTION. THE CONTRACTOR SHALL BE RESPONSIBLE FOR OBTAINING ALL NECESSARY PERMITS FROM THE PLANS.

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LEGACY CENTER - WELLNESS BUILDING

LEGACY CENTER, LLC
9299 GOBLE DRIVE
BRIGHTON, MI 48116
(810) 231-9298

OVERALL DRAINAGE PLAN

PROJECT	LEGACY CENTER - WELLNESS BUILDING
PREPARED FOR	LEGACY CENTER, LLC
TITLE	OVERALL DRAINAGE PLAN
DATE	5/1/23
REVISION PER	
NO	BY
1	MD
2	MD
PER TOWNSHIP REVIEW	1/23/24
PER TOWNSHIP REVIEW	10/11/23

DESIGNED BY: TE
DRAWN BY: TE
CHECKED BY:
SCALE: 1"=50'
JOB NO: 23-046-1
DATE: 5/1/23
SHEET NO. **C6**

SEE SHEET 2 FOR GENERAL NOTES AND LEGEND

THE LOCATION AND ELEVATION OF EXISTING UNDERGROUND UTILITIES AS SHOWN ON THESE DRAWINGS ARE ONLY APPROXIMATE. NO WARRANTY IS MADE BY THE ENGINEER AS TO THE ACCURACY, COMPLETENESS OR SUFFICIENCY OF THE INFORMATION. THE CONTRACTOR SHALL BE RESPONSIBLE FOR VERIFYING THE LOCATION AND DEPTH OF ALL UTILITIES CROSSINGS IN THE FIELD PRIOR TO CONSTRUCTION. THE ENGINEER SHALL NOT BE RESPONSIBLE FOR ANY DAMAGE TO UTILITIES OR OTHER PROPERTY FROM THE PLANS.

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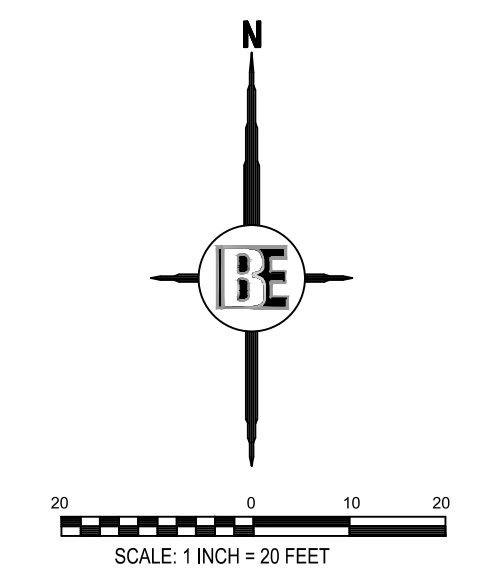
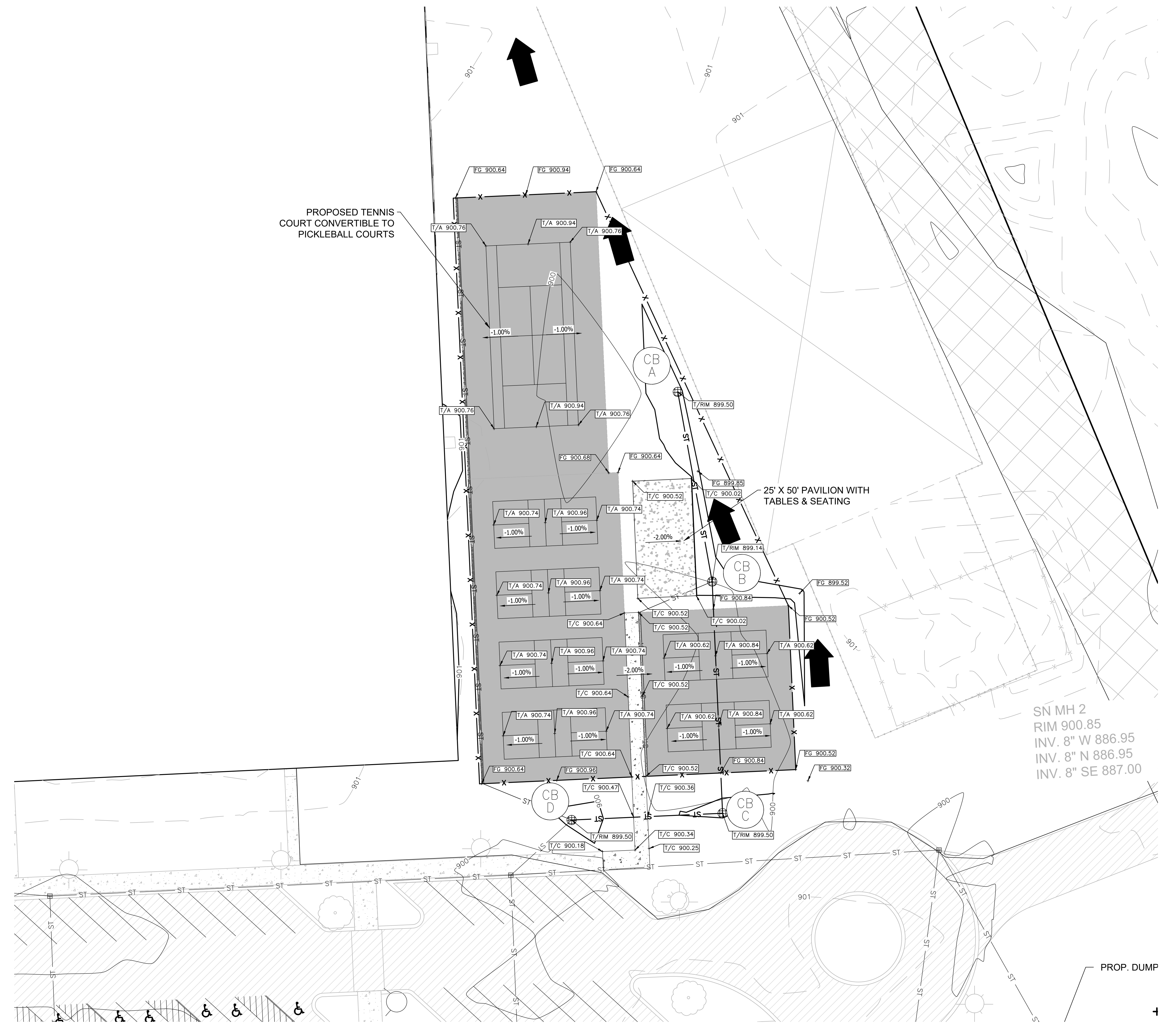
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PROJECT: LEGACY CENTER - WELLNESS BUILDING
 PREPARED FOR: LEGACY CENTER, LLC
 9299 GABLE DRIVE
 BRIGHTON, MI 48116
 (810) 231-9298

TITLE: PICKLEBALL COURTS GRADING & DRAINAGE PLAN

NO	BY	DATE	REVISION
2	MD	1/23/24	PER TOWNSHIP REVIEW
1	MD	10/11/23	PER TOWNSHIP REVIEW
NO	BY		REVISION PER

DESIGNED BY: TE
 DRAWN BY: TE
 CHECKED BY:
 SCALE: 1" = 20'
 JOB NO: 23-046-1
 DATE: 5/1/23
 SHEET NO. C6B



FOR ELEVATION DIFFERENCES BETWEEN TOP OF ASPHALT (T/A), GUTTER PAN AND TOP OF CURB (T/C). SEE DETAIL SHEET C11.

SN MH 2
 RIM 900.85
 INV. 8" W 886.95
 INV. 8" N 886.95
 INV. 8" SE 887.00

PROP. DUMP

SEE SHEET 2 FOR GENERAL NOTES AND LEGEND

THE LOCATION AND ELEVATION OF EXISTING UNDERGROUND UTILITIES AS SHOWN ON THESE DRAWINGS ARE ONLY APPROXIMATE. NO COMPLETELY RESPONSIBLE FOR DETERMINING THE EXACT LOCATION, DEPTH, OR TYPE OF UTILITIES. THE CONTRACTOR SHALL BE RESPONSIBLE FOR VERIFYING THE LOCATION AND DEPTH OF UTILITIES CROSSINGS IN THE FIELD PRIOR TO CONSTRUCTION. THE CONTRACTOR SHALL BE RESPONSIBLE FOR VERIFYING THE LOCATION AND DEPTH OF UTILITIES CROSSINGS IN THE FIELD PRIOR TO CONSTRUCTION. THE CONTRACTOR SHALL BE RESPONSIBLE FOR VERIFYING THE LOCATION AND DEPTH OF UTILITIES CROSSINGS IN THE FIELD PRIOR TO CONSTRUCTION.

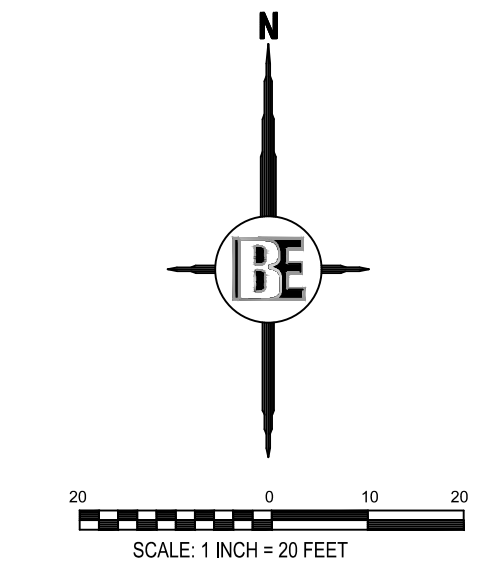
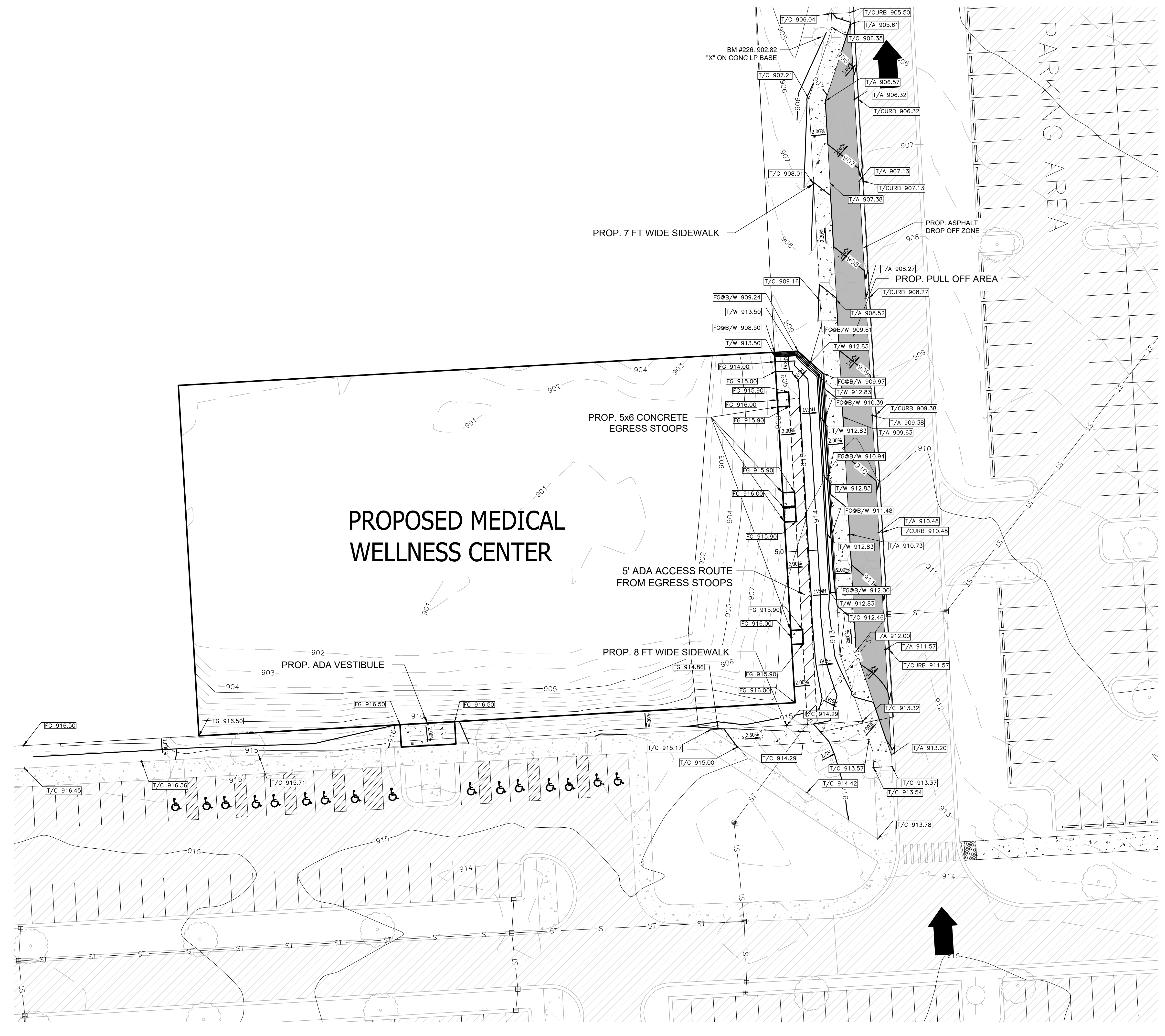
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HOWELL, MI. 48843
517.546.4836 FAX 517.548.1670

PROJECT: LEGACY CENTER - WELLNESS BUILDING
PREPARED FOR: LEGACY CENTER, LLC
9299 GABLE DRIVE
BRIGHTON, MI 48116
(810) 231-9288

TITLE: MEDICAL CENTER GRADING & DRAINAGE PLAN

NO.	DATE	REVISION
1	1/23/24	PER TOWNSHIP REVIEW
2	10/11/23	PER TOWNSHIP REVIEW
1	NO BY	REVISION PER

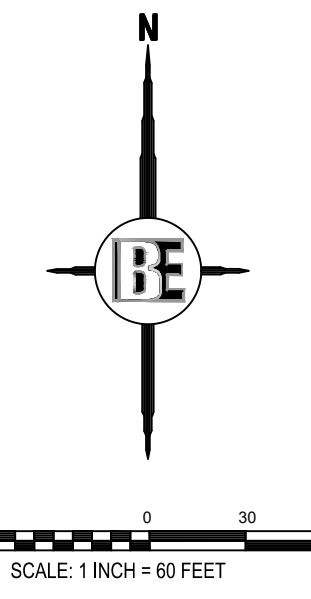
DESIGNED BY: TE
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SCALE: 1" = 20'
JOB NO: 23-046-1
DATE: 5/1/23
SHEET NO. C6C



FOR ELEVATION DIFFERENCES BETWEEN TOP OF ASPHALT (T/A), GUTTER PAN AND TOP OF CURB (T/C). SEE DETAIL SHEET C11.

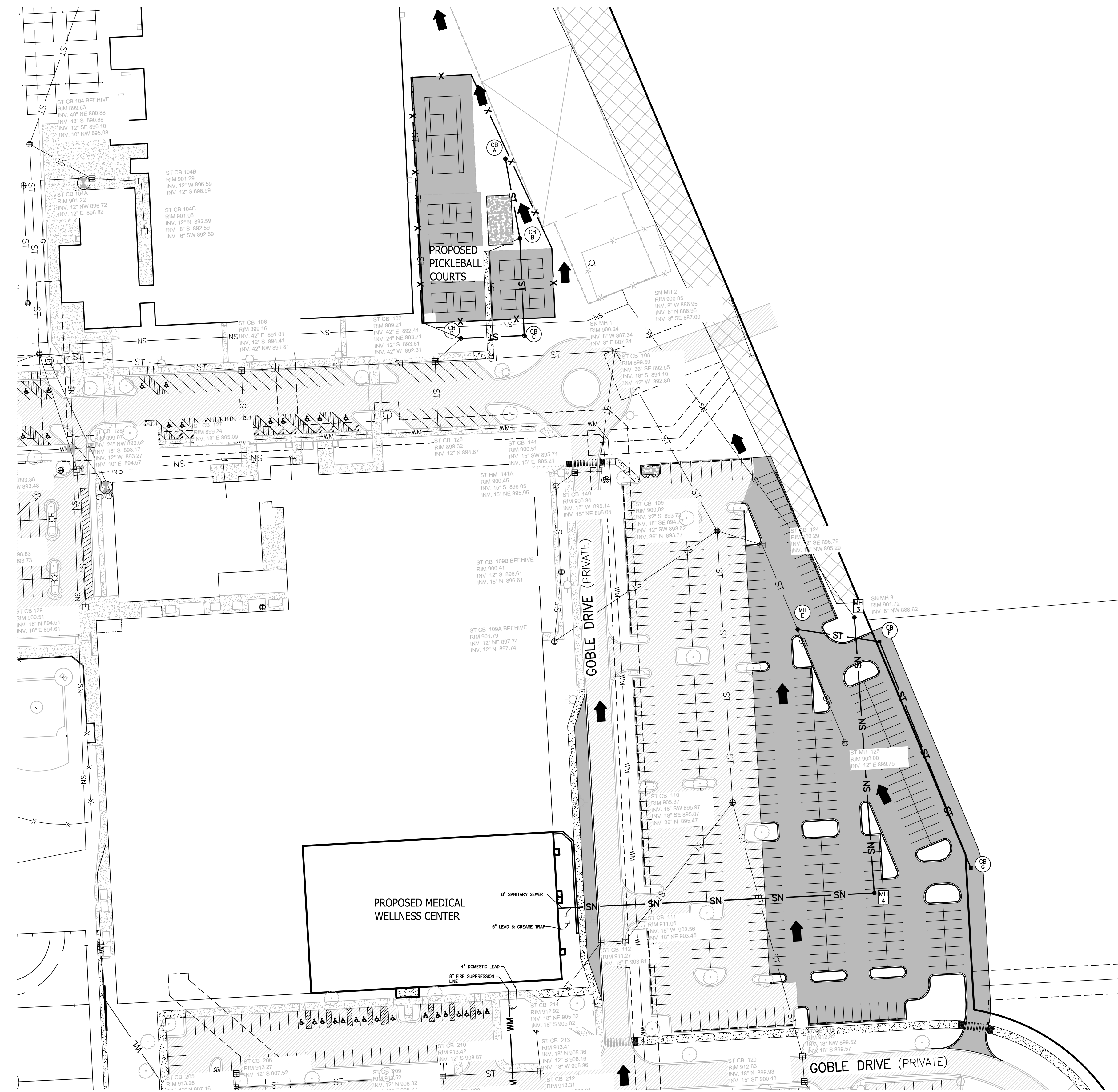
- GENERAL SURVEY NOTES:**
1. SURVEY AND FLOODPLAIN INFORMATION PROVIDED BY OTHERS.
 2. BENCHMARK #226: "X" ON TOP OF CONCRETE LIGHT POLE BASE ELEV. 908.82 (NAVD 88)
 3. PER REVIEW OF FLOOD RATE MAPS 26093C0457D AND 26093C0459D THE SITE IS WITHIN FLOOD ZONE "X" WHICH ARE AREAS OF 0.2% ANNUAL CHANCE OF FLOOD.

SEE SHEET 2 FOR GENERAL NOTES AND LEGEND



THE LOCATION AND ELEVATION OF EXISTING UNDERGROUND UTILITIES AS SHOWN ON THESE DRAWINGS ARE ONLY APPROXIMATE. NO CONTRACTOR SHALL BE RESPONSIBLE FOR DETERMINING THE EXACT LOCATION AND DEPTH OF EXISTING UTILITIES PRIOR TO CONSTRUCTION. THE CONTRACTOR SHALL BE RESPONSIBLE FOR VERIFYING THE LOCATION AND DEPTH OF EXISTING UTILITIES PRIOR TO CONSTRUCTION. THE CONTRACTOR SHALL BE RESPONSIBLE FOR VERIFYING THE LOCATION AND DEPTH OF EXISTING UTILITIES PRIOR TO CONSTRUCTION. THE CONTRACTOR SHALL BE RESPONSIBLE FOR VERIFYING THE LOCATION AND DEPTH OF EXISTING UTILITIES PRIOR TO CONSTRUCTION.

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HYDRAULIC GRADIENT BASIS:
THE H.G. IS BASED ON FLOW THROUGH THE PIPE COMPARED TO THE CAPACITY OF THE PIPE. IF FLOW IS LESS THAN 80% OF THE CAPACITY THEN H.G. WOULD BE SET AT THE 1/3 POINT OF THE PIPE. IF FLOW IS GREATER THAN 80% OF THE CAPACITY THEN H.G. IS BASED ON THE FORMULA $(V/(1.49/n)) * (D/48)^(5/3)$ WHERE V IS THE VELOCITY FLOWING FULL AND D IS THE PIPE DIAMETER.

THE ULTIMATE DISCHARGE POINT IS LOCATED NORTH OF THE SOCCER FIELDS AND WAS DESIGNED TO HANDLE THE ENTIRE SITE BEING DEVELOPED. THERE ARE TWO FOREBAYS AND THE DETENTION BASIN RELEASES TO THE WETLANDS NORTH OF BASIN.

- STORM SEWER NOTES:**
- PREFABRICATED BAR SCREEN SHALL BE USED ON ALL STORM OPENINGS 18 INCHES IN DIAMETER AND LARGER.
 - CONTRACTOR SHALL ADJUST EXISTING MANHOLE COVERS, AS REQUIRED.
 - CONTRACTOR SHALL VERIFY THE LOCATION AND ELEVATION OF ALL EXISTING UTILITIES PRIOR TO CONSTRUCTION.

UTILITY QUANTITIES	
STORM SEWER	
12" ADS HP	578 LF
STRUCTURE (CATCH BASIN OR MANHOLE)	7
SANITARY SERVICE	
8" PVC SDR 26 SANITARY SEWER PIPE	603 LF
6" PVC SDR 23.5 SANITARY SEWER LEAD	24 LF
MANHOLE STRUCTURE	1
SANITARY GREASE TRAP	1

STORM STRUCTURE TABLE	
STRUCTURE NAME	STRUCTURE DETAILS
CBA 480 COVER TYPE 'E' 2' SUMP	RIM = 899.50 SUMP = 2' 12" INV OUT = 895.84
CBB 480 COVER TYPE 'E' 2' SUMP	RIM = 899.14 SUMP = 2' 12" INV IN = 895.43 12" INV OUT = 895.43
CBC 480 COVER TYPE 'E' 2' SUMP	RIM = 899.50 SUMP = 2' 12" INV IN = 894.94 12" INV OUT = 894.94
CBD 480 COVER TYPE 'E' 2' SUMP	RIM = 899.50 SUMP = 2' 12" INV IN = 894.61 24" INV OUT = 893.81
CBF 480 COVER TYPE 'D' 2' SUMP	RIM = 902.72 SUMP = 2' 12" INV IN = 898.32 12" INV OUT = 898.32
CBG 480 COVER TYPE 'D' 2' SUMP	RIM = 905.46 SUMP = 2' 12" INV IN = 900.80
MHE 480 COVER TYPE 'A' 0' SUMP	RIM = 902.07 SUMP = 0' 12" INV IN = 897.48

SANITARY STRUCTURE TABLE	
STRUCTURE	STRUCTURE DETAILS
MH 2 480 COVER TYPE 'A'	RIM = 900.60 8" INV OUT = 887.00
MH 3 480 COVER TYPE 'A'	RIM = 901.72 8" INV IN = 888.62 8" INV OUT = 888.72
MH 4 480 COVER TYPE 'A'	RIM = 907.34 8" INV IN = 889.84 8" INV OUT = 889.94

PIPE TABLE			
PIPE NAME	SIZE	LENGTH	SLOPE
PICKLEBALL COURT			
A-B	12"	82'	0.50%
B-C	12"	99'	0.50%
C-D	12"	64'	0.50%
PARKING LOT			
G-F	12"	248'	1.00%
F-E	12"	84'	1.00%

FROM	TO	DRAIN AREA	ACRES	RUNOFF COEFF	EQUIV. AREA A * C	INTEN-SITY I	TIME OF CONC. Tc	ADDL. RUNOFF Q	RUNOFF (CFS) Q	PIPE LENGTH (LF)	PIPE DIA. (IN)	VELOCITY FULL (FPS)	HYDRAULIC SLOPE %	ACTUAL SLOPE USED	MANNING COEFFICIENT	MANNING CAPACITY	MANNING'S VELOCITY (FT/SEC)	TIME (MIN)	HG ELEV UPPER END	HG ELEV LOWER END	RIM ELEV UPPER END	RIM ELEV LOWER END	INVERT UPPER END	INVERT LOWER END	DROP DISTANCE (FT)	RIM-INV	RIM-HG >1	PIPE COVER >2.667	FLOW THRU COVER
A	B	A	0.78	0.28	0.21	4.38	15.00		0.94	82	12	2.49	0.30%	0.50%	0.013	2.53	3.22	0.43	897.04	896.79	899.50	899.14	895.84	895.43	3.66	2.46	2.66	0.94	
B	C	B	0.84	0.40	0.33	4.33	15.43		2.37	99	12	4.18	0.84%	0.50%	0.013	2.53	3.22	0.51	896.79	895.96	899.14	899.50	895.43	894.94	3.71	2.35	2.71	1.43	
C	D	C	0.08	0.24	0.02	4.27	15.94		2.46	64	12	4.18	0.84%	0.50%	0.013	2.53	3.22	0.33	895.96	895.41	899.50	899.50	894.94	894.61	4.56	3.54	3.56	0.09	
G	F	G	0.47	0.74	0.35	4.38	15.00		1.52	248	12	3.64	0.64%	1.00%	0.013	3.57	4.55	0.91	901.60	899.12	905.46	902.72	900.80	898.32	4.66	3.86	3.40	1.52	
F	E	F	0.22	0.87	0.19	4.28	15.91		2.35	84	12	4.21	0.86%	1.00%	0.013	3.57	4.55	0.31	899.12	898.28	902.72	902.07	898.32	897.48	4.40	3.60	3.40	0.83	

PROJECT: LEGACY CENTER - WELLNESS BUILDING
PREPARED FOR: LEGACY CENTER, LLC
9299 GOBLE DRIVE
BRIGHTON, MI 48116
(810) 231-9298

TITLE: UTILITY PLAN

NO	BY	DATE	REVISION
1	MD	1/23/24	PER TOWNSHIP REVIEW
2	MD	10/11/23	PER TOWNSHIP REVIEW
1	MD	10/11/23	NO BY

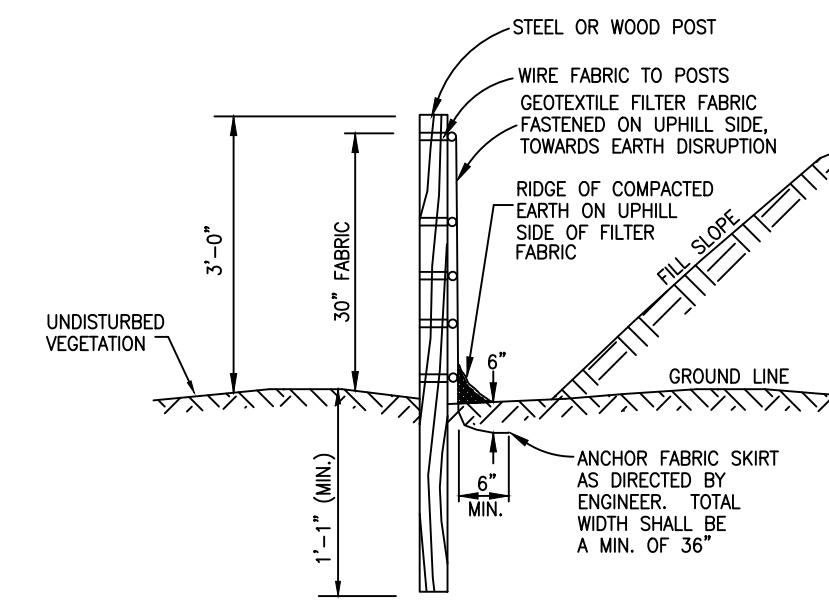
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SCALE: 1"=60'
JOB NO: 23-046-1
DATE: 5/1/23
SHEET NO. C7

EROSION CONTROL STANDARD NOTES:

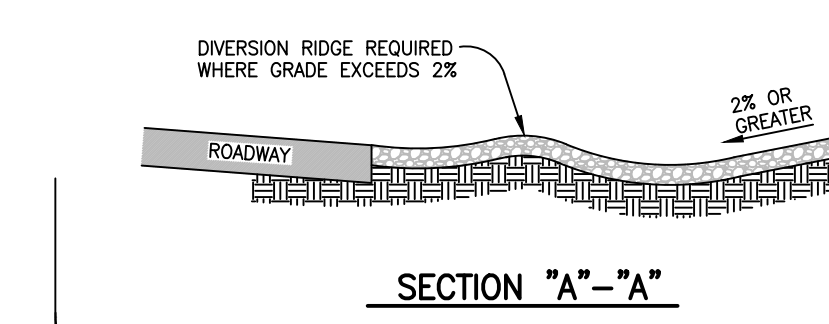
- ALL EROSION AND SEDIMENTATION CONTROL WORK SHALL CONFORM TO THE CURRENT STANDARDS AND SPECIFICATIONS OF THE LIVINGSTON COUNTY DRAIN COMMISSIONER AND THE GREEN OAK CHARTER TOWNSHIP.
- DAILY INSPECTIONS SHALL BE MADE BY THE CONTRACTOR FOR THE EFFECTIVENESS OF EROSION AND SEDIMENTATION CONTROL MEASURES. ANY NECESSARY REPAIRS SHALL BE PERFORMED WITHOUT DELAY.
- EROSION AND ANY SEDIMENTATION CONTROL FROM WORK ON THIS SITE SHALL BE CONTAINED WITHIN THE WORK AREA AND NOT ALLOWED TO COLLECT ON ANY OFF-SITE AREAS OR IN WATERWAYS. WATERWAYS INCLUDE BOTH NATURAL AND MAN-MADE OPEN DITCHES, STREAMS, STORM DRAIN, LAKES, PONDS AND WETLANDS.
- THE CONTRACTOR SHALL APPLY TEMPORARY EROSION AND SEDIMENTATION CONTROL MEASURES AS DIRECTED ON THESE PLANS AND WHERE OTHERWISE REQUIRED BY THE WORK. THE CONTRACTOR SHALL REMOVE TEMPORARY MEASURES AS SOON AS PERMANENT STABILIZATION OF SLOPES, DITCHES, AND OTHER CHANGES HAVE BEEN ACCOMPLISHED.
- SOIL EROSION PRACTICES WILL BE ESTABLISHED IN THE EARLY STAGES OF CONSTRUCTION BY THE CONTRACTOR. SEDIMENT CONTROL PRACTICES WILL BE APPLIED AS A PERIMETER DEFENSE AGAINST ANY TRANSPORTING OF DIRT OFF THE WORK SITE.
- THE CONTRACTOR SHALL PRESERVE OFF-SITE NATURAL VEGETATION AS MUCH AS POSSIBLE.
- PROTECT ALL EXISTING TREES, INCLUDING THEIR BRANCHES AND ROOTS, FROM DAMAGE DUE TO THIS WORK UNLESS SPECIFICALLY IDENTIFIED FOR REMOVAL.
- STABILIZATION OF ALL DISTURBED AREAS SHALL BE ESTABLISHED USING THE APPROPRIATE VEGETATION WITHIN 5 DAYS OF COMPLETION OF FINAL GRADING.
- THE CONTRACTOR SHALL SWEEP THE EXISTING STREETS SURROUNDING THE PROJECT AS NEEDED.
- THE CONTRACTOR SHALL BE RESPONSIBLE FOR DUST CONTROL AND SHALL PROVIDE ALL EQUIPMENT AND MATERIAL TO KEEP DUST IN CHECK AT ALL TIMES. THE CONTRACTOR SHALL RESPOND IMMEDIATELY TO ANY AND ALL COMPLAINTS.
- THE CONTRACTOR SHALL BE RESPONSIBLE FOR OBTAINING THE NPDES PERMIT AND ENSURING COMPLIANCE WITH ALL APPLICABLE PERMIT REQUIREMENTS, INCLUDING BUT NOT LIMITED TO, INSPECTION, RESTORATION, AND RECORD-KEEPING REQUIREMENTS. REPORTS FROM THE CERTIFIED STORMWATER OPERATOR SHALL BE MADE AVAILABLE TO THE TOWNSHIP.

LCDC EROSION CONTROL NOTES:

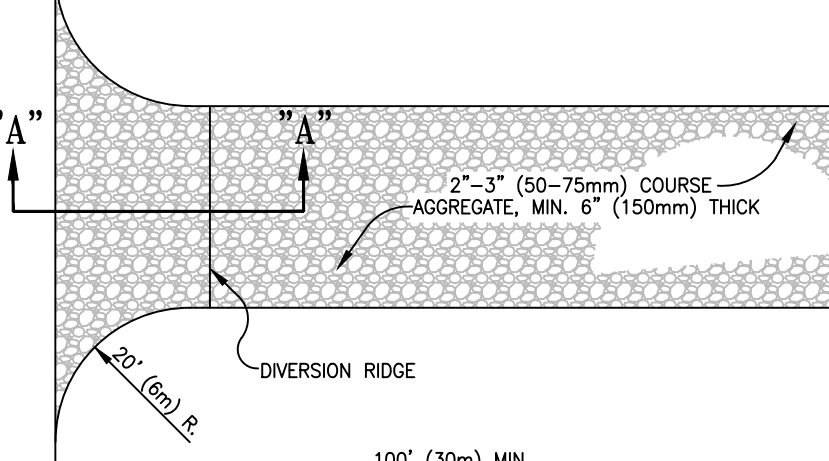
- HYDRO-SEEDING IS NOT ACCEPTABLE FOR SLOPES EXCEEDING 1%. ON SLOPES OVER 1%, STABILIZATION SHALL BE DONE WITH STRAW BLANKETS PEGGED IN PLACE.
- TOP-SOIL - 3 INCHES
- GRASS SEED - 210 LBS. PER ACRE
- FERTILIZER - 150 LBS. PER ACRE
- STRAW MULCH - 3 INCHES IN DEPTH, 1.5 TO 2 PER ACRE. (ALL MULCH MUST HAVE A TIE DOWN, SUCH AS TACKIFIER, NET BINDING, ETC.)
- 1,850 LF TO DETENTION BASIN, 2,200 LF TO WETLAND, 2,500 LF TO HURON RIVER



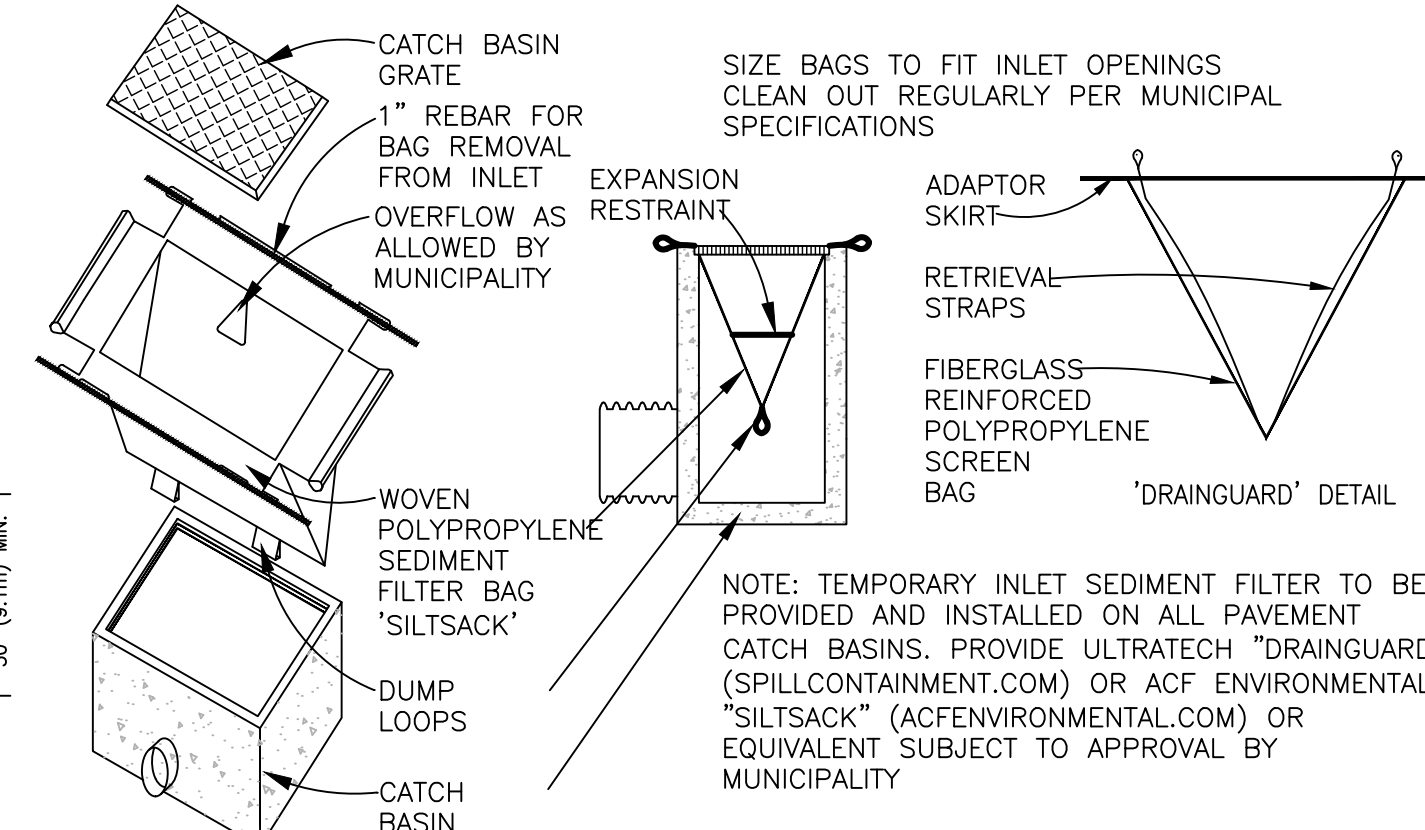
SILT FENCE DETAIL
NO SCALE



SECTION "A"-A"



TEMPORARY GRAVEL CONSTRUCTION ENTRANCE/EXIT
NO SCALE

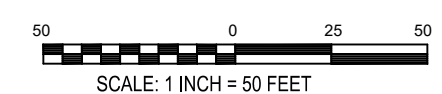


TEMPORARY INLET SEDIMENT FILTER DETAIL
(NO SCALE)

SEE SHEET 2 FOR GENERAL NOTES AND LEGEND

SESC QUANTITIES

INLET PROTECTION FILTERS	7
SILT FENCE	2098 LF
MULCH BLANKET	1700 SY
AGGREGATE TRACKING MAT	279 SY



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Engineers Surveyors Planners Landscape Architects
3121 E. GRAND RIVER AVE.
HOWELL, MI. 48843
517.546.4836 FAX 517.548.1670



PROPOSED CONST. SCHEDULE FOR THE YEAR 2023

ACTIVITY	MAY	JUNE	JULY	AUG	SEPT
CLEAR, GRUB					
MASS GRADING					
UNDERGROUND UTILITY					
BUILDING					
CURB & GUTTER					
PAVING					
FINE GRADE SEED & MULCH					

SOIL EROSION CONTROL MEASURES

NO.	MEASURE	DESCRIPTION
1	STRIPPING & STOCKPILE TOPSOIL	TOPSOIL MAY BE STOCKPILED ABOVE BORROW AREAS TO ACT AS A DIVERSION STOCKPILE SHOULD BE TEMPORARILY SEEDED
2	SELECTIVE GRADING & SMOOTHING	WATER CAN BE DIRECTED TO MINIMIZE EROSION FLATTER SLOPES EASE EROSION PROBLEMS
6	SEEDING WITH MULCH AND/OR MATTING	PRACTICES ESTABLISHMENT OF VEGETATION COVER SPECIFIC FOR DRINKING WATER WITH LOW VELOCITY EASILY PLACED IN SMALL QUANTITIES BY INEXPERIENCED PERSONNEL SHOULD INCLUDE: PFTZ727 (TOPSOIL, SOD)
12	COMPACTION	HELPS HOLD SOIL IN PLACE, MAKING EXPOSED AREAS LESS VULNERABLE TO EROSION
14	AGGREGATE COVER	STABILIZES SOIL SURFACE, THIS MINIMIZES EROSION PERMITS CONSTRUCTION TRAFFIC IN AREAS WHERE HEAVY TRAFFIC MAY BE USED AS PART OF PERMANENT BASE CONSTRUCTION OF PAVED AREAS
15	PAVING	PROTECTS AREAS WHICH CANNOT OTHERWISE BE PROTECTED, BUT INCREASES SURFACE VELOCITY
16	CURB & GUTTER	KEEPS HIGH VELOCITY RUNOFF ON PAVED AREAS FROM LEAVING PAVED SURFACE COLLECTS AND CONDUCTS RUNOFF TO ENCLOSED DRAINAGE SYSTEM OR PREPARED DRAINAGEWAY
35	STORM SEWER	SYSTEM REMOVES COLLECTED RUNOFF FROM SITE, PARTICULARLY FROM PAVED AREAS CAN ACCEPT LARGE CONCENTRATIONS OF RUNOFF CONDUCTS RUNOFF TO MUNICIPAL SEWER SYSTEM OR STABILIZED OUTFALL LOCATION USE CATCH BASINS TO COLLECT SEDIMENT
36	CATCH BASIN, DRAIN INLET	COLLECTS HIGH VELOCITY CONCENTRATED RUNOFF MAY USE FILTERS CLOTH OVER INLET
40	INLET SEDIMENT FILTER	EASY TO SHAPE COLLECTS SEDIMENT MAY BE CLEANED AND EXPANDED AS NEEDED
54	SILT FENCE	USES GEOTEXTILE FABRIC AND POST OR POLES. EASY TO CONSTRUCT AND LOCATE AS NECESSARY. (SEE DETAIL THIS SHEET)

T= TEMPORARY, P= PERMANENT
TOTAL DISTURBED AREA= 4.24 AC.

