



**THORNAPPLE TOWNSHIP
PLANNING COMMISSION
Meeting Agenda
Monday, August 28, 2023
7:00 P.M.**

- 1. Call to Order (7:00 P.M.)**
- 2. Approval of agenda:** *[changes/approval]*
- 3. Approval of Minutes**
 - a. July 24, 2023
- 4. Citizen Comments:** *[matters not on agenda]*
- 5. Public Hearings:**
 - a. SLU renewals for Top Grade (SLU 93) and Adams Rd (SLU 149) mining operations
 - b. SLU 162/SP 129 5100 Squier Ln Solar System relocation
 - c. SLU 163 12076 Olivia Dr Group Home Child Care
- 6. New Business:**
 - a. Renewal of SLU 93 for Top Grade Aggregates Mining Operation on Patterson Rd
 - b. Renewal of SLU 149 for Adams Rd Mining Operation
 - c. Solar System relocation request SLU 162/SP129
 - d. Licensed Group Child Daycare SLU 163
- 7. Unfinished Business:**
 - a. Peace Church Expansion project (**awaiting M-37 Comm meeting and approval**)
Per Hank Coleman it sounds like the M-37 Committee is wanting a traffic study
- 8. Committee Reports:**
 - a.
- 9. Administrator's Report:**
 - a. Zoning Ordinance Audit
 - b. Zoning Report
 - c. Code Enforcement Report
- 10. Commissioner Comments:**
- 11. Adjournment**

THORNAPPLE TOWNSHIP PLANNING COMMISSION

Regular Meeting, Monday July 24, 2023

1. Call to Order:

- a. The meeting was called to order by Chairperson Tom Kilgore at 7:00 p.m. at Thornapple Township located at 200 E. Main St. Middleville, MI 49333.
- b. Present: Elaine Denton, Elizabeth Hansson, Linda Gasper, Tom Kilgore, Sandra Rairigh, Bryan Finkbeiner and Craig Wandrie. Also Present: Eric Schaefer, Phil Gensterblum, Todd Boerman, Amy Brown, Katie Stanton, Roxi Stanton, Hank Coleman, Steve & Jen Noffke, Hal Isenhoff, Garry VanHouten, Sara Lee, Don Richards, Todd Stuive (Exxel Engineering), Jameson DeBlaay (Dan Vos Construction), Candace Johnson, Kenneth Johnson, Chris Thompson, Katie Thompson, Curt DeKam, Casy Mizkelson.

2. Approval of Agenda:

- a. **MOTION** by Gasper, **SUPPORT** by Finkbeiner to amend the agenda with the addition of **4. Citizen Comments** "Solar Panel Request," Public Hearing moved to **6b. New Business** (Special Land Use Peace Church), and the removal of Outdoor Wood Burner from **8. Committee Reports**.
- b. **MOTION CARRIED** with 7 yes voice votes.

3. Approval of Minutes:

- a. **MOTION** by Rairigh, **SUPPORT** by Gasper to approve the May 22, 2023, meeting minutes as presented.
- b. **MOTION CARRIED** with 7 yes voice votes.

4. Citizen Comments:

- a. Kenneth Johnson - 4175 Village Edge Drive: He stated he had lived in Middleville for more than 45 years and had applied for a permit to install solar panels, but the permit was denied. The township's ordinance only allows for panels up to 600 sq. ft. His request was just over this amount by 80 sq. ft. He is asking to be granted a variance or at least that the Planning Commission revise the ordinance to allow for solar panels larger than 600 sq. ft. Also, he said a solar panel the size of 600 sq. ft. produces about 10 kilowatts. The average home uses about 10 to 15 kilowatts. But Consumers Energy considers anything less than 20 kilowatts to be small. Kilgore said he would have the Ordinance Committee look at the ordinance regarding solar panels but that the Zoning Board of Appeal would be the board that could grant a variance rather than the Planning Commission. Gasper stated that she hasn't seen this issue come up at a Zoning Board of Appeal before.
- b. Katie Stanton - 5099 Irving Road: Stated that she and her family attend Peace Church and support the remodel project.

5. Public Hearing: Moved to 6b. New Business

6. New Business:

- a. Letter from Ryan Granger wishing to discontinue the Special Land Use currently at 2344 N. M-37 Middleville, MI.

Phil Gensterblum explained the Grangers did not purchase the land to continue a mining operation but rather for recreational and family use. Therefore, they would like to discontinue the Special Land Use Permit. Finkbeiner asked Gensterblum if he had talked with the Grangers about the reclamation process. Gensterblum said that Boerman was working on that with the Grangers. Boerman said he started to communicate with the Grangers about the process for discontinuing the sand mine and what may need to be done for reclamation of the land. He believes there are some sand banks along the south end that should be reclaimed as well as some other action points before the Special Use Permit can be closed. Boerman thinks they'll likely want to keep the berm along M-37 which would be acceptable. Finkbeiner asked if there were escrow funds on the sand mine. Gensterblum said that there weren't any funds belonging to the Grangers, but T & M does have some that will need to be refunded when the permit is closed. Gasper asked Gensterblum for a list of conditions to be met prior to closing out the permit. Finkbeiner agreed with Gasper and added that the closing procedures should be handled the same for everyone closing out operations of a sand mine. Finkbeiner and Gasper have observed ongoing operations at the sand mine. Gasper also mentioned that the property is zoned Agriculture/Residential and if they want to build more than one dwelling on it, then they will need a land division as part of the process. Gensterblum said Grangers had not talked about multiple dwellings being built but rather a family lodge. Gensterblum confirmed they had built a pole barn, and they are working on the permit for it currently. Kilgore suggested the discontinuation of the permit be **TABLED** until after Boerman and Gensterblum work with the applicant on the process of reclamation and the closing of the sand mine.

- b. Special Land Use Application from Peace Church located at 6950 and 6970 Cherry Valley Road. Chair Kilgore acknowledged that four members of the Planning Commission currently attend Peace Church. They are Craig Wandrie, Bryan Finkbeiner, Tom Kilgore, Sandy Rairigh and that one member, Liz Hansson, operates Cherry Valley Greenhouse across the street from Peace Church. Kilgore asked each member if they could be objective in this matter. Each member questioned individually responded, "Yes."

- i. Todd Stuive (Exxel Engineering) stated that Peace Church has been located on the site since 1968 and they have grown a lot since then and this will be their second remodel. He described the placement of a second entrance onto M-37, entrances on Cherry Valley, the new auditorium space, parking lot expansion to the south, a second parking lot on the north end, and some retention ponds. They have purchased the property directly to the north and would like to turn

the existing home into office space with parking for staff. They're planning for 720 total between the two lots. The expansion would add a 1200 seat auditorium and then convert the existing auditorium into a fellowship hall. They hope to go from three Sunday morning services to two. They have included landscaping plans to ensure any runoff water is captured and directed into retention ponds as required.