SURFACE WATER & COUNTY DRAINS

WETLAND	- APPROXIMATELY 400 FT NORTH OF NORTHERN SITE
LAKES	- APPROXIMATELY 2500 FT SOUTHEAST TO FROG LAKE
STREAMS	- APPROXIMATELY 1525 FT NORTH TO HURON RIVER
BASINS	- ON SITE
DRAINS	- APPROXIMATELY 800 FT WEST TO ARBOR MEADOWS
PONDS	- APPROXIMATELY 1550 FT NORTHWEST TO PRIVATE POND

CONSTRUCTION SEQUENCE

- THE CONTRACTOR IS RESPONSIBLE FOR ENSURING THAT EROSION IS MINIMIZED AND THAT COMPLIANCE WITH ALL APPLICABLE FEDERAL, STATE AND LOCAL LAWS, REGULATIONS, AND ORDINANCES IS MAINTAINED THROUGHOUT EXECUTION OF THIS PROJECT.
- | | |
|---------|---|
| 1 DAY | 1. INSTALL SILT FENCE AS SHOWN ON PLANS. |
| 5 DAYS | 2. ROUGH GRADE AND INSTALL STORM DRAINAGE. |
| 1 DAY | 3. INSTALL INLET PROTECTION ON STORM INLETS. |
| 180 DAY | 4. START BLDG. CONSTRUCTION |
| 4 DAYS | 5. INSTALL PAVEMENT |
| 4 DAYS | 6. FINE GRADE AROUND BUILDING, SPREAD TOPSOIL, SEED OR SOD AS APPLICABLE. |
| 1 DAY | 7. REMOVE ALL EROSION CONTROL STRUCTURES. |
| 1 DAY | 8. REMOVE ACCUMULATED SILT FROM ALL EXISTING DRAINAGE. |

CONTROLS & MEASURES POST CONSTRUCTION SEQUENCE

ACTIVITY	WEEKLY	MONTHLY	AS REQUIRED
MAINTAIN LANDSCAPING, REPLACE MULCH	X	X	X
CLEAN INLETS		X	X
COLLECT LITTER	X		X
SWEEP PARKING LOT		X	X

CONTROLS & MEASURES NARRATIVE

ACTIVITY	DESCRIPTION
MAINTAIN LANDSCAPING, REPLACE MULCH	COLLECT GRASS, TREE, AND SHRUB CLIPPINGS. DISPOSE IN APPROVED CONTAINER. REPLACE DEAD SOD, TREES AND SHRUBS.
CLEAN INLETS	REMOVE LITTER, SEDIMENT, AND DEBRIS. DISPOSE OF IN APPROVED LANDFILL.
COLLECT LITTER	DISPOSE OF WITH INLET DEBRIS.
SWEEP PARKING LOT	REMOVE MUD, DIRT, GREASE AND OIL WITH PERIODIC SWEEPING SPRINKLE WATER AS NEEDED
DUST CONTROL	

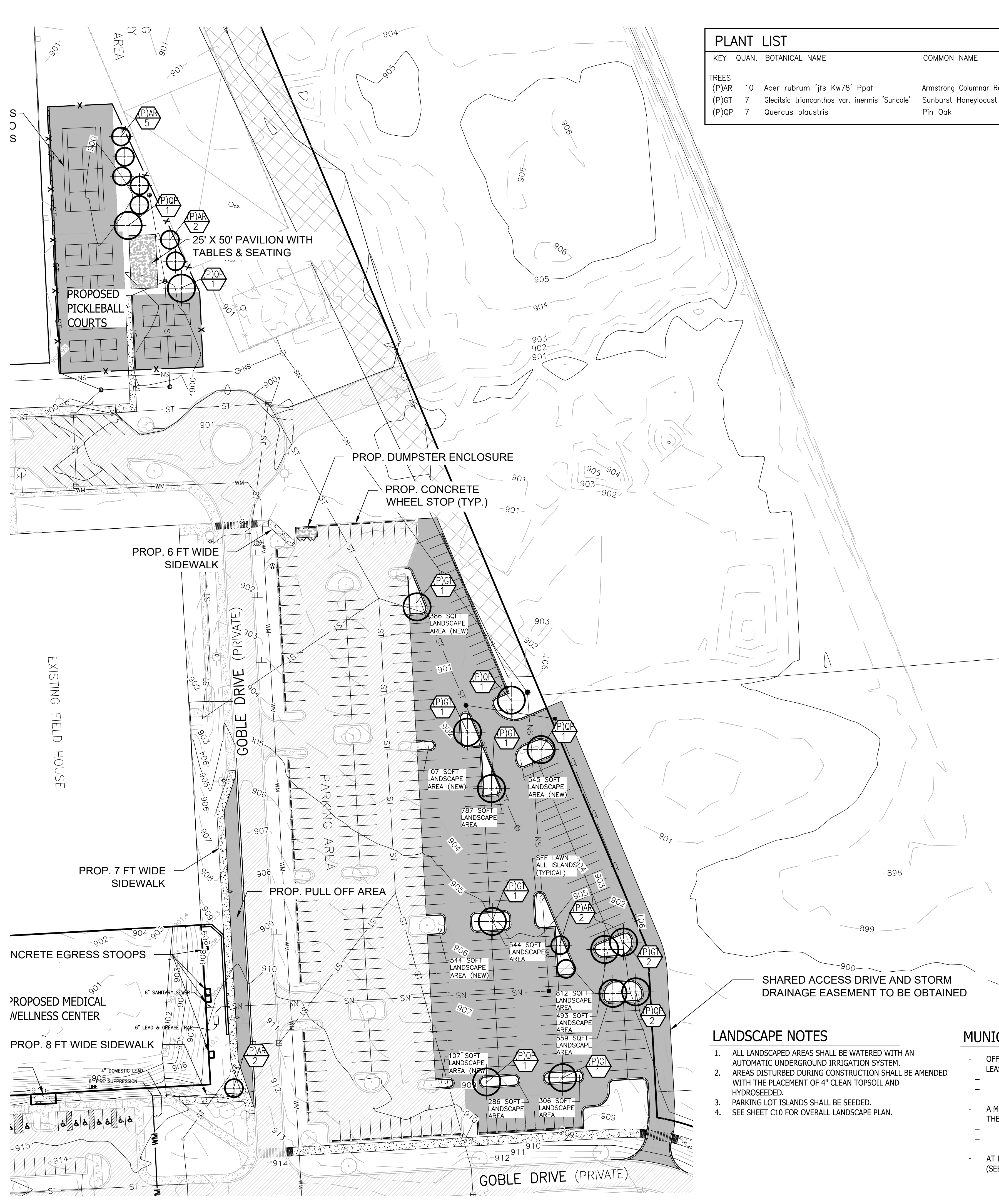
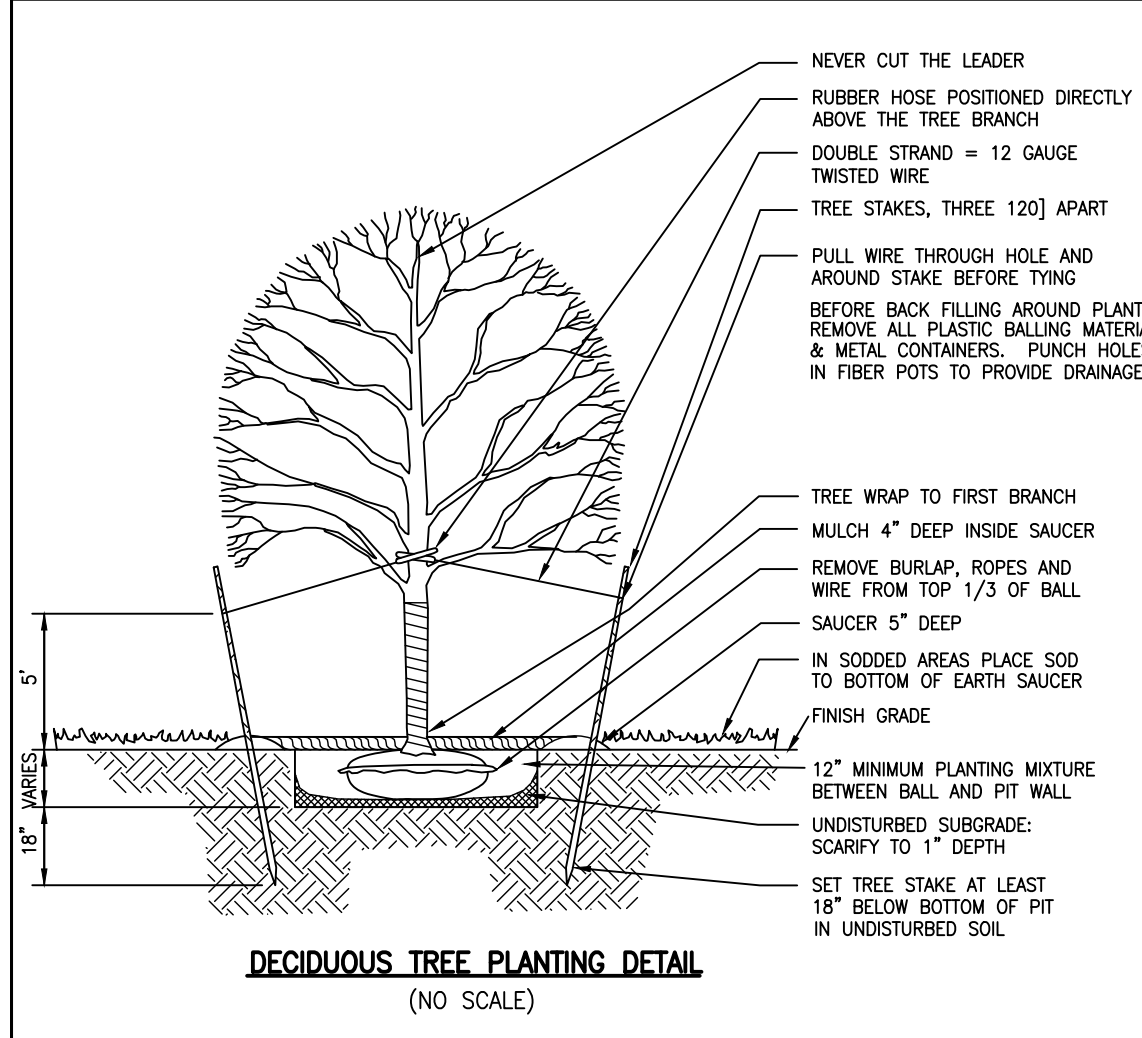
PROJECT: LEGACY CENTER - WELLNESS BUILDING
PREPARED FOR: LEGACY CENTER, LLC
9299 GOBLE DRIVE
BRIGHTON, MI 48116
(810) 231-9298

DESIGNED BY: TE
DRAWN BY: TE
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SCALE: 1"=50'
JOB NO: 23-046-1
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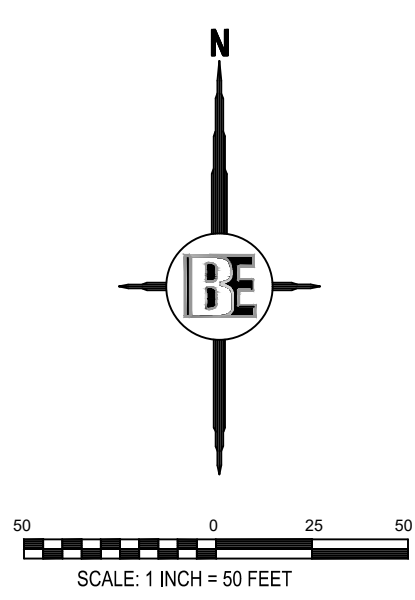
SOIL EROSION & SEDIMENTATION CONTROL PLAN

NO.	REVISION	DATE
2	MD	1/23/24
1	MD	10/11/23
1	BY	

BEBOSS Engineering
Engineers Surveyors Planners Landscape Architects
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KEY	QUAN.	BOTANICAL NAME	COMMON NAME	SIZE	REMARK
PLANT LIST					
TREES					
(P)AR	10	Acer rubrum 'Jfs Kw78' Ppaf	Armstrong Columnar Red Maple	2.5" cal.	B - B
(P)GT	7	Gleditsia triacanthos var. inermis 'Suncole'	Sunburst Honeylocust	2.5" cal.	B - B
(P)QP	7	Quercus plaustris	Pin Oak	2.5" cal.	B - B



SEE SHEET 2 FOR GENERAL NOTES AND LEGEND

GENERAL LANDSCAPE NOTES:

- ALL PLANT MATERIAL SHALL CONFORM TO THE REQUIREMENTS AND SPECIFICATIONS OF THE GOVERNING MUNICIPALITY AND SHALL BE NURSERY GROWN. ALL SIZES AND MEASUREMENTS SHALL CONFORM TO THE AMERICAN ASSOCIATION OF NURSERYMEN STANDARDS. ALL PLANT MATERIAL SHALL BE OF SELECTED SPECIMEN QUALITY AND HAVE A NORMAL HABIT OF GROWTH. ALL PLANT MATERIAL IS SUBJECT TO THE APPROVAL OF THE LANDSCAPE ARCHITECT.
- ALL PLANT MATERIALS SHALL BE BALLED AND BURLAPPED STOCK OR CONTAINER STOCK. NO BARE ROOT STOCK IS PERMITTED. ALL PLANT BALLS SHALL BE FIRM, INTACT AND SECURELY WRAPPED AND BOUND.
- ALL PLANT BEDS SHALL BE EXCAVATED OF ALL BUILDING MATERIALS AND OTHER EXTRANEOUS OBJECTS AND POOR SOILS TO A MINIMUM DEPTH OF 12 INCHES AND BACKFILLED TO GRADE WITH PLANTING MIX (SEE SPECIFICATIONS).
- PLANTING MIXTURE SHALL CONSIST OF 4 PARTS TOPSOIL FROM ON SITE, 1 PART PEAT, AND 5 POUNDS OF SUPERPHOSPHATE PER CUBIC YARD OF MIX. INGREDIENTS SHALL BE THOROUGHLY BLENDED TO A UNIFORM CONSISTENCY.
- ALL PLANT BEDS AND INDIVIDUAL PLANTS SHALL BE MULCHED WITH A 4 INCH LAYER OF SHREDDED BARK MULCH.
- ALL PLANTS AND PLANT BEDS SHALL BE THOROUGHLY WATERED UPON COMPLETION OF PLANTING AND STAKING OPERATIONS.
- THE CONTRACTOR SHALL GUARANTEE ALL PLANT MATERIALS FOR A PERIOD OF 1 YEAR FROM THE DATE THE WORK IS ACCEPTED. IN WRITING, BY THE LANDSCAPE ARCHITECT, THE CONTRACTOR SHALL REPLACE, WITHOUT COST TO THE OWNER, WITHIN A SPECIFIED PERIOD TIME, ALL DEAD PLANTS, AND ALL PLANTS NOT IN A VIGOROUS, THRIVING CONDITION, AS DETERMINED BY THE LANDSCAPE ARCHITECT DURING AND AT THE END OF THE GUARANTEE PERIOD. REPLACEMENT STOCK SHALL CONFORM TO THE ORIGINAL REQUIREMENTS.
- EDGING, WHERE NOTED ON THE PLANS, SHALL BE BLACK ALUMINUM EDGING, 3/16" X 4". INSTALL PER MANUFACTURER'S INSTRUCTIONS. ALL EDGING SHALL BE INSTALLED IN STRAIGHT LINES OR SMOOTH CURVES WITHOUT IRREGULARITIES.
- SOD SHALL BE DENSE, WELL ROOTED TURF, FREE OF WEEDS. IT SHALL BE COMPRISED OF A BLEND OF AT LEAST TWO KENTUCKY BLUEGRASSES AND ONE FESCUE. IT SHALL HAVE A UNIFORM THICKNESS OF 3/4 INCH, AND CUT IN UNIFORM STRIPS NOT LESS THAN 10 INCHES BY 18 INCHES. SOD SHALL BE KEPT MOIST AND LAID WITHIN 36 HOURS AFTER CUTTING. IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO ESTABLISH A DENSE LAWN OF PERMANENT GRASSES, FREE OF LUMPS AND DEPRESSIONS. ALL SODDED AREAS THAT BROWN OUT OR HAVE NOT FIRMLY KNITTED TO THE SOIL BASE WITHIN A PERIOD OF ONE MONTH SHALL BE REPLACED BY THE CONTRACTOR, AT NO COST TO THE OWNER.
- ALL AREAS OF THE SITE THAT BECOME DISTURBED DURING CONSTRUCTION AND ARE NOT TO BE PAVED, STONED, LANDSCAPED, OR SODDED SHALL BE SEEDED AND MULCHED.
SEED MIXTURE SHALL BE AS FOLLOWS:
KENTUCKY BLUEGRASS (CHOOSE 3 VARIETIES): 30%
ADELPHI, RUGBY, GLADE OR PARADE 30%
RUBY RED OR DAWSON RED FINE FESCUE 20%
ATLANTA RED FESCUE 20%
PENNFINE PERENNIAL RYE 20%
THE ABOVE SEED MIXTURE SHALL BE SOWN AT A RATE OF 250 POUNDS PER ACRE. PRIOR TO SEEDING, THE TOPSOIL LAYER SHALL BE FERTILIZED WITH A COMMERCIAL FERTILIZER WITH A 10-20-10 ANALYSIS:
10% NITROGEN: A MINIMUM OF 25% FROM A UREA-FORMALDEHYDE SOURCE
20% PHOSPHATE
10% POTASH: SOURCE TO BE POTASSIUM SULFATE OR POTASSIUM NITRATE.
THE FIRST FERTILIZER APPLICATION SHALL BE AT A RATE OF 10 POUNDS OF BULK FERTILIZER PER 1000 SQUARE FEET.
IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO ESTABLISH A DENSE LAWN OF PERMANENT GRASSES, FREE OF LUMPS AND DEPRESSIONS. ANY PART OF THE AREA THAT FAILS TO SHOW A UNIFORM GERMINATION SHALL BE RESEEDING AND SUCH RESEEDING SHALL CONTINUE UNTIL A DENSE LAWN IS ESTABLISHED. DAMAGE TO SEEDED AREAS RESULTING FROM EROSION SHALL BE REPAIRED BY THE CONTRACTOR.
- ALL AREAS OF THE SITE SCHEDULED FOR SEEDING OR SODDING SHALL FIRST RECEIVE A 4 INCH LAYER OF CLEAN, FRIABLE TOPSOIL. THIS SOIL SHALL BE DISCED AND SHALL BE GRADED IN CONFORMANCE WITH THE GRADING PLAN.
- IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO VERIFY THE LOCATION OF ALL UTILITIES AND TO INFORM THE LANDSCAPE ARCHITECT OF ANY CONFLICTS PRIOR TO COMMENCING LANDSCAPING.
- ALL PLANT MATERIALS SHALL BE FREE OF WEEDS, INSECTS AND DISEASE.

LANDSCAPE NOTES

- ALL LANDSCAPED AREAS SHALL BE WATERED WITH AN AUTOMATIC UNDERGROUND IRRIGATION SYSTEM.
- AREAS DISTURBED DURING CONSTRUCTION SHALL BE AMENDED WITH THE PLACEMENT OF 4" CLEAN TOPSOIL AND HYDROSEEDED.
- PARKING LOT ISLANDS SHALL BE SEEDED.
- SEE SHEET C10 FOR OVERALL LANDSCAPE PLAN.

MUNICIPAL REQUIREMENTS

- OFF STREET PARKING AREAS CONTAINING MORE THAN TWENTY (20) SPACES SHALL BE PROVIDED WITH AT LEAST TWENTY (20) SQUARE FEET OF INTERIOR LANDSCAPING PER PARKING SPACE.
- REQUIRED: 214 PROPOSED SPACES (PHASE 1F) * 20 SQFT = 4,280 SQFT
- PROVIDED: 5,206 SQFT (IN ISLANDS)
- A MINIMUM OF ONE (1) TREE SHALL BE PLANTED PER THREE HUNDRED (300) SQUARE FEET, OR FRACTION THEREOF, OF INTERIOR LANDSCAPE AREA.
- REQUIRED: 4,280 SQFT / 300 = 15 TREES
- PROVIDED: 15 TREES PROVIDED FOR PHASE 1F
- AT LEAST FIFTY (50%) PERCENT OF EACH LANDSCAPE AREA SHALL BE COVERED BY LIVING PLANT MATERIAL. (SEED LAWN PROPOSED)

THE LOCATION AND ELEVATION OF EXISTING UNDERGROUND UTILITIES AS SHOWN ON THESE DRAWINGS ARE ONLY APPROXIMATE. NO CONTRACTOR SHALL BE RESPONSIBLE FOR DETERMINING THE EXACT LOCATION AND DEPTH OF EXISTING UTILITIES PRIOR TO CONSTRUCTION. THE CONTRACTOR SHALL BE RESPONSIBLE FOR VERIFYING THE LOCATION AND DEPTH OF EXISTING UTILITIES PRIOR TO CONSTRUCTION. THE CONTRACTOR SHALL BE RESPONSIBLE FOR VERIFYING THE LOCATION AND DEPTH OF EXISTING UTILITIES PRIOR TO CONSTRUCTION. THE CONTRACTOR SHALL BE RESPONSIBLE FOR VERIFYING THE LOCATION AND DEPTH OF EXISTING UTILITIES PRIOR TO CONSTRUCTION.

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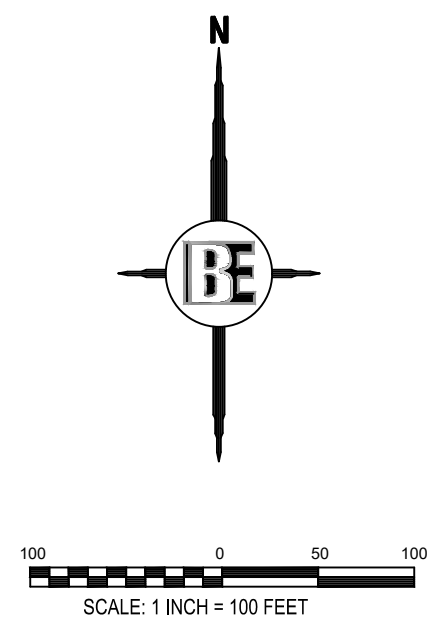
PROJECT: LEGACY CENTER - WELLNESS BUILDING
PREPARED FOR: LEGACY CENTER, LLC
9299 GOBLE DRIVE
BRIGHTON, MI 48116
(810) 231-9298

TITLE: SITE LANDSCAPE PLAN

NO.	DATE	REVISION
1	1/23/24	DATE
2	10/11/23	DATE
3		DATE
4		DATE
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DESIGNED BY: TE
DRAWN BY: PC
CHECKED BY:
SCALE: 1"=50'
JOB NO: 23-046-1
DATE: 5/1/23
SHEET NO. **C9**

SEE SHEET 2 FOR GENERAL NOTES AND LEGEND



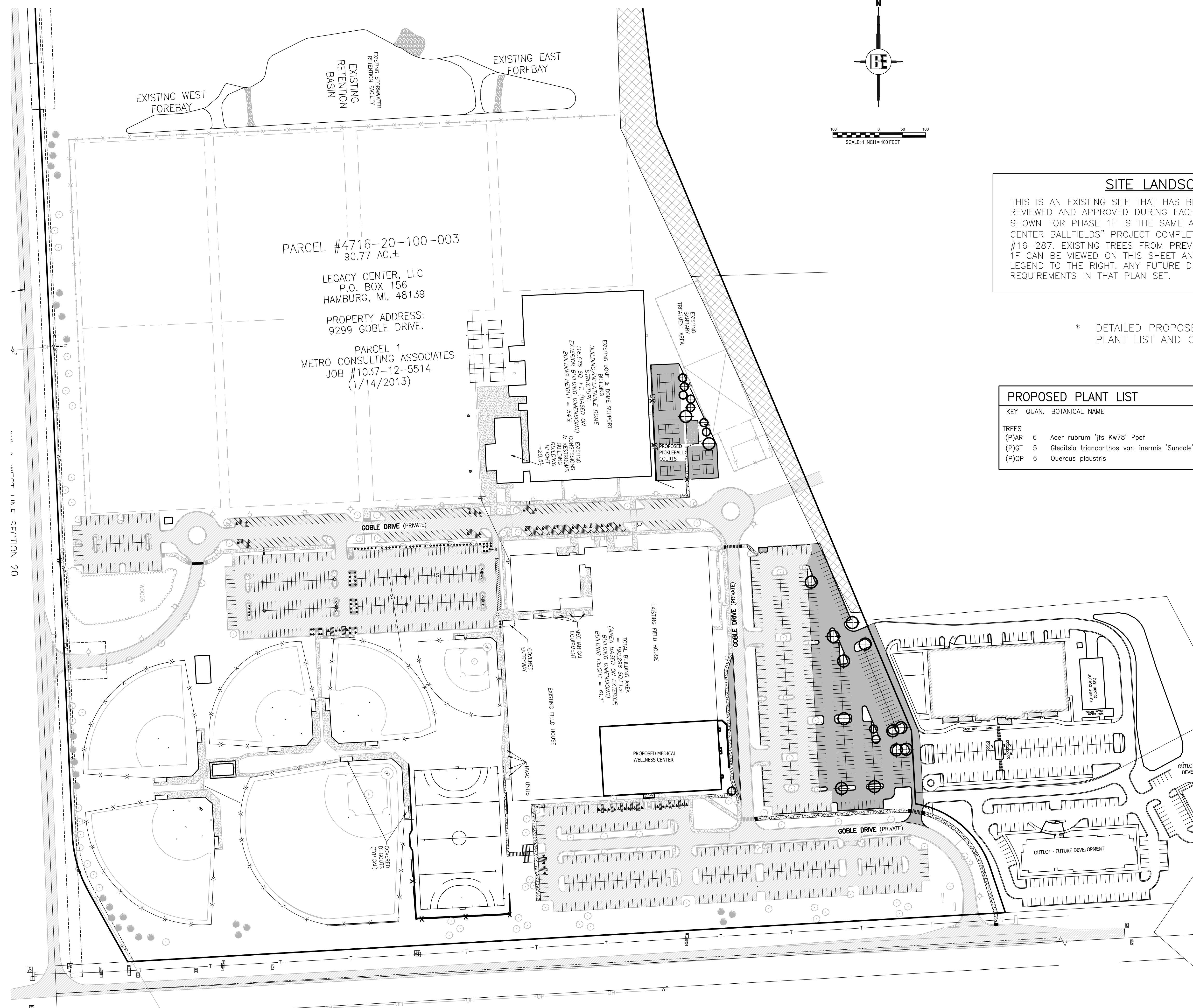
SITE LANDSCAPING NARRATIVE

THIS IS AN EXISTING SITE THAT HAS BEEN BUILT IN PHASES. PLANS HAVE BEEN REVIEWED AND APPROVED DURING EACH PHASE AND THE PROPOSED LANDSCAPING SHOWN FOR PHASE 1F IS THE SAME AS WHAT WAS SHOWN AND APPROVED IN "LEGACY CENTER BALLFIELDS" PROJECT COMPLETED BY BOSS ENGINEERING UNDER JOB #16-287. EXISTING TREES FROM PREVIOUS PHASES AND PROPOSED TREES FOR PHASE 1F CAN BE VIEWED ON THIS SHEET AND DIFFERENTIATED FROM ACCORDING TO THE LEGEND TO THE RIGHT. ANY FUTURE DEVELOPMENT ON-SITE WILL ADDRESS LANDSCAPE REQUIREMENTS IN THAT PLAN SET.

* DETAILED PROPOSED PHASE 1F LANDSCAPE PLAN, PLANT LIST AND CALCULATIONS ON PLAN SHEET C9

PROPOSED PLANT LIST

KEY	QUAN.	BOTANICAL NAME	COMMON NAME	SIZE	REMARK
TREES					
(P)AR	6	Acer rubrum 'Jfs Kw78' Ppof	Armstrong Columnar Red Maple	2.5" cal.	B - B
(P)GT	5	Gleditsia triacanthos var. inermis 'Suncole'	Sunburst Honeylocust	2.5" cal.	B - B
(P)QP	6	Quercus plaustris	Pin Oak	2.5" cal.	B - B



THE LOCATION AND ELEVATION OF EXISTING UNDERGROUND UTILITIES AS SHOWN ON THESE DRAWINGS ARE ONLY APPROXIMATE. NO WARRANTY IS MADE BY THE ENGINEER AS TO THE ACCURACY, COMPLETENESS OR ADEQUACY THEREOF. THE CONTRACTOR SHALL BE EXCLUSIVELY RESPONSIBLE FOR DETERMINING THE EXACT LOCATION AND DEPTH OF ALL UTILITIES PRIOR TO CONSTRUCTION. THE CONTRACTOR SHALL BE RESPONSIBLE FOR VERIFYING THE LOCATION AND DEPTH OF UTILITIES SHOWN ON THESE DRAWINGS. THE CONTRACTOR SHALL BE RESPONSIBLE FOR VERIFYING THE LOCATION AND DEPTH OF UTILITIES SHOWN ON THESE DRAWINGS. THE CONTRACTOR SHALL BE RESPONSIBLE FOR VERIFYING THE LOCATION AND DEPTH OF UTILITIES SHOWN ON THESE DRAWINGS.

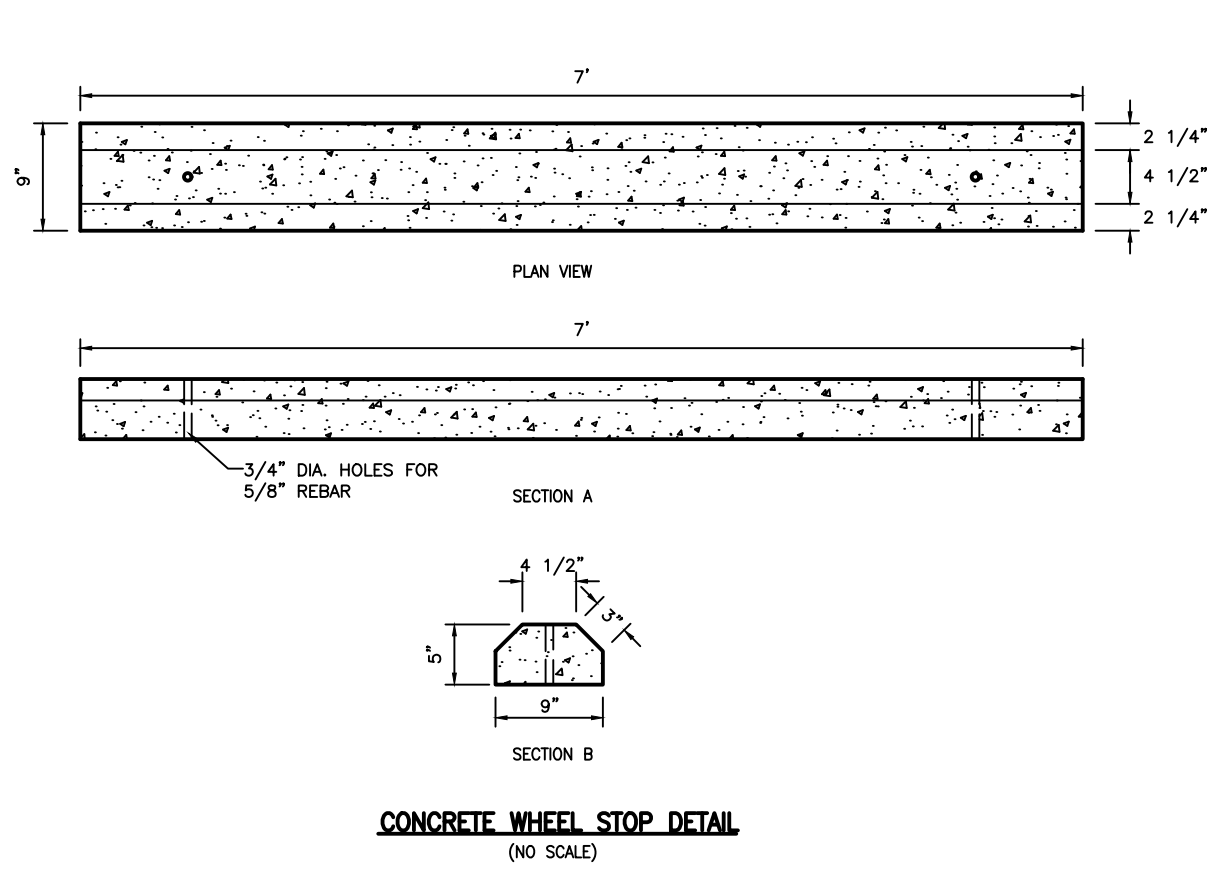
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PROJECT: LEGACY CENTER - WELLNESS BUILDING
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9299 GOBLE DRIVE
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(810) 231-9298

NO.	DATE	REVISION PER	BY
2	1/23/24	PER TOWNSHIP REVIEW	TE
1	10/11/23	PER TOWNSHIP REVIEW	PC
NO		REVISION PER	

DESIGNED BY: TE
DRAWN BY: PC
CHECKED BY:
SCALE: 1" = 100'
JOB NO: 23-046-1
DATE: 5/1/23
SHEET NO. **C10**





STRUCTURE FRAMES & COVERS					
COVER	TYPE	USE	MANUFACTURER OR EQUAL		TYPE OF COVER OR GRATE
			EAST JORDAN	NEENAH	
A	MH	ALL	1120	R-1415	SANITARY-SELF SEALING STORM-VENTED
D	CB & INLET	PARKING LOTS	1020-M1 5105-M1	R-2560-D	FLAT GRATE
E	CB & INLET	LAWN AREA OR DITCH	6508		BEEHIVE GRATE 6" HIGH

Figure 1
ADS HP Storm Pipe Trench Detail with Uniform Backfill
(Traffic and Non-Traffic Applications)

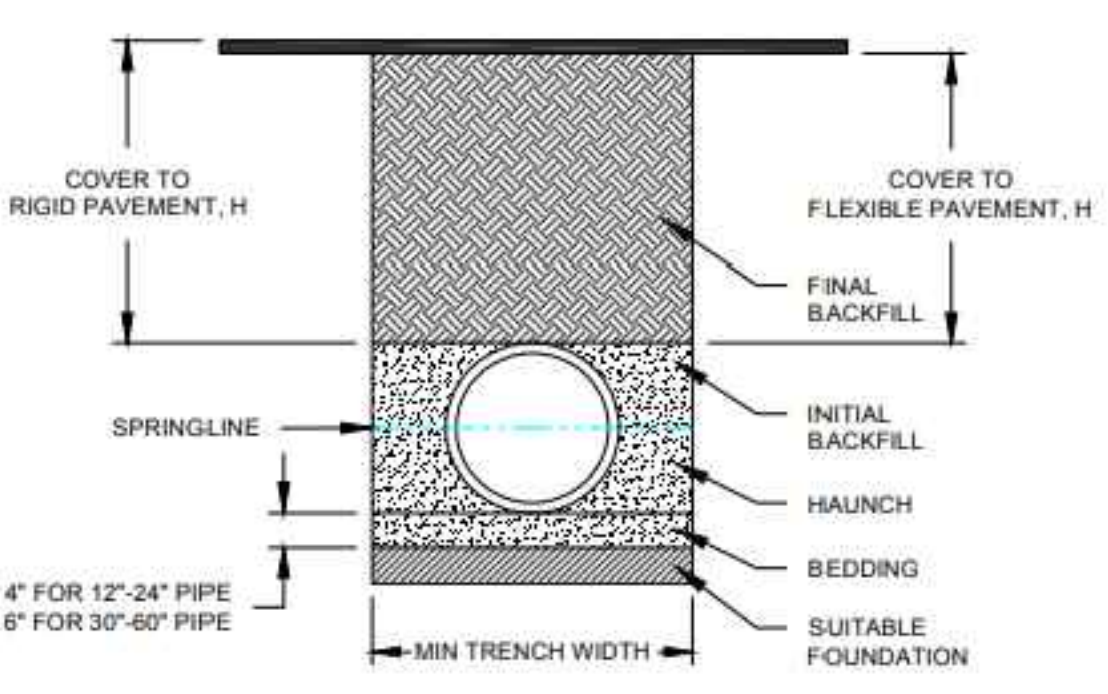
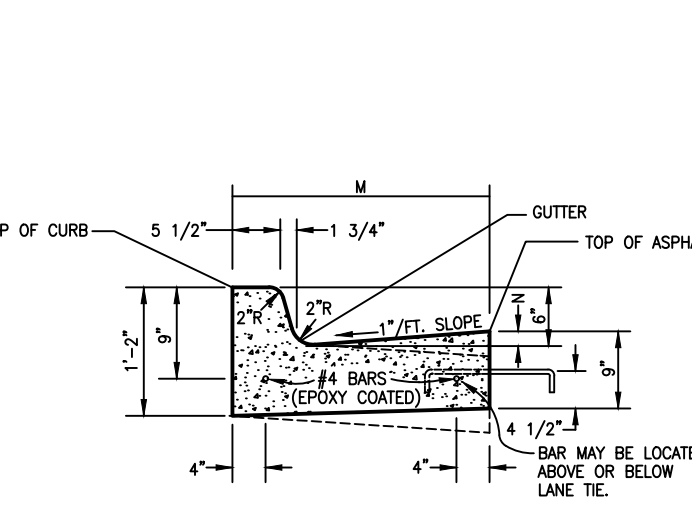
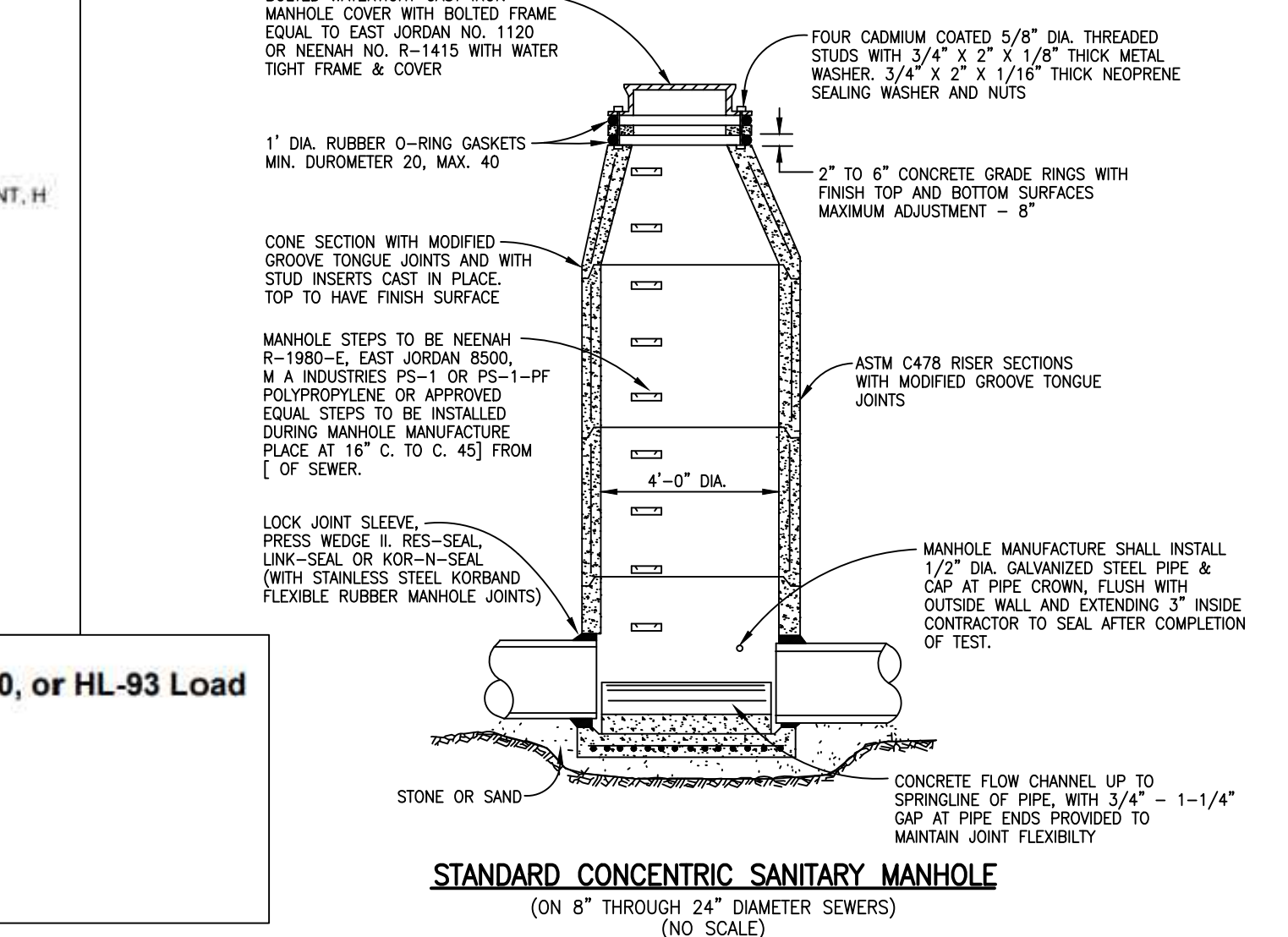
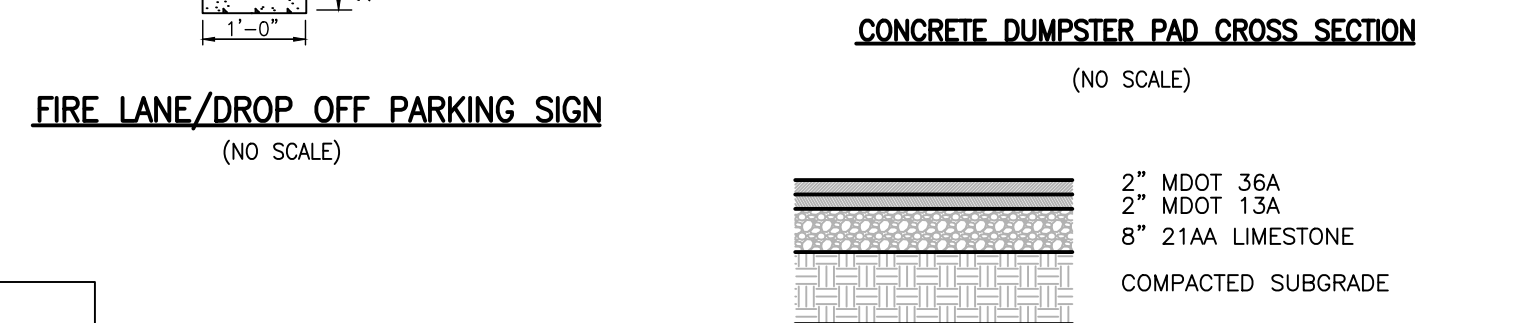
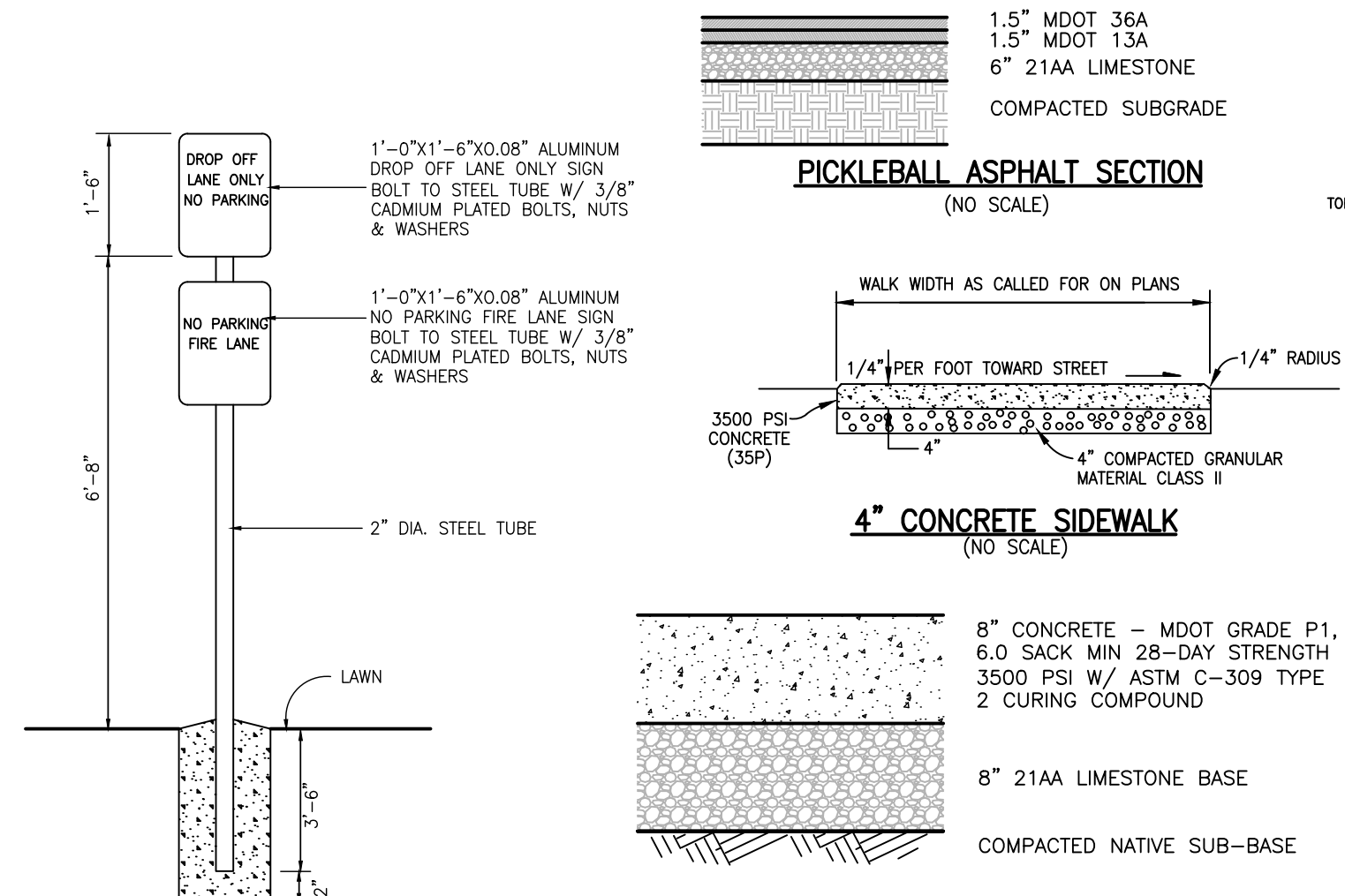
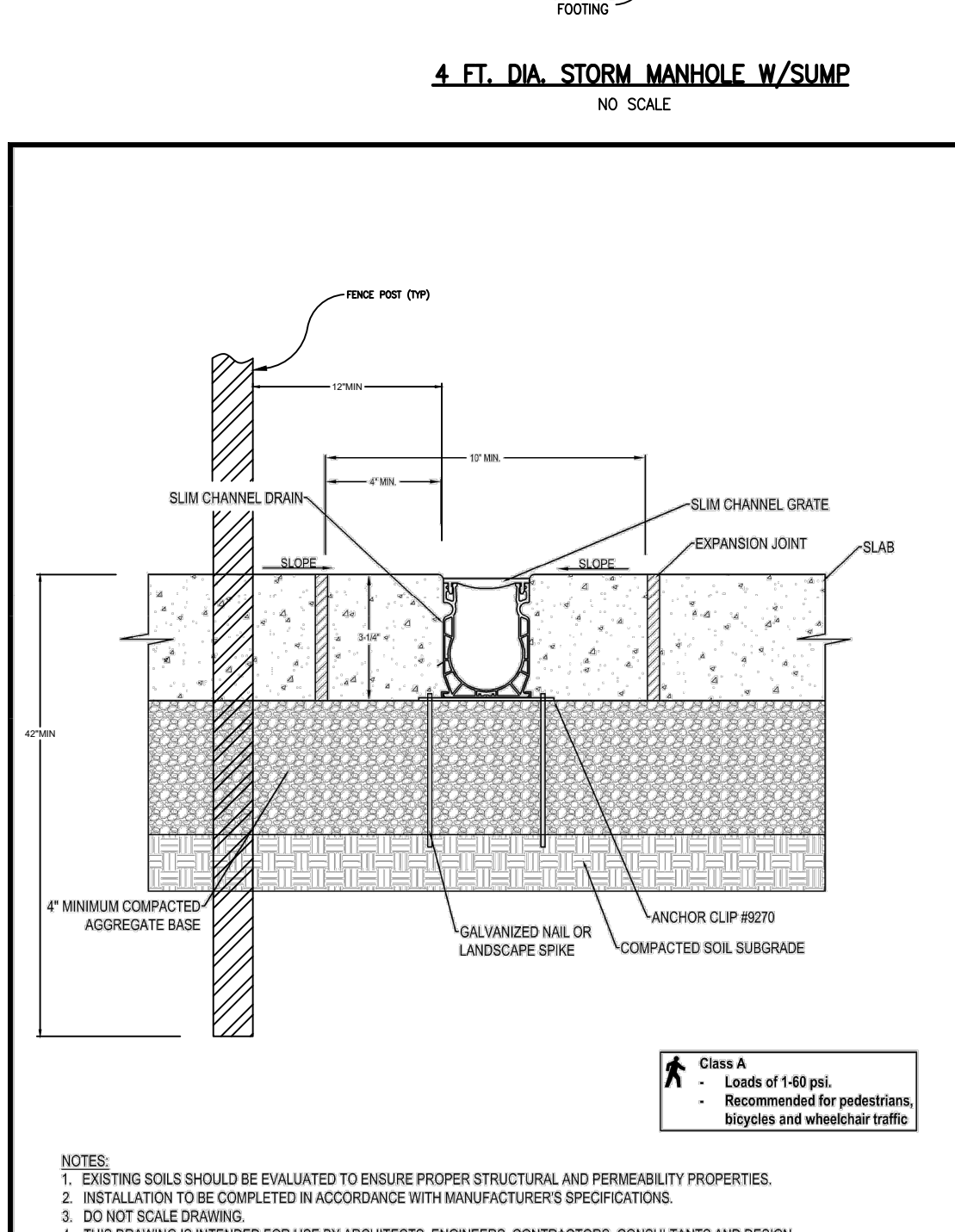
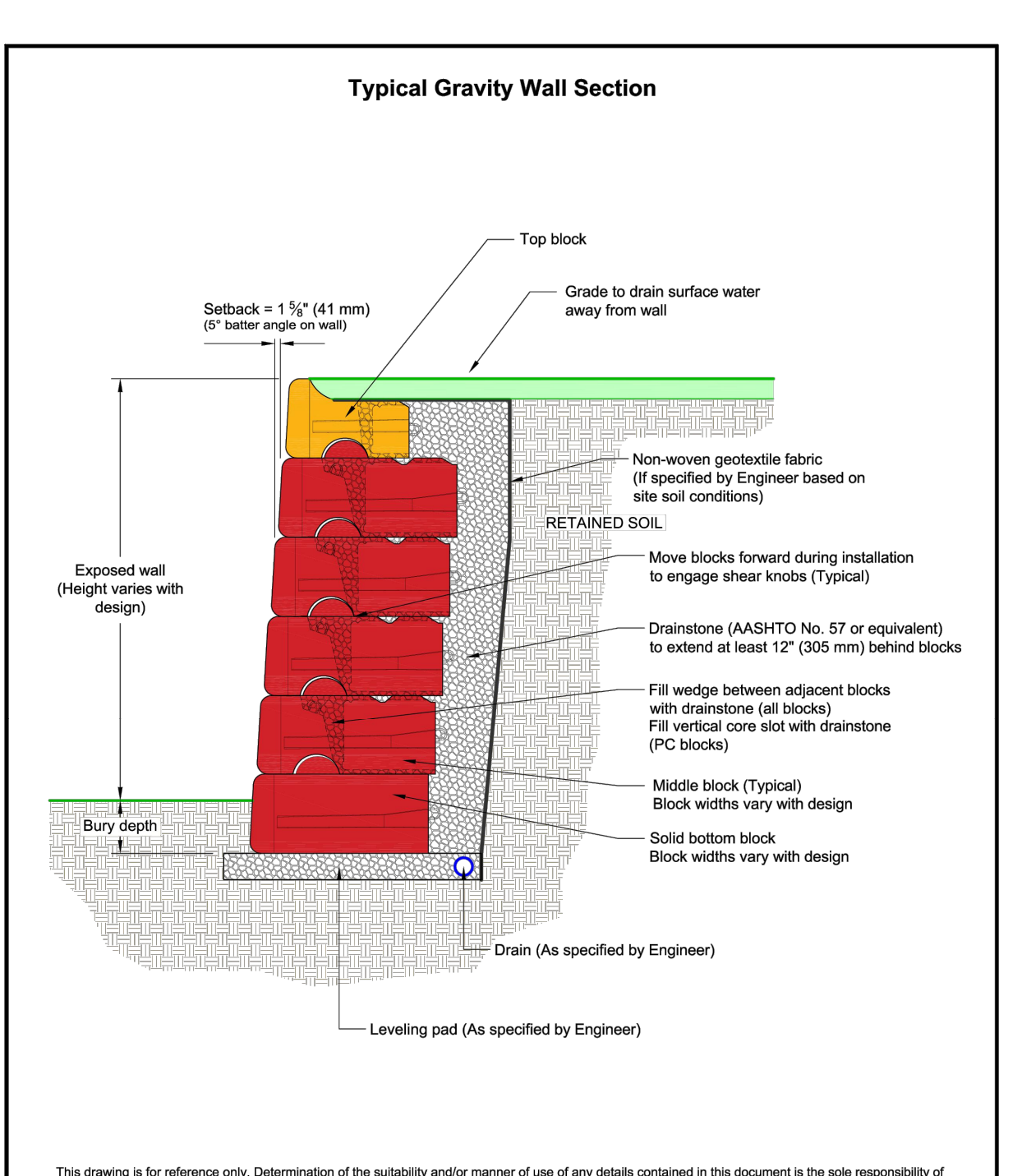
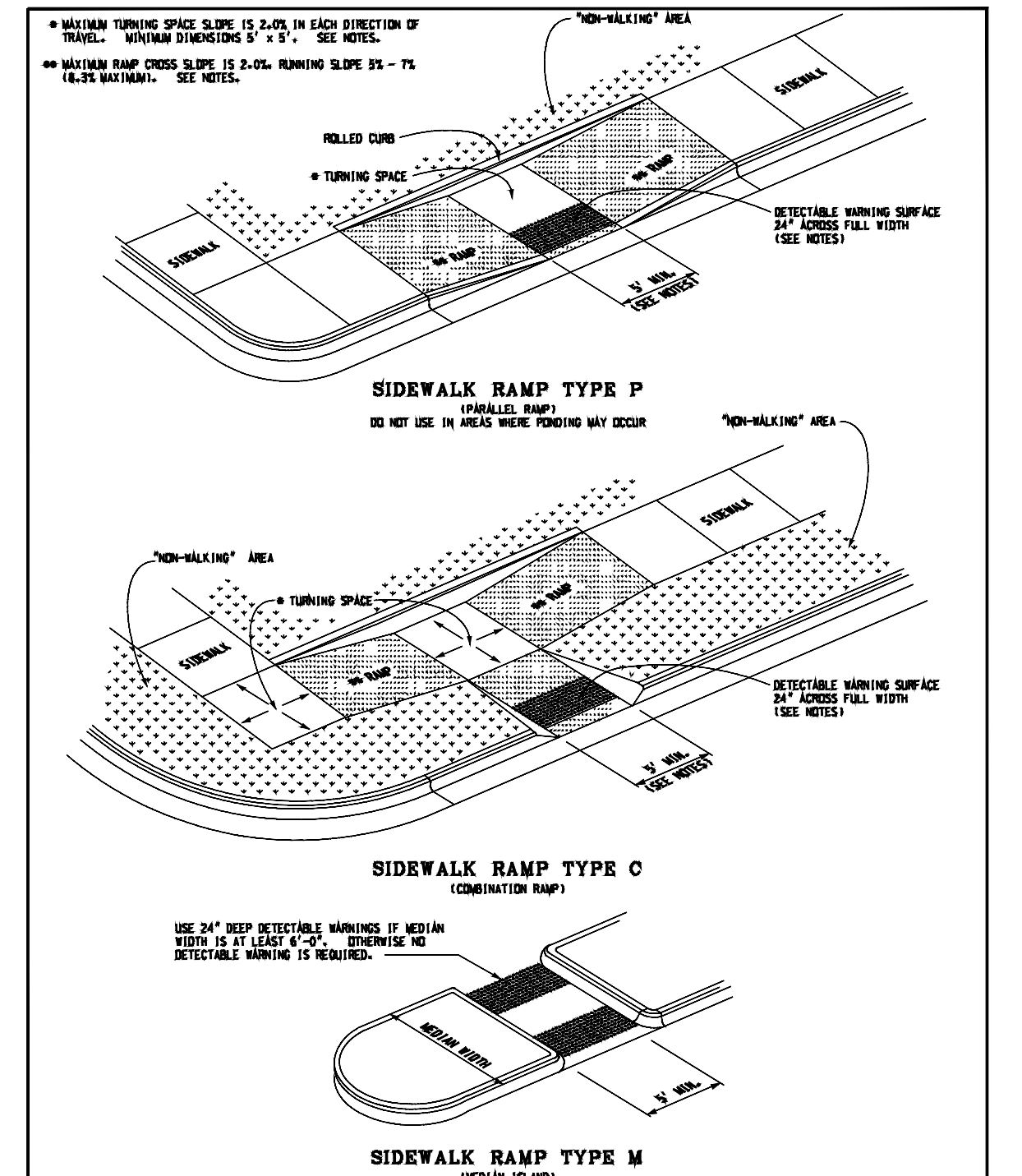
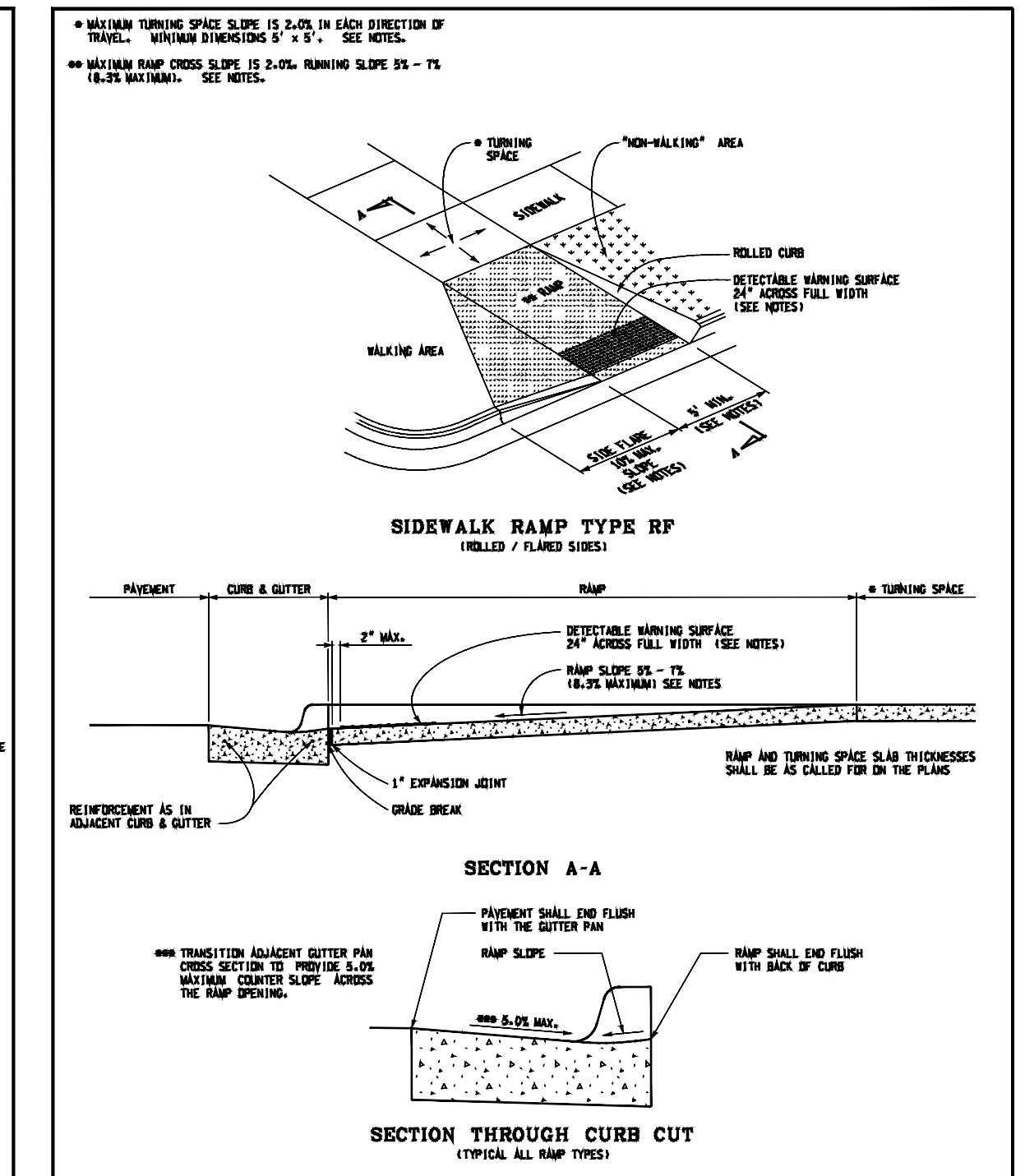
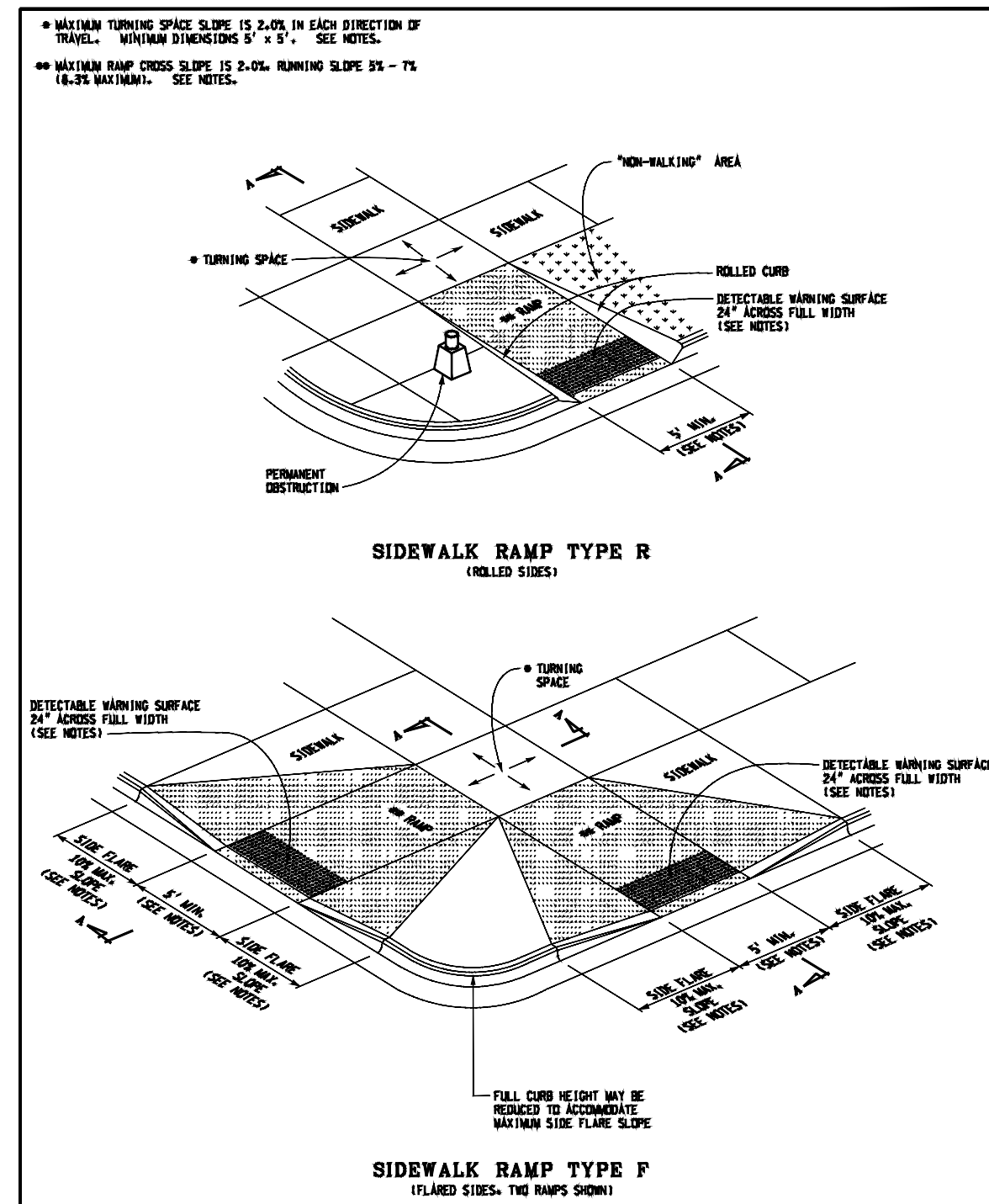
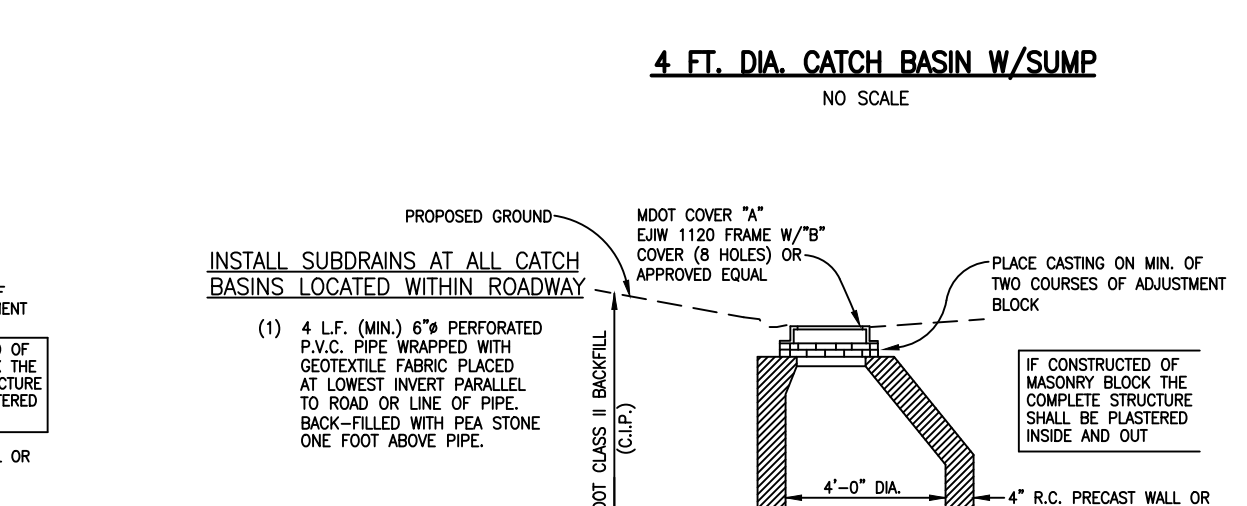
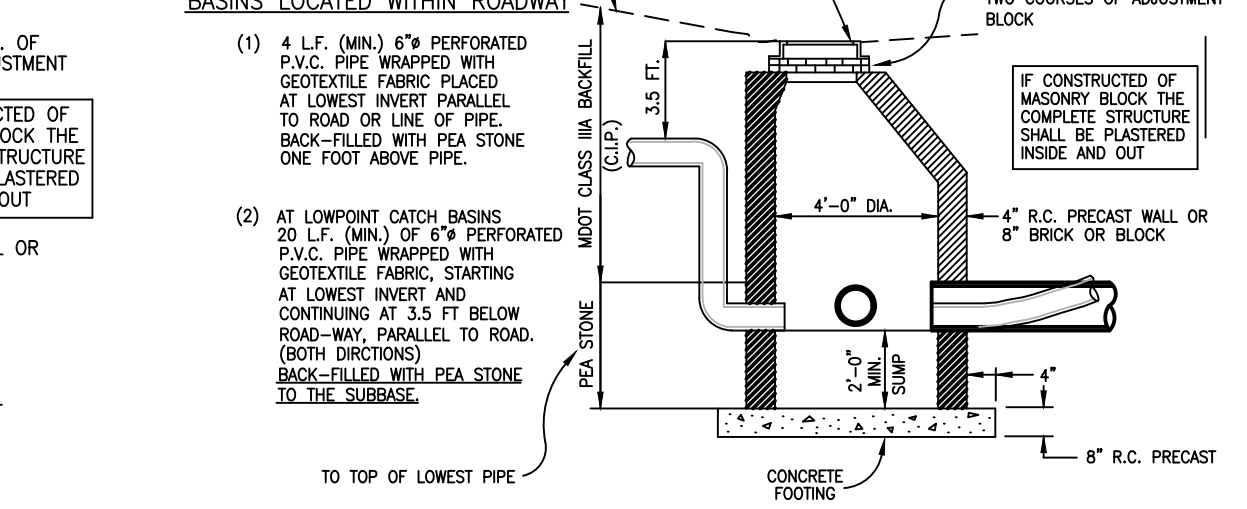
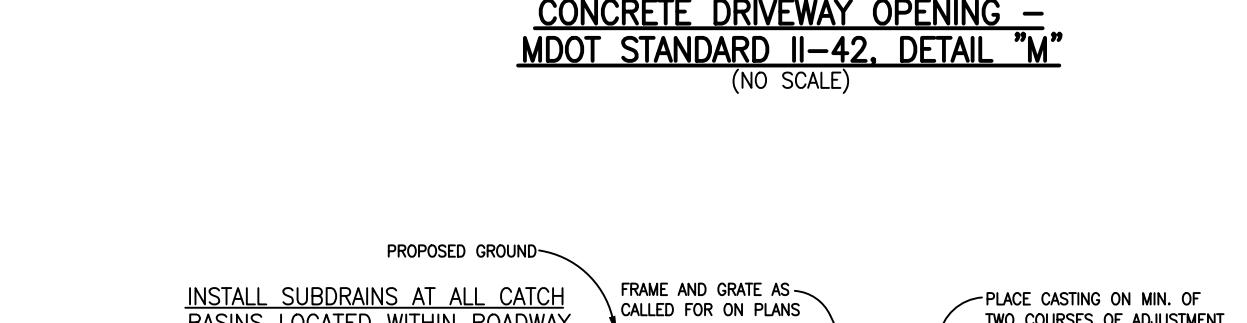
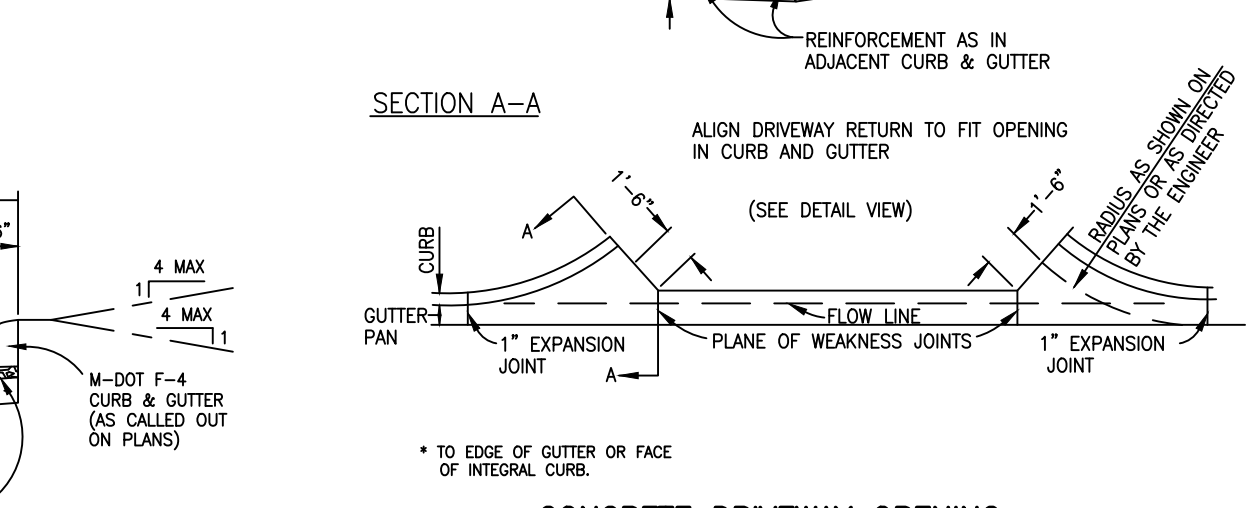
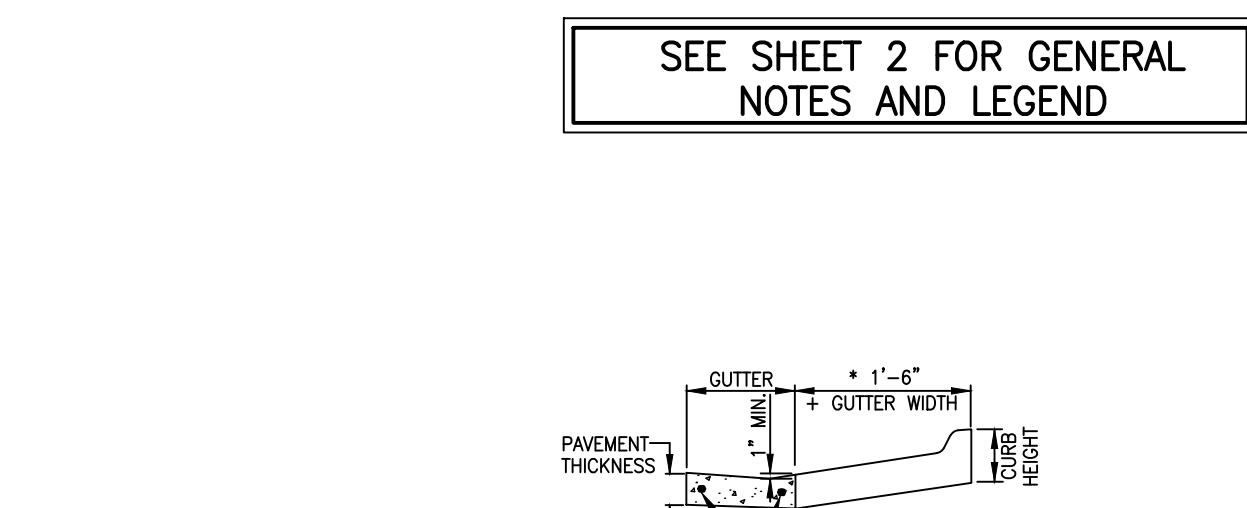
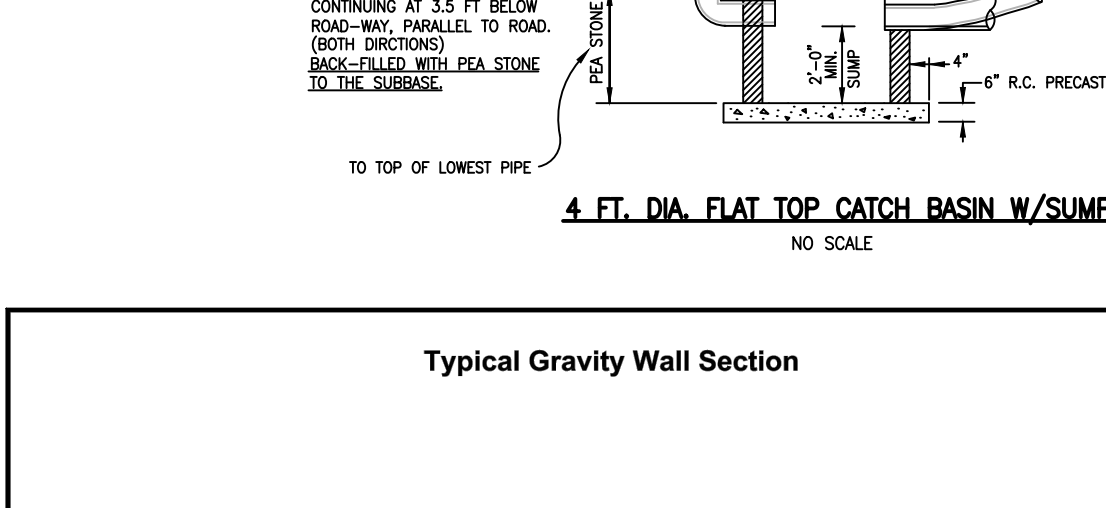
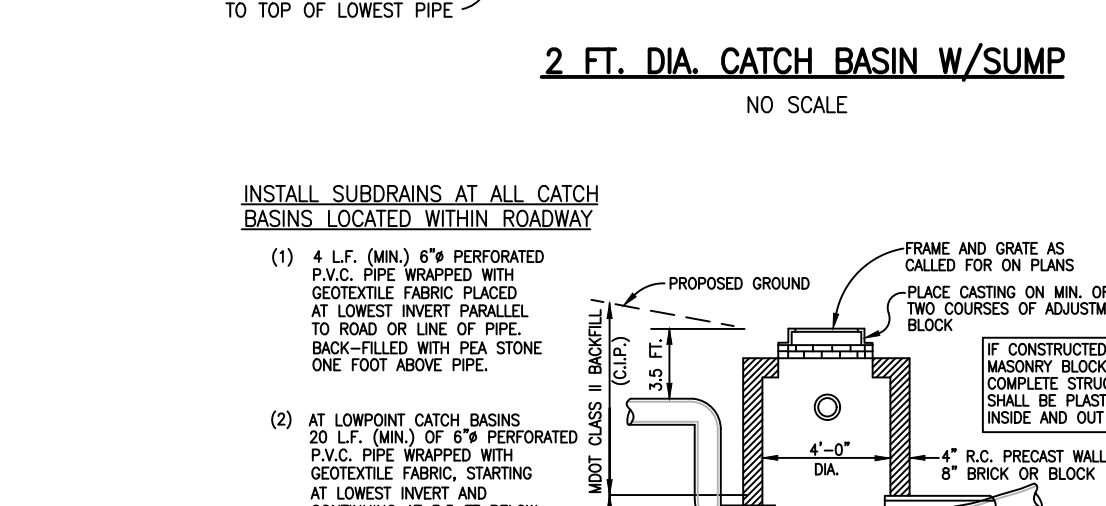
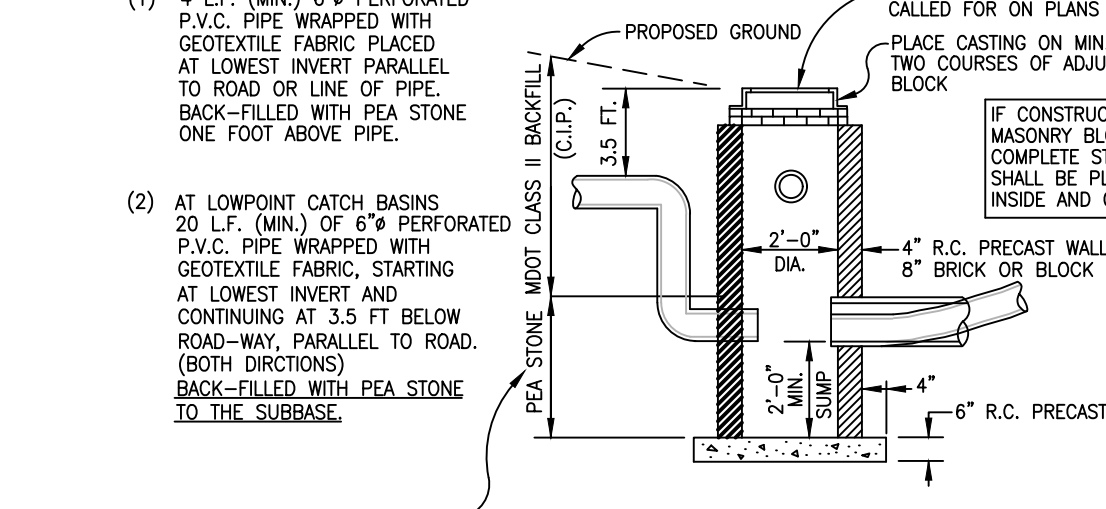
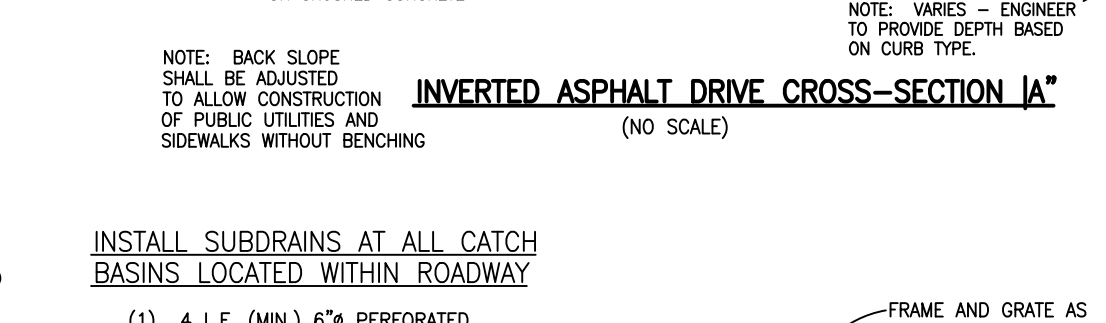
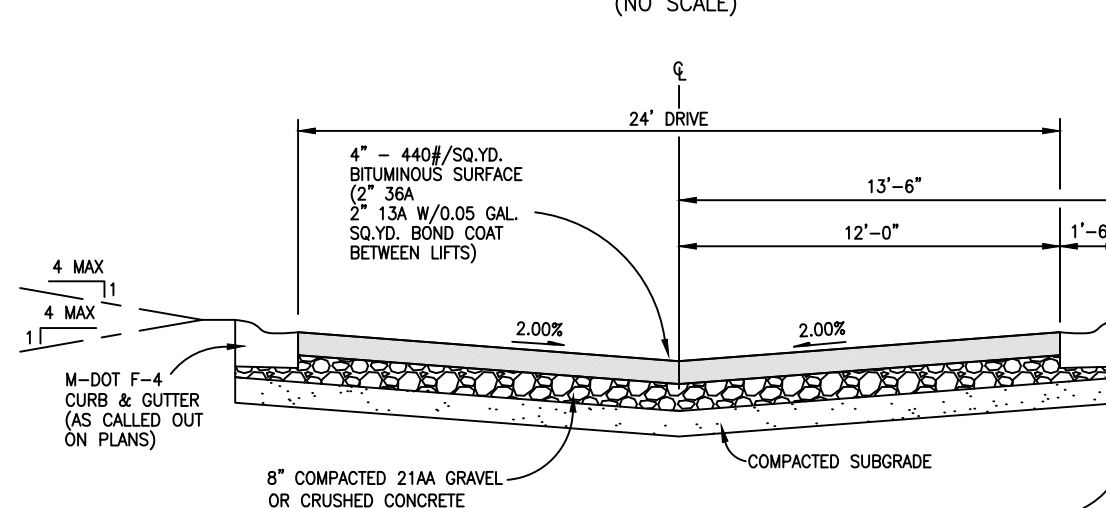
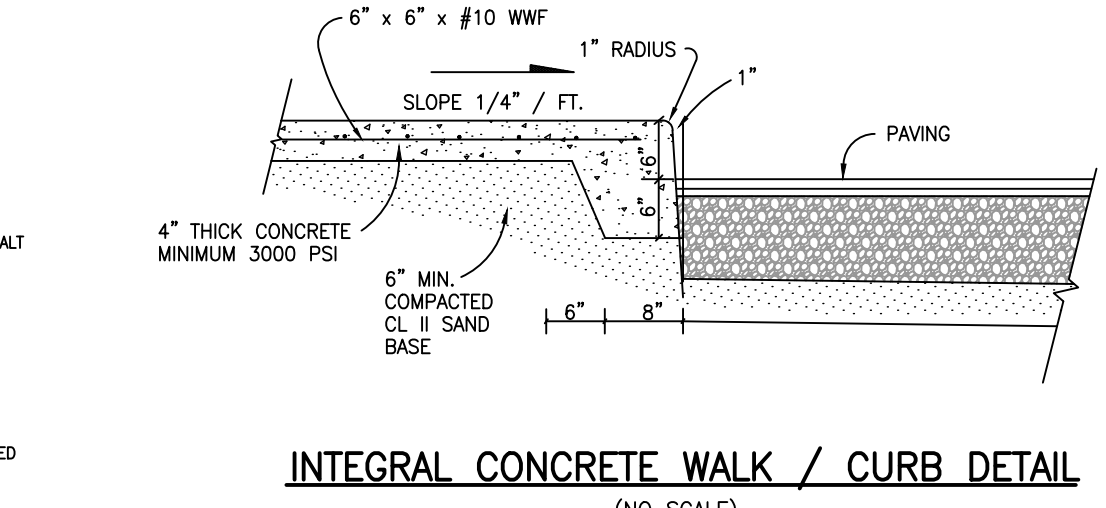
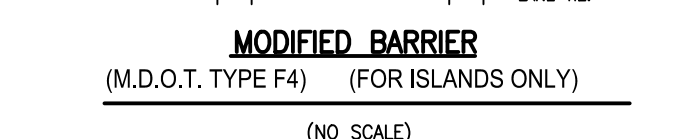
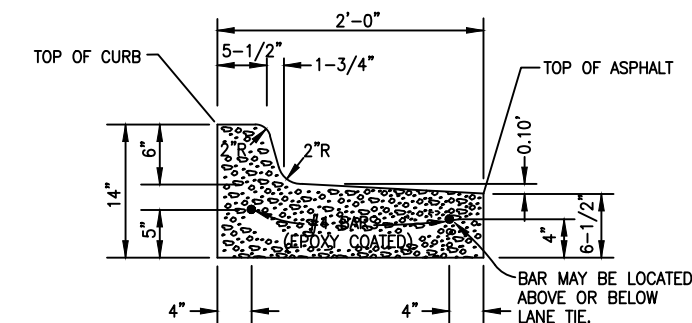
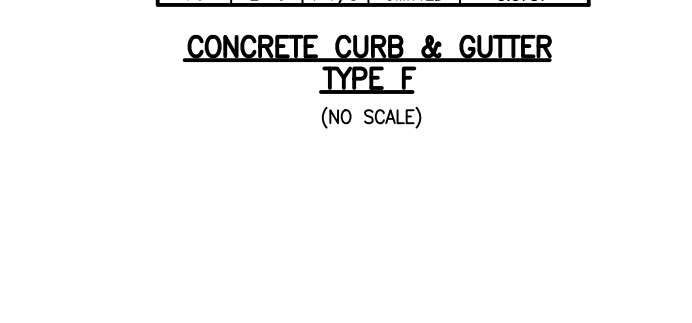


Table 1
Minimum Cover Requirements for ADS HP Storm with AASHTO H-25, H-20, or HL-93 Load

Inside Diameter, ID, in.(mm)	Minimum Cover, ft. (m)	Inside Diameter, ID, in.(mm)	Minimum Cover, ft. (m)
12 (300)	1 (0.3)	36 (900)	1 (0.3)
15 (375)	1 (0.3)	42 (1050)	1 (0.3)
18 (450)	1 (0.3)	48 (1200)	1 (0.3)
24 (600)	1 (0.3)	60 (1500)	2 (0.6)
30 (750)	1 (0.3)		



DETAIL	DIMENSIONS	LANE	CONCRETE
F1	1'-0"	7/8"	0.0484
F2	1'-0"	7/8"	0.0484
F3	2'-0"	3/4"	0.0610
F4	2'-0"	3/4"	0.0610
F5	2'-0"	7/8"	0.0737
F6	2'-0"	7/8"	0.0737



MICHIGAN DEPARTMENT OF TRANSPORTATION
BUREAU OF HIGHWAY DEVELOPMENT DIVISION PLAN FOR
SIDEWALK RAMP AND DETECTABLE WARNING DETAILS

PREPARED BY: [Name]
CHECKED BY: [Name]

DATE: 1-28-2014
SHEET: R-28-1
1 OF 1

MICHIGAN DEPARTMENT OF TRANSPORTATION
BUREAU OF HIGHWAY DEVELOPMENT DIVISION PLAN FOR
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PREPARED BY: [Name]
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2 OF 1

MICHIGAN DEPARTMENT OF TRANSPORTATION
BUREAU OF HIGHWAY DEVELOPMENT DIVISION PLAN FOR
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PREPARED BY: [Name]
CHECKED BY: [Name]

DATE: 1-28-2014
SHEET: R-28-1
1 OF 1

REDI-ROCK
6541 US 31 SOUTH CHARLEVOIX, MI 49720
800.333.2222
www.rock.com

DATE: 17MAR2016
SHEET: 1 of 1

2\"/>

DATE: 5/1/23
SHEET NO. [Number]

BEBOSS Engineering
Engineers Surveyors Planners Landscape Architects
3121 E. GRAND RIVER AVE.
HOWELL, MI. 48843
517.546.4836 FAX 517.548.1670

LEGACY CENTER - WELLNESS BUILDING
LEGACY CENTER, LLC
9299 GABLE DRIVE
BRIGHTON, MI 48116
(810) 231-9298

CONSTRUCTION DETAILS

NO.	REVISION	DATE
1	MD	1/23/24
2	MD	10/11/23
1	MD	5/1/23
1	MD	10/11/23

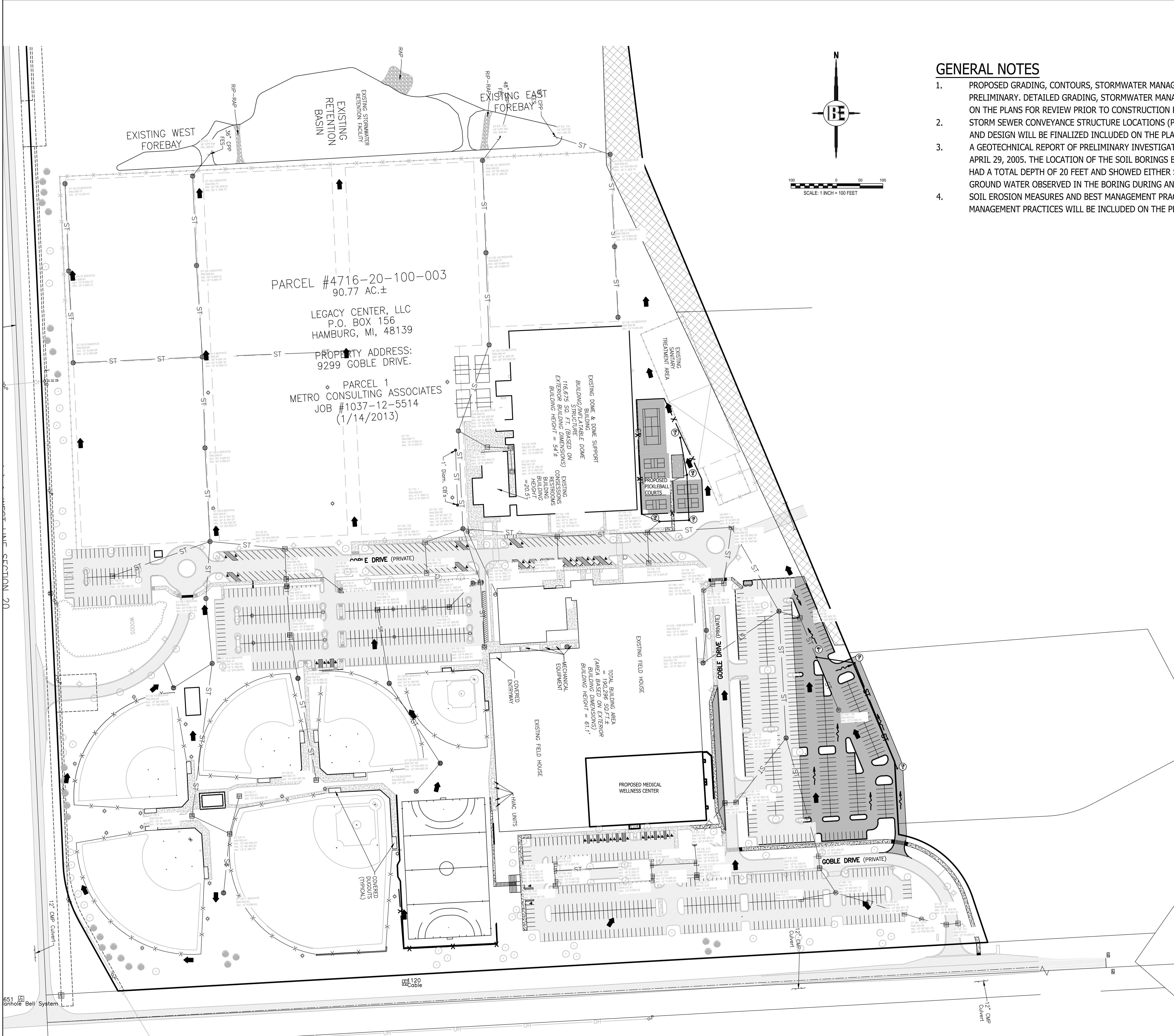
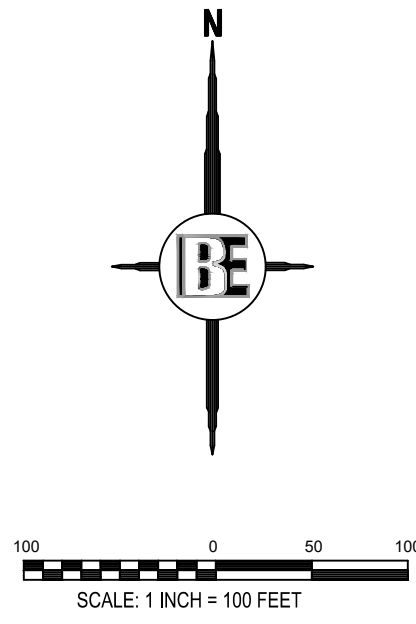
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DRAWN BY: TE
CHECKED BY: [Name]
SCALE: NO SCALE
JOB NO: 23-046-1
DATE: 5/1/23
SHEET NO. [Number]

BOSS Engineering

SEE SHEET 2 FOR GENERAL NOTES AND LEGEND

GENERAL NOTES

1. PROPOSED GRADING, CONTOURS, STORMWATER MANAGEMENT FEATURES, AND DESIGN CALCULATIONS AS SHOWN HERE ARE PRELIMINARY. DETAILED GRADING, STORMWATER MANAGEMENT PLANS, AND CALCULATIONS WILL BE FINALIZED AND INCLUDED ON THE PLANS FOR REVIEW PRIOR TO CONSTRUCTION PLAN APPROVAL.
2. STORM SEWER CONVEYANCE STRUCTURE LOCATIONS (PIPES AND INLETS) ARE PRELIMINARY. THE CONVEYANCE SYSTEM SIZING AND DESIGN WILL BE FINALIZED INCLUDED ON THE PLANS FOR REVIEW PRIOR TO CONSTRUCTION PLAN APPROVAL.
3. A GEOTECHNICAL REPORT OF PRELIMINARY INVESTIGATION WAS PERFORMED ON THE PROPERTY BY G2 CONSULTING GROUP ON APRIL 29, 2005. THE LOCATION OF THE SOIL BORINGS B-1 AND B-2 ARE SHOWN IN THIS PLAN AS APPROXIMATE. BOTH BORINGS HAD A TOTAL DEPTH OF 20 FEET AND SHOWED EITHER SANDY SOILS OR GRAVELLY SAND THROUGH THE ENTIRE BORING. NO GROUND WATER OBSERVED IN THE BORING DURING AND UPON COMPLETION.
4. SOIL EROSION MEASURES AND BEST MANAGEMENT PRACTICES ARE NOT SHOWN AT TIME. SOIL EROSION MEASURES AND BEST MANAGEMENT PRACTICES WILL BE INCLUDED ON THE PLANS FOR REVIEW PRIOR TO CONSTRUCTION PLAN APPROVAL.