- ii. Todd Boerman (Vriesman & Korhorn Engineering) – Boerman said Finkbeiner, Denton, Gensterblum, and himself meet at Peace Church with Hank Coleman to review the site. The last permit was issued in 2017 when some classrooms and parking were added. At that time, there were some deferred improvements and so this expansion was expected. Boerman discussed the items contained in the email sent to Gensterblum dated July 19, 2023. The points are included below:

1. Peace Church expanded classroom space on the west end of the building in 2017. At that time, it was determined that they also add the parking area on the west side of the site along Cherry Valley Avenue prior to Township site plan approval. It was determined that the parking and drive aisles were not constructed to the dimensional standards required by the Township, required landscape islands were not included, and corresponding stormwater improvements, such as a detention basin, were not constructed. However, the applicant explained that the church was planning an additional expansion in the near future and would address the improvements at that time. The Planning Commission agreed that the church could put up a bond for those improvements in lieu of completion at that time. The proposed site plan should reflect the required improvements indicated as "bonded" as shown on the enclosed 2017 site plan. The proposed stormwater improvements accommodate stormwater from the 2017 parking area in the south detention basin.
2. Stormwater calculations have been submitted for the site. The applicant's engineer has designed the stormwater facilities to meet the requirements of the Barry County Drain Commissioner (BCDC). We have reviewed the calculations based on those standards.
 - a. The proposed detention basins are designed to accommodate the volume for the 100-year storm, capturing stormwater from the existing and proposed facilities.
 - b. Water quality improvement measures, such as detention basin forebays, that are required by the BCDC standards are not included in the proposed design. These measures need to be added in subsequent submittals with calculations supporting their effectiveness.
 - c. Calculations for the onsite storm sewer have not yet been submitted.
 - d. The proposed stormwater design captures much of the stormwater into catch basins with storm sewer conveying it south to the detention basin southeast of the site. The applicant's engineer needs to evaluate the potential of stormwater passing by catch basins during heavy rain events and consider its impact on the building and facilities downstream. Overland flow routes need to be designed to account for that scenario.
3. The applicant is proposing to move their existing M37 driveway to the north approximately 150 feet.

- a. The site plan must be reviewed by the M37 Corridor Committee, referred to as the Technical Advisory Group (TAG) in Section 16.4 of the Zoning Ordinance. Note that the section requires comments from TAG prior to any action by the Planning Commission.
 - b. The proposed driveway shift improves the position of the driveway in relation to the driveway of Cherry Valley Gardens, creating 330 feet of separation between driveways. Section 16.6P of the Zoning Ordinance requires driveway placement to align with driveways on the opposite side or maintain a distance of 750 feet between opposite-side driveways for speed zones greater than 45 miles per hour. Compliance with Section 16.6P may be difficult due to the grade difference between the site and M37 at the preferred driveway location.
 - c. Section 16.6H requires a driveway throat width of 60 feet if it serves more than 100 vehicles per hour, which is the case on Sunday mornings.
 - d. We understand that the applicant has reviewed the proposed driveway location with MDOT.
 - e. Cross access easements are recommended in the Zoning Ordinance, but the adjacent zoning of Agricultural Residential makes it unlikely that the easements will ever be used.
 4. The proposed new driveway entrance from Cherry Valley Avenue north of the existing house must be reviewed by the Barry County Road Commission (BCRC). The applicant must provide a copy of the driveway approval to the Township when received.
 5. We recommend that the site plan be reviewed by the Thornapple Township fire chief.
 6. We understand that the Barry Eaton District Health Department approvals are being sought for the proposed building expansion and re-purposing of the home on Cherry Valley Avenue (with abandonment of the drain field for the pond). The applicant must provide copies of approval to the Township when received.
 7. We understand from the applicant that the project may be pursued in stages to accommodate current parking needs. We recommend that each iterative stage be reviewed by the Township. Construction staging for stormwater will be particularly sensitive for this site.
- iii. Denton asked about the drop-off location, traffic flow and handicap parking spaces. Coleman said that they hadn't had the time to review and make a change in the plan since it had been discussed at the site, so they aren't reflected in the print displayed at the meeting. However, Coleman said they would be using blue cones to designate additional handicap parking for Sunday

service times and how other orange cones would be used to direct traffic flow. Coleman said he's had Barry County Sheriffs assist with traffic to keep it from causing backups on M-37 for a while now. He also thanked the board for the meeting and discussion. He said their goal is to expand the church while being a good neighbor.

iv. Public Hearing:

THE PUBLIC HEARING WAS OPENED 7:42 PM

1. Steve Noffke 7031 Cherry Valley – He asked why the print of the proposed plans weren't mailed to him. Gensterblum said it was available for review at the township office. His main concern was the amount of traffic and the noise. He stated that he isn't against the church but thinks it is big enough. He also doesn't like the loud music on an early Sunday morning. He questioned whether day care and homeschooling are being offered there on a regular basis. Coleman answered no, a co-op group meets on Monday from 9 am to noon but that is all. He also asked how the expansion would be funded. Coleman replied that it would be paid for by members of the church. He also wondered if a right-hand turn lane could be added to help with the traffic. He asked Hansson how many accidents there have been in front of the greenhouse. Hansson replied that since the lane was added there has only been one. Noffke asked if the outside of the parsonage home would be changed. Coleman answered that it wouldn't be. He also asked if there were plans for more signage. Coleman said no.
2. Chris Thompson 6996 Cherry Valley – He stated that he doesn't have anything against the church but that he doesn't like the plans for a large parking lot right next to his property line. He is concerned about runoff further causing flooding issues on his property. Also, he said it is mostly clay there and that he is concerned about his well. Boerman said that he would be reviewing the plans to ensure that all rain runoff was captured as required and that it shouldn't end up on any neighboring property.

THE PUBLIC HEARING WAS CLOSED AT 8:13 PM

- v. Commissioners: Gasper asked if the parking lot at the parsonage could be made smaller or placed on the south side of the parsonage. Stuive explained they were trying to get to the total number of parking spaces required and they had planned on the north side of the house to allow for a possible future expansion/connection of the two buildings. Chair Kilgore suggested they **TABLE** the Special Use Permit Application until the items discussed were completed (see above.) Planning Commissioners agreed.

7. Unfinished Business: None.

8. Committee Reports: None.

9. Administrator's Report:

- a. Zoning Ordinance Audit – Gasper asked about the audit. Rairigh stated that there were not enough funds left in the current year's budget to do the audit. It would have to wait until the next fiscal year. She explained that during the transition from Getty to Gensterblum Williams and Works had been utilized. Gasper reminded the board that it is part of the Master Plan schedule. Gasper asked if the Ordinance Committee could do part of this work. Rairigh said Finkbeiner, Kilgore and herself had done that and sent it to Nathan from Williams and Works.
- b. Zoning Report – Gensterblum said there are eight new projects and there is one complaint regarding Stimpson Road.
- c. Code Enforcement Report – Gasper stated that Top Grade on Patterson Rd. the sand mine gates were open on Sunday again. Lettinga's was also open, but they may have been farming.

10. Commissioner Comments: Gasper asked about other special use renewals. Gensterblum said they would be scheduled for next month so that he could send out public hearing notices.