RETENTION BASIN DESIGN SUMMARY

EAST FOREBAY		
-DRAINAGE AREA	33.3 ACRES	
-REQUIRED STORAGE		12,102 CF
-EXISTING STORAGE	25,503 CF	
-REQUIRED STORAGE ELEVATION	894.69	
-OVERFLOW WEIR ELEVATION	897.00	
-BOTTOM OF BASIN	889.00	
-TOP OF FREEBOARD	899.00	
WEST FOREBAY		
-DRAINAGE AREA	32.9 ACRES	
-REQUIRED STORAGE		11,950 CF
-EXISTING STORAGE	28,880 CF	
-REQUIRED STORAGE ELEVATION	894.63	
-OVERFLOW WEIR ELEVATION	897.00	
-BOTTOM OF BASIN	889.00	
-TOP OF FREEBOARD	899.00	
RETENTION BASIN		
-DRAINAGE AREA	69.8 ACRES	
-REQUIRED STORAGE		506,966 CF
-EXISTING STORAGE	535,446 CF	
-REQUIRED STORAGE ELEVATION	897.67	
-OVERFLOW WEIR ELEVATION	898.00	
-BOTTOM OF BASIN	887.00	
-TOP OF FREEBOARD	899.00	

THE LOCATION AND ELEVATION OF EXISTING UNDERGROUND UTILITIES AS SHOWN ON THESE DRAWINGS ARE ONLY APPROXIMATE. NO GUARANTEE IS MADE FOR THE ACCURACY OF THESE UTILITIES. THE CONTRACTOR SHALL BE RESPONSIBLE FOR DETERMINING THE EXACT LOCATION AND DEPTH OF ALL UTILITIES CROSSING IN THE FIELD PRIOR TO CONSTRUCTION. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE LOCATION OR DEPTH DIFFERS SIGNIFICANTLY FROM THE PLANS.

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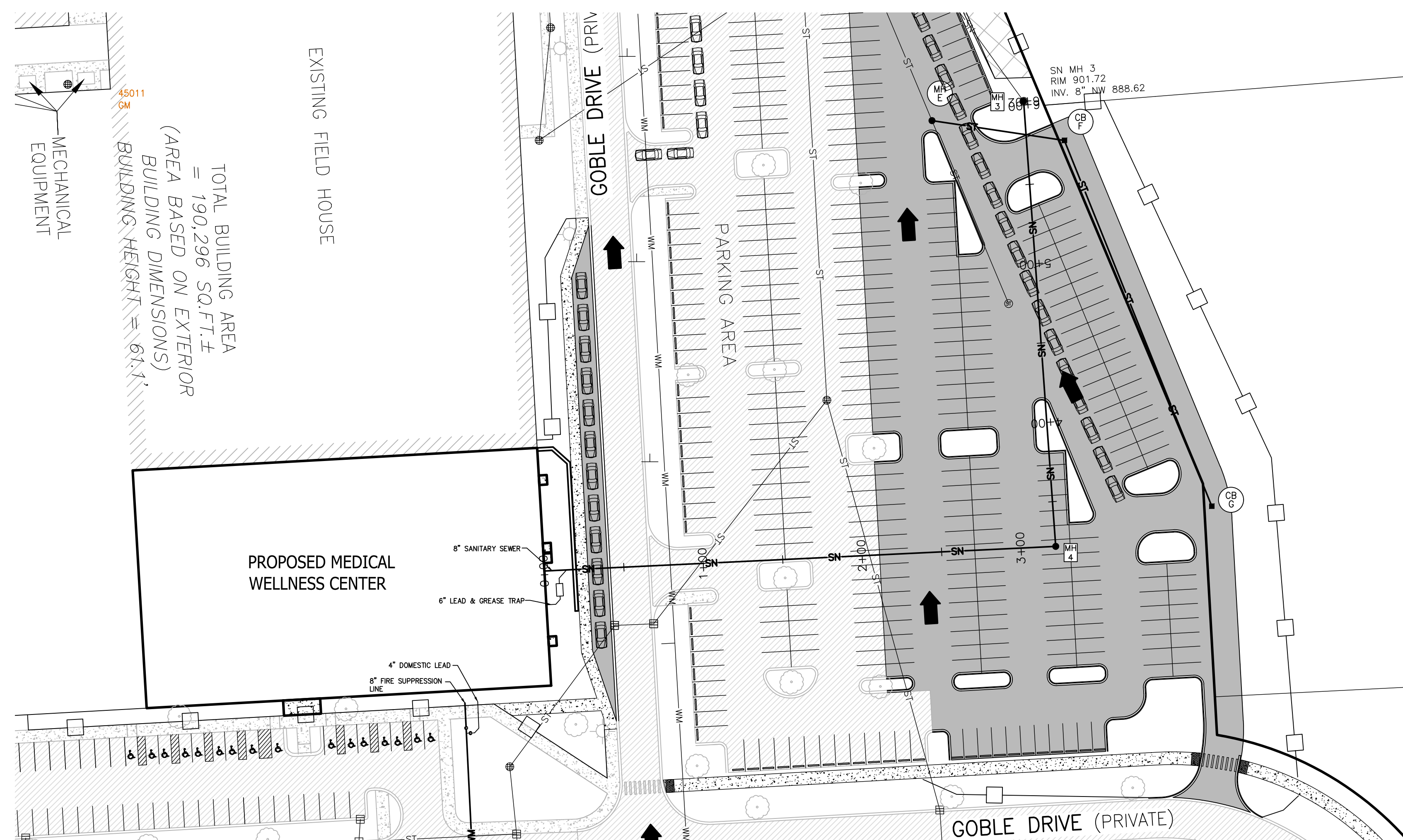
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Engineering
Engineers Surveyors Planners Landscape Architects
3121 E. GRAND RIVER AVE.
HOWELL, MI. 48843
517.546.4836 FAX 517.548.1670

PROJECT: LEGACY CENTER - WELLNESS BUILDING
PREPARED FOR: LEGACY CENTER, LLC
9299 GOBLE DRIVE
BRIGHTON, MI 48116
(810) 231-9298

TITLE: STORMWATER MANAGEMENT PLAN

NO	BY	DATE	REVISION PER
1	MD	1/23/24	PER TOWNSHIP REVIEW
2	MD	10/11/23	PER TOWNSHIP REVIEW
NO	BY	DATE	REVISION PER

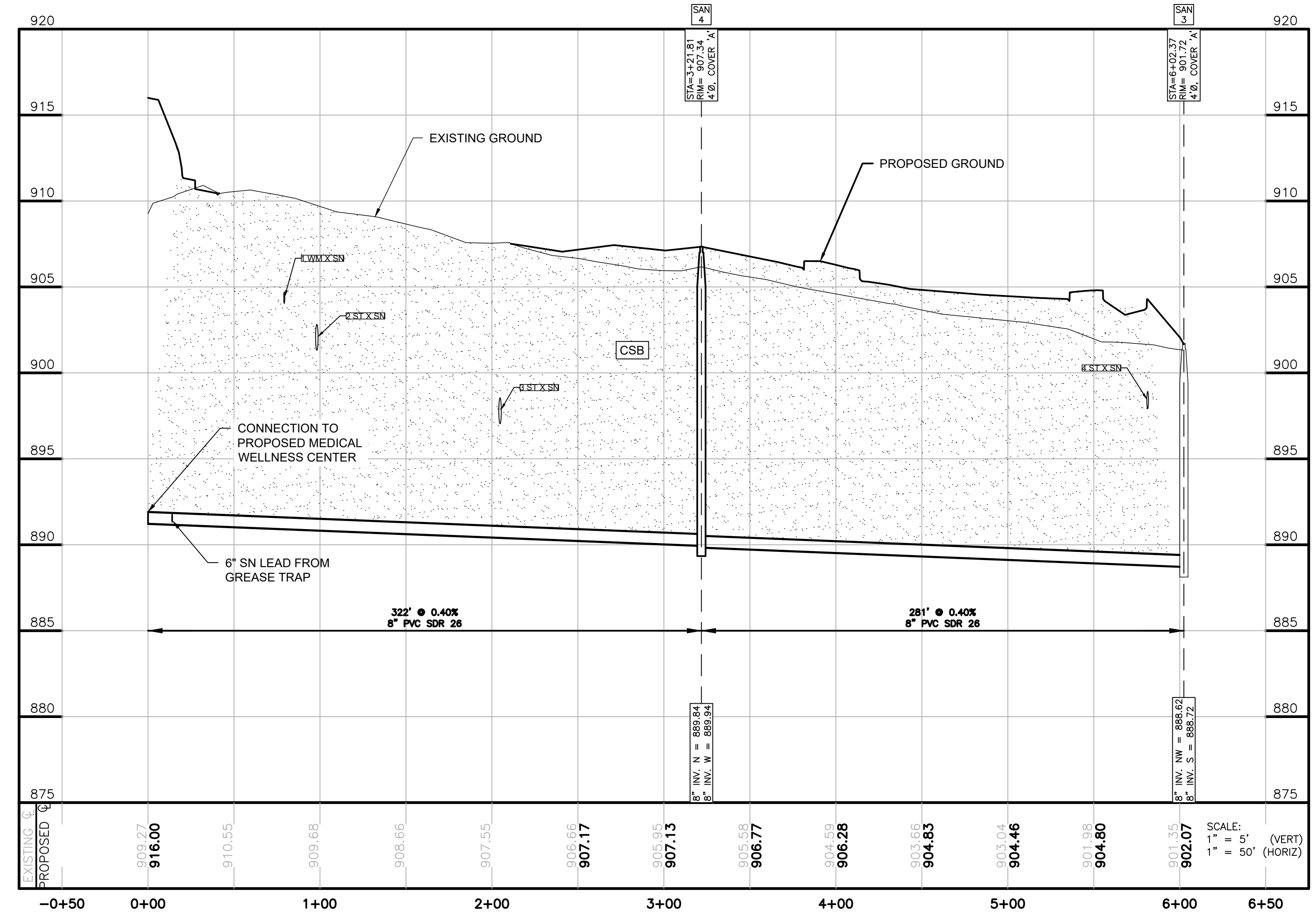
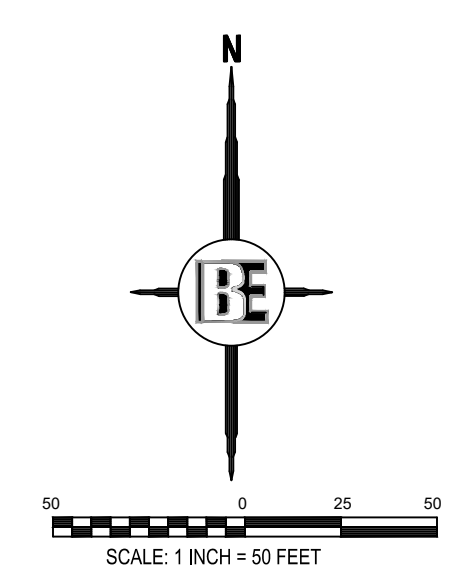
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DRAWN BY: PC
CHECKED BY:
SCALE: 1" = 100'
JOB NO: 23-046-1
DATE: 5/1/23
SHEET NO. **C12**



MECHANICAL EQUIPMENT

45011

TOTAL BUILDING AREA = 190,296 SQ.F.T.±
(AREA BASED ON EXTERIOR BUILDING DIMENSIONS)
BUILDING HEIGHT = 61'±



- SANITARY SEWER NOTES**
1. ALL PIPE LENGTHS SHOWN ARE FROM C/L TO C/L OF STRUCTURE.
 2. ALL SANITARY SEWER PIPE SHALL BE 8" PVC SDR 26, UNLESS OTHERWISE NOTED ON PLAN.
 3. MDT GRANULAR CLASS II COMPACTED TO 95% MAXIMUM DENSITY.

SANITARY SEWER	
8" PVC SDR 26 SANITARY SEWER PIPE	603 LF
6" PVC SDR 23.5 SANITARY SEWER LEAD	24 LF
MANHOLE STRUCTURE	1
SANITARY GREASE TRAP	1

SANITARY CROSSINGS		
Crossing Data Table		
Crossing Number	Crossing Information	
1	BP	904.04 WM
	TP	891.61 SAN
	CLEARANCE	12.43 FEET
2	BP	901.31 ST
	TP	891.53 SAN
	CLEARANCE	9.78 FEET
3	BP	897.04 ST
	TP	891.10 SAN
	CLEARANCE	5.94 FEET
4	BP	897.91 ST
	TP	889.49 SAN
	CLEARANCE	8.42 FEET

THE LOCATION AND ELEVATION OF EXISTING UNDERGROUND UTILITIES AS SHOWN ON THESE DRAWINGS ARE ONLY APPROXIMATE. NO WARRANTY IS MADE BY THE CONTRACTOR AS TO THE ACCURACY, COMPLETENESS OR ADEQUACY THEREOF. THE CONTRACTOR SHALL BE EXCLUSIVELY RESPONSIBLE FOR DETERMINING THE EXACT LOCATION AND DEPTH OF ALL EXISTING UTILITIES PRIOR TO CONSTRUCTION. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE LOCATION OR DEPTH DIFFERS SIGNIFICANTLY FROM THE PLANS.

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3121 E. GRAND RIVER AVE.
HOWELL, MI. 48843
517.546.4836 FAX 517.548.1670

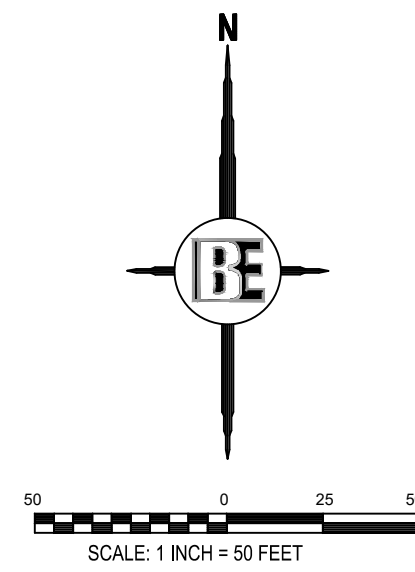
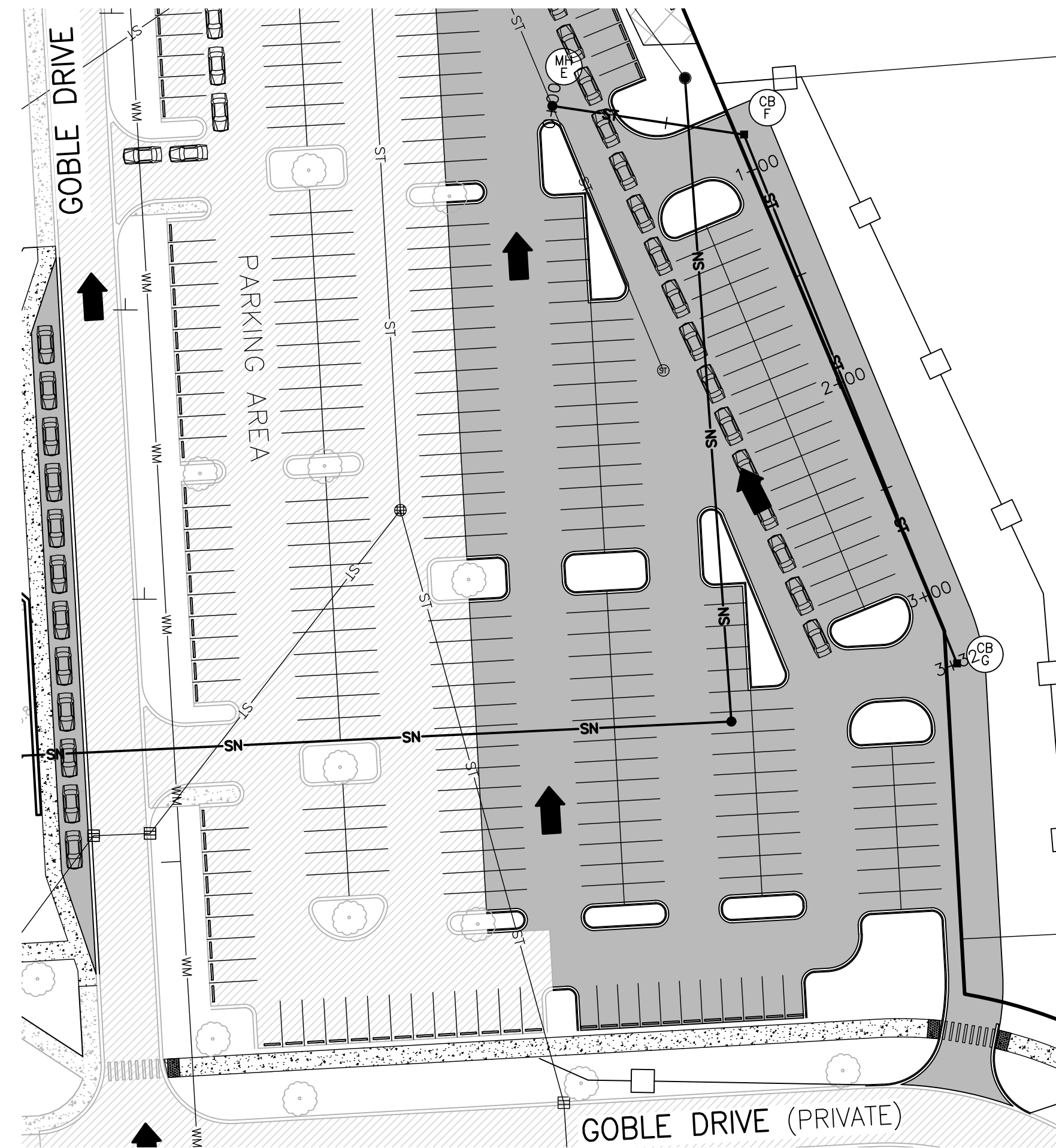
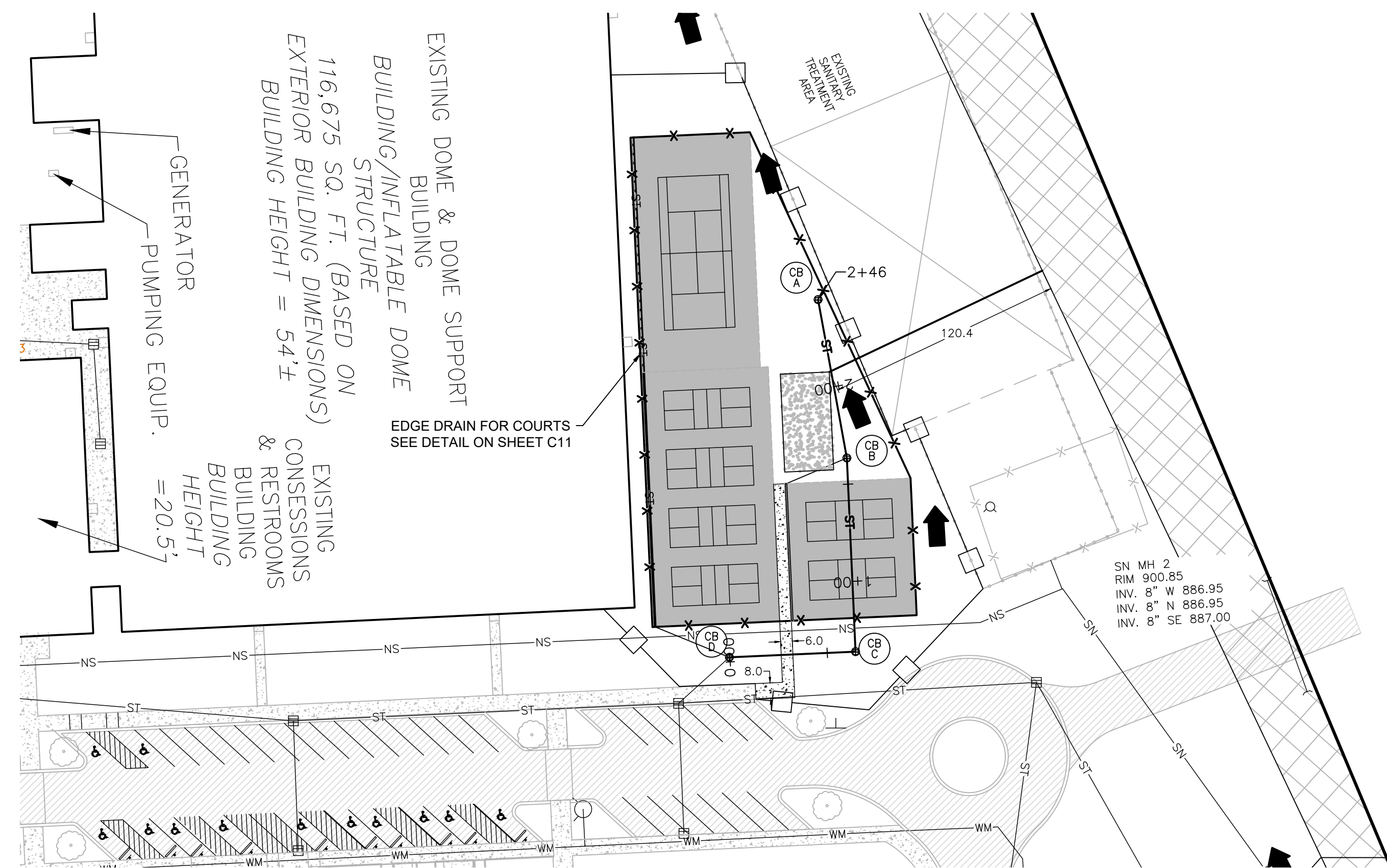
PROJECT: LEGACY CENTER - WELLNESS BUILDING
PREPARED FOR: LEGACY CENTER, LLC
9299 GOBLE DRIVE
BRIGHTON, MI 48116
(810) 231-9298

TITLE: SANITARY SEWER PROFILE

NO	BY	DATE	PER TOWNSHIP REVIEW	REVISION PER
1	MD	10/11/23		

DESIGNED BY: TE
DRAWN BY: NL
CHECKED BY:
SCALE: 1" = 50'
JOB NO: 23-046-1
DATE: 5/1/23

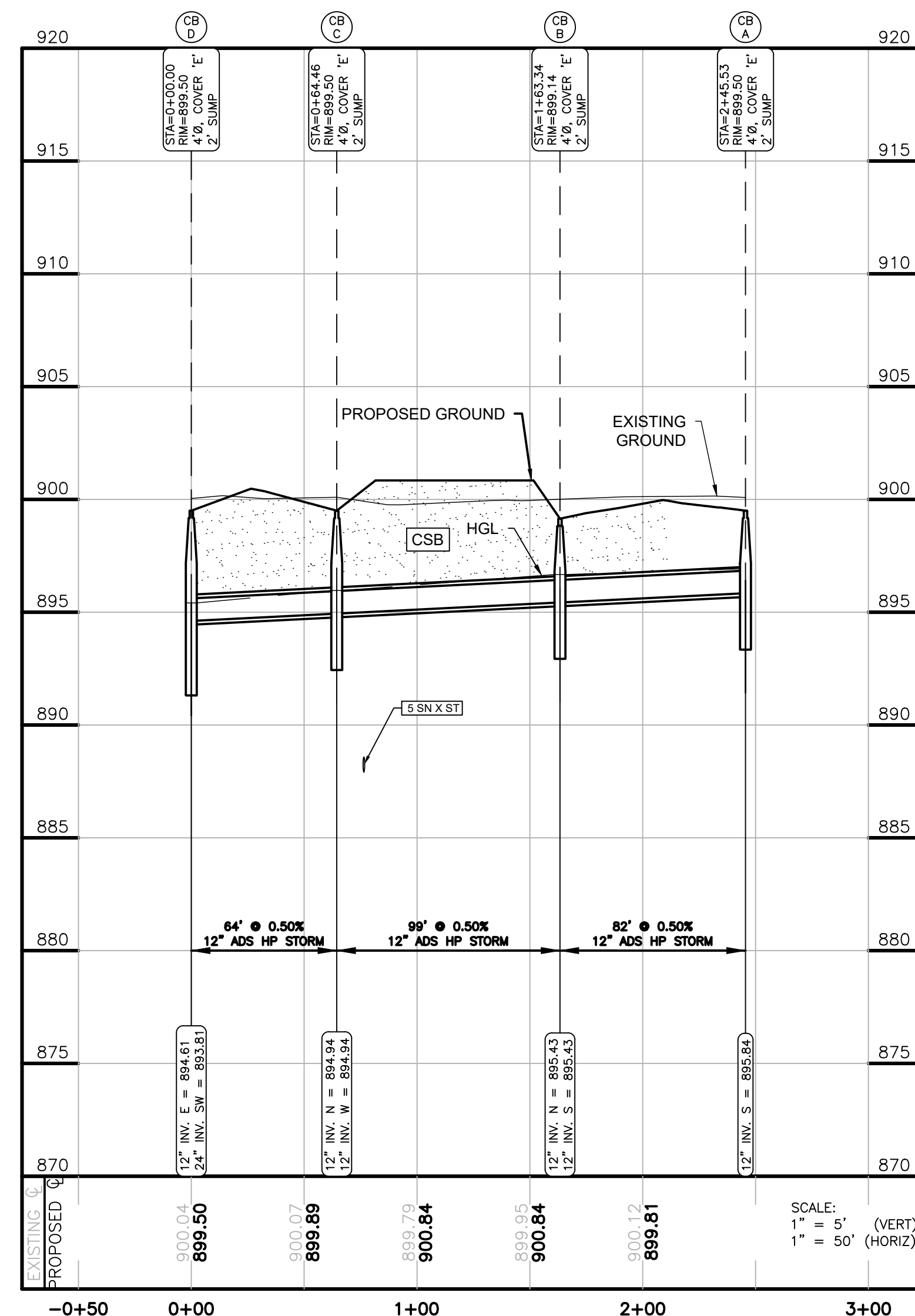
SHEET NO. **C14**



STORM SEWER NOTES

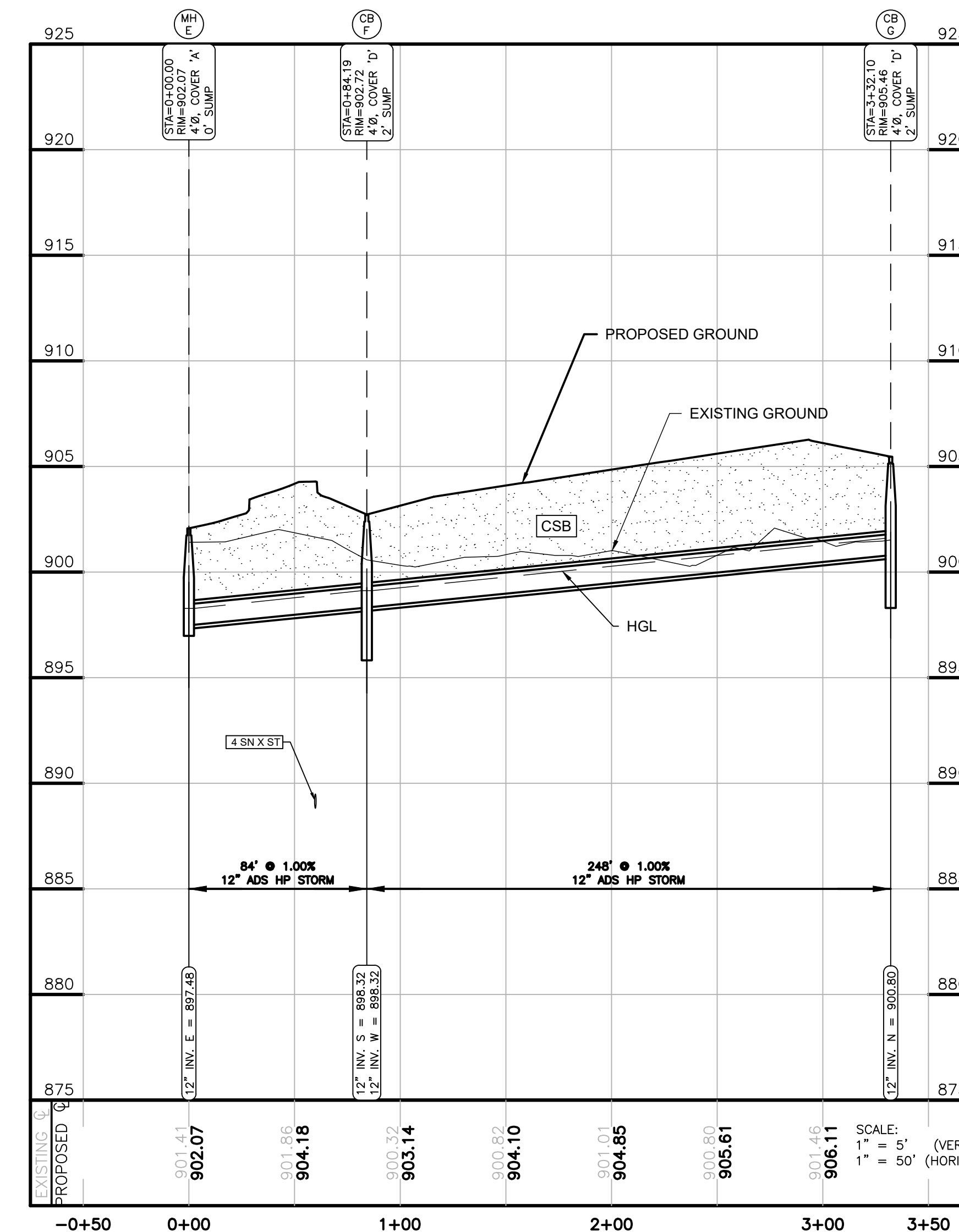
1. ALL PIPE LENGTHS SHOWN ARE FROM C/L TO C/L OF STRUCTURE.
2. ALL STORM SEWER PIPE SHALL BE ADS HP STORM PIPE WITH WATERTIGHT PREMIUM JOINTS, UNLESS OTHERWISE NOTED ON PLAN.
3. APPROPRIATE SOIL EROSION CONTROL MEASURES SHALL BE ESTABLISHED PRIOR TO BEGINNING CONSTRUCTION AND CONTINUOUSLY MAINTAINED BY CONTRACTOR UNTIL VEGETATION HAS BEEN RE-ESTABLISHED.
4. MDOT GRANULAR CLASS II COMPACTED TO 95% MAXIMUM DENSITY

STORM SEWER	
12" ADS HP	245 LF
STRUCTURE (CATCH BASIN OR MANHOLE)	4



STORM CROSSINGS			
Crossing Data Table			
Crossing Number	BP	TP	Crossing Information
4	897.91	889.49	ST
		8.42	SAN
5	894.83	888.58	ST
		6.24	FEET

STORM SEWER	
12" ADS HP	332 LF
STRUCTURE (CATCH BASIN OR MANHOLE)	3



THE LOCATION AND ELEVATION OF EXISTING UNDERGROUND UTILITIES AS SHOWN ON THESE DRAWINGS ARE ONLY APPROXIMATE. NO WARRANTY IS MADE BY THE CONTRACTOR AS TO THE ACCURACY, COMPLETENESS OR QUALITY OF THE INFORMATION PROVIDED. THE CONTRACTOR SHALL BE RESPONSIBLE FOR DETERMINING THE EXACT LOCATION AND DEPTH OF ALL UTILITIES CROSSINGS IN THE FIELD PRIOR TO CONSTRUCTION. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE LOCATION OR DEPTH DIFFERS SIGNIFICANTLY FROM THE PLANS.

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Engineers Surveyors Planners Landscape Architects
3121 E. GRAND RIVER AVE.
HOWELL, MI. 48843
517.546.4836 FAX 517.548.1670

PROJECT	LEGACY CENTER - WELLNESS BUILDING
PREPARED FOR	LEGACY CENTER, LLC 9299 GOBLE DRIVE BRIGHTON, MI 48116 (810) 231-9298
TITLE	PICKLEBALL & PARKING LOT STORM PROFILE
DATE	10/11/23
PER TOWNSHIP REVIEW	
REVISION PER	
1 MO	
NO BY	
DESIGNED BY:	TE
DRAWN BY:	NL
CHECKED BY:	
SCALE:	1" = 50'
JOB NO:	23-046-1
DATE:	5/1/23
SHEET NO.	C15

SEE SHEET 2 FOR GENERAL NOTES AND LEGEND

LIGHTING NOTE:

PHOTOMETRIC PLAN WAS PREVIOUSLY DONE BY OTHERS UNDER PHASE 1C PLANS AND APPROVED BY GREEN OAK TOWNSHIP (SEE BOSS ENGINEERING JOB # 16-287). THE PLAN HAS BEEN UPDATED TO ACCOUNT FOR ADJUSTMENT IN LANDSCAPE ISLAND/LIGHT POLE LOCATIONS IN THIS PHASE 1F CONSTRUCTION OF PROPOSED PARKING LOT. FIXTURE HEIGHT OF 25' MATCHES EXISTING ACROSS THE SITE.

SEE SHEET 16A FOR WELLNESS CENTER PHOTOMETRIC PLAN.

SITE LIGHTING REQUIREMENTS FOR GREEN OAK TOWNSHIP

LIGHTING FOR USES ADJACENT TO NONRESIDENTIAL PROPERTIES SHALL BE DESIGNED AND MAINTAINED SO THAT ILLUMINATION LEVELS DO NOT EXCEED ONE (1) FOOTCANDLE AT OR BEYOND PROPERTY LINES.

PARKING LOT ILLUMINATION SHALL AVERAGE NO LESS THAN 0.9 FOOTCANDLES MINIMUM FOR 100+ SPACES.

MAXIMUM HEIGHT OF POLE FIXTURES SHALL BE TWENTY (20) FEET OR THE HEIGHT OF THE BUILDING WHICHEVER IS LESS.

GENERAL LIGHTING NOTES

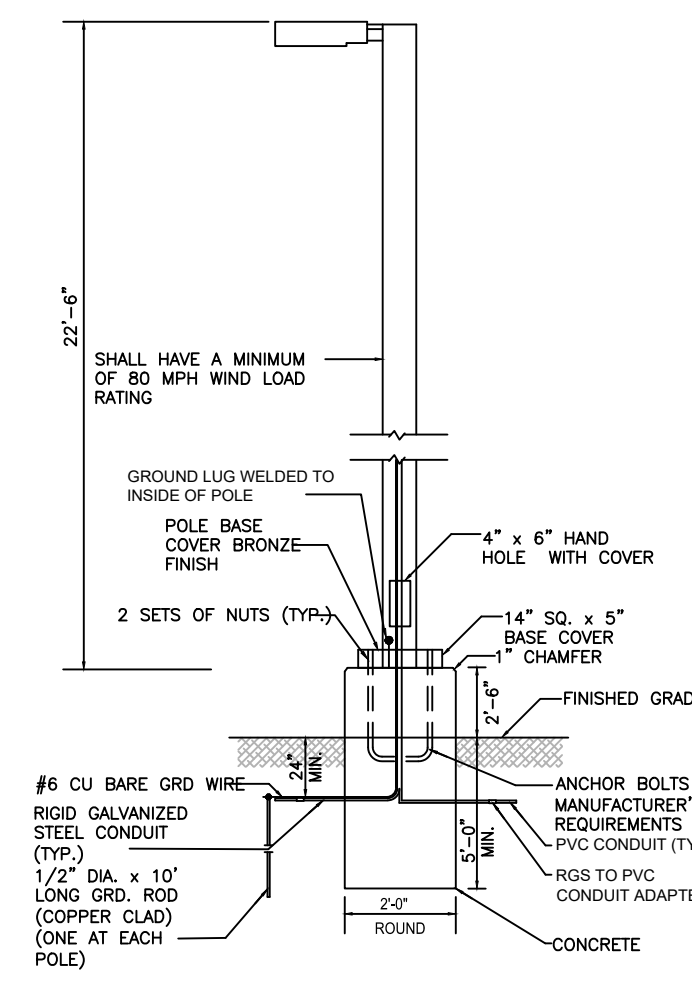
1. THE LIGHTING PATTERN REPRESENTS ILLUMINATION LEVELS CALCULATED FROM LABORATORY DATA TAKEN UNDER CONTROLLED CONDITIONS IN ACCORDANCE WITH ILLUMINATING ENGINEERING SOCIETY APPROVED METHODS. ACTUAL PERFORMANCE OF ANY MANUFACTURER'S LUMINAIRE MAY VARY DUE TO VARIATION IN ELECTRICAL VOLTAGE, TOLERANCE IN LAMPS, AND OTHER VARIABLE FIELD CONDITIONS.

SITE LIGHTING SUMMARY

AVERAGE LIGHTING LEVEL: 0.9 FC
MAXIMUM LIGHT LEVEL: 8.3 FC
MINIMUM LIGHT LEVEL: 0.0 FC

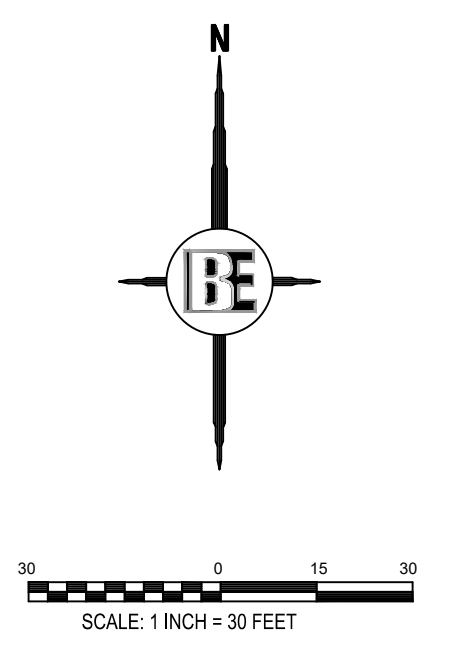
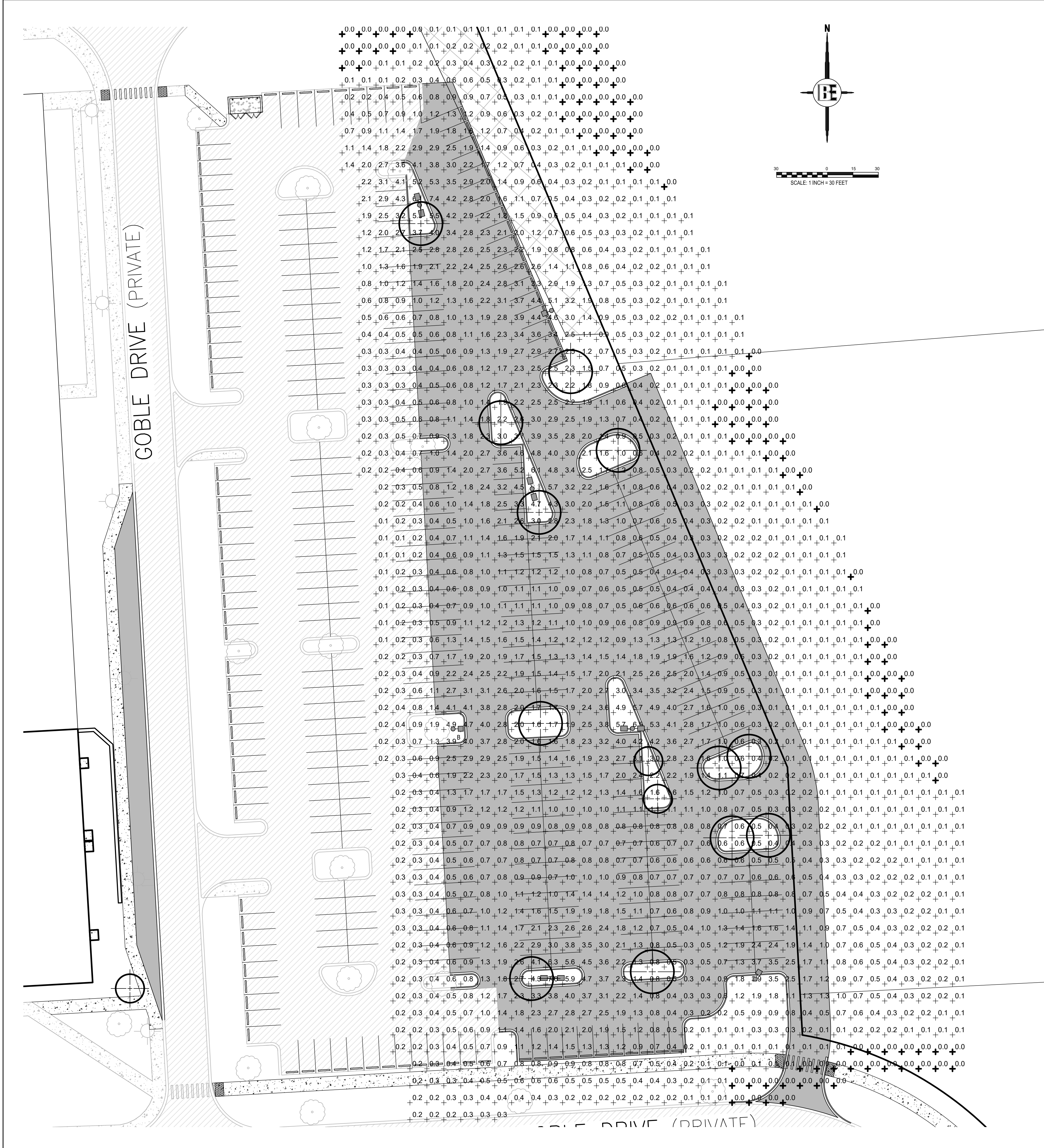
Table with columns: SYMBOL, LABEL, QTY, DESCRIPTION, CATALOG NUMBER, LAMP, LUMENS, LLF, BASE HGT, POLE HGT, TOTAL HGT. Includes details for LITHONIA DSX2 LED P1 30K 70CRI T4M HS and EML17 GCF XT 63LED 350 mA 40K R2.

ALL IES FILES PROVIDED BY MANUFACTURER FOR CALCULATION OF LIGHTING LEVEL.



Product information for D-Series Size 2 LED Area Luminaire, including specifications, introduction, and a table of cutting information.

Product information for D-Series Size 1 LED Area Luminaire, including specifications, introduction, and a table of cutting information.

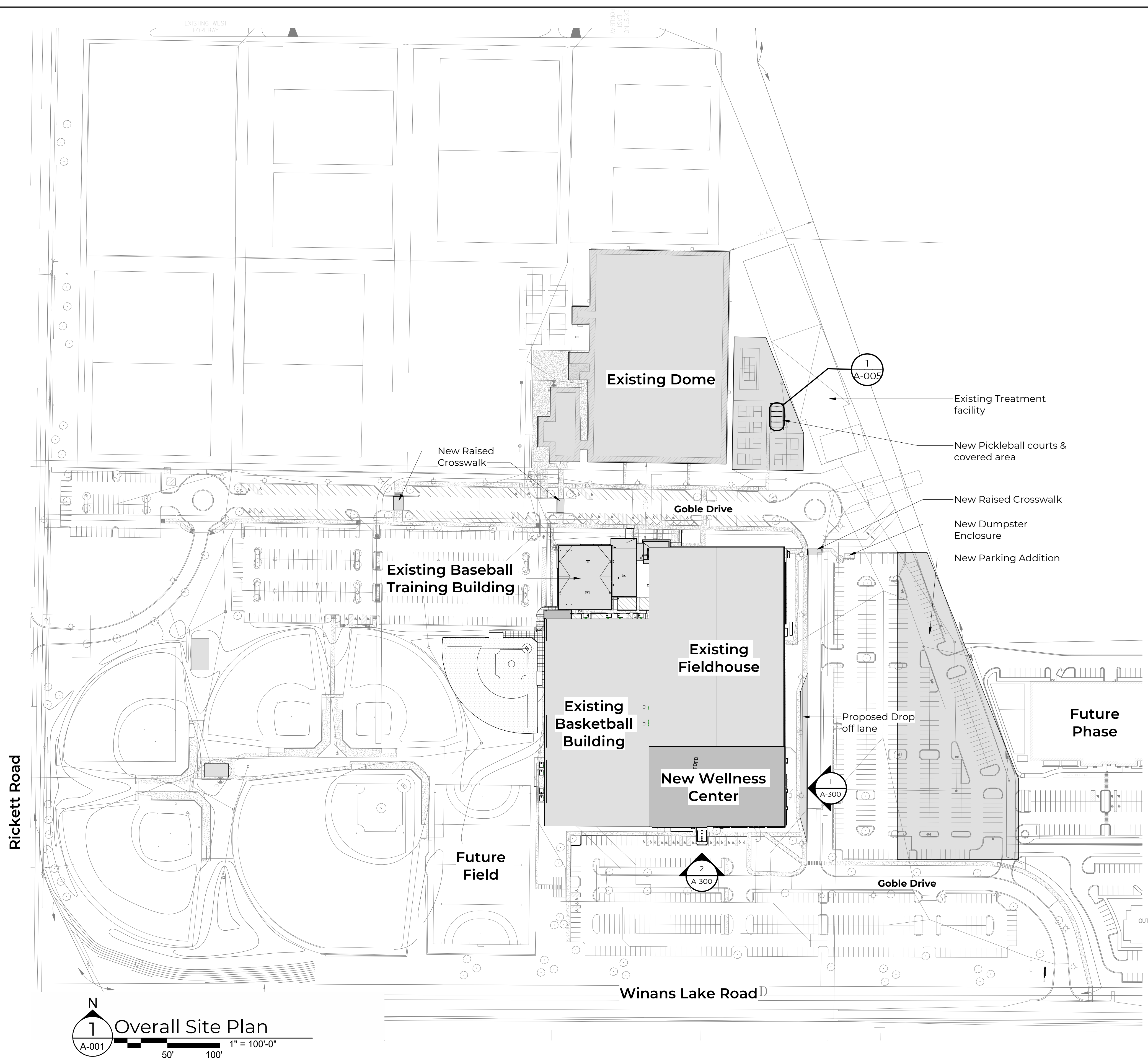


LEGACY CENTER - WELLNESS BUILDING
PREPARED FOR: LEGACY CENTER, LLC
9259 GOBLE DRIVE
BRIGHTON, MI 48116
(810) 231-9288

BOSS Engineering
Engineers Surveyors Planners Landscape Architects
3121 E. GRAND RIVER AVE.
HOWELL, MI. 48843
517.546.4836 FAX 517.548.1670

Project information table with columns: PROJECT, PREPARED FOR, TITLE, DATE, PER TOWNSHIP REVIEW, REVISION PER, DESIGNED BY, DRAWN BY, CHECKED BY, SCALE, JOB NO, DATE, SHEET NO. Includes values like 1/23/24, 10/11/23, TE, JA, 1" = 30', 23-046-1, 5/1/23, C16.

Plot Date/Time: 1/17/2024 1:52:42 PM File Path: C:\Revit Local Files\LEOW23_CS_jstevensZSYNQ.rvt



1 Overall Site Plan
 A-001
 1" = 100'-0"
 50' 100'

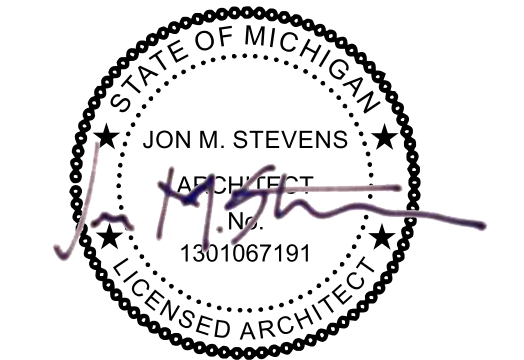
General Sheet Notes:

- A. Site plan provided for reference only. Refer to civil engineering drawings for specifics of site design, building locations, property line, setbacks, parking, site lighting, and utility information.
- B. All curb ramps shall have a maximum slope of 1:12 in direction of travel with a maximum cross-slope of 1:50. Maximum rise of all curb ramps shall be 6".
- C. All paving on accessible route shall have a maximum slope of 1:20 in direction of travel with a maximum cross-slope of 1:50.
- D. Maximum slope of all accessible parking spaces and access aisles shall be 1:50 in any direction.
- E. All accessible route and parking elements shall be designed and constructed in accordance with 2010 ADA Standards for Accessible Design and Chapter 11 of the Michigan Building Code (ICC/ANSI A117.1 2009).
- F. Refer to survey drawing for additional information regarding existing paving, utilities, and landscaping.
- G. Fire lane requirements to be coordinated with local jurisdiction Fire Chief and identified in final parking layout and striping.
- H. All parking space layouts to conform to minimum sizing standards per local Zoning Ordinance.
- I. All dimensions shown for parking layout are measured to face of curb or centerline of striping.
- J. Contractor to review site conditions, including slopes and elevations, prior to construction. Coordinate any discrepancies with Architect.
- K. All slopes indicated show arrow pointing in the down slope direction.
- L. All landscape areas shall be automatically irrigated.
- M. External lighting is for indication only, reference electrical drawings for actual locations & types of lighting.
- N. Provide control joints in new concrete paving at 5'-0" on center, maximum 3/8" joint width.
- O. Patch or fill all joints along accessible route that are greater than 1/2" in width to be flush with paving.

Sheet Keynotes



The McFate Group
 7136 Jackson Rd. Ann Arbor, MI. 48103
 www.mcfategroup.com | (734)-433-0020



Revision Schedule

#	Description	Revision Date
1	Owner Review	03/15/2023
2	Prelim Site Plan	05/01/2023
5	Site Plan - Rev 1	08/24/2023
6	Site Plan - Rev 2	01/17/2024

Job Title:
Legacy Center - Wellness
 9299 Goble Drive
 Brighton, MI 48116

Scale:
NOT FOR CONSTRUCTION

Project Code:
22-001

Issue Date:
01/17/2024

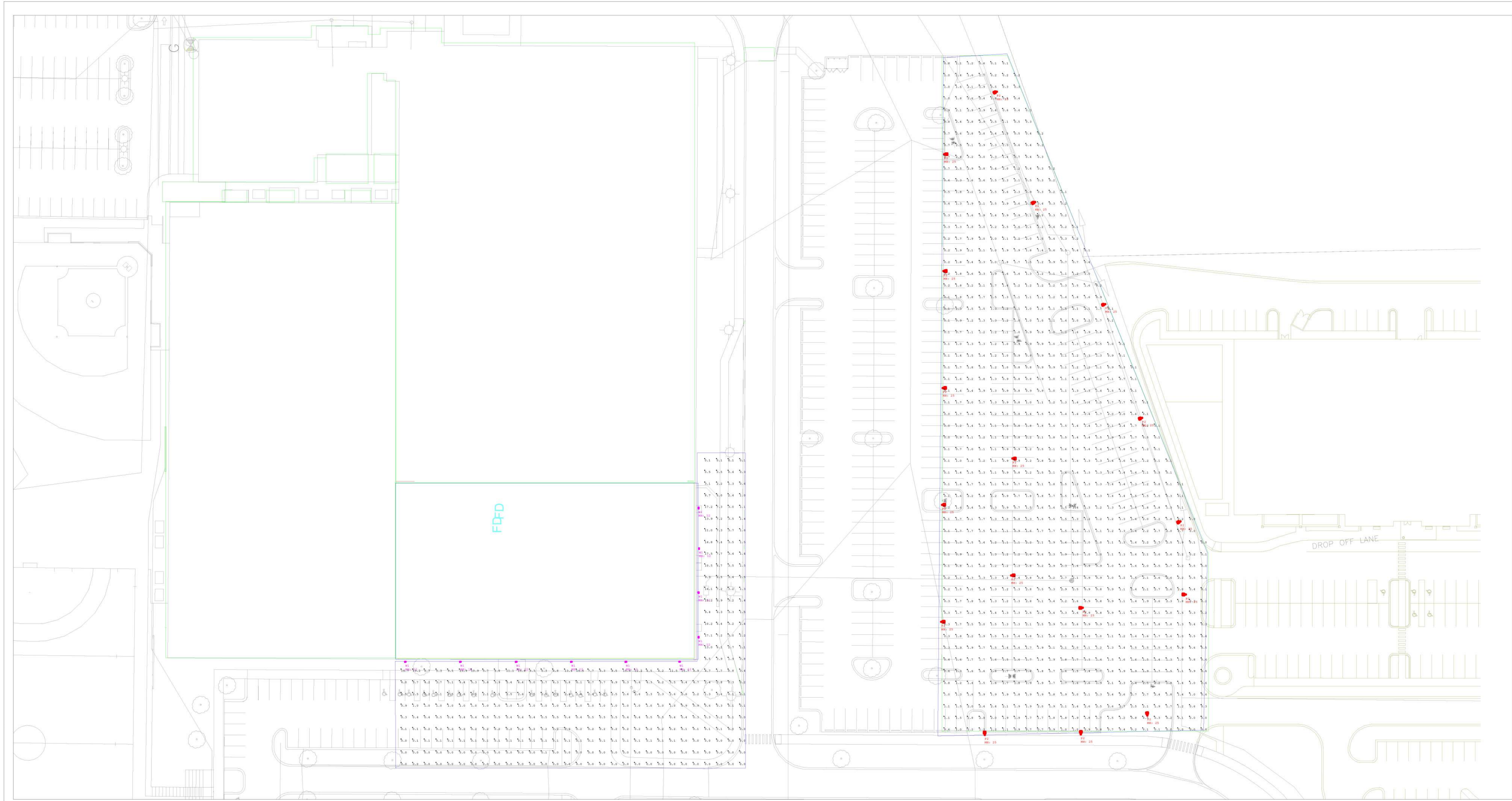
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Site Plan - Rev 2

Sheet Title:
Overall Site Plan

Drawing Number:
A-001

Scales listed are for 22x34 drawing size

Plot Date/Time: 1/17/2024 1:52:50 PM File Path: C:\Revit Local Files\LEGW23_CS_jstevensZSYNQ.rvt



PLAN VIEW: NOT TO SCALE

Label	Symbol	Qty	Manufacturer	Catalog Number	Light Loss Factor	Lumens Per Lamp	Watts	Controls
P2		17	Lithonia - P2	DSX1 LED P3 40K 80CRI BLC4	0.900	9485	102.17	
W1		10	Lithonia - W1	WDGE3 LED P4 70CRI RFT 30K	1.000	11314	87.8914	

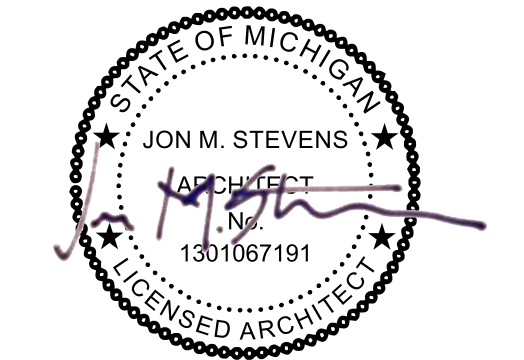
Description	Avg fc	Max fc	Min fc	Avg/Min (±)	Max/Min (±)
New Wellness Center PED Pathway	2.57	17.5	0.0	N.A.	N.A.
Parking Lot Addition	1.38	3.6	0.0	N.A.	N.A.

Page 1 of 2

GENERAL NOTE
 1. SEE SCHEDULE FOR LUMINAIRE MOUNTING HEIGHT.
 2. CALCULATIONS ARE SHOWN IN FOOTCANDLES AT 0' - 0". FOOD SERVICE AREA AT 2' - 6". TREES SHOWN AT BOTTOM OF LEAVES.
 3. ALTERNATE LIGHTING FIXTURES WILL NOT MEET CITY ORDINANCE COMPLIANCE DUE TO THE PRECISE OPTICAL AND OUTPUT PERFORMANCE SELECTED FOR THESE FIXTURES. ALTERNATE LIGHTING PROPOSALS MUST BE RECALCULATED AND RESUBMITTED TO THE CITY FOR APPROVAL. CONTACT LAYOUTS@GASSERBUSH.COM FOR ASSISTANCE WITH ALTERNATE OPTIONS IF NEEDED.
 - THE ENGINEER AND/OR ARCHITECT MUST DETERMINE APPLICABILITY OF THE LAYOUT TO EXISTING / FUTURE FIELD CONDITIONS.
 THIS LIGHTING LAYOUT REPRESENTS ILLUMINATION LEVELS CALCULATED FROM LABORATORY DATA TAKEN UNDER CONTROLLED CONDITIONS IN ACCORDANCE WITH ILLUMINATING ENGINEERING SOCIETY APPROVED METHODS. ACTUAL PERFORMANCE OF ANY MANUFACTURER'S LUMINAIRE MAY VARY DUE TO VARIATION IN ELECTRICAL VOLTAGE, TOLERANCE IN LAMPS, AND OTHER VARIABLE FIELD CONDITIONS. MOUNTING HEIGHTS INDICATED ARE FROM GRADE AND/OR FLOOR UP.
 - THESE LIGHTING CALCULATIONS ARE NOT A SUBSTITUTE FOR INDEPENDENT ENGINEERING ANALYSIS OF LIGHTING SYSTEM SUITABILITY AND SAFETY.
 THE ENGINEER AND/OR ARCHITECT IS RESPONSIBLE TO REVIEW FOR MICHIGAN ENERGY CODE AND LIGHTING QUALITY COMPLIANCE.
 - UNLESS EXEMPT, PROJECT MUST COMPLY WITH LIGHTING CONTROLS REQUIREMENTS DEFINED IN ASHRAE 90.1 2013. FOR SPECIFIC INFORMATION CONTACT GBA CONTROLS GROUP AT ASG@GASSERBUSH.COM OR 734-266-6705.
 - FOR ORDERING INQUIRIES CONTACT GASSER BUSH AT QUOTES@GASSERBUSH.COM OR 734-266-6705.
 - THIS DRAWING WAS GENERATED FROM AN ELECTRONIC IMAGE FOR ESTIMATION PURPOSE ONLY. LAYOUT TO BE VERIFIED IN FIELD BY OTHERS.
 - MOUNTING HEIGHT IS MEASURED FROM GRADE TO FACE OF FIXTURE. POLE HEIGHT SHOULD BE CALCULATED AS THE MOUNTING HEIGHT LESS BASE HEIGHT.

Legacy Center_V1 #24-24282.AGI
 Gasser Bush Associates / Applications
 www.gasserbush.com

Designer: KA
 Date: 1/12/2024
 Scale: NOT TO SCALE



Revision Schedule

#	Description	Revision Date
6	Site Plan - Rev 2	01/17/2024

Job Title:
Legacy Center - Wellness
 9299 Goble Drive
 Brighton, MI 48116

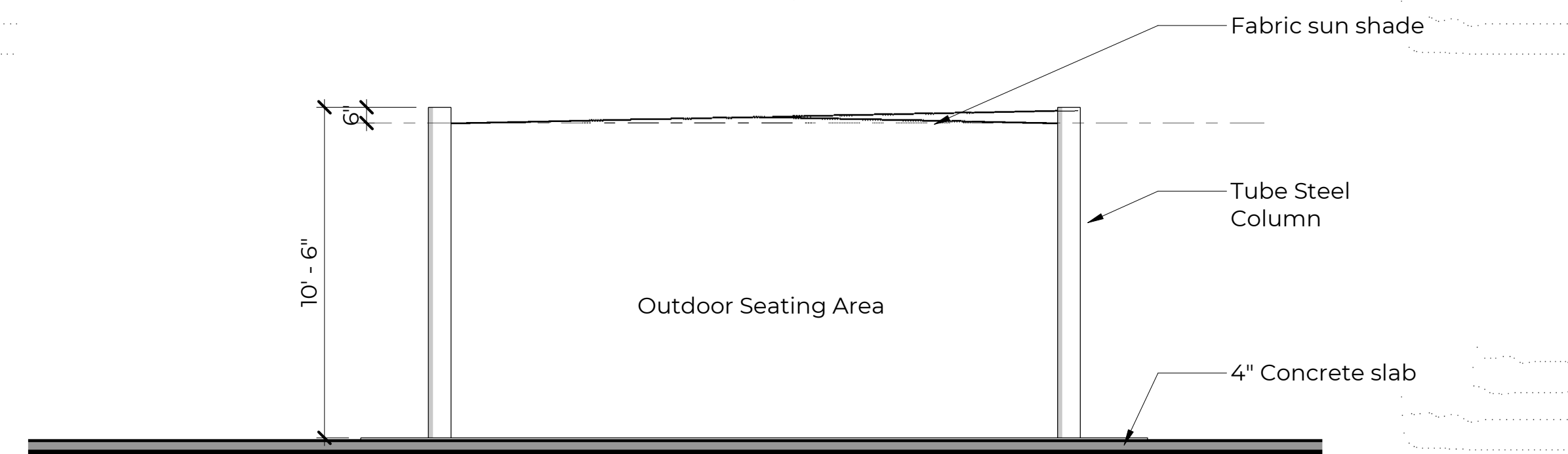
Project Code:
22-001
 Issued Date:
 01/17/2024

Issued for: Site Plan - Rev 2

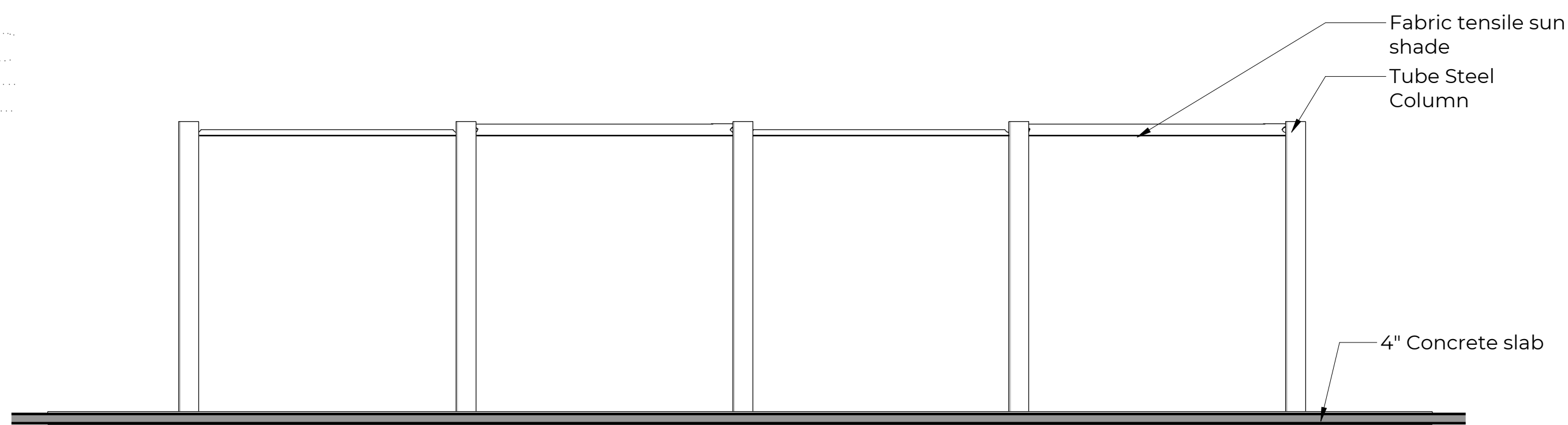
Sheet Title:
Site Photometric

Drawing Number:
A-002

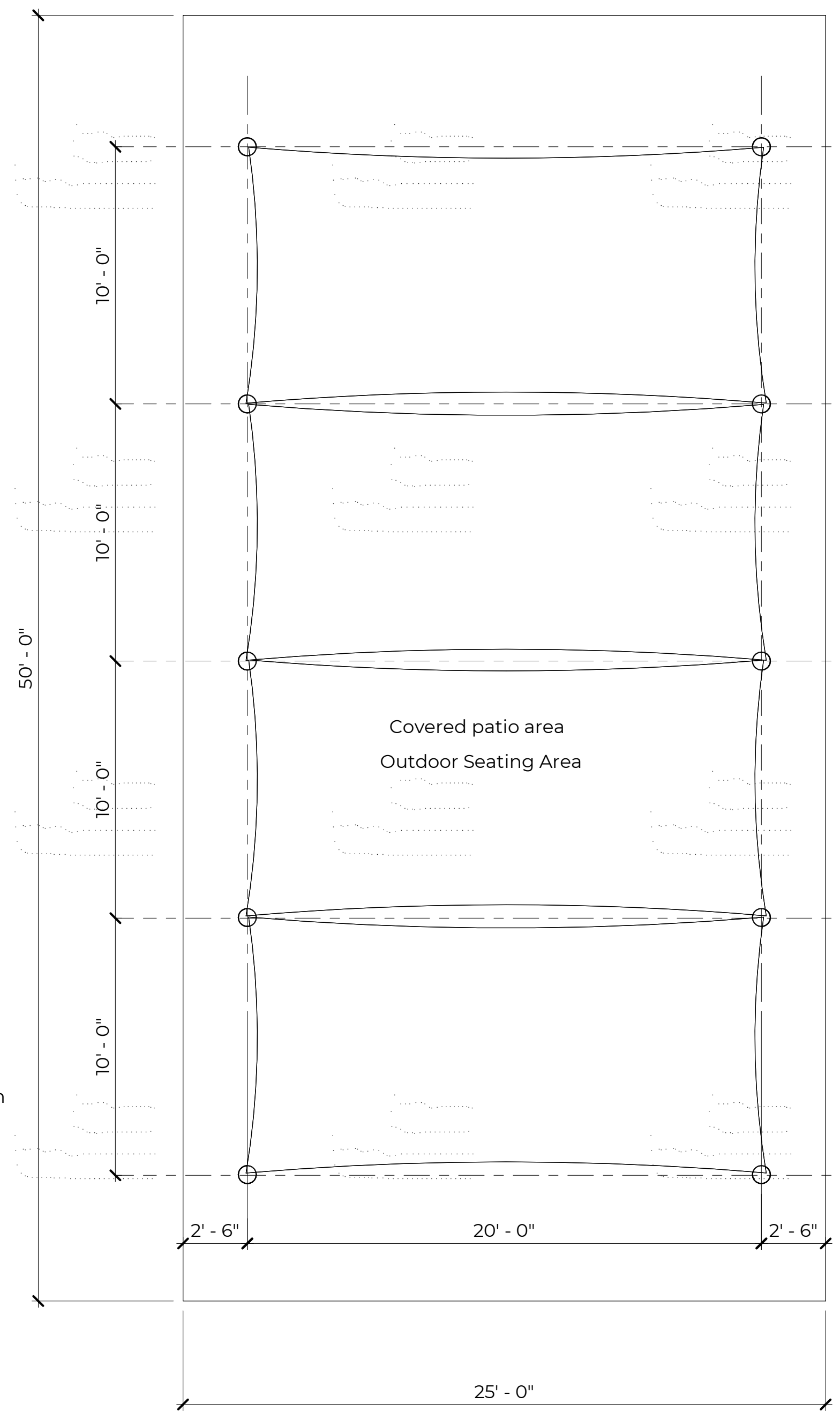
NOT FOR CONSTRUCTION



3 Pavilion South Elevation
A-005 1/4" = 1'-0"



2 Pavilion West Elevation
A-005 1/4" = 1'-0"



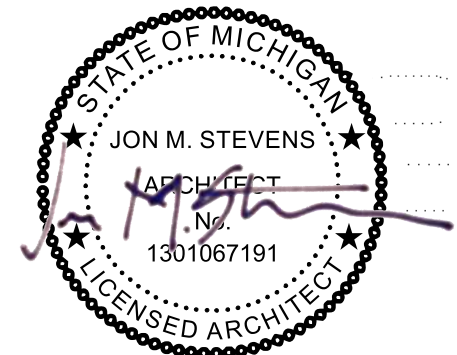
1 New - Overall Site Plan - Callout 1
A-005 1/4" = 1'-0"

General Sheet Notes:

Sheet Keynotes



The McFate Group
7136 Jackson Rd. Ann Arbor, MI. 48103
www.mcfategroup.com | (734)-433-0020



Revision Schedule

#	Description	Revision Date
5	Site Plan - Rev 1	08/24/2023
6	Site Plan - Rev 2	01/17/2024

Legacy Center -
Wellness
9299 Goble Drive
Brighton, MI 48116

NOT FOR CONSTRUCTION

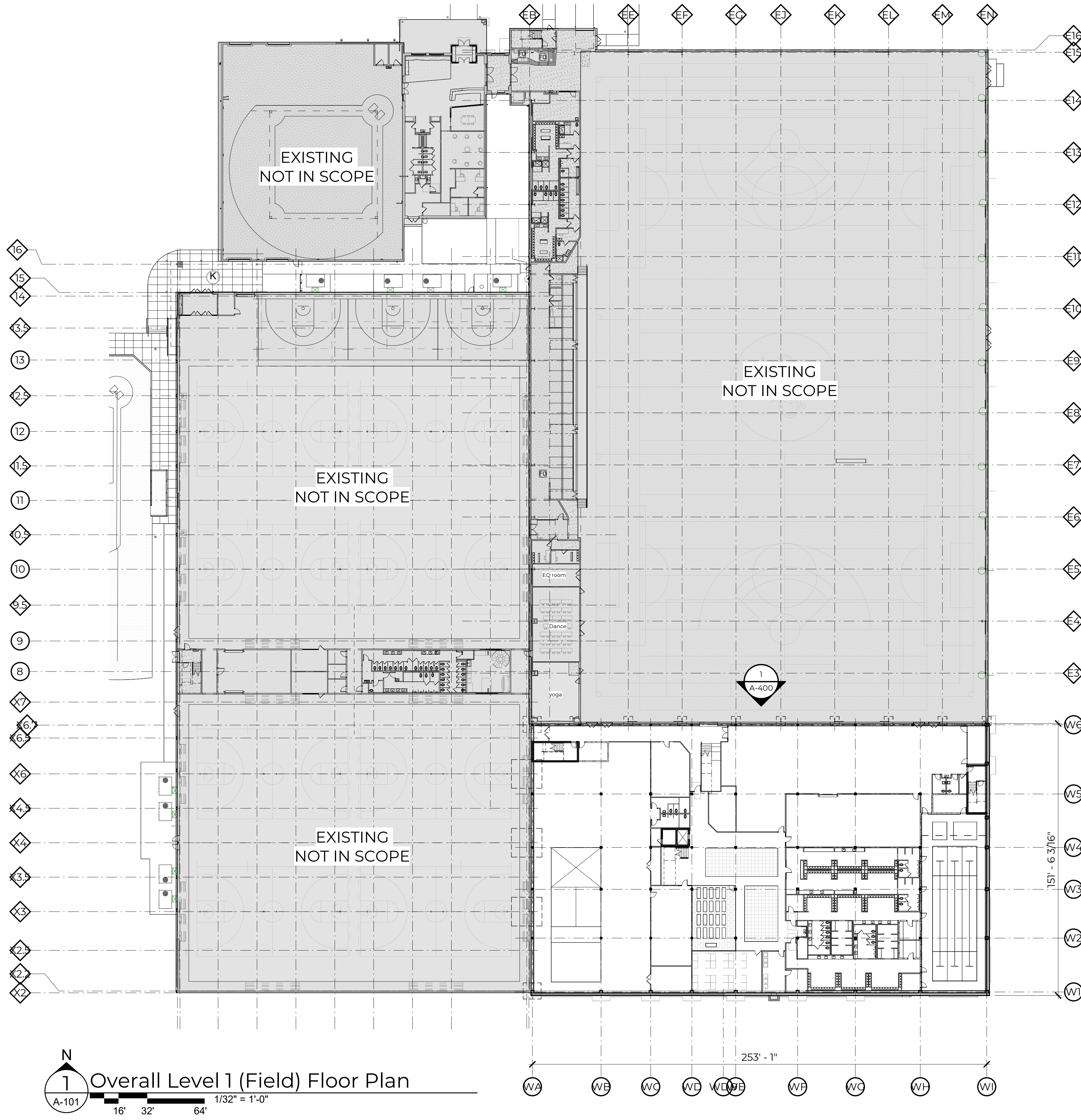
Project Code: 22-001

Issue Date: 01/17/2024

Issued for: Site Plan - Rev 2

Pickleball
Covered Area

Sheet Number: **A-005**



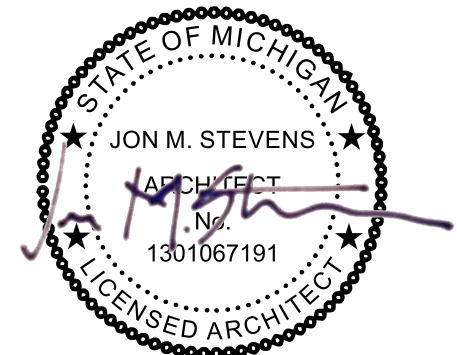
Overall Level 1 (Field) Floor Plan
 1/32" = 1'-0"
 16' 32' 64'

General Sheet Notes:
None

Sheet Keynotes



The McFate Group
 7136 Jackson Rd. Ann Arbor, MI. 48103
 www.mcfategroup.com | (734)-433-0020



Revision Schedule

#	Description	Revision Date
2	Prelim Site Plan	05/01/2023
5	Site Plan - Rev 1	08/24/2023
6	Site Plan - Rev 2	01/17/2024

Legacy Center - Wellness

9299 Goble Drive
 Brighton, MI 48116

NOT FOR CONSTRUCTION

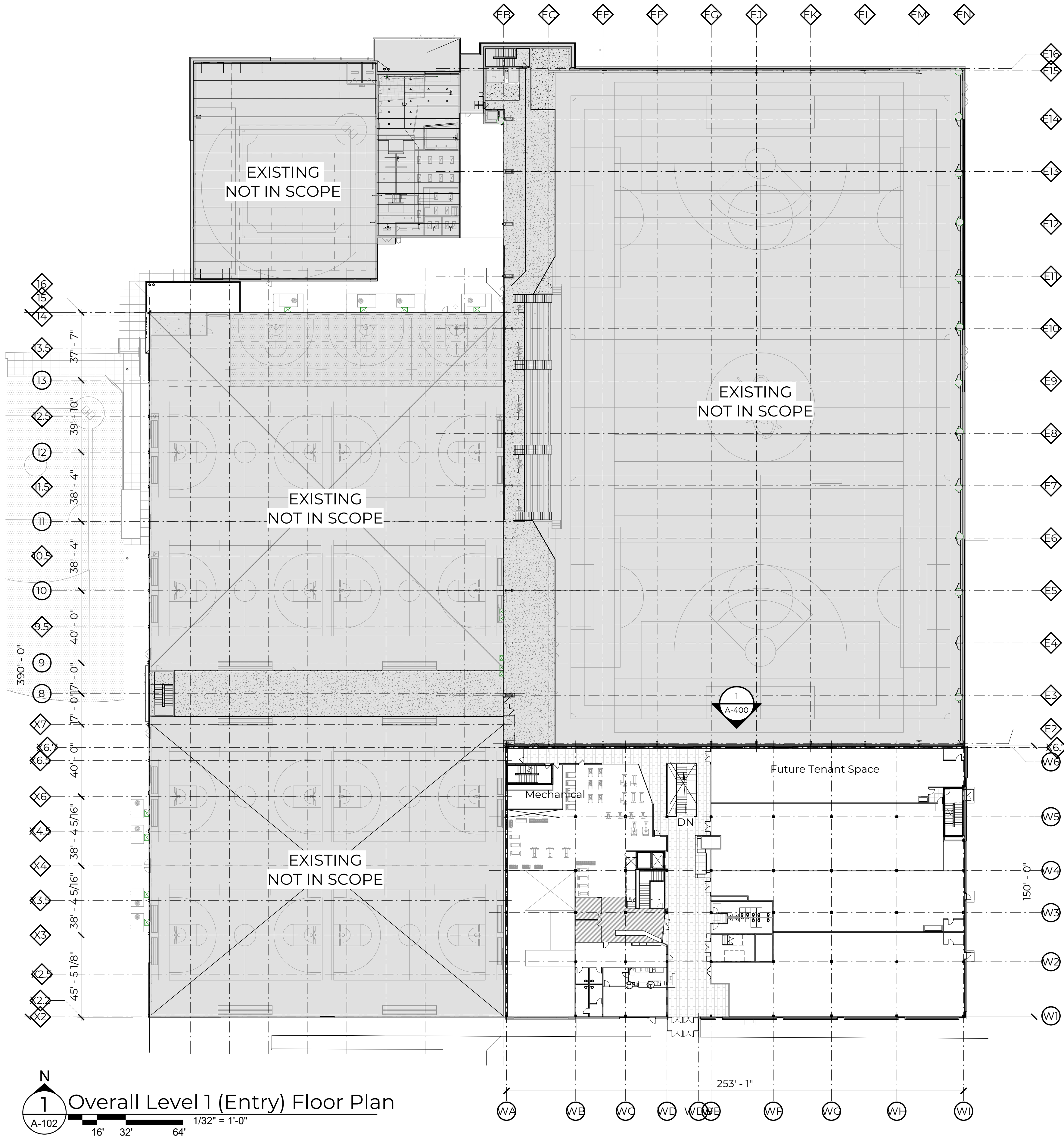
Project Code:
22-001

Issued Date:
01/17/2024

Issued for: Site Plan - Rev 2

Overall Level 1 (Field) Floor Plan

Sheet Number:
A-101

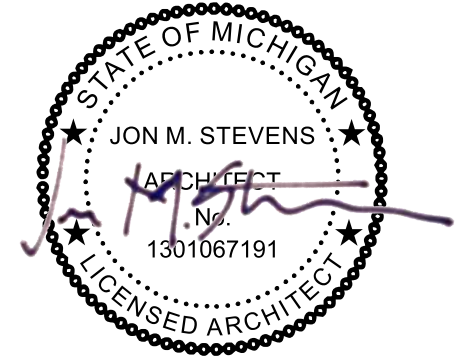


General Sheet Notes:
None

Sheet Keynotes



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Revision Schedule

#	Description	Revision Date
2	Prelim Site Plan	05/01/2023
5	Site Plan - Rev 1	08/24/2023
6	Site Plan - Rev 2	01/17/2024

Job Title:
Legacy Center - Wellness
9299 Goble Drive
Brighton, MI 48116

Scale:
NOT FOR CONSTRUCTION

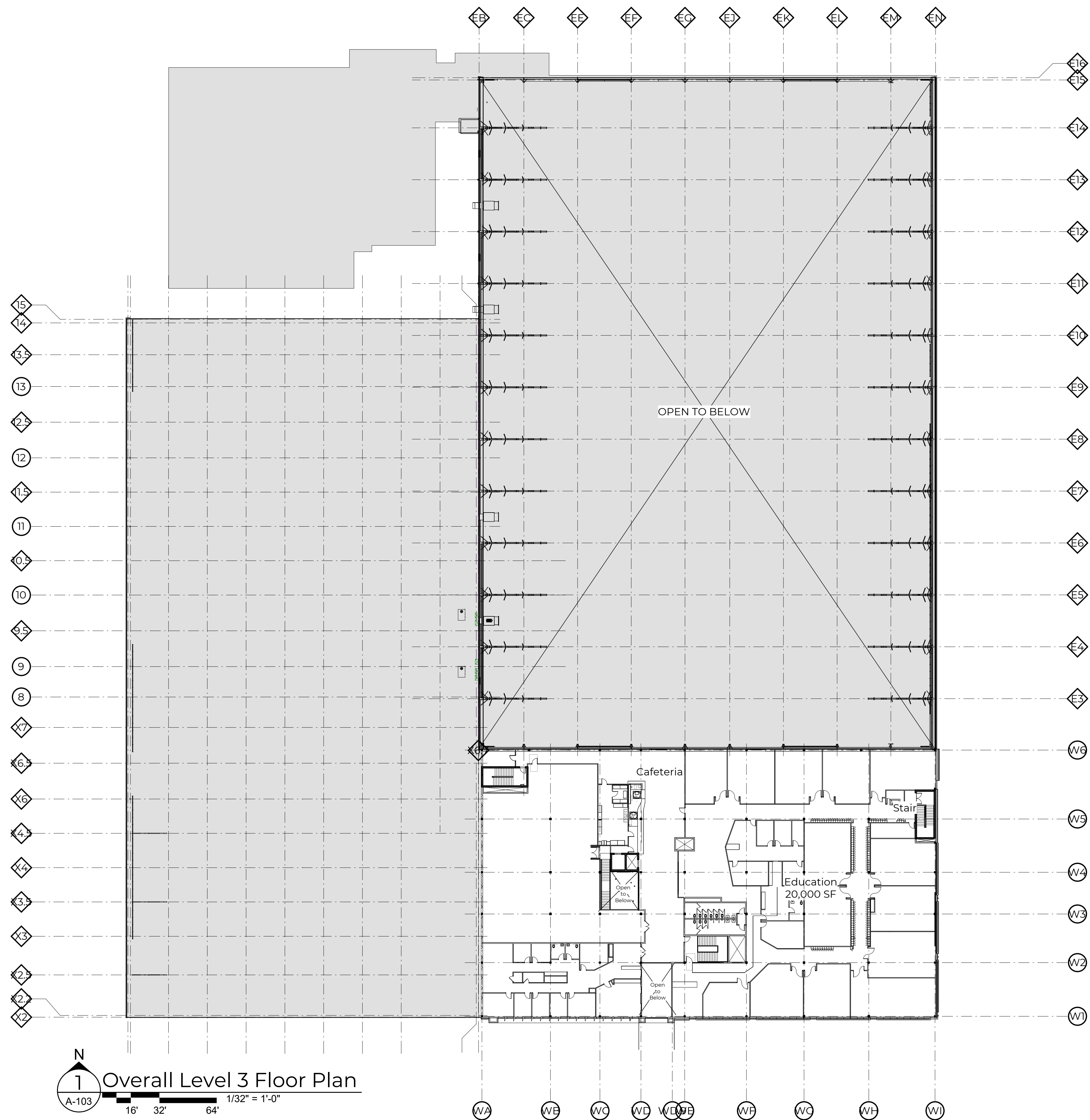
Project Code:
22-001

Issued Date:
01/17/2024

Issued for: Site Plan - Rev 2

Sheet Title:
Overall Level 2 (Entry) Floor Plan

Sheet Number:
A-102

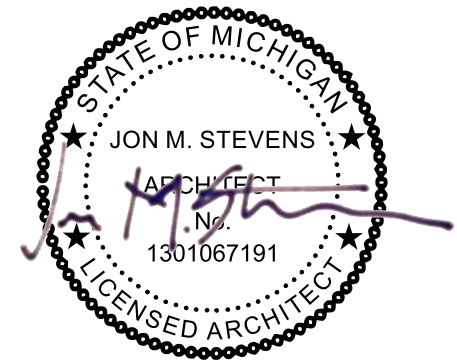


General Sheet Notes:
None

Sheet Keynotes



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Revision Schedule

#	Description	Revision Date
2	Prelim Site Plan	05/01/2023
5	Site Plan - Rev 1	08/24/2023
6	Site Plan - Rev 2	01/17/2024

Job Title:
Legacy Center - Wellness
9299 Goble Drive
Brighton, MI 48116

Scale:
NOT FOR CONSTRUCTION

Project Code:
22-001

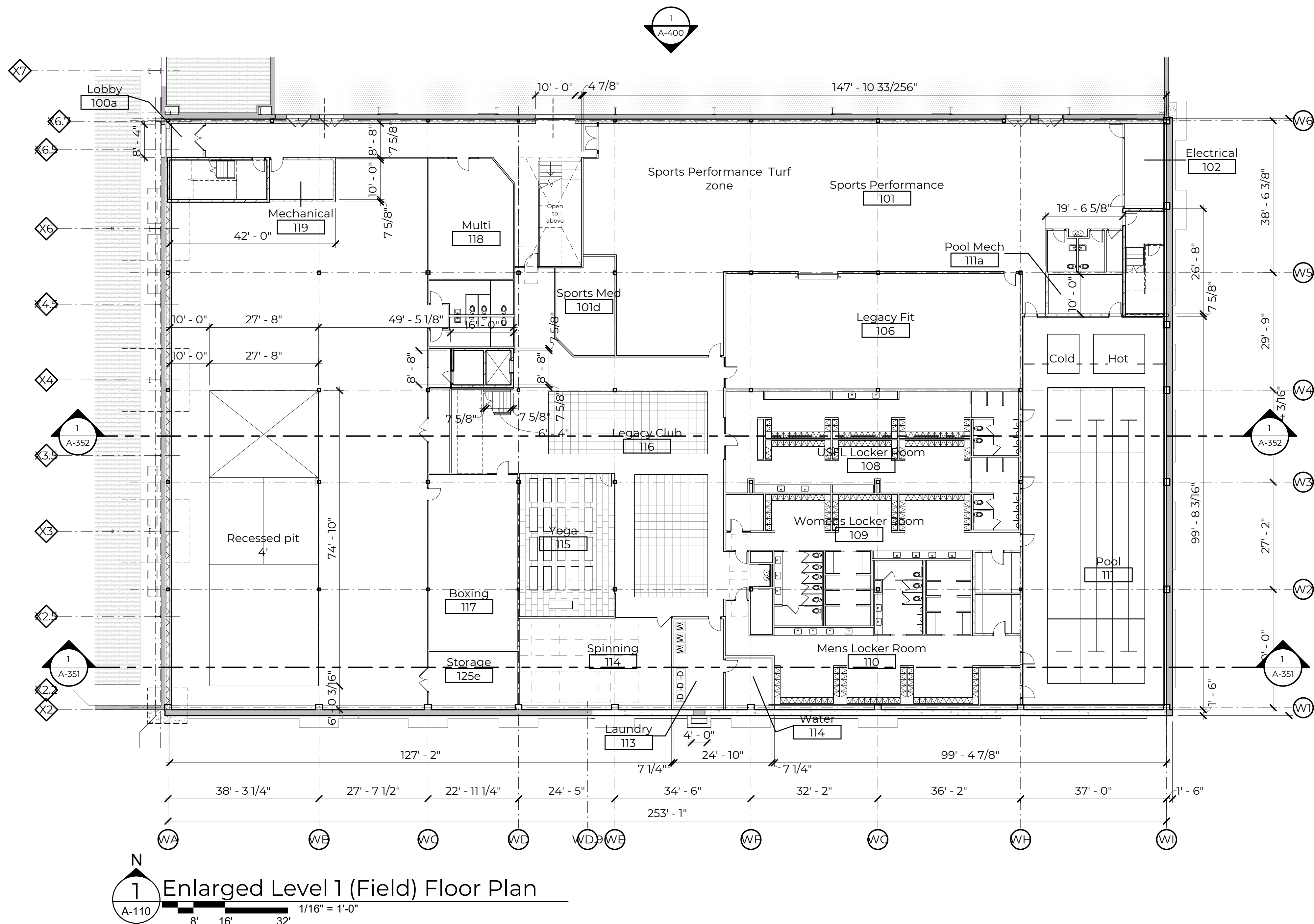
Issued Date:
01/17/2024

Issued for: Site Plan - Rev 2

Sheet Title:
Overall Level 3 (Upper Level) Floor Plan

Drawing Number:
A-103

Plot Date/Time: 1/17/2024 1:54:00 PM File Path: C:\Revit Local Files\LEGW23_CS_jstevensZSYNO.rvt



1 Enlarged Level 1 (Field) Floor Plan
 A-110 1/16" = 1'-0"

- General Sheet Notes:**
- All dimensions to be verified in field prior construction. Notify architect of all discrepancies prior to starting work.
 - All dimensions on plans are to face of finish face or column centerlines, U.N.O.
 - All interior partitions to be type W1 unless noted otherwise. Refer to sheet A-800 for partition details.
 - All interior door frames shall be located a distance of six inches from the throat return to the closest adjacent perpendicular partition, U.N.O.
 - Refer to sheet A-700 for Door Schedule
 - Masonry dimensions are nominal, U.N.O.
 - Patch and paint all walls, gypsum board ceilings, soffits and bulkheads through-out.
 - Provide solid blocking/backing in-wall cavities at all wall mounted equipment as indicated by project equipment list and per manufacturers detailed instructions.
 - Coordinate all elevator shaft and pit dimensions with elevator manufacturer's approved shop drawings prior to construction.
 - Provide furring wall type W-3 at all exposed columns unless otherwise noted.