11. Adjournment: **MOTION** by Gasper, **SUPPORT** by Finkbeiner to adjourn at 8:21 PM.



Vriesman
& Korhorn

August 16, 2023
491

Via Email: pgensterblum@thornapple-twp.org

Phil Gensterblum, Zoning Administrator
Thornapple Township
200 E Main St
Middleville, MI 49333

RE: Special Use #93: Top Grade Aggregates Mineral Extraction
Section 30, Thornapple Township

Dear Phil,

We have reviewed the materials supporting the renewal of the mineral removal operation on five parcels (030-003-00, 030-004-00, 030-006-00, 030-008-00, 030-009-00) operated by Top Grade Aggregates. A site plan committee meeting was held at the site on July 26 with Ross Veltema, Randall Patterson, and Kurt De Kock of Top Grade. We have the following comments:

1. The site plan reflects the expansion of mining operations into two additional parcels, owned by Robert and Amanda Reurink (030-008-00) and the Wenger family (030-006-00).
2. Operations have resulted in wide areas of mining approximately 5 feet below the final restored elevation of 810 and the plan notes a groundwater elevation is approximately elevation 804. The applicant intends to spread clay and topsoil to build the floor of the mine back up to the required elevation and it appears that they have enough fill dirt to do so. However, we note that this procedure will reduce the availability of an onsite septic system for future residential use.
 - a. We recommend that the applicant identify areas where 4 feet of suitable sand has been maintained above groundwater and preserve these areas for future septic systems.
 - b. We recommend that the elevation of 810 is the minimum mining pit floor elevation for the expansion properties at the east end. This can also be the proposed finish elevation. The groundwater elevation may be slightly higher to the east and should be verified upon commencement of mining in the expanded area.

3. The existing contour information appears to be inaccurate in some areas, particularly in the areas just north of Leeks Lake. These inaccuracies appear to also extend into the mining areas. The topography needs to be evaluated and corrected for our review.
4. The mining is proposed to extend toward residential uses along the north property line. The fence requirement that has been previously waived may be appropriate in this area.
5. Restoration has progressed at the west end of the mine to an agricultural field that is currently fallow. This area has been built up with soil brought in from offsite. There is a significant amount of spoils ready to be spread for restoration toward the west as well.
6. The “active mining” area is supposed to be kept to a maximum of 10 acres at any given time according to the Township Zoning Ordinance. Maneuvering and stockpile areas are typically removed from the calculation. As the active mining moves from west to east and further away from the pit entrance, we’ve encouraged the applicant to make progress in restoration at the east end while maintaining haul roads and site access.
7. Mining extended to the property line along the adjacent property owned by Michael Rusche (030-003-20). The waiver of the setback is consistent with an agreement made with the previous landowner. We recommend that the applicant construct the proposed 1:4 slope along this property line. Alternatively, an agreement may be pursued with Michael Rusche, the new property owner, to add the property to the overall mine area.
8. It appears that proposed expansion of the mining area westward remains consistent with the protection of Leeks Lake, maintaining a significant distance between the water body and the proposed mining.
9. The site plan shows a proposed pond on the expanded portion of the mine. The pond is proposed to be less than 5 acres, which is the maximum pond size before an EGLE permit is needed. For this renewal period the pond is for illustrative purposes only.
 - a. We recommend that the construction of a pond be reviewed by EGLE for hydraulic and environmental impacts regardless its size.
 - b. The site plan should be updated to include proposed slope and depth information for the proposed pond.
 - c. We recommend that the applicant consider agricultural, residential, and recreational uses when determining the proposed slopes. There must be safe slopes near shore, elements that encourage fish habitat, and depth adequate to maintain water quality.
10. The performance bond amount for the existing operation has been set at \$6000 per acre. The amount needs to be increased to account for proposed additional mining area. The amount may be reduced in the future when areas are restored.

Phil Gensterblum
August 16, 2023
Page 3

11. A future scale is shown on the site plan near the east end of the site at the entrance / exit.
Although this scale remains a possibility, they have no immediate plans to install a scale.

Please feel free to contact our office if you any questions regarding this review.

Sincerely,
VK Civil

A handwritten signature in black ink, appearing to read "Todd Boerman", with a long horizontal flourish extending to the right.

Todd Boerman, PE

TMB/jmg

Recommended Conditions of Approval for Special Use #132 and Site Plan #112 – Mineral Extraction

1. The term of this renewal shall be August 28, 2023 through August 25, 2025.
2. Operations for mineral extraction must be in strict compliance of Section 19.53 of the Zoning Ordinance. The fencing requirement described in Section 19.53(d) is not required at this time due to the mining area isolation from public access. The fencing requirement may be reconsidered during permit period if the Township is notified of trespassers.
3. Entrance gate off Patterson Road must remained locked at all times when not in use.
4. Mining to the property line is only allowable with the written consent from adjacent property owners. Setbacks should otherwise comply with Section 19.53(e) of the Zoning Ordinance. The applicant must provide the Township with written consent from the adjacent property owners in order to mine in the setback. The applicant is permitted to mine subject parcel to property lines to the east, since it is adjacent to current or previously mined sites. Applicant proposes to establish finished grades at each property boundary line matching those grades on adjoining properties. Applicant must provide written consent from neighboring parcels acknowledging mining up to the property lines.
5. Occasional concrete crushing is proposed within the Contractor Yard site. The Township shall be notified when crushing is scheduled in case there are questions or complaints.
6. Applicant must maintain existing berm with established vegetation between proposed operations and Leeks Lake.
7. Reclaimed areas must have a minimum elevation of 810'. Substantial completion of reclamation and rehabilitation of mined areas shall be completed within one year of termination of mining or excavation activity per section 19.53(1),
8. Final restoration may include a top clay layer enhanced by manure providing a suitable organic base for growing crops in lieu of a minimum 4-inch top layer of topsoil. This method will be inspected and verified during the permit cycle to determine the success of this method.
9. No express or implied approval of an end use or permanent use of the subject property is given by the Planning Commission or any agent of Thornapple Township. Any permanent use of the property will be subject to provisions of the township Zoning Ordinance then in effect.
10. Slopes, restored elevation and setbacks must be indicated on Site Plan dated June 8, 2023.
11. No excavation below the high groundwater elevation (804.5) may occur anywhere within the permitted property within the term of this permit.
12. A benchmark must be maintained on site. The benchmark must have a permanent stake or pole adjacent to it referencing the apparent high groundwater table and show the minimum final restoration grade of 810'.
13. Property corners must be clearly marked.

14. A sign indicating times of operation must be posted at the entrance of the property on Patterson Road.
15. A reclamation bond for the property shall be in the amount of \$6,000 per acre in accordance to the terms specified in Section 19.53(s)(1). Total bond amount determined by number of acres shown on revised site plan provided at the Planning Commission meeting on June 8, 2023.
16. Liability insurance through the term of the permit in the amounts and terms specified in Section 19.53(s)(2).
17. The applicant must maintain a minimum escrow amount of \$2,500.00 for inspection fees according to Section 19.53(r) of the Zoning Ordinance. Regular inspections will be made to assure:
 - A. verify elevations and compliance of reclaimed areas
 - B. verify progressive reclamation
 - C. verify general compliance of the Zoning Ordinance and permit conditions.Inspections by a Thornapple Township official or by a hired consultant may be performed at any time with notification to the applicant.
18. Applicant must provide updated site plan of mining area showing corrected contour information by September 30, 2023.
19. The pond shown on the site plan is for illustrative purposes only. No ponds may be constructed on the site during this renewal period.