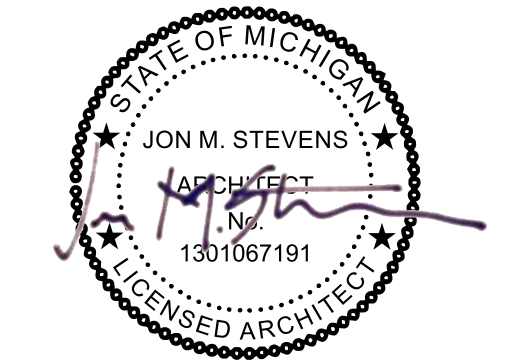
Sheet Keynotes

Architectural Floor Plan Legend

- New floor finish, see Room Finish Schedule.
- 1/hr. rated wall construction.
- 2/hr. rated wall construction.
- Furniture system per tenant
- +5'-0" Target Elevation
- W-1 Wall type tag, refer to interior partition types
- 101.1 Door Tag, refer to Door Schedule
- Align symbol



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Revision Schedule

#	Description	Revision Date
2	Prelim Site Plan	05/01/2023
5	Site Plan - Rev 1	08/24/2023
6	Site Plan - Rev 2	01/17/2024

Job Title:
Legacy Center - Wellness
 9299 Goble Drive
 Brighton, MI 48116

Project Code:
22-001

Issue Date:
01/17/2024

Issued for: Site Plan - Rev 2

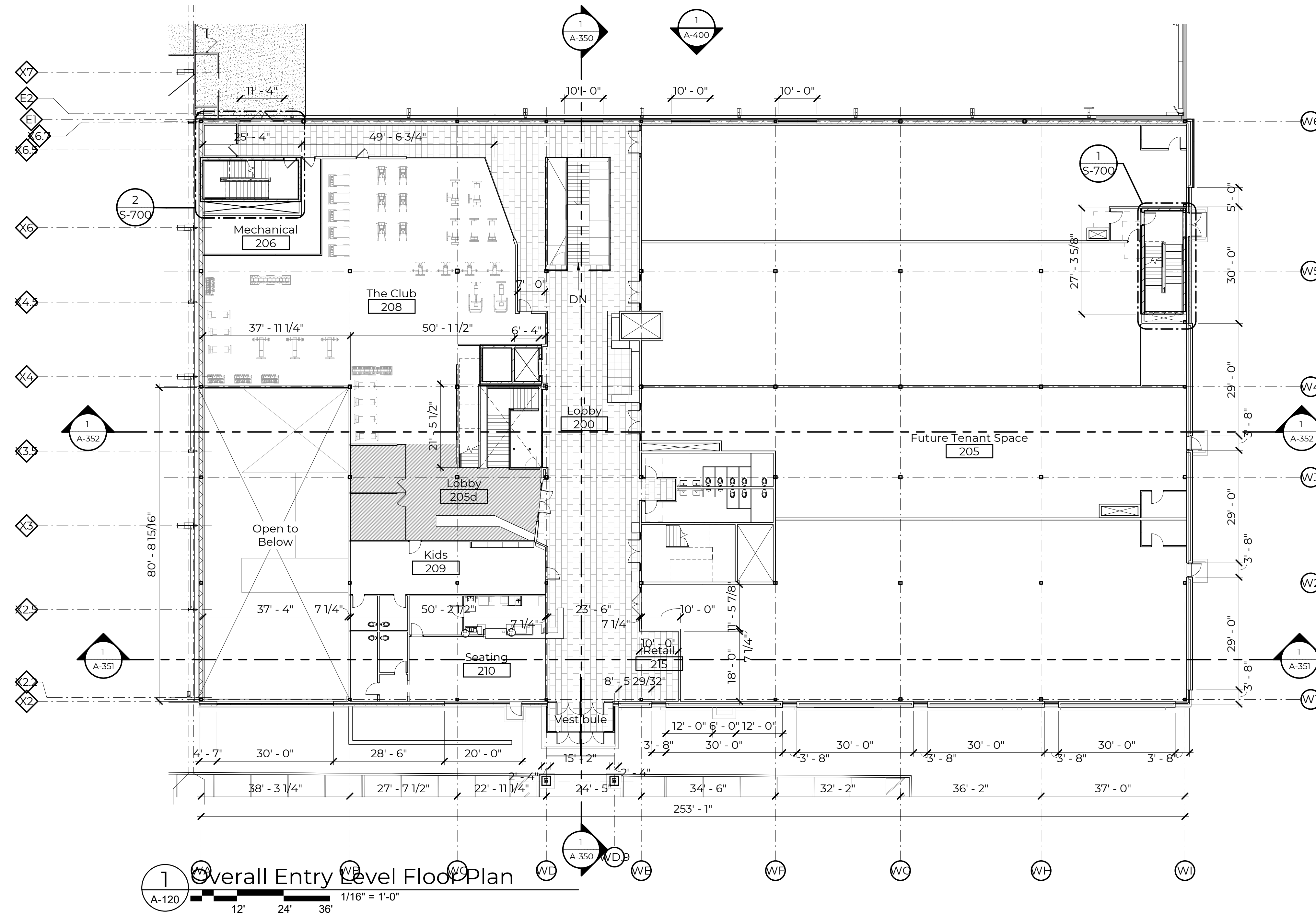
Sheet Title:
Primary Level 1 Floor Plan

Sheet Number:
A-110

NOT FOR CONSTRUCTION

Scales listed are for 22x34 drawing size

Plot Date: 1/17/2024 1:54:05 PM File Path: C:\Revit Local Files\LEQW23_CS_jstevensZSYNQ.rvt



1 Overall Entry Level Floor Plan
A-120
1/16" = 1'-0"

General Sheet Notes:

- A. All dimensions to be verified in field prior construction. Notify architect of all discrepancies prior to starting work.
- B. All dimensions on plans are to face of finish face or column centerlines, U.N.O.
- C. All interior partitions to be type W1 unless noted otherwise. Refer to sheet A-800 for partition details.
- D. All interior door frames shall be located a distance of six inches from the throat return to the closest adjacent perpendicular partition, U.N.O.
- E. Refer to sheet A-700 for Door Schedule
- F. Masonry dimensions are nominal, U.N.O.
- G. Patch and paint all walls, gypsum board ceilings, soffits and bulkheads through-out.
- H. Provide solid blocking/backing in-wall cavities at all wall mounted equipment as indicated by project equipment list and per manufacturers detailed instructions.
- I. Coordinate all elevator shaft and pit dimensions with elevator manufacturer's approved shop drawings prior to construction.
- J. Provide furring wall type W-3 at all exposed columns unless otherwise noted.

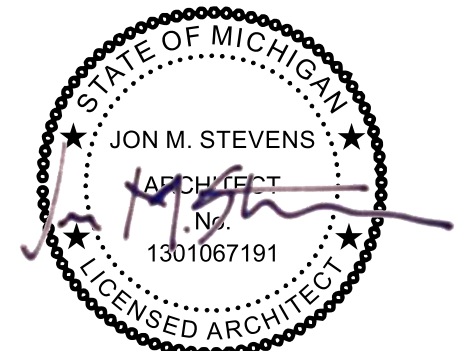
Sheet Keynotes

Architectural Floor Plan Legend

- New floor finish, see Room Finish Schedule.
- 1/hr. rated wall construction.
- 2/hr. rated wall construction.
- Furniture system per tenant
- + 5'-0" Target Elevation
- W-1 Wall type tag, refer to interior partition types
- 101.1 Door Tag, refer to Door Schedule
- Align symbol



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Revision Schedule

#	Description	Revision Date
2	Prelim Site Plan	05/01/2023
5	Site Plan - Rev 1	08/24/2023
6	Site Plan - Rev 2	01/17/2024

Job Title:
Legacy Center - Wellness
9299 Goble Drive
Brighton, MI 48116

Scale:
NOT FOR CONSTRUCTION

Project Code:
22-001

Issue Date:
01/17/2024

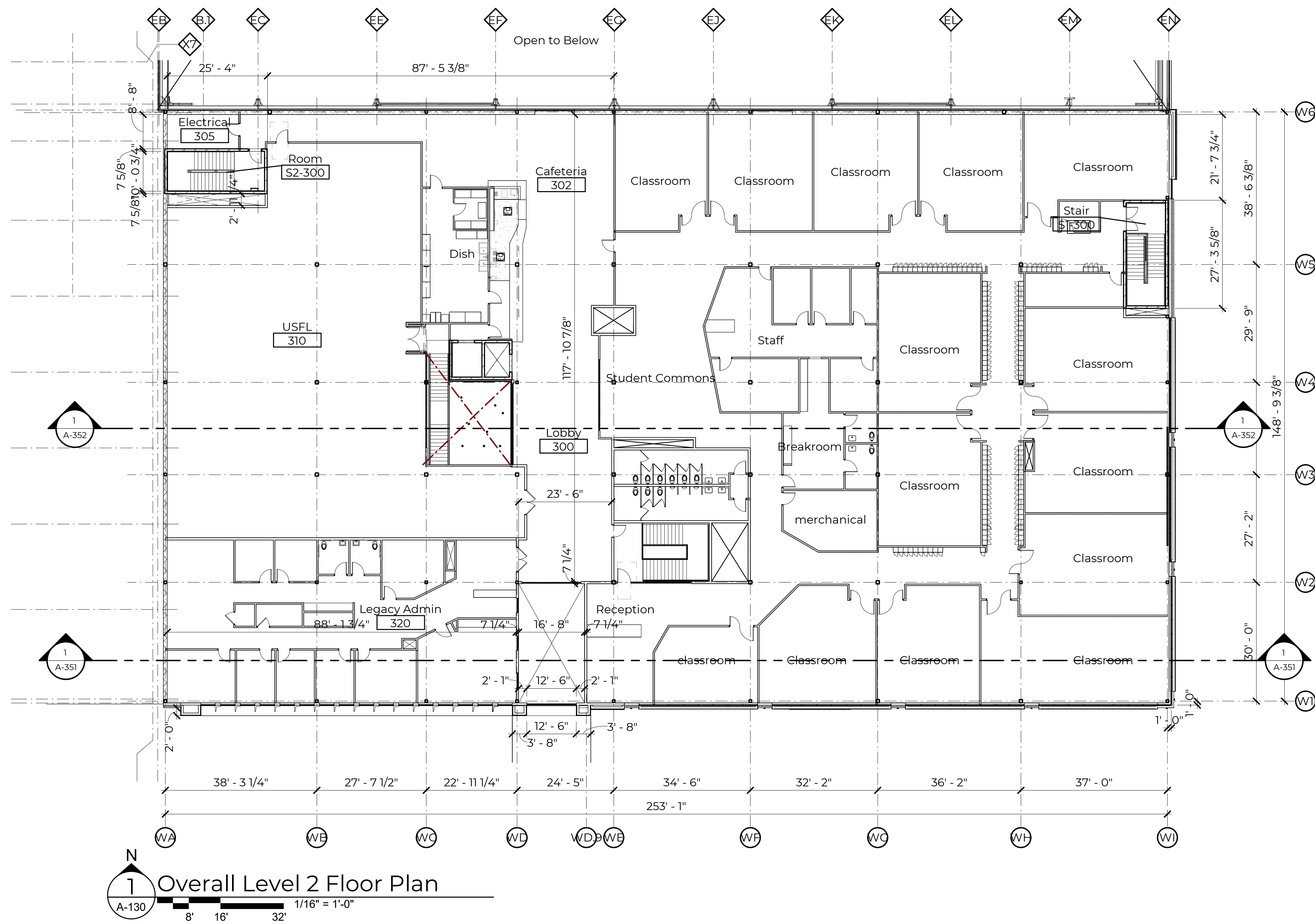
Issued for: Site Plan - Rev 2

Sheet Title:
Primary Level 2 Floor Plan

Drawing Number:
A-120

Scales listed are for 22x34 drawing size

Plot Date/Time: 1/17/2024 1:54:11 PM File Path: C:\Revit Local Files\LEOW23_CS_jstevens\ZSYNQ.rvt



1 Overall Level 2 Floor Plan
 A-130
 1/16" = 1'-0"

General Sheet Notes:

- A. All dimensions to be verified in field prior construction. Notify architect of all discrepancies prior to starting work.
- B. All dimensions on plans are to face of finish face or column centerlines, U.N.O.
- C. All interior partitions to be type W1 unless noted otherwise. Refer to sheet A-800 for partition details.
- D. All interior door frames shall be located a distance of six inches from the throat return to the closest adjacent perpendicular partition, U.N.O.
- E. Refer to sheet A-700 for Door Schedule
- F. Masonry dimensions are nominal, U.N.O.
- G. Patch and paint all walls, gypsum board ceilings, soffits and bulkheads through-out.
- H. Provide solid blocking/backing in-wall cavities at all wall mounted equipment as indicated by project equipment list and per manufacturers detailed instructions.
- I. Coordinate all elevator shaft and pit dimensions with elevator manufacturer's approved shop drawings prior to construction.
- J. Provide furring wall type W-3 at all exposed columns unless otherwise noted.

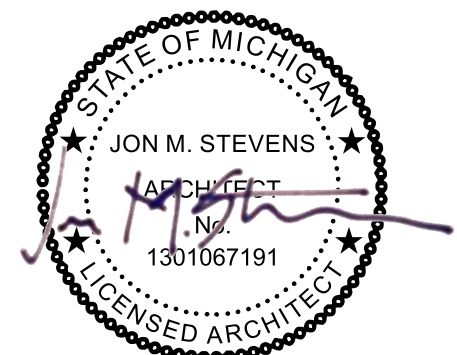
Sheet Keynotes

Architectural Floor Plan Legend

- New floor finish, see Room Finish Schedule.
- 1/hr. rated wall construction.
- 2/hr. rated wall construction.
- Furniture system per tenant
- + 5'-0" Target Elevation
- Wall type tag, refer to interior partition types
- Door Tag, refer to Door Schedule
- Align symbol



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Revision Schedule

#	Description	Revision Date
1	Owner Review	03/15/2023
2	Prelim Site Plan	05/01/2023
5	Site Plan - Rev 1	08/24/2023
6	Site Plan - Rev 2	01/17/2024

Legacy Center - Wellness

9299 Goble Drive
 Brighton, MI 48116

NOT FOR CONSTRUCTION

Project Code:
 22-001

Issue Date:
 01/17/2024

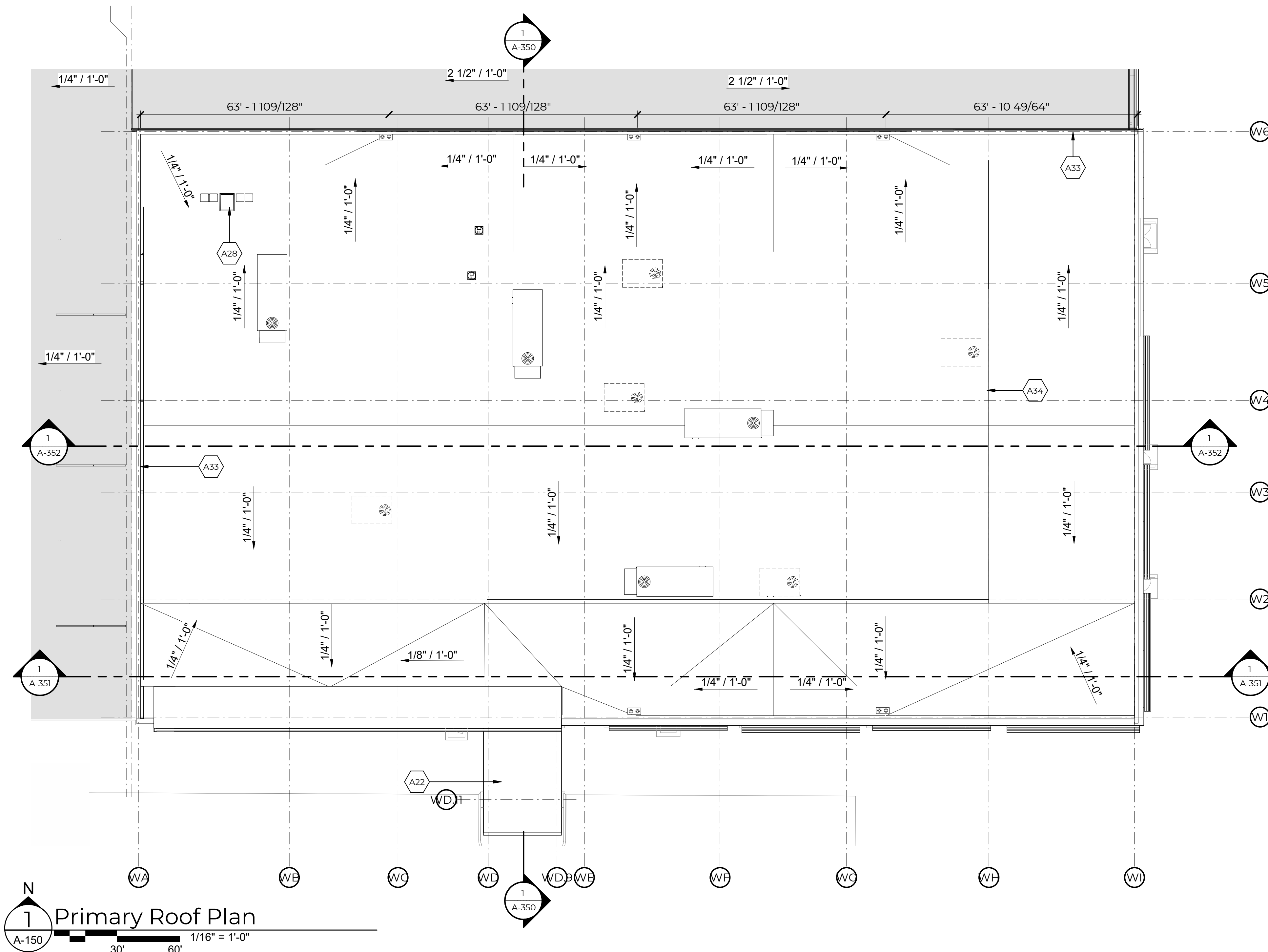
Issued for: Site Plan - Rev 2

Primary Level 3 Floor Plan

A-130

Scales listed are for 22x34 drawing size

Plot Date/Time: 1/17/2024 1:54:16 PM File Path: C:\Revit Local Files\LEOW23_CS_jstevensZSYNQ.rvt



General Sheet Notes:

- A. Provide all crickets, saddles, flashings, and related components as required to prevent ponding and create a complete roofing system.
- B. Provide crickets at roof curbs and/or equipment where required to provide positive drainage to roof drains.
- C. All rooftop mechanical, electrical and/or plumbing equipment shown for reference only. Refer to mechanical, electrical and plumbing documents for specific design information.
- D. All target elevation markers are to top of steel, U.N.O.
- E. Verify all equipment weights, sizes, and supporting steel requirements with architect prior to cutting roof openings or installation of new roof work.
- F. Refer to entry sections and details for entry canopy information.

Sheet Keynotes

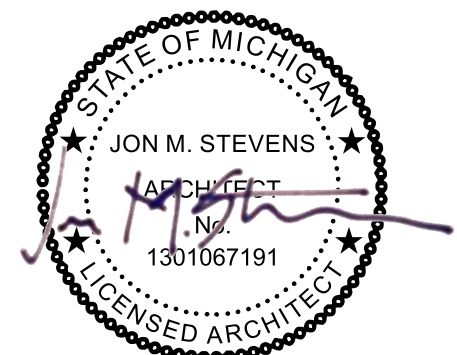
- A22 New steel canopy.
- A28 New roof hatch.
- A33 New expansion joint.
- A34 New metal panel screen wall.

Roof Plan Legend

- EPDM Roofing
- Roof hatch
- 100'-0" Top of Steel elevation at indicated point.
- Mechanical Equipment, refer to mechanical drawings



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Revision Schedule

#	Description	Revision Date
1	Owner Review	03/15/2023
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Legacy Center - Wellness

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Project Code:
22-001

Issue Date:
01/17/2024

Issued for: Site Plan - Rev 2

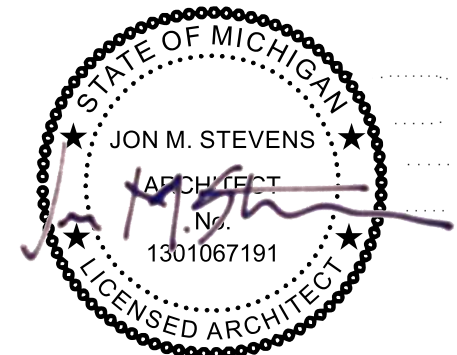
Primary Roof Plan

A-150

Scales listed are for 22x34 drawing size



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Revision Schedule

#	Description	Revision Date
2	Prelim Site Plan	05/01/2023
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Job Title:
Legacy Center - Wellness
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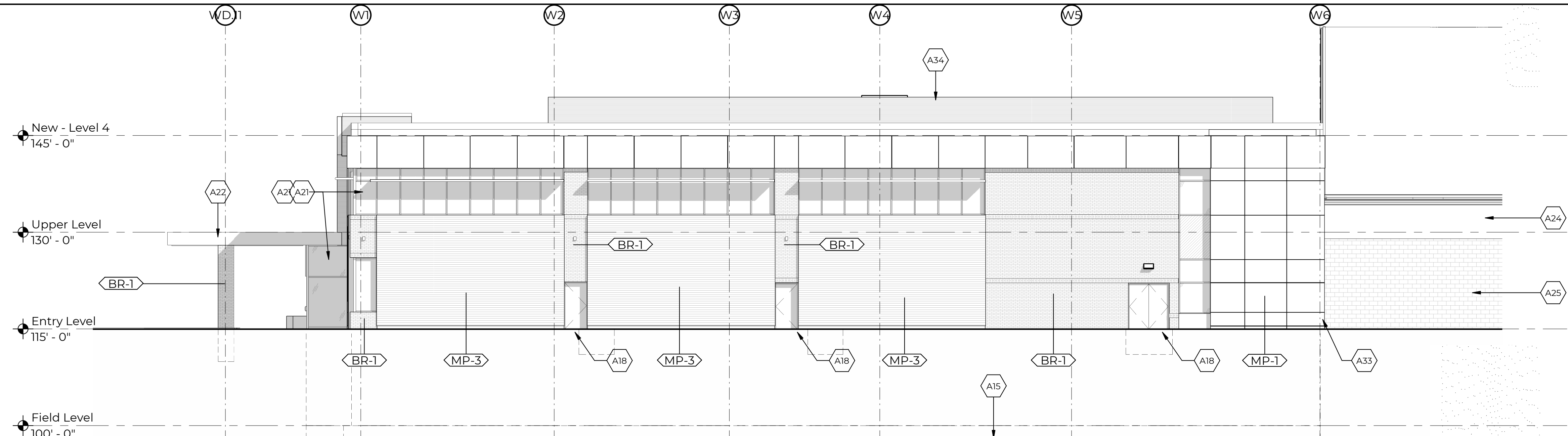
Project Code:
22-001

Issue Date:
01/17/2024

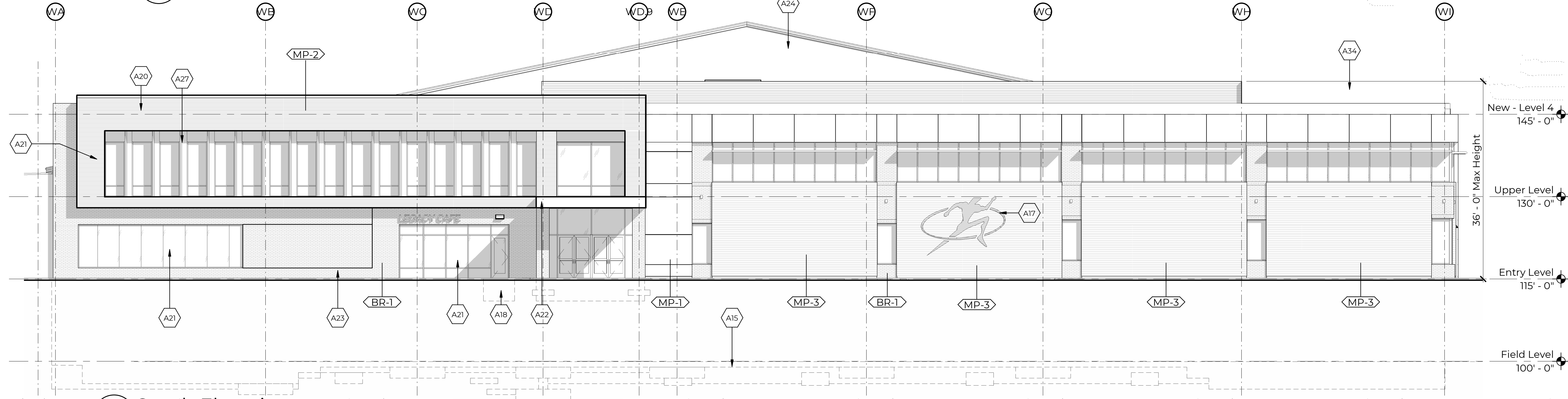
Issued for: Site Plan - Rev 2

Sheet Title:
Exterior Elevations

Drawing Number:
A-300



1 East Elevation
A-300 1" = 10'-0"



2 South Elevation
A-300 1" = 10'-0"

Finish Legend - Exterior

ID	Description	Manufacturer	Model	Comments
BR-1	Brick Veneer	Belden Brick Sales	T.B.D.	
MP-1	Laminated Aluminum Panel	Reynobond	Aluminum composite metal wall panel; RB160PE-4mm; Color Weld 500XL Brigh Silver Metallic	
MP-2	Corrugated Metal Panel	Morin Corp.	X-12 Profile, 7/8" deep, 16" wide, 22 ga. galv. steel, Kynar "Zinc Gray" finish	
MP-3	Wood Look Metal Panel	Vesta Steel Siding	5" plank wood grain - Gilded Grain	

Sheet Keynotes

- A15 Concrete foundation, refer to structural plans typ.
- A17 Building Signage.
- A18 Concrete frost slab at door to 3'-6" min. below grade, refer to structural.
- A20 Concealed fastener corrugated metal wall panel.
- A21 Aluminum storefront system, refer to storefront elevations for typical details.
- A22 New steel canopy.
- A23 Decorative Brick Veneer.
- A24 Existing pre-engineered metal building Insulated metal wall panel.
- A25 Existing fieldhouse CMU wall to remain.
- A27 New Vertical sun shade fins.
- A33 New expansion joint.
- A34 New metal panel screen wall.

General Sheet Notes:

None



CMU-1: Burnished Block- Possible CMU Accent Course



MP-2 Morin Corrugated Metal Panel - Zinc Gray to match existing buildings



MP-1 Reynobond ACM Panel to match existing buildings



BR-1: Belden Brick - Black Diamond Velour or equal

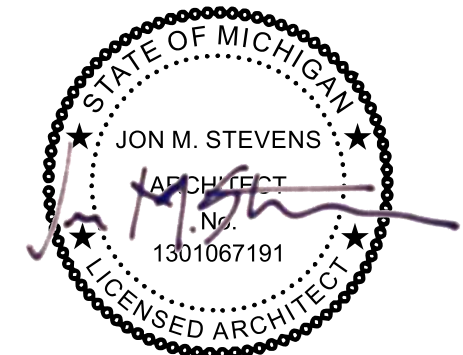


MP-3 Vesta wood look metal Panel - Cedar

MP-3 Alum Storefront to match existing buildings



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Revision Schedule

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2	Prelim Site Plan	05/01/2023
5	Site Plan - Rev 1	08/24/2023
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Job Title:
Legacy Center - Wellness
9299 Goble Drive
Brighton, MI 48116

NOT FOR CONSTRUCTION

Project Code:
22-001

Issued Date:
01/17/2024

Issued for: Site Plan - Rev 2

Sheet Title:
Exterior Material Palette

Drawing Number:
A-301

Finish Legend - Exterior

ID	Description	Manufacturer	Model	Comments
BR-1	Brick Veneer	Belden Brick Sales	T.B.D.	
MP-1	Laminated Aluminum Panel	Reynobond	Aluminum composite metal wall panel; RB160PE-4mm; Color Weld 500XL Brigh Silver Metallic	
MP-2	Corrugated Metal Panel	Morin Corp.	X-12 Profile, 7/8" deep, 16" wide, 22 ga. galv. steel, Kynar "Zinc Gray" finish	
MP-3	Wood Look Metal Panel	Vesta Steel Siding	5" plank wood grain - Gilded Grain	

Wall luminaire - Two 90° ports

Application
Designed for accent lighting of walls and facades. Two wide beams of light produce a striking pattern on the installation surface in any orientation.

Materials
Clear safety glass with optical texture
Marine grade, copper free (50.3% copper content) A380.0 aluminum alloy
High temperature silicone gasket
Silicone applied robotically to casting, plasma treated for increased adhesion
Mechanically captive stainless steel fasteners
Galvanized zinc-plated mounting bracket
Silicone optic with excellent high temperature and UV stability
NRTL listed to North American Standards, suitable for wet locations
Protection class IP 65
Weight: 3.1 lbs.

Electrical
Operating voltage 120-277VAC
Minimum start temperature -30°C
LED module wattage 10.0W
System wattage 12.0W
Controlability 0-10V, TRIAC, and ELV dimmable
Color rendering index Ra > 80
Luminaire lumens 437 lm
LED service life (L70) 60000hrs

LED color temperature
 4000K (K4)
 3500K (K35)
 3000K (K3)
 2700K (K27)

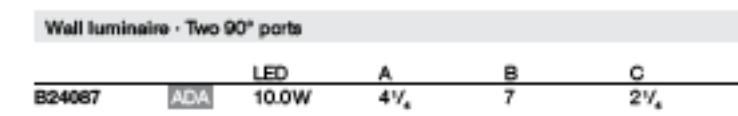
BEGA can supply you with suitable LED replacement modules for up to 20 years after the purchase of LED luminaires - see website for details

Finish
All BEGA standard finishes are matte, textured powder coat with minimum 3 mil thickness. BEGA Linou® finish, a fluoropolymer technology, provides superior fade protection in Black, Bronze, and Silver. BEGA standard White is a super durable polyester powder. Optionally available PAL and custom color finishes provided in either polyester powder or liquid paint.

Available colors
 Black (BLK)
 Silver (SLV)
 PAL:
 Bronze (BRZ)
 White (WHT)
 CUS:

Type:
BEGA Product:
Project:
Modified:

Available options
 CUS Custom finish
 MGLJ Marine grade undercoat
 PAL PAL finish



BEGA 1000 BEGA Way, Carpinteria, CA 93013 (805)694-0533 info@bega-us.com
Due to the dynamic nature of lighting products and the associated technologies, luminaire data on this sheet is subject to change at the discretion of BEGA North America. For the most current technical data, please refer to bega-us.com © copyright BEGA, 2023 Updated 04/27/23

BEGA



WDG3 LED Architectural Wall Sconce



Catalog Number
Notes
Type

Hit the Tab key to mouse over the page to view all interactive elements.

Introduction
The WDG3 LED family is designed to meet specifier's every wall-mounted lighting need in a widely accepted shape that blends with any architecture. The clean rectilinear design comes in four sizes with lumen packages ranging from 1,200 to 25,000 lumens, providing a true site-wide solution. Embedded with nLight® AIR wireless controls, the WDG3 family provides additional energy savings and code compliance. WDG3 has been designed to deliver up to 12,000 lumens through a precision refractive lens with wide distribution, perfect for augmenting the lighting from pole mounted luminaires.

Specifications

Depth (D1): 8"
Depth (D2): 1.5"
Height: 9"
Width: 18"
Weight: 19.5 lbs (without options)



WDG3 LED Family Overview

Luminaire	Standard EM, °C	Cold EM, -20°C	Sensor	Lumens (4000K)							
				P0	P1	P2	P3	P4	P5	P6	
WDG3 LED	4W	--	--	--	1,200	2,000	--	--	--	--	--
WDG3 LED	10W	18W	Standalone / nLight	--	1,200	2,000	3,000	4,500	6,000	--	--
WDG3 LED	15W	18W	Standalone / nLight	6,000	7,500	8,500	10,000	12,000	--	--	--
WDG3 LED	--	--	Standalone / nLight	--	12,000	16,000	18,000	20,000	22,000	25,000	--

Ordering Information

EXAMPLE: WDG3 LED P3 40K 70CRI R3 MVOLT SRM DDBXD

Series	Package	Color Temperature	CRI	Distribution	Voltage	Mounting
WDG3 LED	P1	30K 3000K	70CRI	R2 Type 2	MVOLT	Shipped included
	P2	40K 4000K	80CRI	R3 Type 3	347 ¹	SRM Surface mounting bracket
	P3	50K 5000K	80CRI	R4 Type 4	480 ¹	ICW Indirect Canopy/Ceiling Washer bracket (dry/damp locations only) ²
	P4	--	--	RFT Forward Throw	--	AWS 3/8inch Architectural wall spacer

Options

Options	Stand-alone Sensors/Controls	Networked Sensors/Controls	Finish
E1SWH Emergency battery backup, Certified in CA Title 20 MAERS (15W, 5°C min)	PIR Bi-level (100/35%) motion sensor for 8-15' mounting heights. Intended for use on switched circuits with external dusk to dawn switching.	NLIAR2 PIR nLight® Wireless enabled bi-level motion/ambient sensor for 8-15' mounting heights.	DDBXD Dark bronze
E2OWC Emergency battery backup, Certified in CA Title 20 MAERS (18W, -20°C min)	PIRH Bi-level (100/35%) motion sensor for 15-30' mounting heights. Intended for use on switched circuits with external dusk to dawn switching.	NLIAR2 PIRH nLight® Wireless enabled bi-level motion/ambient sensor for 15-30' mounting heights.	DBLXD Black
PE PhotoCell, Button Type ³	PIRHFCV Bi-level (100/35%) motion sensor for 8-15' mounting heights with photoCell pre-programmed for dusk to dawn operation.	NLIAR2 PIRHFCV nLight® Wireless enabled bi-level motion/ambient sensor for 8-15' mounting heights with photoCell pre-programmed for dusk to dawn operation.	DNAXD Natural aluminum
DMG 0-10V dimming wires pulled outside fixture (for use with an external control, ordered separately) ⁴	PIRHFCV Bi-level (100/35%) motion sensor for 15-30' mounting heights with photoCell pre-programmed for dusk to dawn operation.	NLIAR2 PIRHFCV nLight® Wireless enabled bi-level motion/ambient sensor for 15-30' mounting heights with photoCell pre-programmed for dusk to dawn operation.	DWIXD White
BCE Bottom conduit entry for back box (PERS). Total of 4 entry points.	PIRHFCV Bi-level (100/35%) motion sensor for 15-30' mounting heights with photoCell pre-programmed for dusk to dawn operation.	NLIAR2 PIRHFCV nLight® Wireless enabled bi-level motion/ambient sensor for 15-30' mounting heights with photoCell pre-programmed for dusk to dawn operation.	DSSXD Sandstone
SPD10KV 10kV Surge pack ⁵			DBLXD Textured black
BAA Buy America(s) Act Compliant			DNAXD Textured natural aluminum
			DWIXGD Textured white
			DSSTXD Textured sandstone

Accessories

Accessories	Notes
WDG3W DDBXD WDG3 3/8inch Architectural Wall Spacer (specify finish)	1 347V and 480V not available with E1SWH and E2OWC.
WDG3P8W DDBXD WDG3 surface-mounted back box (specify finish)	2 Not qualified for DLC. Not available with emergency battery backup or sensors/controls.
	3 PE not available in 480V and with sensor/controls.
	4 DMG option not available with sensors/controls.
	5 Not available with E2OWC option.
	6 Available with MVOLT only and only rated to 25C ambient.

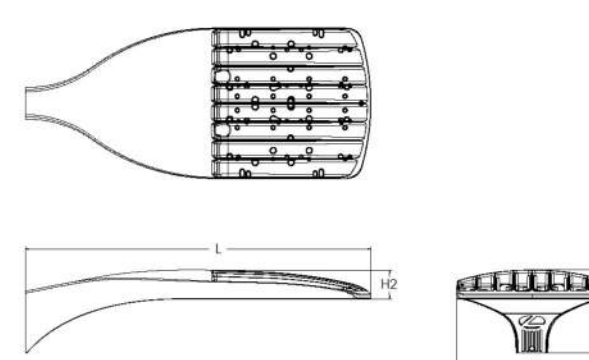
LITHONIA LIGHTING COMMERCIAL OUTDOOR One Lithonia Way • Conyers, Georgia 30012 • Phone: 1-800-705-SERV (7378) • www.lithonia.com WDG3 LED Rev. 11/16/23 © 2019-2023 Acuity Brands Lighting, Inc. All rights reserved.

D-Series Size 1 LED Area Luminaire



Specifications

EPA: 0.69 ft² (0.06 m²)
Length: 32.71" (831.1 mm)
Width: 14.26" (362.0 mm)
Height H1: 7.88" (201.0 mm)
Height H2: 2.73" (69.3 mm)
Weight: 34 lbs (15.4 kg)



Catalog Number
Notes
Type

Hit the Tab key to mouse over the page to view all interactive elements.

Introduction
The modern styling of the D-Series features a highly refined aesthetic that blends seamlessly with its environment. The D-Series offers the benefits of the latest in LED technology into a high performance, high efficacy, long-life luminaire. The photometric performance results in sites with excellent uniformity, greater pole spacing and lower power density. D-Series outstanding photometry aids in reducing the number of poles required in area lighting applications with typical energy savings of 65% and expected service life of over 100,000 hours.

Ordering Information

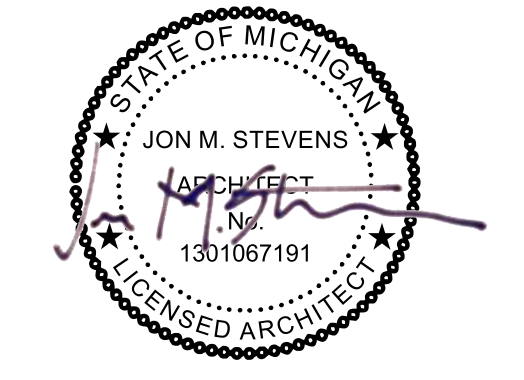
EXAMPLE: DSX1 LED P7 40K 70CRI T3M MVOLT SPA NLIAR2 PIRHN DDBXD

Series	LEDs	Color temperature ¹	Color Rendering Index ²	Distribution	Voltage	Mounting	
DSX1 LED	Forward optics	(this section 70CRI only)		AFR Automotive front row	MVOLT (120V-277V) ⁴	Shipped included	
		P1 P6	30K 3000K	T15 Type I short	XVOLT (347V-480V) ¹⁴		SPA Square pole mounting (#5 drilling)
		P2 P7	40K 4000K	T2M Type II medium	TSW Type V wide		RPA Round pole mounting (#5 drilling)
		P3 P8	50K 5000K	T3M Type III medium	BLC3 Type III backlight control ¹		SPAS Square pole mounting (#5 drilling)
		P4 P9	(this section 80CRI only, extended lead times apply) ¹⁵	T4M Type IV medium	BLC4 Type IV backlight control ¹		RPAS Round pole mounting (#5 drilling)
	Rotated optics	P10 ¹ P12 ¹	27K 2700K	T4LG Type IV low glare ¹	LCCO Left corner cutout ¹	SPARN Square narrow pole mounting #5 drilling	WBA Wall bracket ¹⁶ MA Mast arm adppter (mounts on 2.309" OD horizontal tenon)
		P11 ¹ P13 ¹	30K 3000K	T4M Type IV medium	RCCO Right corner cutout ¹		
			35K 3500K	T4LG Type IV low glare ¹			
			40K 4000K	TFTM Forward throw medium			
			50K 5000K				

Control options

Control options	Other options	Shipped installed	Finish inverse
Shipped installed NLIAR2 PIRHN nLight AIR gen 2 enabled with bi-level motion / ambient sensor, 8-40' mounting height, ambient sensor enabled at 26" ^{16, 17, 18, 19}	PER7 Seven-pin receptacle only (controls ordered separately) ^{16, 17}	Shipped installed SPD20KV 20kV surge protection	DDBXD Dark Bronze
PIR High/Low, motion/ambient sensor, 8-40' mounting height, ambient sensor enabled at 26" ^{16, 17, 18, 19}	FAO Field adjustable output ^{16, 17}	HS Hoseside shield (black finish standard) ¹⁸	DBLXD Black
PERS Five-pin receptacle only (controls ordered separately) ^{16, 17}	BL30 Bi-level switched dimming, 50% ^{16, 17}	LNO Left rotated optics ¹	DNAXD Natural Aluminum
	BL50 Bi-level switched dimming, 50% ^{16, 17}	RRO Right rotated optics ¹	DWIXD White
	DMG 0-10v dimming wires pulled outside fixture (for use with an external control, ordered separately) ¹⁷	CCE Coastal Construction ¹⁸	DDBXD Textured dark bronze
	DS Dual switching ^{16, 17, 18}	HA 50°C ambient operation ¹⁸	DBLXD Textured black
		BAA Buy America(s) Act Compliant	DNAXD Textured natural aluminum
		SF Single fuse (120, 277, 347V) ¹⁸	DWIXD Textured white
		DF Double fuse (208, 240, 480V) ¹⁸	
		Shipped separately EGSR External Glass Shield (removable, field install required, matches housing finish)	
		BSDB Boot Spikes (field install required)	

LITHONIA LIGHTING COMMERCIAL OUTDOOR One Lithonia Way • Conyers, Georgia 30012 • Phone: 1-800-705-SERV (7378) • www.lithonia.com DSX1-LED Rev. 09/05/23 Page 1 of 10 © 2011-2023 Acuity Brands Lighting, Inc. All rights reserved.