June 20, 2023

Thornapple Township
Attn: Phil Gensterblum
Zoning Administrator/Code Enforcement
200 E. Main Street
Middleville, MI 49333

Dear Mr Gensterblum,

Top Grade Aggregates, LLC, plans to continue mineral extraction of Sand and Gravel from our existing location at 3300 North Patterson Road. The project area is being leased from following entities: *John S. Yerington II, Revocable Trust* (parcel #14-030-004-00); *Bohn Meadows, LLC* (parcel #14-030-009-00); and *Michael & Andrea Bekius* (parcel #14-030-003-00).

We are on track to begin mineral extraction on a portion of parcel #14-030-008-00 (owned by *Robert & Amanda Reurink*), and parcel #14-030-006-00 (owned by *Robert V. Wenger Trust*). We have a signed Agreement with each property owner listed.

We plan to continue mining from west-to-east to an elevation at-or-above the groundwater table (found at the elevation 804.17), with final reclaimed areas having a minimum elevation of 810.00. Side slopes down to the pit floor will be on a 4:1 gradient, with fill material consisting of a clay and topsoil mix.

Unfortunately, the properties included in this project have been stripped of all native topsoil, so to pit restoration materials will continue to be imported from offsite. The very top 4" layer may also include manure enriched soil, in lieu of pure (100%) topsoil. We continue to work towards restoration as mineral extraction progresses. Grass will be seeded during the planting season in areas where permanent restoration has already begun.

Restoration on parcel #14-030-003-00 (*Bekius*) is 100% complete. Please note, this property owner has had a long term easement running thru this parcel. The easement was in place for an overland conveyor for another mining company. The conveyor use has ended and the property owner would like our assistance in cleaning up this area and blending it in with the surrounding grades.

Restoration on the parcel 14-030-004-00 (*Yerington Trust*) has been partially completed. We hope to have that *Yerington Trust* parcel fully restored yet in late 2024 or in first half of 2025.

The large berms that exist between the north line of parcel 14-030-009-00, and the south line of the adjoining parcel (14-030-008-00), have started to be removed and replaced with a gentle slope down to the mine floor. This has been a topic of discussion at previous mining permit renewals. Top Grade will continue to collaborate with landowners to remove this berm.

We are still showing an approximate 4.8 acre pond on the new parcels that both landowners have agreed to. The pond itself is not planned to be excavated during this next 2-year permitting cycle but is shown for reference. Details on that will be provided during the 2025 renewal. Top Grade will consult with Township prior to start of any pond excavation, even if planned to remain under 5 acres.

Top Grade will be moving the contractor yard to the center of parcel 14-030-009-00. This is our area where we receive in any concrete, asphalt or topsoil that can be recycled for use in the construction market. We continue to not crush any of the concrete or asphalt rubble on-site. Rather, we have been hauling it back out to one of our fixed position crushers.

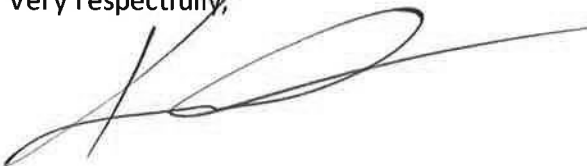
In previous mine permit renewals, there has been discussion around the border to Leeks Lake. Top Grade was able to have this area surveyed this past spring. Included on our updated mine drawings are the proposed grades on the border of this property.

The duration of this project will continue to be market driven, we intend to continue to restore mine site from West to East as we mine across these parcels. In the past permit renewal, we indicated an 8-10 year live span of the mine site. That is still range of time we feel we are in with this site.

The end use of this property will likely be agricultural in nature. However, that will be determined by the individual landowners based on demand for the property at the completion of the mining.

If you have any questions or need additional information, please do not hesitate to contact us.

Very respectfully,

A handwritten signature in black ink, appearing to read 'Kurt DeKock', with a long horizontal flourish extending to the right.

Kurt DeKock
COO- Top Grade Aggregates, LLC

Patterson Pit Mining Renewal

2000-10-10 (607)

SITE BENCHMARK BASED ON CFSITE RECORDED ELEVATION
OF 522.87 PER NOS DATA SHEET REFERENCE # 177, GREEN LAKE ROAD
DATUM NAME IS

- AR ZONING REQUIREMENTS:

- COMMISSION STANDARDS



West Site Plan June 8, 2023
updated existing contours

Proposed Pit Expansion, with contractor yard
3300 N Patterson Rd
Middleville, MI 49333

EXISTING CONDITIONS
WITH PROPOSED FUTURE
RESTORATION

Patterson Pit Mining Renewal

OPERATOR
TOP GRADE AGGREGATES, LLC
3407 58th ST
HAMILTON, MI 49419
(269) 751-5898

[illegible]- AR ZONING REQUIREMENTS
SECTION 6

- [illegible]



Patterson Pit Mining Renewal

LOCAL GOVERNMENTS IN 1990-91. The 1990-91 financial year was the first time that the local authorities in England and Wales had been able to balance their budgets. This was due to a combination of factors, including the fact that the local authorities had been able to raise their own funds, and the fact that the central government had provided them with a grant of £1.5 billion. The local authorities had also been able to reduce their expenditure, and this had helped them to balance their budgets. The local authorities had also been able to raise their own funds, and this had helped them to balance their budgets. The local authorities had also been able to reduce their expenditure, and this had helped them to balance their budgets.

[illegible]

- CURRENT ZONING: SINGLE TRAIL RESIDENTIAL (R4)
- AIRBORNE NOISE: N/A
- SETBACKS:
 - FRONT YARD: 40'
 - SIDE YARD: 30'
 - REAR YARD: 35'
 - LOT SIZE: 1.5 ACRES
 - LOT WIDTH: 200'
- MINERAL EXTRACTOR & PROCESSING REQUIREMENT: N/A
- SETBACKS:
 - FRONT: 100 OR 50% PART OF THE RECLAIMANT PROCESS
 - PROPERTY LINE: 100 OR 27.5% PART OF THE RECLAIMANT PROCESS

CURRENT LOT:

- PROPOSED LOT SIZE 15.21 ACRES
- RECLAMATION AREA 4.22 ACRES
- LOT WIDTH 1132 FT

ALL DRAINAGE, STORMWATER AND OTHER RIGHT-OF-WAY IMPROVEMENTS WILL CONFORM TO MINNESOTA TOWNSHIP CONSTRUCTION STANDARDS.

THE MANAGEMENT OF STORMWATER WILL CONFORM TO MINNESOTA TOWNSHIP AND BARNET COUNTY DRAIN COMMISSION STANDARDS.