Revision Schedule

#	Description	Revision Date
6	Site Plan - Rev 2	01/17/2024

Legacy Center - Wellness
9299 Goble Drive
Brighton, MI 48116

NOT FOR CONSTRUCTION

Project Code: 22-001

Issue Date: 01/17/2024

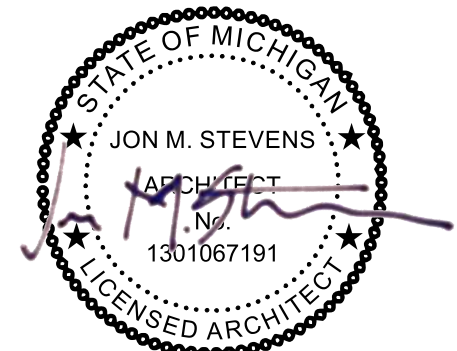
Issued for: Site Plan - Rev 2

Exterior Light Fixtures

Sheet Title: A-302



The McFate Group
7136 Jackson Rd. Ann Arbor, MI. 48103
www.mcfategroup.com | (734)-433-0020



Revision Schedule

#	Description	Revision Date
5	Site Plan - Rev 1	08/24/2023
6	Site Plan - Rev 2	01/17/2024

Job Title:
Legacy Center - Wellness
9299 Goble Drive
Brighton, MI 48116

NOT FOR CONSTRUCTION

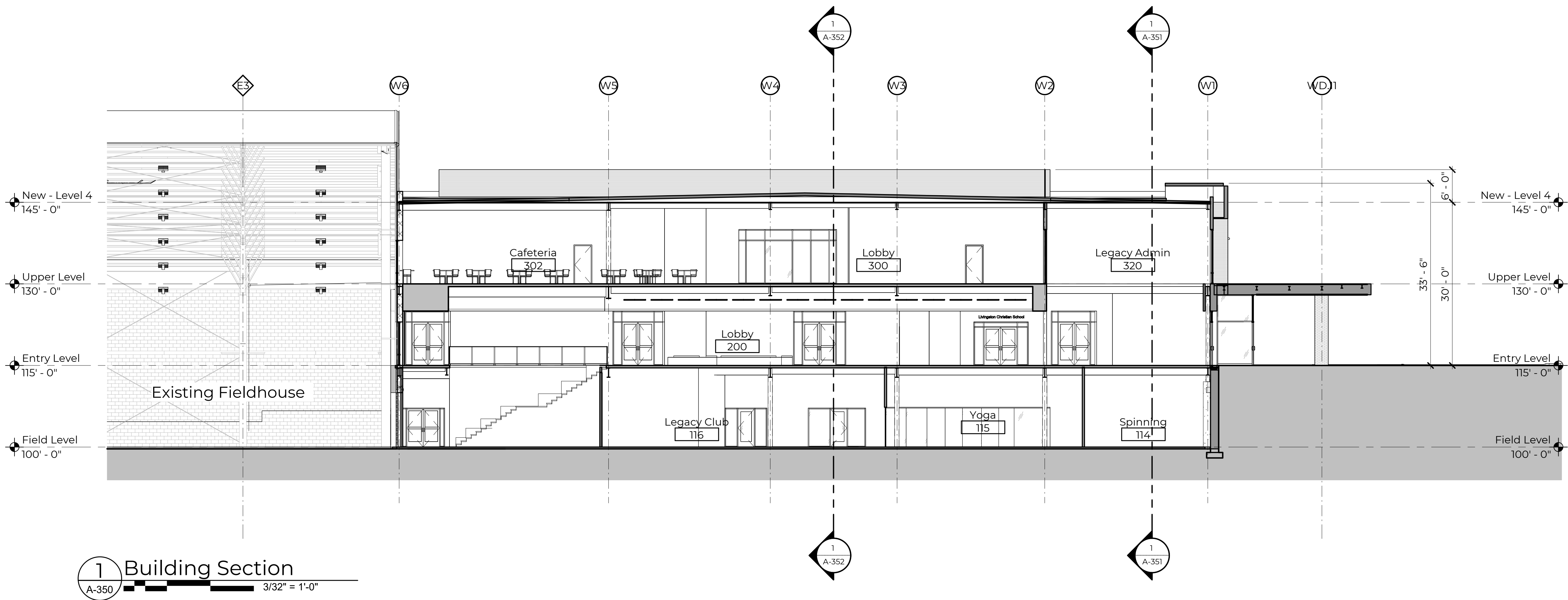
Project Code:
22-001

Issue Date:
01/17/2024

Issued for:
Site Plan - Rev 2

Sheet Title:
Building Section

Drawing Number:
A-350



1 Building Section
A-350 3/32" = 1'-0"

Sheet Keynotes

General Sheet Notes:

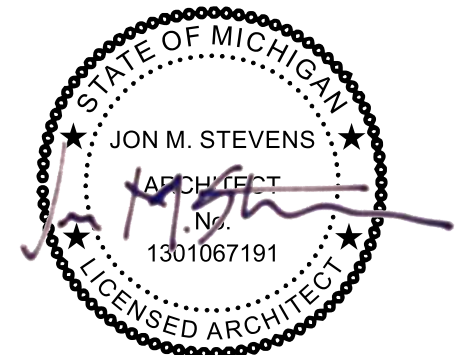
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Plot Date/Time: 1/17/2024 1:54:57 PM File Path: C:\Revit Local Files\LEOW23_CS_jstevens\ZSYNQ.rvt

Scales listed are for 22x34 drawing size

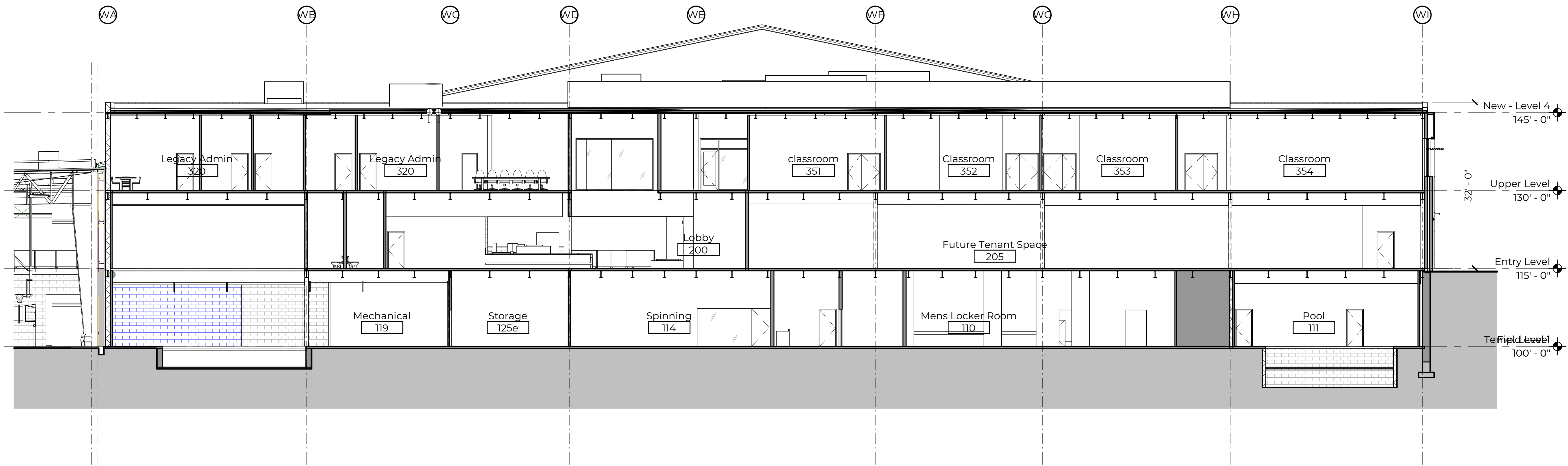


The McFate Group
 7136 Jackson Rd. Ann Arbor, MI. 48103
 www.mcfategroup.com | (734)-433-0020



Revision Schedule

#	Description	Revision Date
5	Site Plan - Rev 1	08/24/2023
6	Site Plan - Rev 2	01/17/2024



1 Longitudinal Section
 A-351 3/32" = 1'-0"

Sheet Keynotes

General Sheet Notes:

None

Legacy Center - Wellness

9299 Goble Drive
 Brighton, MI 48116

NOT FOR CONSTRUCTION

Project Code: 22-001

Issue Date: 01/17/2024

Issued for: Site Plan - Rev 2

Building Section

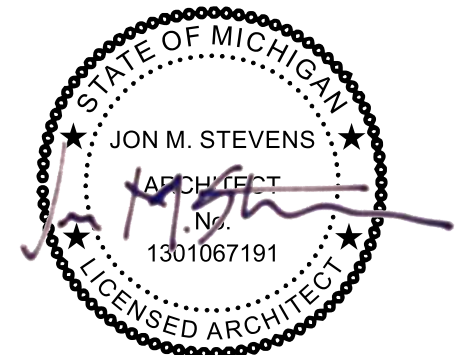
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Plot Date/Time: 1/17/2024 1:55:03 PM File Path: C:\Revit Local Files\LECW23_CS_jstevens\ZSYNQ.rvt

Scales listed are for 22x34 drawing size

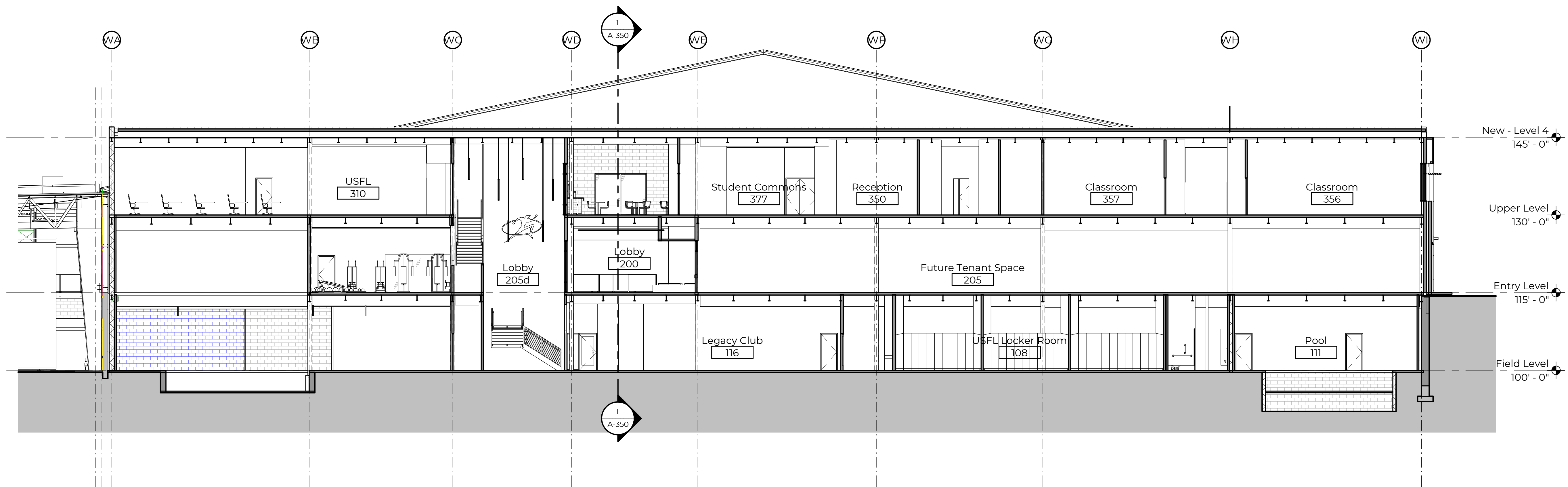


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Revision Schedule

#	Description	Revision Date
5	Site Plan - Rev 1	08/24/2023
6	Site Plan - Rev 2	01/17/2024



1 Longitudinal Section 1
 A-352 3/32" = 1'-0"

Legacy Center - Wellness

9299 Goble Drive
 Brighton, MI 48116

NOT FOR CONSTRUCTION

Sheet Keynotes

General Sheet Notes:

None

Project Code:
 22-001

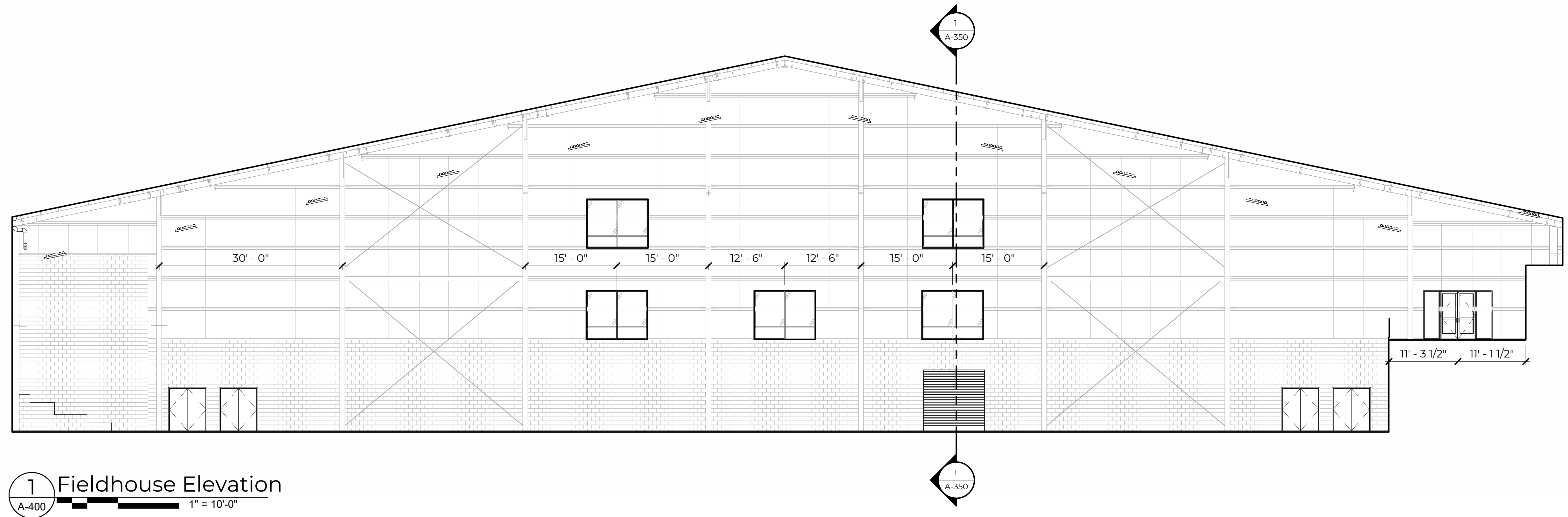
Issued Date:
 01/17/2024

Issued for: Site Plan - Rev 2

Building Section

Sheet Number:
A-352

Plot Date/Time: 1/17/2024 1:55:11 PM File Path: C:\Revit Local Files\LECW23_CS_jstevensZSYNQ.rvt



1 Fieldhouse Elevation
A-400 1" = 10'-0"

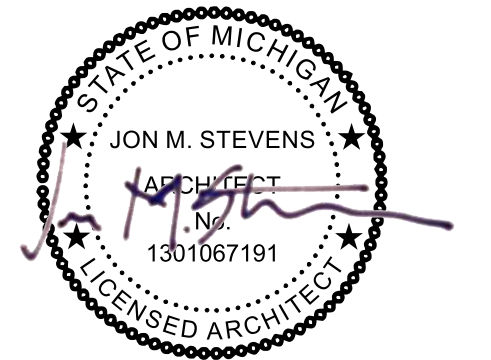
Sheet Keynotes

General Sheet Notes:

None



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Revision Schedule

#	Description	Revision Date
2	Prelim Site Plan	05/01/2023
5	Site Plan - Rev 1	08/24/2023
6	Site Plan - Rev 2	01/17/2024

Job Title:
Legacy Center - Wellness
9299 Goble Drive
Brighton, MI 48116

NOT FOR CONSTRUCTION

Project Code:
22-001

Issue Date:
01/17/2024

Issued for:
Site Plan - Rev 2

Sheet Title:
Field House Elevation

Sheet Number:
A-400

Scales listed are for 22x34 drawing size



October 30, 2023

Green Oak Charter Township
10001 Silver Lake Road
Brighton, MI 48116

ATTN: Ms. Debra McKenzie

RE: Legacy Center Wellness Center – 2nd Site Plan Review and Special Use
Revise and Resubmit
CES #2023-0022

Dear Ms. McKenzie,

Civil Engineering Solutions, Inc. has completed the 2nd Site Plan Review for the above referenced project. The plans are dated August 24, 2023 and are stamped "Revise and Resubmit". The following is a list of our comments/concerns:

Cover Sheet C1

1. The text for the bearings and distances should be enlarged for legibility. There is a discrepancy between the legal description and what is shown on the plan which should be reconciled. See red-marked plan.
2. "Parcel 2" appears to be two parcels. Have parcels 4716-20-100-009 and 4716-20-100-010 been combined? Grading is shown on a third parcel; this parcel information should also be included.
3. Overall Site Map text is too small to be legible.
4. As a general comment, we note improvements from previous phases that are not complete. See attached punch list dated June 20, 2023.
5. Should the project move forward, a detailed engineering review will be required with an application, fees and appropriate number of plan sets submitted to the Planning Department.

Sheet C6 - Overall Drainage Plan

1. The existing stormwater retention system was approved with the original PUD in 2012 and was constructed shortly thereafter. Basin maintenance may be required and this can be addressed at the time of the engineering review. **Applicant acknowledges.**
2. Our records show that a Stormwater Management Agreement is not on file for this property. Attached is the standard agreement template for the applicant's use. An agreement in recordable form must be in-hand before a preconstruction meeting will be scheduled. **Applicant acknowledges.**

Sheet C6C- Medical Center Grading & Drainage Plan

1. Grading under proposed ADA Vestibule shows a 3.00 percent slope. The maximum grade at a level landing is 2.0 percent in any direction. This area will serve of the "level landing" entry into the building.

Sheet C7- Utility Plan

1. The ultimate outlet for storm water is noted on the plan (the existing retention basin and forebays). The stormwater system was designed for the entire Legacy Center project. The proposed stormwater system for these project phases will modify existing storm sewers as required. The stormwater system appears to have capacity for the additional stormwater runoff. **Applicant acknowledges.**
2. Sanitary flow calculations and capacity evaluation (current and future including the additional REU's for the Wellness Center) of the on-site disposal system should occur at this time and prior to the Planning Commission taking action.
2. The domestic water lead and fire suppression line will require review and approval of the Livingston Community Water Authority. **Applicant acknowledges.**

If you have any questions regarding this review, please contact us at (248) 264-6906.

Sincerely,
CIVIL ENGINEERING SOLUTIONS, INC.



Rick Miner, P.E.
Project Manager



Jereen J. Rice, P.E.
Senior Project Engineer

Enclosure: Plan markups, punch list from previous project phases;
Stormwater Management Agreement Template

cc: Mark St. Charles, Township Supervisor, via email
Paul Montagno, Township Planner, via email
Brent LeVanway and Trevor Ehredt, Boss Eng via email
Rodney Goble, Goble Holdings via email
Rich Hobgood, P.E., OHM Advisors, via email
Ken Recker, Chief Deputy Drain Commission, LCDC, via email



3121 E. Grand River Howell, MI 48843
517.546.4836 fax 517.548.1670
www.bosseng.com

January 19, 2024

Rick Miner, P.E., Township Engineer
Civil Engineering Solutions
1150 Corporate Office Drive, Suite 210
Milford, MI 48381

Re: Legacy Center Wellness Center – 2nd Site Plan Review – Revise and Resubmit CES #2023-0022

Mr. Miner,

We have received the review comments from CES for the 2nd Site Plan Review, dated October 30, 2023, for the Legacy Center Phase 1F – Wellness Center Site Plan submittal of May 1, 2023. We offer the following responses:

Cover Sheet C1

1. Bearings and distances shown on the overall site map have been enlarged for legibility. The discrepancy noted between the legal description and what is shown on the plans has been corrected.
2. "Parcel 2" as designated in the Property Description and as shown on the Overall Site Map described the boundary of both parcels 4716-20-100-009 and 4716-20-100-010 together, since both are affected by the proposed work. They have not been combined legally, but collectively are referred to as "Parcel 2". Grading related to the Phase 1F work does not extend beyond Parcel 4716-20-100-003 (Parcel 1) and Parcels 4716-20-100-009 and 4716-20-100-010 (Parcel 2).
3. Text on the overall site map has been increased to improve readability.
4. Acknowledged.
5. Acknowledged.

Sheet C6 – Overall Drainage Plan

1. Acknowledged.
2. Acknowledged.

Sheet C6C – Medical Center Grading & Drainage Plan

1. The grading under the ADA vestibule will be built at a 2.0% slope. More detailed information will be provided in the construction plan phase.

Sheet C7 – Utility Plan

1. Acknowledged.
2. The evaluation of the sanitary flow calculations and capacity of the on-site disposal system will be provided under a separate cover prior to the submittal to the planning commission.
3. Acknowledged.

Feel free to contact me should you have any questions, or if you are in need of any additional information.

Sincerely,
BOSS ENGINEERING COMPANY

A handwritten signature in black ink, appearing to read "Mark DeFriez", is written over a light blue horizontal line.

Mark DeFriez, P.E.
Project Engineer

AVERAGE WEEKEND PROGRAMMING 7:00A - 10:00P

RICKETT RD

RICKETT RD

GOBLE DR

WINANS LAKE RD

WINANS LAKE RD

PRIVATE DRIVE

DOME

TRAINING CENTER

FIELD HOUSE

ARENA

214

260



DOME ENTRANCE

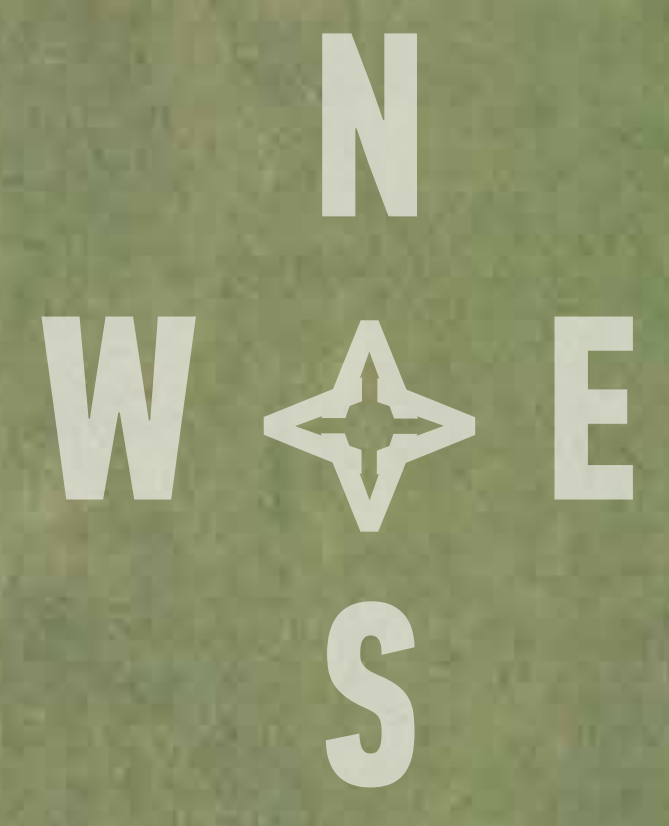


FIELD HOUSE & TRAINING CENTER ENTRANCE



ARENA ENTRANCE

GOBLE DR



RICKETT RD

RICKETT RD

WINANS LAKE RD

WINANS LAKE RD



DOME ENTRANCE



FIELD HOUSE & TRAINING CENTER ENTRANCE

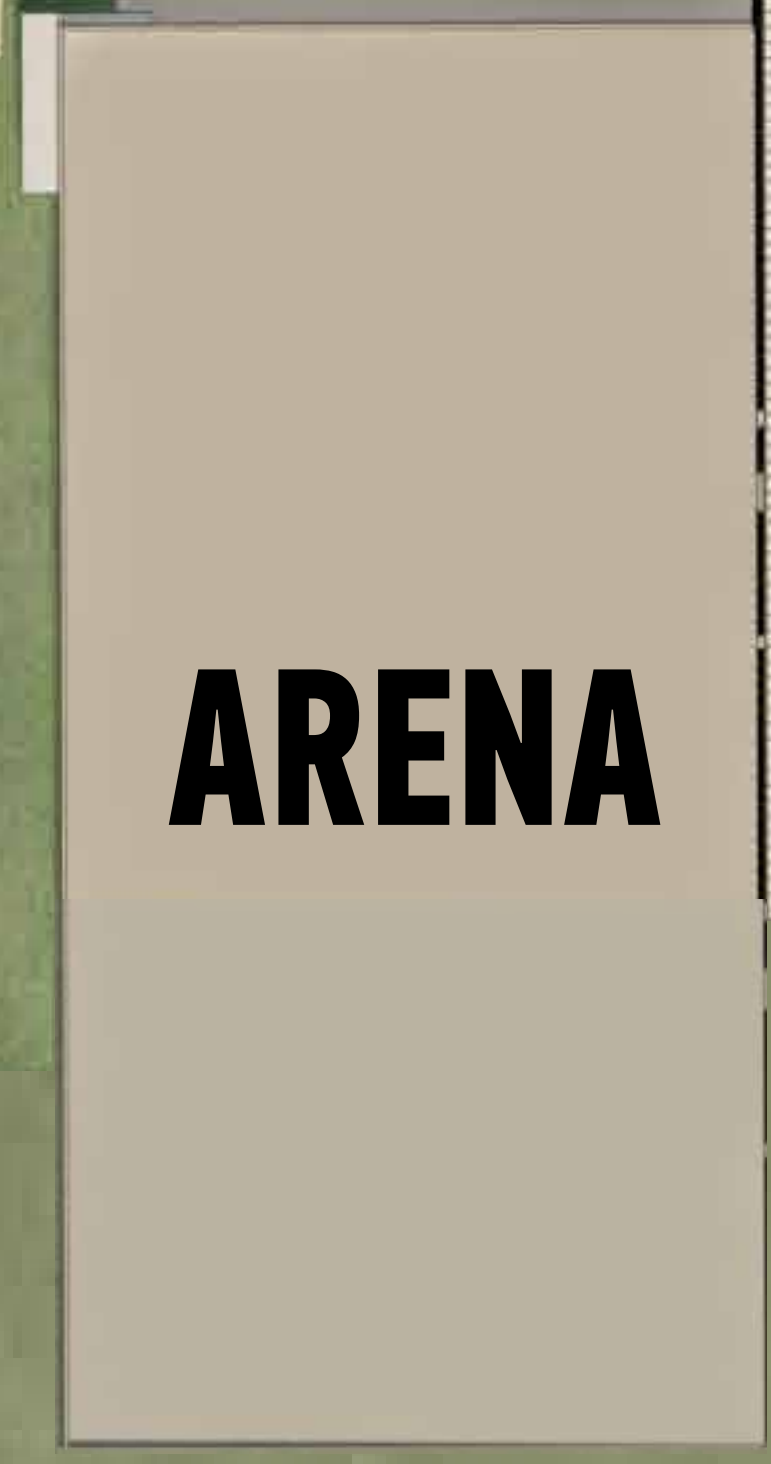


ARENA ENTRANCE

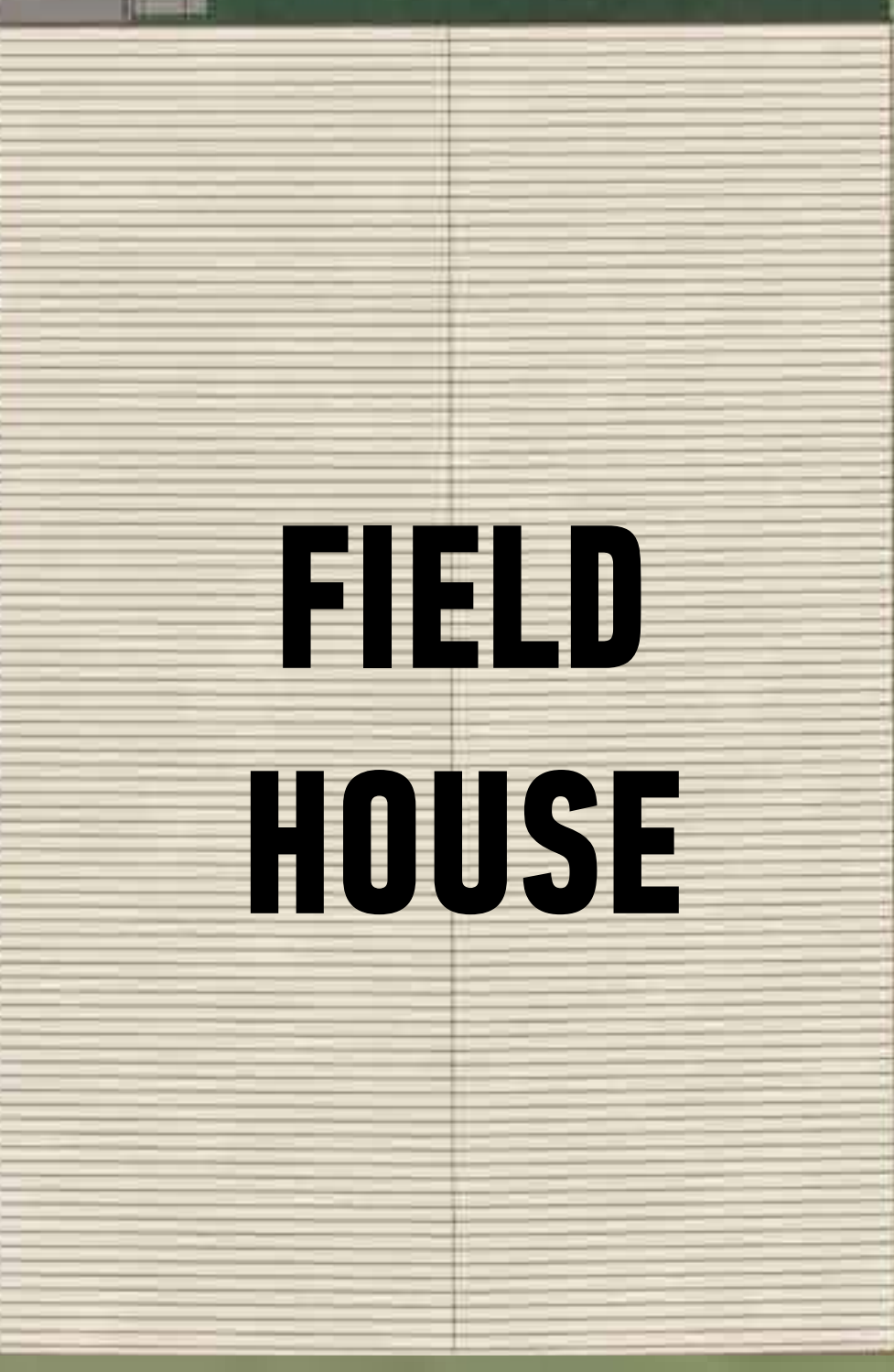


DOME

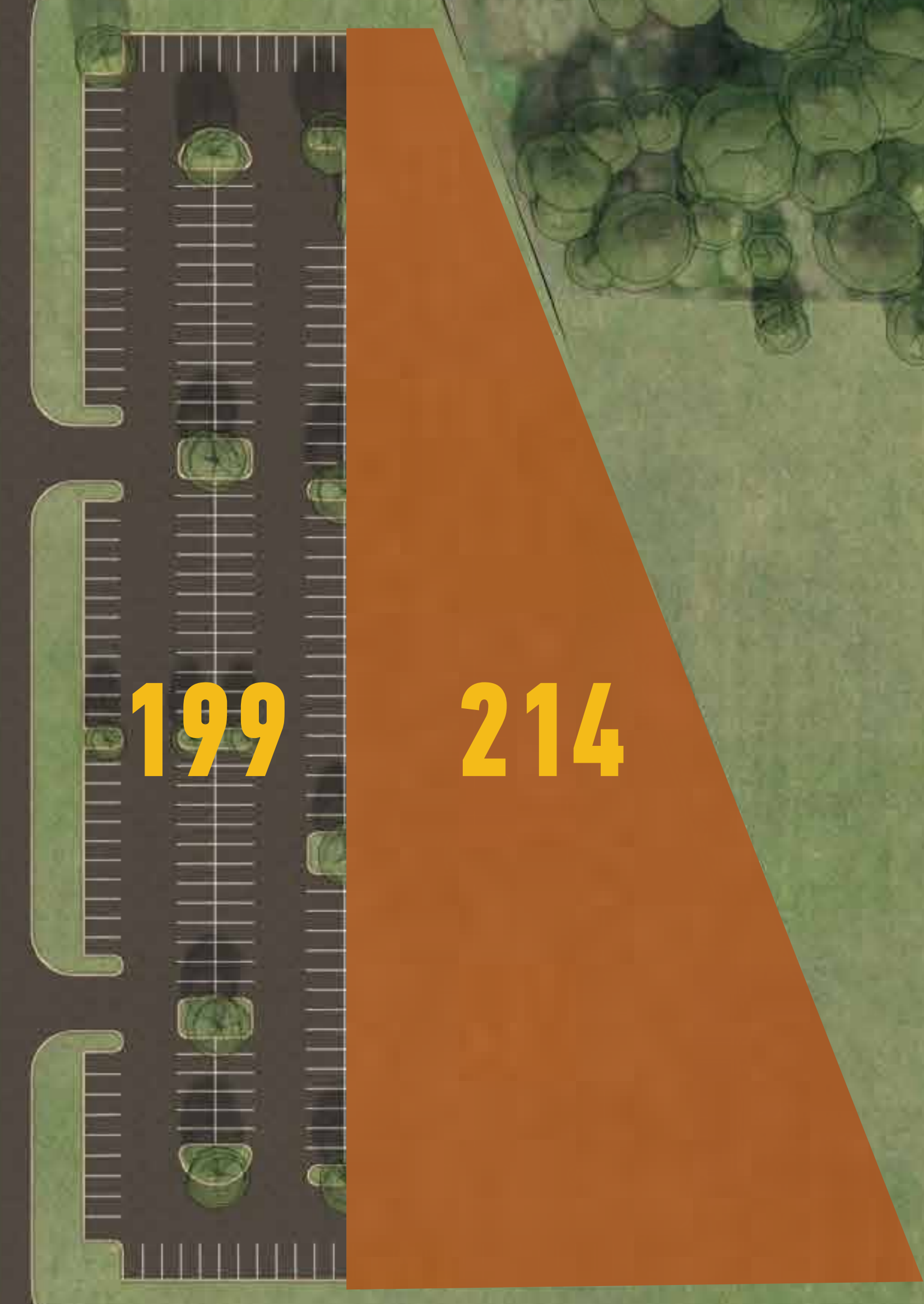
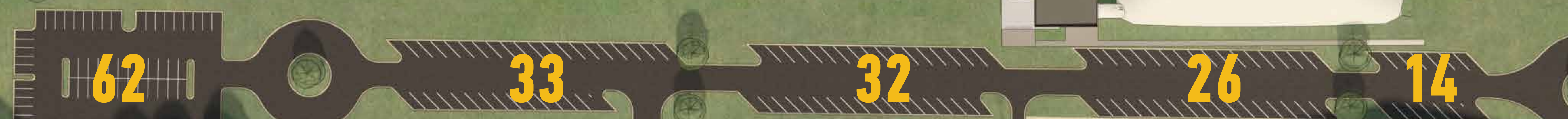
TRAINING CENTER



ARENA



FIELD HOUSE



GOBLE DR

GOBLE DR



Mark DeFriez

From: Garrett Gonzalo <ggonzalo@livingstonchristianschools.org>
Sent: Thursday, February 29, 2024 10:05 AM
To: Rodney Goble
Cc: Brent LaVanway; Greene, Alan; Jon Stevens; rwiegand; Mark DeFriez
Subject: Re: Parking calcs

All,

Livingston Christian Schools Parking & Drop-Off/Pick-Up Narrative at the Legacy Wellness Center

Livingston Christian Schools (LCS) plans to have 7th through 12th grade students at the new Legacy Wellness Center on the Legacy Center campus. As a part of continued focus on student and school safety, LCS plans to have the following measures/procedures in-place.

1. Access to the school on the 2nd floor level will be by keycard/fob/buzzer with a staff member at the entrance supervising/permitting students entering the school at all times. This single-entrance point is at the top of the South stairwell. Other doors into the school area will be exit-only for life safety purposes.
2. LCS will develop procedures similar to the current school procedures for staff-supervised drop-off/pick-up of students. LCS plans to have a minimum of one (1) staff member at the drop-off/pick-up lane and one (1) staff member at the 1st floor entrance to the Legacy Wellness Center, guiding students to the South stairwell.
3. LCS will provide a parking and drop-off/pick-up lane/queuing map to all LCS families at the beginning of the school year to outline the procedures in-place.
4. LCS will highlight this parking and drop-off/pick-up process at orientation and on school tours for new families.

Please reach out with any questions. Thank you!

In Christ's Service,
Garrett Gonzalo
Board Chairman
(734) 489-3520
ggonzalo@livingstonchristianschools.org
livingstonchristianschools.org
Livingston Christian Schools
7669 Brighton Rd.
Brighton, MI 48116



*Building Disciples and Inspiring Academic
Excellence Through Biblically Based Education*

WEEKDAY, DAYTIME PROGRAMMING 8:00A - 5:00P

RICKETT RD

RICKETT RD

WINANS LAKE RD

WINANS LAKE RD



DOME ENTRANCE



FIELD HOUSE & TRAINING CENTER ENTRANCE



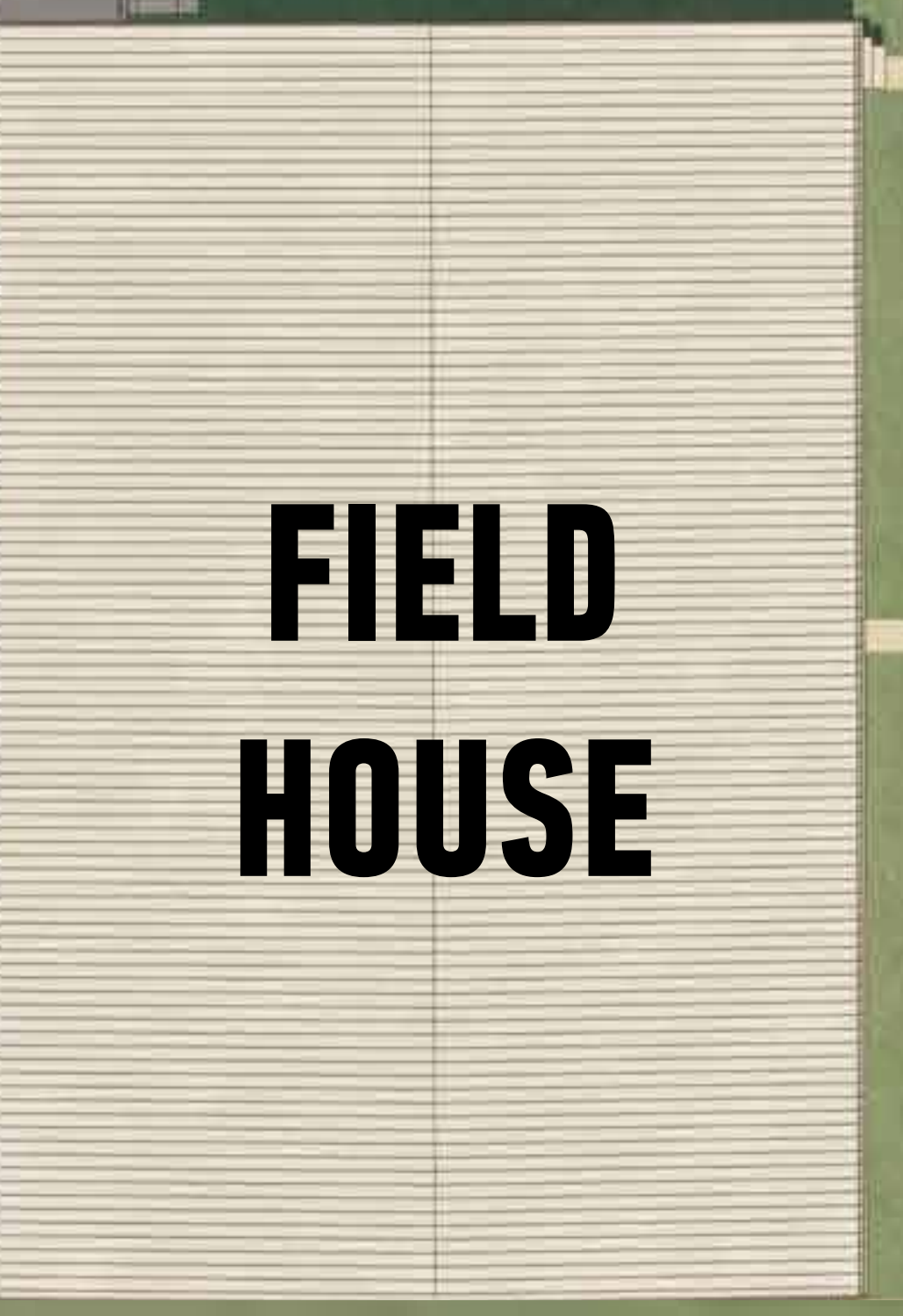
ARENA ENTRANCE



DOME



TRAINING CENTER



FIELD HOUSE



ARENA



62



33



67



199



214



340

GOBLE DR

GOBLE DR



SEE SHEET 2 FOR GENERAL NOTES AND LEGEND

PROPOSED MEDICAL WELLNESS CENTER PARKING CALCULATIONS

PARKING CALCULATIONS
 HIGH SCHOOL: ONE (1) SPACE PER EACH TEACHER, ONE (1) SPACE PER EACH TEN (10) STUDENTS, & ONE (1) PER EACH EMPLOYEE OR ADMINISTRATOR = (15 TEACHERS) + (280 STUDENTS / 10) + (6 SCHOOL EMPLOYEES OR ADMINISTRATORS) = 49 SPACES
 MEDICAL OFFICES: ONE (1) PER EACH 150 SF OF USABLE MEDICAL FLOOR SPACE (80% OF GROSS MEDICAL FLOOR SPACE) = (19431 GROSS SF * 0.8 / 150 SF PER SPACE) = 104 SPACES
 PRIVATE FITNESS CENTER: ONE (1) SPACE PER 300 SF OF USABLE AREA & ONE (1) SPACE PER EACH TWO (2) EMPLOYEES = 55,602 SF INTERIOR/300 & 0.5 * 8 EMPLOYEES = 189 SPACES
 PICKLEBALL COURT AREA** = MAXIMUM OF 4 PLAYERS PER COURT. COURTS CAN BE DOUBLE STACKED, RESULTING IN MAXIMUM EXPECTATION OF 8 PEOPLE PER COURT. AVERAGE OF 2 PEOPLE PER CAR. (8 PEOPLE PER COURT * 6 COURTS) / 2 PEOPLE PER CAR = 24 SPACES
 REQUIRED: 49 SPACES FOR THE HIGH SCHOOL + 104 SPACES FOR THE MEDICAL OFFICE + 189 SPACES FOR THE PRIVATE FITNESS CENTER + 24 SPACES FOR PICKLEBALL COURTS = 366 SPACES
 PROVIDED: 214 SPACES + CARRYOVER OF 193 EXTRA SPACES CONSTRUCTED IN PHASE 1D FOR A TOTAL OF 407 AVAILABLE SPACES FOR THE MEDICAL WELLNESS CENTER

**MEMBERSHIP TO PICKLEBALL IS PART OF THE CURRENT OPERATIONS AND PARKING FOR THE LEGACY CENTER DURING ANY GIVEN DAY. THE OUTDOOR COURTS ALLOW FOR THOSE SAME MEMBERS TO PARTICIPATE YEAR ROUND INCLUDING THE OUTDOOR SEASON. THERE IS NOT AN INCREASE IN DAILY TRAFFIC COMPARED TO ANY GIVEN DAY IN THE INDOOR SEASON ALREADY.