NOTE:

THE TOWNSHIP BOARD OF PUBLIC UTILITIES DEPARTMENT HAS REVIEWED THE DATA SHEET INFORMATION PROVIDED AND HAS DETERMINED



TG TOP GRADE
ALUMINUM LIFE MAINTENANCE PROGRAM
3407 58th Street, Hamlin MI 49419

WILEY-INTERSCIENCE

COLLEGE
MAGAZINE

C
E
A
C
A
T
C

THE

[illegible]

EXISTING CONDITIONS
WITH PROPOSED FUTURE
RESTORATION



CERTIFICATE OF LIABILITY INSURANCE

DATE (MM/DD/YYYY)

4/28/2023

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

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

PRODUCER Hylant - Grand Rapids 85 Campau Ave. NW, Ste 100 Grand Rapids MI 49503	CONTACT NAME: PHONE (A/C. No. Ext): 616-855-7900 FAX (A/C. No): 616-855-7910 E-MAIL ADDRESS: GRCerts@hylant.com
INSURED Top Grade Aggregates, LLC Top Grade Site Management, LLC Top Grade Transport, LLC 3407 58th Street Hamilton MI 49419	INSURER(S) AFFORDING COVERAGE INSURER A : Westfield Insurance Company INSURER B : ABC-MSI WC Fund INSURER C : INSURER D : INSURER E : INSURER F : NAIC # 24112

COVERAGES**CERTIFICATE NUMBER:** 544266926**REVISION NUMBER:**

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

INSR LTR	TYPE OF INSURANCE	ADDL SUBR INSD WVD	POLICY NUMBER	POLICY EFF (MM/DD/YYYY)	POLICY EXP (MM/DD/YYYY)	LIMITS
A	<input checked="" type="checkbox"/> COMMERCIAL GENERAL LIABILITY <input type="checkbox"/> CLAIMS-MADE <input checked="" type="checkbox"/> OCCUR GEN'L AGGREGATE LIMIT APPLIES PER: <input type="checkbox"/> POLICY <input checked="" type="checkbox"/> PROJECT <input checked="" type="checkbox"/> LOC OTHER:		CMM8795804	5/1/2023	5/1/2024	EACH OCCURRENCE \$ 1,000,000 DAMAGE TO RENTED PREMISES (Ea occurrence) \$ 500,000 MED EXP (Any one person) \$ 5,000 PERSONAL & ADV INJURY \$ 1,000,000 GENERAL AGGREGATE \$ 2,000,000 PRODUCTS - COMP/OP AGG \$ 2,000,000 \$
A	<input checked="" type="checkbox"/> AUTOMOBILE LIABILITY <input checked="" type="checkbox"/> ANY AUTO OWNED AUTOS ONLY <input type="checkbox"/> SCHEDULED AUTOS <input checked="" type="checkbox"/> HIRED AUTOS ONLY <input checked="" type="checkbox"/> NON-OWNED AUTOS ONLY		CMM8795804	5/1/2023	5/1/2024	COMBINED SINGLE LIMIT (Ea accident) \$ 1,000,000 BODILY INJURY (Per person) \$ BODILY INJURY (Per accident) \$ PROPERTY DAMAGE (Per accident) \$ \$
A	<input checked="" type="checkbox"/> UMBRELLA LIAB <input checked="" type="checkbox"/> OCCUR <input type="checkbox"/> EXCESS LIAB <input type="checkbox"/> CLAIMS-MADE DED <input checked="" type="checkbox"/> RETENTION \$ 0		CMM8795804	5/1/2023	5/1/2024	EACH OCCURRENCE \$ 5,000,000 AGGREGATE \$ 5,000,000 \$
B	<input checked="" type="checkbox"/> WORKERS COMPENSATION AND EMPLOYERS' LIABILITY ANY PROPRIETOR/PARTNER/EXECUTIVE OFFICER/MEMBER EXCLUDED? (Mandatory in NH) <input type="checkbox"/> Y / N If yes, describe under DESCRIPTION OF OPERATIONS below		TOPGR-C	5/1/2023	4/30/2024	<input checked="" type="checkbox"/> PER STATUTE <input type="checkbox"/> OTH-ER E.L. EACH ACCIDENT \$ 1,000,000 E.L. DISEASE - EA EMPLOYEE \$ 1,000,000 E.L. DISEASE - POLICY LIMIT \$ 1,000,000

DESCRIPTION OF OPERATIONS / LOCATIONS / VEHICLES (ACORD 101, Additional Remarks Schedule, may be attached if more space is required)

CERTIFICATE HOLDER**CANCELLATION**

Thornapple Township
200 E. Main St.
P.O. Box 459
Middleville MI 49333

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

AUTHORIZED REPRESENTATIVE

Nicholas R. Hylant

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APPLICATION FOR APPROVAL OF SPECIAL USE

Thornapple Township, 200 E. Main St., Middleville, MI 49333
Phone: 269-795-7202 Fax: 269-795-8812
Email: zoning-administrator@thornapple-twp.org

Case # SU- 93
Hearing Date / /

PROPERTY INFORMATION

Property Address: 3300- N Patterson Road, Middleville, MI 49333 Section 30

Parcel ID Number: 08-14-030-004-00 Zoning District AG/Res Wetlands Present? No

Parcel Size Frontage: 715 feet Depth: 595 feet Area: 10 [Acres or square feet]

Master Plan Future Land Use Map Designation for Parcel: AR

Current Use of Property [Describe] Mineral Extraction

Describe Proposed Special Land Use: Renewal and continuation of mineral extraction, plus adjacent properties to the east & west, and owned by Bohn Meadows, LLC and Michael & Andrea Bekius, respectively.

Section of Zoning Ordinance Allowing Special Land Use: _____

*****Provide a land survey and/or legal description of the subject property on a page attached to this petition*****

APPLICANT INFORMATION

1. Applicant

Identify the person or entity making this petition:

Name: <u>Top Grade Aggregates, LLC</u>	Cell Phone	<u>616-490-5809</u>
Mailing Address: <u>3407 58th Street</u>	Telephone	<u>269-751-8898</u>
City <u>Hamilton</u> State <u>MI</u> Zip <u>49419</u>	FAX	<u>269-751-8870</u>
E-Mail <u>kdekock@topgradesmc.com</u>		

2. Applicant Interest

The applicant must have a legal interest in the subject property, please check one below:

☐ Property Owner ☐ Purchase by Land Contract ☐ Option to Purchase ☐ Purchase Agreement ☒ Lessee over 1 year

3. Property Owner Check here if applicant is also property owner

Identify person or entity that owns the subject property:

Name: <u>John S. Yerington II, Revocable Trust</u>	Cell Phone <u>269-369-9671</u>
Mailing Address: <u>717 St. Joseph Dr. #116</u>	Telephone <u>269-985-0055</u>
City <u>St. Joseph</u> State <u>MI</u> Zip <u>49085</u>	Fax _____
E-Mail <u>jyerington@gmail.com</u>	

Application of Special Use – Continued

4. Authorized Agent

Identify person or entity representing the property owner or applicant in this petition:

Name: Kurt DeKock	Cell Phone	616-490-5809
Mailing Address: 3407 58th Street	Telephone	269-751-8898
City Hamilton State MI Zip 49419	Fax	269-751-8870
E-Mail kdekock@topgradesmc.com		

REQUIRED PETITION – WRITTEN ATTACHMENTS

- ✓ Provide narrative to explain need for the proposed Special Land Use
- ✓ Provide narrative addressing Section 19.3(1)-(10) criteria.
- ✓ Site Plan, if required

REQUEST & AFFIDAVIT

The applicant must read the following statement carefully and sign below:

The undersigned requests Thornapple Township review this petition and companion documents as provided in the zoning ordinance now in effect. The applicant further affirms and acknowledges the following:

- ✓ That the petitioner has a legal interest in the property described in this petition, and
- ✓ The answers and statements contained in this petition and attachment are in all respects true and correct to the best of my knowledge, and
- ✓ The petitioner offers the conditions set forth herein on its own volition and completely voluntary.
- ✓ The approval of this petition does not relieve the undersigned from compliance with all other provisions of the Zoning Ordinance or other applicable codes and ordinances and does not constitute granting of a variance, and
- ✓ The undersigned hereby grants Thornapple Township staff and Planning Commission member the right to access the subject property for the sole purpose of evaluating this petition.

Applicant Signature

6-21-27

Date

Applicant Signature

Date

If the petitioner is not the property owner, the property owner must sign below:

Property Owner Signature

6-14-23

Date

OFFICE USE ONLY:

Fee \$ _____ Fee Paid by ☐ Cash ☐ Check Receipt # _____ Received by: _____



APPLICATION FOR SITE PLAN REVIEW ARTICLE XX

Thornapple Township, 200 E. Main St., Middleville, MI 49333

Phone: 269-795-7202 Fax: 269-795-8812

Email: zoning-administrator@thornapple-twp.org

PROPERTY INFORMATION

Property Address: -Vacant- N Patterson Road, Middleville, MI 49333 Section 30

Parcel ID Number: 08-14-030-004-00 Zoning District AG/Res Wetlands Present? No

Parcel Size Frontage: 715 feet Depth: 595 feet Area: 10 [Acres or square feet]

Master Plan Future Land Use Map Designation for Parcel: AR

Current Use of Property [describe]: Mineral Extraction

Proposed Use (describe): Renewal and continuation of mineral extraction, plus adjacent owned by Robert Wenger, Bohn Meadows, LLC, John Yerington, & Michael Bekius, respectively.

APPLICANT INFORMATION

1. Applicant

Identify the person or organization requesting the Special Land Use:

Name: Top Grade Aggregates, LLC

Cell Phone 616-490-5809

Organization

Telephone 269-751-8898

Mailing Address: 3407 58th Street

FAX

City State Zip

E-Mail

kdekock@topgradesmc.com

2. Applicant Interest

The applicant must have a legal interest in the subject property, please check one below:

- ☐ Property Owner ☐ Purchase by Land Contract ☐ Option to Purchase
☐ Purchase Agreement ☒ Lessee over 1 year

3. Property Owner

☐ Check here if applicant is also property owner

Identify person or organization that owns the subject property:

Name: John S. Yerington II

Cell Phone 269-369-9671

Organization John S. Yerington II, Revocable Trust

Telephone 269-985-0055

Mailing Address: 717 St. Joseph Dr. #116

FAX

City St. Joseph State MI Zip 49085

E-Mail

jyerington@gmail.com

Application for Site Plan Review – Continued

4. Authorized Agent

Identify person or entity representing the property owner or applicant in this petition:

Name: Kurt DeKock	Cell Phone	616-490-5809
Organization	Telephone	269-751-8898
Mailing Address: 3407 58th Street	FAX	269-751-8870
City Hamilton State MI Zip 49419	E-Mail	kdekock@topgradesmc.com

REQUIRED APPLICATION ATTACHMENTS (see Sec. 20.4(a) & 20.4(b))

- **Description of Project** (Use applicant's letterhead if possible)
Written description of the proposed site and/or building layout, building and structure design information, floor plans, parking calculations, current environmental conditions, and other pertinent information.
- **Site Plans, Building Elevations, and Floor Plans**
Enclose 14 copies of site plans, building elevations and floor plans as required on the Site Plan Review Checklist.

REQUEST & AFFIDAVIT

The applicant must read the following statement carefully and sign below:

The undersigned requests Thornapple Township review this application, related required documents and site plans as provided in Article 20 of the Thornapple Township Zoning Ordinance. The applicant further affirms and acknowledges the following:

- *That the applicant has a legal interest in the property described in this application, and*
- *The answers and statements contained in this application and attachment are in all respects true and correct to the best of my knowledge, and*
- *That the approval of this application does not relieve the undersigned from compliance with all other provisions of the Zoning Ordinance or other codes or statutes and does not constitute granting of a variance, and*
- *That the applicant will comply with any and all conditions imposed in granting an approval of this application, and*
- *If also the owner, the applicant grants the Township staff and Planning Commission members the right to access the subject property for the sole purpose of evaluating the application.*

Applicant Signature

6-21-23

Date

Applicant Signature

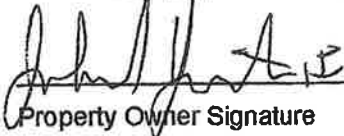
Date

Application for Site Plan Review – Continued

If the applicant is not the property owner, the property owner must sign below:

The undersigned affirms and acknowledges that he, she or they are the owner(s) of the property described in this application, and:

- I am / we are aware of the contents of this application and related enclosures.
- Authorizes the applicant to submit this application and represent the undersigned in the matter being reviewed by Thornapple Township.
- Grants the Township staff and the Planning Commission members the right to access the subject property for the sole purpose of evaluating the application.



Property Owner Signature

6-14-23

Date

Property Owner Signature

Date

OFFICE USE ONLY:

Assigned Site Plan # _____

Fee \$ _____ **Fee Paid by** ☐ **Cash** ☐ **Check** **Receipt #** _____

Application Received by: _____



APPLICATION FOR APPROVAL OF SPECIAL USE

Thornapple Township, 200 E. Main St., Middleville, MI 49333
Phone: 269-795-7202 Fax: 269-795-8812
Email: zoning-administrator@thornapple-twp.org

Case # SU- 93
Hearing Date 8/28/2023

PROPERTY INFORMATION

Property Address: -Vacant- N Patterson Road, Middleville, MI 49333 Section 30
Parcel ID Number: 08-14-030-003-00 Zoning District AG/Res Wetlands Present? No
Parcel Size Frontage: 1,110 feet Depth: 620 feet Area: 16.211 [Acres or square feet]
Master Plan Future Land Use Map Designation for Parcel: AR
Current Use of Property [Describe] Residential Use
Describe Proposed Special Land Use: Access for mineral extraction to the EAST
Top Grade plans to grade up area that had previously been an easement for other mining operation.
The property owners will continue to reside at 3160 Patterson Road.