STACKING NARRATIVE FOR SCHOOL
 VEHICLES WILL BE DIRECTED TO THE DESIGNATED PULL OFF AREA TO DROP OFF / PICK UP STUDENTS AS SPACES BECOME AVAILABLE. STACKING FOR THE PULL OFF AREA IS PROVIDED THROUGH THE PARKING LOT, IN SUCH A MANNER THAT ACCESS TO THE MAIN ROUTES ON SITE ARE NOT INHIBITED. THE PULL OFF AREA PROVIDES 12 STACKING SPACES, AND THE DESIGNATED ROUTE THROUGH THE PARKING LOT PROVIDES AN ADDITIONAL 35 SPACES, FOR A TOTAL OF 47 STACKING SPACES. LIVINGSTON CHRISTIAN SCHOOLS ARE CURRENTLY LOCATED AT THE BRIGHTON CHURCH OF THE NAZARENE. THE LARGEST OBSERVED QUEUE LENGTHS WERE 12 VEHICLES IN THE MORNING AND 27 VEHICLES IN THE AFTERNOON. BASED ON THIS DATA, THERE IS ENOUGH STACKING SPACE PROVIDED WHERE THE IMPACT TO THE NORMAL TRAFFIC FLOW THROUGHOUT THE SITE WILL BE MINIMAL.

PARKING LOT USAGE SCHEDULE
 THE SCHOOL WILL HOUSE 7-12 GRADE STUDENTS AND WILL BE OPERATIONAL FROM 7:00AM TO 4:00PM, MONDAY-FRIDAY, INCLUDING STAFF AND STUDENT ARRIVAL AND DEPARTURE. THE ARRIVAL WILL COINCIDE WITH AM PEAK TRAFFIC ON SURROUNDING ROADS WHILE THE PM PEAK WILL NOT. THE TRAFFIC ANALYSIS ADDRESSES THE SCHOOL USE IN COMPARISON TO PREVIOUSLY ANTICIPATED USES WHEN THE ORIGINAL PID WAS APPROVED. THE LARGE MAJORITY OF PARKING WITHIN LEGACY CENTER IS DEDICATED TO WEEKEND TOURNAMENTS. THE PROPOSED USES, INCLUDING THE SCHOOL, WILL HAVE AMPLE PARKING AVAILABLE BECAUSE THEY ARE NOT OVERLAPPING USES WITH THE TOURNAMENTS.

PHASE 1 PARKING BREAKDOWN

- PREVIOUS PHASE PARKING ONSITE - 1008 PARKING SPACES (INCLUDES 44 BARRIER FREE)
- PROPOSED PHASE 1F PARKING ONSITE - 214 PARKING SPACES
- TOTAL PARKING - 1222 PARKING SPACES
- INCLUDES 44 BARRIER FREE SPACES
- REQUIRED ADA: TWENTY (20) ADA SPACES FOR THE FIRST ONE THOUSAND (1000) SPACES WITH ONE (1) ADDITIONAL ADA SPACE FOR EVERY SUBSEQUENT 100 SPACES. ONE (1) ADA SPACE FOR EVERY SIX (6) ADA SPACES SHALL BE RESERVED FOR VAN PARKING.

SUMMARY OF PARKING NEEDS

PREVIOUS PHASE PARKING REQUIREMENTS WERE DETERMINED BASED ON FACILITY, SEATING AND USES. AS A PART OF EACH PHASE PARKING CALCULATIONS WERE PROVIDED BASED ON CURRENT AND FUTURE USES. AS A PART OF EACH PHASE AND EXPANSION ADDITIONAL PARKING NEEDS WERE MET WITH ADDITIONAL PARKING LOT COMPLETIONS.

UNDER THE ARENA EXPANSION THE SOUTH PARKING LOT INCLUDING AN ADDITIONAL 340 SPOTS WERE COMPLETED. NOT ALL OF THOSE PARKING SPACES WERE REQUIRED BUT THE PRIMARY USE OF THE SOUTH PARKING LOT WAS MASTER PLANNED FOR THE MEDICAL OFFICE BUILDING. THE FUTURE MEDICAL OFFICE BUILDING PHASE WILL INCLUDE THE ADDITION OF ANOTHER 214 SPACES EAST OF OUR CURRENT EAST LOT. BOTH THE SOUTH, EAST LOT AND EAST LOT EXPANSION WILL IMPROVE ACCESS, PROXIMITY, AND FLOW INTO THE LEGACY CENTER FOR BOTH CURRENT AND FUTURE USES.

PARKING NEEDS VARY BASED ON DAY, TIME, AND USE CONTROLLED BY PROGRAMMING AND LEGACY CENTER OPERATIONAL MANAGEMENT. THE INDOOR AND OUTDOOR USE SCHEDULE IS LIMITED BY THE USE, THE NUMBER OF PARKING SPACES AVAILABLE AND FACILITY OCCUPANCY. MULTIPLE PROGRAMS ARE ABLE TO RUN AT THE SAME TIME HOWEVER THERE IS A LIMIT THAT IS DETERMINED BY LEGACY CENTER MANAGEMENT REGARDING SPACE AND TIME AVAILABLE ALONG WITH THE IMPACT ON PARKING AND OCCUPANCY LIMITS THAT ARE KNOWN.

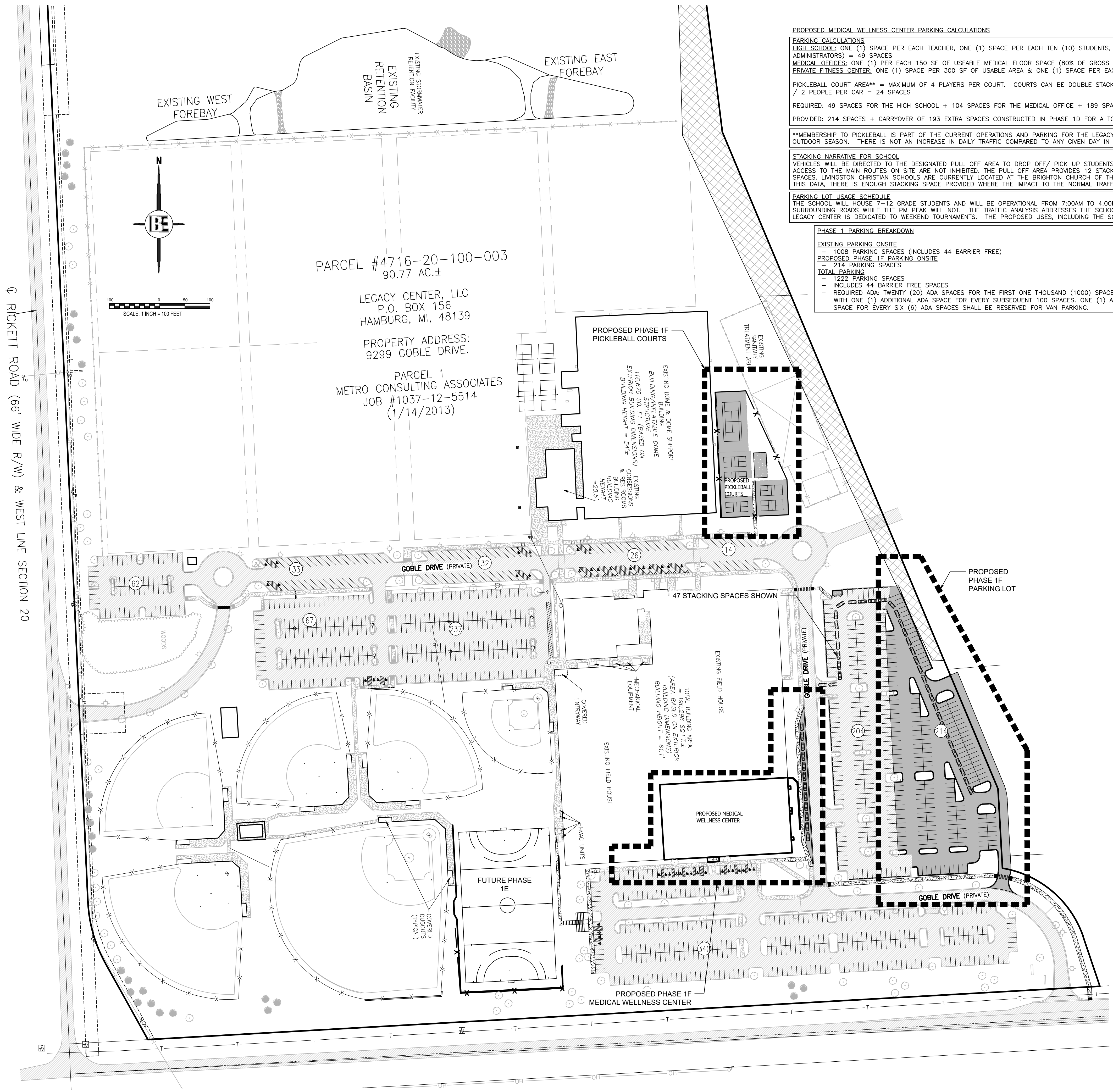
OPERATIONAL MANAGEMENT EXAMPLES (BASED ON PREVIOUSLY APPROVED PARKING REQUIREMENTS PER USE AND PREVIOUS SITE PLAN APPROVALS)-

CURRENT PARKING WITH MEDICAL OFFICE BUILDINGS AVAILABLE	1008 SPACES AVAILABLE	1222 SPACES AVAILABLE
TIME 1 WEEKDAY DAYTIME	CURRENT PARKING 309 USED / 915 AVAILABLE	
LEGACY ADMINISTRATION - FIELD HOUSE:		
ADMIN OFFICES	6,000 SQ FT	1 PER 300 SQ FT 20 SPACES
DROP IN PICKLEBALL - ARENA:	(TWO DIFFERENT POSSIBLE CALCULATIONS)	
18 INDOOR COURTS POSSIBLE	1 SPACE / 4 SEATS OR 8 FT OF BENCH 1170 LF OR BLEACHER SEATING / 8 = 147	4 PEOPLE PER COURT DOUBLE STACKED 8 PEOPLE X 18 COURTS = 144
		147 SPACES OR 144 SPACES
LEGACY FITNESS - DOME:		
FITNESS GYM	5,000 SQ FT	1 PER 2 MEMBERS 200 MEMBERS 100 SPACES
ADDITIONAL PROGRAMMING OPTIONS:		
INDOOR SOCCER	80 PEOPLE/FIELD	2.5 PEOPLE / CAR 32 SPACES
RENTAL / WALKERS	24 PEOPLE / FIELD	2.5 PEOPLE / CAR 10 SPACES
CURRENT PROGRAMMING	309	
FUTURE MEDICAL OFFICE BUILDING	407	
TOTAL WITH MOB AT CAPACITY	716 USED / 508 AVAILABLE	

TIME 2 WEEKDAY EVENING	CURRENT PARKING 456 USED / 766 AVAILABLE
LEGACY ADMINISTRATION - FIELD HOUSE:	
ADMIN OFFICES	6,000 SQ FT 1 PER 300 SQ FT 20 SPACES
CLUB PRACTICE: SOCCER OR BASEBALL AND SOFTBALL - FIELDHOUSE / DOME OR OUTDOOR FIELDS (SEASONAL)	
INDOOR SOCCER	80 PEOPLE/FIELD 2.5 PEOPLE / CAR 32 SPACES
INDOOR BASEBALL	80 PEOPLE/FIELD 2.5 PEOPLE / CAR 32 SPACES
INDOOR SOFTBALL	80 PEOPLE/FIELD 2.5 PEOPLE / CAR 32 SPACES
CLUB PRACTICE: VOLLEYBALL AND BASKETBALL - ARENA (TWO DIFFERENT POSSIBLE CALCULATIONS)	
18 INDOOR COURTS POSSIBLE	1 SPACE / 4 SEATS OR 8 FT OF BENCH 1170 LF OR BLEACHER SEATING / 8 = 147
	10 PEOPLE PER COURT DOUBLE STACKED 20 PEOPLE X 8 COURTS = 160
	147 SPACES OR 160 SPACES
SPORTS PERFORMANCE: DOME	
FITNESS GYM	5,000 SQ FT 1 PER 2 MEMBERS 200 MEMBERS 100 SPACES
ADDITIONAL PROGRAMMING OPTIONS:	
1/2 ARENA 4 COURTS	10 PEOPLE PER COURT DOUBLE STACKED 20 PEOPLE X 4 COURTS 80 SPACES
CURRENT PROGRAMMING	456
FUTURE MEDICAL OFFICE BUILDING	407
TOTAL WITH MOB AT CAPACITY	863 / 361 AVAILABLE

TIME 3 WEEKEND SCENARIO A	CURRENT PARKING 458 USED / 766 AVAILABLE
LEGACY ADMINISTRATION - FIELD HOUSE:	
ADMIN OFFICES	6,000 SQ FT 1 PER 300 SQ FT 20 SPACES
SOCCER GAME - DOME	
INDOOR SOCCER	80 PEOPLE/FIELD 2.5 PEOPLE / CAR 32 SPACES
BLEACHERS / STAND SEATING	1000 LF BENCHES 1 / 4 SEATS OR 8 FT OF BENCH 125 SPACES
LITTLE LEGENDS AND RECREATION SPORTS - FIELDHOUSE	
INDOOR SOCCER	80 PEOPLE/FIELD 2.5 PEOPLE / CAR 32 SPACES
LITTLE LEGENDS AND RECREATION SPORTS - ARENA	
18 INDOOR COURTS POSSIBLE	1 SPACE / 4 SEATS OR 8 FT OF BENCH 1170 LF OR BLEACHER SEATING / 8 = 147
	4 PEOPLE PER COURT DOUBLE STACKED 8 PEOPLE X 18 COURTS = 144
	147 SPACES OR 144 SPACES
LEGACY FITNESS - DOME:	
FITNESS GYM	5,000 SQ FT 1 PER 2 MEMBERS 200 MEMBERS 100 SPACES
CURRENT PROGRAMMING	456
FUTURE MEDICAL OFFICE BUILDING	407
TOTAL WITH MOB AT CAPACITY	865 USED / 359 AVAILABLE

TIME 4 WEEKEND SCENARIO B	CURRENT PARKING 750 USED / 474 AVAILABLE
LEGACY ADMINISTRATION - FIELD HOUSE:	
ADMIN OFFICES	6,000 SQ FT 1 PER 300 SQ FT 20 SPACES
7V7 FOOTBALL - FIELDHOUSE	
INDOOR FOOTBALL	80 PEOPLE/FIELD 2.5 PEOPLE / CAR 32 SPACES
INDOOR FOOTBALL	80 PEOPLE/FIELD 2.5 PEOPLE / CAR 32 SPACES
BLEACHERS / STAND SEATING	1000 LF BENCHES 1 / 4 SEATS OR 8 FT OF BENCH 125 SPACES
SOCCER GAME - DOME	
INDOOR SOCCER	80 PEOPLE/FIELD 2.5 PEOPLE / CAR 32 SPACES
INDOOR SOCCER	80 PEOPLE/FIELD 2.5 PEOPLE / CAR 32 SPACES
BLEACHERS / STAND SEATING	1000 LF BENCHES 1 / 4 SEATS OR 8 FT OF BENCH 125 SPACES
BASEBALL AND SOFTBALL PROGRAMMING	
INDOOR BASEBALL	80 PEOPLE/FIELD 2.5 PEOPLE / CAR 32 SPACES
INDOOR SOFTBALL	80 PEOPLE/FIELD 2.5 PEOPLE / CAR 32 SPACES
BASKETBALL LEAGUE OR TOURNAMENT - ARENA	
8 COURTS POSSIBLE	1 SPACE / 4 SEATS OR 8 FT OF BENCH 1170 LF OR BLEACHER SEATING / 8 = 147
	10 PEOPLE PER COURT DOUBLE STACKED 20 PEOPLE X 8 COURTS = 160
	147 SPACES OR 160 SPACES
ADDITIONAL PROGRAMMING OPTIONS:	
1/2 ARENA 4 COURTS	10 PEOPLE PER COURT DOUBLE STACKED 20 PEOPLE X 4 COURTS 80 SPACES
LACROSSE OR FIELD HOCKEY	80 PEOPLE/FIELD 2.5 PEOPLE / CAR 32 SPACES
CURRENT PROGRAMMING	734
FUTURE MEDICAL OFFICE BUILDING	407
TOTAL WITH MOB AT CAPACITY USED	1141 / 83 AVAILABLE



THE LOCATION AND ELEVATION OF EXISTING UNDERGROUND UTILITIES AS SHOWN ON THESE DRAWINGS ARE ONLY APPROXIMATE. NO ATTEMPT WILL BE MADE TO VERIFY THE LOCATION OR DEPTH OF UTILITIES UNLESS SPECIFICALLY NOTED OTHERWISE. THE CONTRACTOR SHALL BE RESPONSIBLE FOR DETERMINING THE EXACT LOCATION AND DEPTH OF UTILITIES PRIOR TO CONSTRUCTION. THE CONTRACTOR SHALL BE RESPONSIBLE FOR OBTAINING ALL NECESSARY PERMITS FROM THE LOCAL, STATE, AND FEDERAL AGENCIES. THE CONTRACTOR SHALL BE RESPONSIBLE FOR PROTECTING ALL UTILITIES AND STRUCTURES REMAINING ON THE SITE. THE CONTRACTOR SHALL BE RESPONSIBLE FOR OBTAINING ALL NECESSARY PERMITS FROM THE LOCAL, STATE, AND FEDERAL AGENCIES. THE CONTRACTOR SHALL BE RESPONSIBLE FOR PROTECTING ALL UTILITIES AND STRUCTURES REMAINING ON THE SITE.

BEBOSS Engineering
 Engineers Surveyors Planners Landscape Architects
 3121 E. GRAND RIVER AVE.
 HOWELL, MI. 48843
 517.546.4836 FAX 517.548.1670

LEGACY CENTER - WELLNESS BUILDING
 LEGACY CENTER, LLC
 9299 GOBLE DRIVE
 BRIGHTON, MI 48116
 (810) 231-9298

PARKING CALCULATION PLAN

PROJECT	LEGACY CENTER - WELLNESS BUILDING
PREPARED FOR	LEGACY CENTER, LLC
TITLE	PARKING CALCULATION PLAN
DATE	1/23/24
REVISION PER	10/11/23
NO. BY	
DESIGNED BY:	TE
DRAWN BY:	TE
CHECKED BY:	
SCALE:	1" = 100'
JOB NO:	23-046-1
DATE:	5/1/23
SHEET NO.	C13

concern related to addressing the operational issues that always exist by mixing different uses in the same building (similar to mixing residential with commercial and residential uses), such as security and safety concerns. These operational issues will be addressed further at the hearing. But School officials and property ownership have given careful consideration to all operation issues.

Not only is the concept that only a separate school would be appropriate not reflected in Zoning Ordinance, such a requirement would be inconsistent with the mixed use designation and current reality for charter and religious schools. Those schools rarely have the resources to acquire property and construct stand-alone schools. There is a great deal of literature on this subject. See A Synthesis of Research on Charter School Facilities, National Charter School Resource Center, (2020), at p. 10 (“Charter schools may lease or own buildings originally designed as schools, other public buildings, commercial buildings, office buildings, religious buildings, residential buildings, houses, or industrial buildings.”). Co-locating facilities in partnership with other uses and organizations, such as health center, is also common. (*Id.* at 13.) (This is a very large report, but I will bring copies for Planning Commission consideration at the hearing.) Indeed, Livingston Christian School is currently operating out of a church facility in Genoa Township, for which it also had to obtain a special land use approval (all school projects typically require special land uses). See Special Land Use permit for the Genoa school facility and Planners Review letter for that special land use attached hereto.

There are many challenges in finding an appropriate site, including the cost of retrofitting the buildings or space to accommodate school functions and meet school building codes as well as finding property where such a use is permitted as a special use. In Green Oak, schools are not permitted by right in any zoning district and are excluded as special land uses in most of the districts, but are including in the VMU-2 District. Moreover, the situation here is ideal in that this is new construction so the school space is designed and will be constructed to meet all State construction standards for a school facility. (Note, it does not appear that the Township has any specific requirements or standards for schools, except the Master Plan states that schools be located on a paved road and be “near residential” areas, but note not within residential areas. (2023 Plan at p. 60.) The synergy is apparent. The School will have access to the entire gamut of recreational amenities for its students, which it could otherwise never afford. Busy parents can drop off their children and then use the health club facilities to exercise and take a class without having to drive anywhere else. Note further that the School will not serve elementary age students. They will remain at the Genoa Township facilities. So there is no requirement for a dedicated and secure playground facility.

Mr. Montagno also mentions that the school will not have “dedicated outdoor recreation areas required for the students’ use.” No such requirement is cited nor does any such requirement exist, particularly for the age of the students attending the School. Moreover, through planned scheduling, the students will enjoy dedicated recreational areas and times for their use. Mr. Montagno also observes that the school will draw students from the region. He does not say this is a problem, but it should not be. The Master Plan states that the Legacy development serves both a local and regional market. In sum, the use is clearly consistent with the zoning (which allows such use) and the Master Plan.

2. Will be designed, constructed, operated, and maintained to be harmonious and appropriate in appearance with the existing or intended character of the general vicinity and will not change the essential character of the area.

As to appearance, the School will operate within a proposed new building that complies with the aesthetic and other requirements of the Legacy PUD and the VMU-2 zoning. Mr. Montagnano raises a concern about traffic, but updated traffic information presented in connection with the application for site plan and special land use demonstrates that the new building with all the proposed uses will not degrade any existing traffic situation. Indeed, extensive improvements were made as part of the original PUD to accommodate full development of the property. Also, the Master Plan, when dealing with the Legacy PUD, recognizes that updated traffic information will be provided in connection with the site plans for specific uses, as was done here.

3. Will not be directly or indirectly hazardous or disturbing to existing or future uses, ecosystems, waterways, wetlands, etc.

Obviously, the use of the space by the School in the new building does not disturb existing ecosystems, waterways, wetlands, etc. The Planner identifies a concern about the interior arrangement of the uses within the building, noting that the co-presence of the school and medical facilities presents safety and privacy issues. These issues have or will be addressed in the operational details to be explained to the Planning Commission. The tenant spaces were carefully planned to accommodate the specific needs and functions of both the school and the health club and other medical office tenants. Indeed, the owner/developer will be part of the operation of the health club and neither the owner of the building nor any potential future tenant has expressed any concern about the School operating in the Building. Moreover, the School will not be operating during the peak user times for the various recreational facilities on the site, which will moderate any traffic impact as a result of the School use.

4. Will be an improvement in relation to property in the immediate vicinity and to the Township as a whole.

There is simply no basis to conclude that a School facility will not be an enhancement to the overall Legacy Center. The property was intended for a variety of uses from commercial, health and wellness and residential. It is a development that caters to, among others, the physical and health needs of children and families. An integrated educational facility, catering to the minds of the children, is consistent with the overall mission of the project.

5. Will be served adequately by essential public services and facilities or that persons responsible for the establishment of the proposed use will provide adequately for such service or facility.

Sewer service is provided privately and the upgraded system needed to serve the Wellness Building will be paid for by the developer and will require approval from EGLE and the

County health department. Public water supply is fully available to serve the new facility as explained by the design engineers.

6. Will not create excessive additional public costs and will not be detrimental to the economic welfare of the Township; and

The only question raised here was again the potential traffic, but based on the updated analysis performed by the traffic engineer, the School will not negatively impact existing traffic. Nor will the School adversely impact any Township supplied utilities. The roads were previously improved to handle the traffic volumes generated by the new Wellness Building, including the proposes uses within the Building.

7. Will be consistent with the intent and purposes of the Zoning Ordinance.

The Village Mixed Zoning classification allows and promotes a variety of uses and encourages mixed-use development. Zoning Ordinance Section 38-138. While a school is not allowed in most of the Township's zoning districts, it is allowed as a special land use in the VMU-2 district. The Master Plan states that it is not desired that the entire property be developed for commercial uses. (Master Plan, at p. 29.) The intent is for a variety of uses in a village like atmosphere. While the current development is not fully consistent with the a walkable environment in that it serves a regional market, the mixture of land uses, including within single buildings, and the variety of services envisioned, should surely include educational facilities. Indeed, that is why schools are permitted in the district in the first place. Mr. Montagno seems to ignore the zoning and master plan when he states that the PUD was established to host recreational facilities only. That is not the case. The PUD accommodated a variety of uses--recreation, commercial, healthcare, residential and any other use authorized in the VMU-2 district. The PUD Agreement itself authorizes all uses permitted in the VMU-2 district, including special uses. The School is such a use.

Thank you for considering these additional observations.

Sincerely,

Dykema Gossett PLLC



Alan M. Greene

Attachment

cc: Paul Montagno
Rodney Goble
Brent LaVanway



SPECIAL USE PERMIT

2911 Dorr Road, Brighton, Michigan 48116

Phone: (810) 227-5225, Fax: (810) 227-3420

PROJECT NAME: Livingston Christian Schools

ADDRESS: Brighton Church of the Nazarene, 7669 Brighton Road, 48116

APPLICANT NAME: Rob Wiegand

APPLICANT PHONE: (503) 710-4306

PARCEL ID NUMBER: 11-25-400-059

ZONING: SR (Suburban Residential)

SPECIAL LAND USE AUTHORIZED BY THIS PERMIT: Major amendment to existing special use to add a 200 student K-12 private school as a tenant within the existing church.

DATE OF SPECIAL LAND USE APPROVAL BY TOWNSHIP BOARD: November 20, 2017

CONDITIONS OF SPECIAL LAND USE APPROVAL:

- 1.) Student enrollment shall not exceed 200 students with the full implementation of the site plan corresponding to this approval.
- 2.) An agreement shall be provided which defines the costs and responsibilities for implementation of the approved site plan between the Church of the Nazarene (landlord) and Livingston Christian Schools (tenant). This agreement shall be approved by the Township Attorney prior to issuance of the Special Land Use Permit and within the 60 day compliance period provided by 19.02.04(h). This agreement can be a copy of an amended lease agreement between the Livingston Christian Schools and the Church of the Nazarene.
- 3.) A copy of the Livingston Christian Schools annual report to the State of Michigan certifying the school enrollment shall be provided to the Township on or before December 1st of each year.

DID THE SPECIAL USE REQUIRE A VARIANCE? NO

DOES THE USE HAVE AN EXPIRATION: NO

SPECIAL LAND USE - CERTIFICATE OF COMPLIANCE

DEADLINE FOR COMPLIANCE WITH CONDITIONS (60 DAYS FROM BOARD APPROVAL): January 20, 2017

DOES THE APPLICANT NEED TO SUBMIT NEW PLANS OR INFORMATION TO DEMONSTRATE COMPLIANCE:

YES NO

IF YES, EXPLAIN: An agreement shall be provided which defines the costs and responsibilities for implementation of the approved site plan between the Church of the Nazarene (landlord) and Livingston Christian Schools (tenant). This agreement shall be approved by the Township Attorney prior to issuance of the Special Land Use Permit and within the 60 day compliance period provided by 19.02.04(h). This agreement can be a copy of an amended lease agreement between the Livingston Christian Schools and the Church of the Nazarene.

BY SIGNING BELOW THE APPLICANT AGREES TO COMPLY WITH ALL CONDITIONS OF SPECIAL LAND USE APPROVAL:

Sign above and print here:

Date

BY SIGNING BELOW, ZONING ADMINISTRATOR RECOGNIZES THAT THE APPLICANT HAS SUFFICIENTLY DEMONSTRATED COMPLIANCE WITH THE CONDITIONS OF APPROVAL:

Sign above and print here:

Date

GENOA CHARTER TOWNSHIP BOARD
Regular Meeting and Public Hearing
May 6, 2019

MINUTES

Supervisor Rogers called the regular meeting of the Genoa Charter Township Board to order at 6:30 p.m., with the Pledge of Allegiance. The following members were present constituting a quorum for the transaction of business: Bill Rogers, Paulette Skolarus, Robin Hunt, Jim Mortensen, Terry Croft, Diana Lowe and Jean Ledford. Also present were Township Manager, Michael Archinal; Township Attorney, Joe Seward; and nine persons in the audience.

A Call to the Public was made with no response.

Approval of Consent Agenda:

Moved by Mortensen and supported by Lowe to move all items listed to the regular agenda for discussion. The motion carried unanimously.

Approval of Regular Agenda:

Moved by Lowe and supported by Hunt to approve for action all items listed under the Regular Agenda as requested. The motion carried unanimously

1. Payment of Bills.

Moved by Mortensen and supported by Croft to approve the payment of bills with the condition that the April 19, 2019 payroll will be added to the next agenda for review. The motion carried unanimously.

2. Request to Approve Minutes: April 15, 2019

Moved by Croft and supported by Hunt to approve the Minutes of April 15, 2019 deleting the name Township Attorney Joe Seward from the minutes as he was not present. The corrected Minutes were voted and carried unanimously.

3. Request for approval of a proposal from Dell for the purchase of five new workstations at a cost not to exceed \$3,531.35.

Moved by Mortensen and supported by Lowe to approve the purchase of 5 computers as requested by VanTassell. The motion carried unanimously.

4. Request for approval of site work and installation of a basketball court at Genoa Park at a cost of \$105,303.60.

Moved by Mortensen and supported by Croft to table the request until a second quote may be obtained for the basketball court. The motion carried as follows: Ayes: Ledford, Croft, Hunt, Lowe, Mortensen and Skolarus. Nay – Rogers.

5. Request for approval of proposals in the amount of \$6,446.00 from Mica Crafters for improvements to the main copy room and the Township kitchen.

Moved by Mortensen and supported by Lowe to approve the contract with Mica Crafters in the amount of \$6,446.00 as requested. The motion carried unanimously.

6. Public hearing for the Edwin Drive Road Maintenance Project (Summer 2019).

A. Call to the Property Owners and to the Public.

A call to property owners and the public was made with no response.

B. Request for approval of Resolution #5 [confirming the special assessment roll] for the Edwin Drive Road Improvement Project Special Assessment District (Summer 2019).

Moved by Ledford and supported by Skolarus to approve Resolution # 5 as requested. The motion carried by roll call vote as follows: Ledford, Croft, Hunt, Lowe, Mortensen, Skolarus and Rogers. Nays – None. Absent – None.

7. Consideration of a recommendation for approval of a rezoning (adoption of Ordinance Z-19-01), PUD Agreement, Impact Assessment and conceptual PUD Plan for a proposed planned industrial development with a new 67,000 sq. ft. indoor climate controlled storage building. The rezoning requested is from GCD to IND with a Planned Industrial District (PID) overlay located at 2528 Harte Drive, Brighton consisting of 10.62 acres on parcel 4711-13-300-009. The request is petitioned by James Pappas of Fusco, Shaffer and Pappas, Inc., also known as the Birkenstock property.

A. Call to the public.

A call to the public was made with no response.

B. Request for approval of the adoption of Ordinance Z-19-01 to rezone parcel 4711-13-300-009 from GCD to IND/PID.

Moved by Lowe and supported by Skolarus to approve and adopt Ordinance No. Z-19-01. This approval is made because the proposed amendment to the Zoning Map and reclassification as a Planned Industrial Park District (PID) with the related development agreement and conceptual plan has been found to comply with the criteria stated in Sections 10.02.04, 10.07.01 and 22.04 of the Township Zoning Ordinance. This finding includes that the rezoning encourages innovative and beneficial land uses, is consistent with the goals, objectives, and land use map of the Master Plan, preserves open space and historical features, promotes efficient provision of public services and utilities, reduces adverse vehicular and pedestrian traffic impacts, and encourages the use and improvement of an existing site. The motion carried by roll call vote as follows: Ledford, Croft, Hunt, Lowe, Mortensen, Skolarus and Rogers. Nays – None. Absent – None.

C. Disposition of PUD Agreement revised on April 16, 2019.

Moved by Hunt and supported by Lowe to approve the PUD Agreement revised on April 16, 2019 with the following conditions:

1. The revisions suggested by the Township Attorney related to Section III, Item A. shall be incorporated and the revised draft shall be reviewed and approved by Township staff and Township Attorney.
2. Page numbering shall be corrected.
3. In regard to permitted uses, the first “whereas...” statement on page 2, Section I. Item B., and Section II, Item A. shall be revised so as not to indicate that all permitted uses are included. A list of uses shall be provided in table format as an Exhibit C and shall depict all permitted and special land uses applicable to the property.
4. Section I, Item F. shall remove the reference to Article 13 and instead state “shall comply with the Zoning Ordinance”.

The motion carried unanimously.

D. Disposition of Environmental Impact Assessment dated January 2019.

Moved by Hunt and supported by Lowe to approve the environmental impact assessment dated January 2019 as submitted. The motion carried unanimously.

E. Disposition of Conceptual PUD Plan dated 2/22/19 with revised sheets A.S.101 and C.102 dated 4/5/19.

Moved by Lowe and supported by Skolarus to approve the Conceptual PUD Plan dated 2/22/19 with revised sheets A.S.101 and C.102 dated 4/5/19 with the following conditions:

1. The petitioner is encouraged to retain and/or relocate to the extent possible any healthy and mature trees in the final PUD site plan submittal.
2. Details of the electronic message sign shall be provided with the Final PUD site plan.
3. As requested by the Township Engineer, documentation of the temporary grading easement shall be provided with the Final PUD Site Plan submittal.

The motion carried unanimously.

8. Consideration of a recommendation for approval of a special use, site plan and environmental impact assessment for an amendment to a previously approved special use permit for a K-12 Livingston Christian School located within the Brighton Church of the Nazarene. The property in question is located at 7669 Brighton Road, Brighton, Michigan, on parcel #4711-25-400-059. The request is petitioned by Livingston Christian Schools.

A. Disposition of Special Use.

Moved by Lowe and supported by Hunt to approve the Special Land Use to increase the maximum number of students from 200 to 280. This approval is granted based upon finding consistency with the standards of section 19.03 of the Zoning Ordinance. The motion carried unanimously.

B. Disposition of Environmental Impact Assessment (3-11-19)

Moved by Hunt and supported by Lowe to approve the environmental impact assessment dated March 11, 2019 as submitted. The motion carried unanimously.

C. Disposition of Site Plan (3-11-19)

Moved by Lowe and supported by Skolarus to approve the site plan dated March 11, 2019 with the condition that the applicant provide information to Township staff that the landscaping and other previously approved requirements have been implemented. The motion carried unanimously.

9. Request to enter into a closed session to discuss pending litigation in the matter of Ikle v. Genoa Charter Township 29855-CZ pursuant to MCL 15.268 (e).

Moved by Skolarus and supported by Croft to adjourn to a closed session to discuss pending litigation in the matter of Ikle v. Genoa Charter Township 29855-CZ pursuant to MCL 15.268 (e) at 7:30 p.m. The motion carried by roll call vote as follows: Ledford, Croft, Hunt, Lowe, Mortensen, Skolarus and Rogers. Nays – None. Absent – None.

The Regular Meeting of the Township Board was reopened at 8:00 p.m.

Archinal provided an overview of his meetings with two Home Owners' Associations and their intent on reconstruction of the roads in Pine Creek and Northshore.

Attorney Joe Seward – The Township regularly receives requests from homeowners living in the more rural parts of the Township requesting internet or cable service. If we are going to put pressure on Comcast to provide extended service, the Township needs to begin working on their requests at least three years in advance. There is no density trigger in our Comcast agreement. We have no way to force Comcast to put in cable. Current mapping of Comcast and ATT should be made available to the township.

Moved by Lowe and supported by Croft to adjourn the regular meeting and public hearing of the board at 8:15 p.m.

Paulette A. Skolarus, Clerk
Genoa Charter Township Board



Carlisle | Wortman
ASSOCIATES, INC.

117 NORTH FIRST STREET SUITE 70 ANN ARBOR, MI 48104 734.662.2200 734.662.1935 FAX

TO: Green Oak Township Planning Commission

FROM: Paul Montagno, AICP & Michelle Marin, AICP Candidate

DATE: February 2, 2024

RE: Zoning Regulations for Wedding/Event Barns

Since the early 2010s, rural wedding venues have risen in popularity, with rural communities like Green Oak Township becoming the sought-after location for wedding ceremony and reception venues. The following memo details the current regulations within Green Oak Township that impact the permittance of “wedding barns,” (event barns) considerations if planning to update the zoning ordinance to permit event barns in some rural areas of the Township, and includes examples of zoning ordinance changes that might permit event barns in rural areas of the Township in a manner consistent with best practices, that minimizes negative impacts, that maintains the rural character of the more rural zoning districts, and that retains the Township’s ability to enforce its ordinances.

Current Regulation

The uses described in the Green Oak Township Zoning Ordinance which most accurately reflect event barns are Assembly Halls. Assembly halls are only permitted with special approval use in the GB – General Business zoning district. Only several parcels in the Township are zoned GB, and they all currently host facilities and are situated along major roadways, such as Ten Mile Road, Grand River Avenue, or off the US-23 corridor. Event barn facilities are, by design, more rural, rendering existing GB parcels undesirable for any developer seeking to locate an event barn in Green Oak Township. Even if the GB-zoned parcel is appropriate, the applicant must undergo the special approval use process and prove that the seven (7) special approval use standards are met.

Assembly halls are not permitted by right or by special approval in any other zoning district within the Township.

Considerations for Updating Regulations

If considering the adoption of an ordinance amendment to permit event barns in the Township, certain questions must be considered:

- Should event barns in additional zoning districts be a “permitted by right” use or only after meeting standards as a “special land use?”
- How large should the subject property be?
- Are outdoor events allowed or just indoor events?
- What setbacks should be required from the neighboring properties?
- How many events will be allowed per week or per year?

February 2, 2024

Zoning Regulations for Wedding/Event Barns

- Which type of structures should be permitted to host events: historic structures only or new construction on existing farmland? Historic barns are charming; they are buildings being repurposed to modern standards. But that repurposing can be difficult. New construction doesn't have the challenges of a historic renovation project, but is the community still "preserving" rural character?
- Will there be a limit to how many event barns are allowed in a community? If so, how many?
- Does the event barn need to be on a paved road?
- Will traffic increase or will it just be different (different times and days)? Are improvements needed to mitigate any traffic issues?
- What type of site lighting is appropriate for a rural setting, but will also ensure pedestrian safety from the event to the parking lot?
- Does the parking lot need to be paved? Can it be gravel or simply grass?
- What type of facilities are required (restrooms or kitchen)? If restrooms are built, consider that the septic field will most likely need to be expanded. Are Porta Johns acceptable?
- Consider the coordination needed between various governmental entities (road commission, health department, etc.)

Currently, event barns fall under the "Assembly Hall" use classification. If this classification is maintained, any ordinance adjustment that would permit event barns would also permit all assembly hall uses in that same zoning district, including conference centers, lecture halls, social club centers, etc.

Optional Zoning Ordinance Changes

Event barns currently qualify as "Assembly Halls." If the Township wishes to zone for event barns independently from other assembly hall uses, then a new definition should be added to the Zoning Ordinance to reflect the event barn use. Such a definition might be "Event Barn: a site or facility with an agricultural structure(s) approved by the Township to conduct private events by renting or leasing to private parties on a commercial basis."

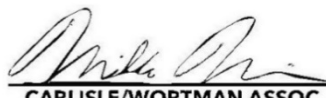
Zoning regulations may permit these venues in certain districts that include rural areas in addition to the GB – General Business district. Supplementary regulations may be introduced to limit the number of guests, provide unique setbacks, require more robust landscaping, or otherwise regulate barn-style private event venues.

We have provided draft ordinance language, drawing on existing examples and some known best practices. Following a discussion with the Planning Commission, we are happy to do additional research and explore specific requirements that would best align with the intention of the new Master Plan and the Township's values.

Respectfully submitted,



CARLISLE/WORTMAN ASSOC., INC
Paul Montagno, AICP
Principal



CARLISLE/WORTMAN ASSOC., INC.
Michelle Marin
Community Planner

- cc. Mark St. Charles, Township Supervisor
Debra McKenzie, Planning & Zoning Administrator
Carol Rosati, Township Attorney

New Section

Article IV. Supplementary Regulations
Sec. 38-202. Event Barns.

Event Barn: a site or facility with an agricultural structure(s) approved by the Township to conduct private events by renting or leasing to private parties on a commercial basis.

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Event Barns shall be subject to the following limitations:

- (a) The site shall be a minimum of ~~twenty (20)~~ fifteen (15) acres.
- (b) The site shall have at least one (1) property line abutting a paved road, and the site shall provide all public access directly to that road.
- (c) Minimum front, side, and rear setbacks shall be one hundred (100) feet wide and shall be landscaped with trees, shrubs, and grass in accordance with Section 38-177. Event barns must be centered on the property. All landscaping shall be maintained in a healthy condition. No parking or structures shall be permitted in these yards, except required entrance drives and any walls as may be used to obscure the use from abutting residential districts.
- (d) Parking must be sufficient to handle the number of attendees plus staff in accordance with Section 38-312.
- (e) All event barns shall have sanitary facilities as approved by the 25 Livingston County Health Department if not on public sewer and water.
- (f) No temporary restroom facilities are permitted on site.
- (g) No amplified music is permitted outdoors.
- (h) All serving of alcohol shall have proper licensing per the Michigan Liquor Control Commission.
- (i) All serving of food shall have all permits as required by the Livingston County Health Department.
- (j) Hours of operation are 10 a.m. to ~~11-10~~ 10 p.m. maximum (for music) and midnight for the event.
- (k) Events to be allowed include weddings, birthdays, anniversaries, family reunions, graduation events, non-profit or fundraising events, holiday celebrations, or similar.
- (l) The maximum number of events is one large event (~~greater than 50 persons~~) and one small event as defined below(~~smaller than 50 persons~~) per weekend (Friday through Sunday), and only one event per date; no concurrent events. Events cannot exceed the maximum occupancy of the building where the event is held but in no case more than 300 persons, or less if more stringent capacity limitations are placed on the structure by the Township Building Official.
 - a. Small events: 3.25 persons per acre or fewer.
 - (#)b. Large events: more than 3.25 persons per acre
- (m) Tents are only to be utilized for wedding ceremonies, in inclement weather, but the reception must be inside the barn.
- (n) Only one event barn is allowed on the property, and the event is to be held inside other than wedding ceremonies which can have outside ceremonies.
- (o) A representative of the owner must be available and onsite for contact during any event. Said person is responsible for ensuring compliance with all applicable Township ordinances and permits. The owner must maintain current contact information for the onsite responsible person

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on file with the Township. The owner shall make every effort to encourage patrons to drive slowly and respectfully on their way to and from the facility.

Addition to Sec. 38-135. Schedule of use regulations.

Event barns are permitted as a special approval use in the GB, RE, RF, R3, and R2 zoning districts.

Addition to Sec. 38-312. Off-street parking space requirements.

USE	Required number of parking spaces	Unit of measure
Commercial		
Event barn	1	Per three (3) guests <u>for large events</u>
	1	Per employee