Section of Zoning Ordinance Allowing Special Land Use: _____

Provide a land survey and/or legal description of the subject property on a page attached to this petition

APPLICANT INFORMATION

1. Applicant

Identify the person or entity making this petition:

Name: Top Grade Aggregates, LLC Cell Phone 616-490-5809
Mailing Address: 3407 58th Street Telephone 269-751-8898
City Hamilton State MI Zip 49419 FAX 269-751-8870
E-Mail kdekock@topgradesmc.com

2. Applicant Interest

The applicant must have a legal interest in the subject property, please check one below:

☐ Property Owner ☐ Purchase by Land Contract ☐ Option to Purchase ☐ Purchase Agreement ☒ Lessee over 1 year

3. Property Owner

____ Check here if applicant is also property owner

Identify person or entity that owns the subject property:

Name: Michael and Andrea Bekius Cell Phone 616-328-1240
Mailing Address: 3160 Patterson Road Telephone _____
City Middleville State MI Zip 49333 Fax _____
E-Mail bekius@gmail.com

Application of Special Use – Continued

4. Authorized Agent

Identify person or entity representing the property owner or applicant in this petition:

Name: <u>Kurt DeKock</u>	Cell Phone <u>616-490-5809</u>
Mailing Address: <u>3407 58th Street</u>	Telephone <u>269-751-8898</u>
City <u>Hamilton</u> State <u>MI</u> Zip <u>49419</u>	Fax <u>269-751-8870</u>
E-Mail <u>kdekock@topgradesmc.com</u>	

REQUIRED PETITION – WRITTEN ATTACHMENTS

- ✓ Provide narrative to explain need for the proposed Special Land Use
- ✓ Provide narrative addressing Section 19.3(1)-(10) criteria.
- ✓ Site Plan, if required

REQUEST & AFFIDAVIT

The applicant must read the following statement carefully and sign below:

The undersigned requests Thornapple Township review this petition and companion documents as provided in the zoning ordinance now in effect. The applicant further affirms and acknowledges the following:

- ✓ That the petitioner has a legal interest in the property described in this petition, and
- ✓ The answers and statements contained in this petition and attachment are in all respects true and correct to the best of my knowledge, and
- ✓ The petitioner offers the conditions set forth herein on its own volition and completely voluntary.
- ✓ The approval of this petition does not relieve the undersigned from compliance with all other provisions of the Zoning Ordinance or other applicable codes and ordinances and does not constitute granting of a variance, and
- ✓ The undersigned hereby grants Thornapple Township staff and Planning Commission member the right to access the subject property for the sole purpose of evaluating this petition.

Kurt DeKock

6/22/2023

Applicant Signature

Date

Applicant Signature

Date

If the petitioner is not the property owner, the property owner must sign below:

[Signature]

6-22-23

Property Owner Signature

Date

OFFICE USE ONLY:

Fee \$ _____ Fee Paid by ☐ Cash ☐ Check Receipt # _____ Received by: _____



Application for Site Plan Review – Continued

4. Authorized Agent

Identify person or entity representing the property owner or applicant in this petition:

Name: <u>Kurt DeKock</u>	Cell Phone	<u>616-490-5809</u>
Organization <u></u>	Telephone	<u>269-751-8898</u>
Mailing Address: <u>3407 58th Street</u>	FAX	<u>269-751-8870</u>
City <u>Hamilton</u> State <u>MI</u> Zip <u>49419</u>	E-Mail	<u>kdekock@topgradesmc.com</u>

REQUIRED APPLICATION ATTACHMENTS (see Sec. 20.4(a) & 20.4(b))

- **Description of Project** (Use applicant's letterhead if possible)
Written description of the proposed site and/or building layout, building and structure design information, floor plans, parking calculations, current environmental conditions, and other pertinent information.
- **Site Plans, Building Elevations, and Floor Plans**
Enclose 14 copies of site plans, building elevations and floor plans as required on the Site Plan Review Checklist.

REQUEST & AFFIDAVIT

The applicant must read the following statement carefully and sign below:

The undersigned requests Thornapple Township review this application, related required documents and site plans as provided in Article 20 of the Thornapple Township Zoning Ordinance. The applicant further affirms and acknowledges the following:

- *That the applicant has a legal interest in the property described in this application, and*
- *The answers and statements contained in this application and attachment are in all respects true and correct to the best of my knowledge, and*
- *That the approval of this application does not relieve the undersigned from compliance with all other provisions of the Zoning Ordinance or other codes or statutes and does not constitute granting of a variance, and*
- *That the applicant will comply with any and all conditions imposed in granting an approval of this application, and*
- *If also the owner, the applicant grants the Township staff and Planning Commission members the right to access the subject property for the sole purpose of evaluating the application.*



Applicant Signature

6-21-23

Date

Applicant Signature

Date

Application for Site Plan Review – Continued

If the applicant is not the property owner, the property owner must sign below:

The undersigned affirms and acknowledges that he, she or they are the owner(s) of the property described in this application, and:

- I am / we are aware of the contents of this application and related enclosures.
- Authorizes the applicant to submit this application and represent the undersigned in the matter being reviewed by Thornapple Township.
- Grants the Township staff and the Planning Commission members the right to access the subject property for the sole purpose of evaluating the application.



Property Owner Signature

6-18-23

Date



Property Owner Signature

6-18-2023

Date

OFFICE USE ONLY:

Assigned Site Plan # _____

Fee \$ _____ Fee Paid by ☐ Cash ☐ Check Receipt # _____

Application Received by: _____



APPLICATION FOR APPROVAL OF SPECIAL USE

Thornapple Township, 200 E. Main St., Middleville, MI 49333

Phone: 269-795-7202 Fax: 269-795-8812

Email: zoning-administrator@thornapple-twp.org

Case # SU- _____

Hearing Date ____/____/____

PROPERTY INFORMATION

Property Address: 12675 Jackson Rd, Middleville, MI 49333 Section 30

Parcel ID Number: 08-14-030-008-00 Zoning District AG/Res Wetlands Present? No

Parcel Size Frontage: 913 feet Depth: 2692 feet Area: 46.6 [Acres or square feet]

Master Plan Future Land Use Map Designation for Parcel: AR

Current Use of Property [Describe] Vacant Property-South, Livestock Grazing-North (fenced)

Describe Proposed Special Land Use: Mineral extraction activities, plus adjacent properties to the east & west, owned by Robert Wenger, Bohn Meadows, LLC, John Yerington, & Michael Bekius, respectively.

Section of Zoning Ordinance Allowing Special Land Use: _____

Provide a land survey and/or legal description of the subject property on a page attached to this petition

APPLICANT INFORMATION

1. Applicant

Identify the person or entity making this petition:

Name: Top Grade Aggregates, LLC

Cell Phone 616-490-5809

Mailing Address: 3407 58th Street

Telephone 269-751-8898

City Hamilton

State MI

Zip 49419

FAX

269-751-8870

E-Mail

kdekock@topgradesmc.com

2. Applicant Interest

The applicant must have a legal interest in the subject property, please check one below:

☐ Property Owner ☐ Purchase by Land Contract ☐ Option to Purchase ☐ Purchase Agreement ☒ Lessee over 1 year

3. Property Owner ☐ Check here if applicant is also property owner

Identify person or entity that owns the subject property:

Name: Robert and Amanda Reurink

Cell Phone _____

Mailing Address: 12675 Jackson Road

Telephone _____

City Middleville

State MI

Zip 49333

Fax _____

E-Mail

reurinkfarms@gmail.com

Application of Special Use - Continued

4. Authorized Agent

Identify person or entity representing the property owner or applicant in this petition

Name Kurt DeKock Cell Phone 616 490 5809
Mailing Address 3407 58th Street Telephone 269 751 8898
City Hamilton State MI Zip 49419 Fax 269 751 8870
E Mail kdekock@topparadesmc.com

REQUIRED PETITION - WRITTEN ATTACHMENTS

- ✓ Provide narrative to explain need for the proposed Special Land Use
- ✓ Provide narrative addressing Section 19.3(1)-(10) criteria.
- ✓ Site Plan, if required

REQUEST & AFFIDAVIT

The applicant must read the following statement carefully and sign below:

The undersigned requests Thornapple Township review this petition and companion documents as provided in the zoning ordinance now in effect. The applicant further affirms and acknowledges the following

- ✓ That the petitioner has a legal interest in the property described in this petition, and
- ✓ The answers and statements contained in this petition and attachment are in all respects true and correct to the best of my knowledge, and
- ✓ The petitioner offers the conditions set forth herein on its own volition and completely voluntary.
- ✓ The approval of this petition does not relieve the undersigned from compliance with all other provisions of the Zoning Ordinance or other applicable codes and ordinances and does not constitute granting of a variance, and
- ✓ The undersigned hereby grants Thornapple Township staff and Planning Commission member the right to access the subject property for the sole purpose of evaluating this petition.

06/21/23

Kurt DeKock

Applicant Signature

Date

Applicant Signature

Date

If the petitioner is not the property owner, the property owner must sign below:

Robert M. K... / Daniel M. K...

6/16/2023

Property Owner Signature

Date

OFFICE USE ONLY:

Fee \$ _____ Fee Paid by ☐ Cash ☐ Check Receipt # _____ Received by: _____



APPLICATION FOR SITE PLAN REVIEW ARTICLE XX

Thornapple Township, 200 E. Main St., Middleville, MI 49333

Phone: 269-795-7202 Fax: 269-795-8812

Email: zoning-administrator@thornapple-twp.org

PROPERTY INFORMATION

Property Address: -Vacant- N Patterson Road, Middleville, MI 49333 Section 30

Parcel ID Number: 08-14-030-008-00 Zoning District AG/Res Wetlands Present? No

Parcel Size Frontage: 913 feet Depth: 2692 feet Area: 46.6 [Acres or square feet]

Master Plan Future Land Use Map Designation for Parcel: AR

Current Use of Property [describe]: - Vacant Property-South, Livestock Grazing-North (fenced)

Proposed Use (describe): Mineral extraction activities, plus adjacent properties to the east & west, owned by Robert Wenger, Bohn Meadows, LLC, John Yerington, & Michael Bekius, respectively.

APPLICANT INFORMATION

1. Applicant

Identify the person or organization requesting the Special Land Use:

Name: Top Grade Aggregates, LLC

Cell Phone 616-490-5809

Organization _____

Telephone 269-751-8898

Mailing Address: 3407 58th Street

FAX _____

City _____ State _____ Zip _____

E-Mail kdekock@topgradesmc.com

2. Applicant Interest

The applicant must have a legal interest in the subject property, please check one below:

- ☐ Property Owner ☐ Purchase by Land Contract ☐ Option to Purchase
☐ Purchase Agreement ☒ Lessee over 1 year

3. Property Owner

☐ Check here if applicant is also property owner

Identify person or organization that owns the subject property:

Name: Robert and Amanda Reurink

Cell Phone _____

Organization _____

Telephone _____

Mailing Address: 12675 Jackson Road

FAX _____

City _____ State _____ Zip _____

E-Mail reurinkfarms@gmail.com

Application for Site Plan Review – Continued

4. Authorized Agent

Identify person or entity representing the property owner or applicant in this petition:

Name: Kurt DeKock	Cell Phone	616-490-5809
Organization	Telephone	269-751-8898
Mailing Address: 3407 58th Street	FAX	269-751-8870
City Hamilton State MI Zip 49419	E-Mail	kdekock@topgradesmc.com

REQUIRED APPLICATION ATTACHMENTS (see Sec. 20.4(a) & 20.4(b))

- **Description of Project** (Use applicant's letterhead if possible)
Written description of the proposed site and/or building layout, building and structure design information, floor plans, parking calculations, current environmental conditions, and other pertinent information.
- **Site Plans, Building Elevations, and Floor Plans**
Enclose 14 copies of site plans, building elevations and floor plans as required on the Site Plan Review Checklist.

REQUEST & AFFIDAVIT

The applicant must read the following statement carefully and sign below:

The undersigned requests Thornapple Township review this application, related required documents and site plans as provided in Article 20 of the Thornapple Township Zoning Ordinance. The applicant further affirms and acknowledges the following:

- *That the applicant has a legal interest in the property described in this application, and*
- *The answers and statements contained in this application and attachment are in all respects true and correct to the best of my knowledge, and*
- *That the approval of this application does not relieve the undersigned from compliance with all other provisions of the Zoning Ordinance or other codes or statutes and does not constitute granting of a variance, and*
- *That the applicant will comply with any and all conditions imposed in granting an approval of this application, and*
- *If also the owner, the applicant grants the Township staff and Planning Commission members the right to access the subject property for the sole purpose of evaluating the application.*

Kurt DeKock

Applicant Signature

06/21/23

Date

Applicant Signature

Date

Application for Site Plan Review – Continued

If the applicant is not the property owner, the property owner must sign below:

The undersigned affirms and acknowledges that he, she or they are the owner(s) of the property described in this application, and:

- o I am / we are aware of the contents of this application and related enclosures.
- o Authorizes the applicant to submit this application and represent the undersigned in the matter being reviewed by Thornapple Township.
- o Grants the Township staff and the Planning Commission members the right to access the subject property for the sole purpose of evaluating the application.

Robert A. Pennington

Property Owner Signature

6/16/23

Date

Ann McRee

Property Owner Signature

6/16/2023

Date

OFFICE USE ONLY:

Assigned Site Plan # _____

Fee \$ _____ Fee Paid by ☐ Cash ☐ Check Receipt # _____

Application Received by: _____



APPLICATION FOR APPROVAL OF SPECIAL USE

Thornapple Township, 200 E. Main St., Middleville, MI 49333

Phone: 269-795-7202 Fax: 269-795-8812

Email: zoning-administrator@thornapple-twp.org

Case # SU- _____

Hearing Date ____/____/____

PROPERTY INFORMATION

Property Address: -Vacant- N Patterson Road, Middleville, MI 49333 Section 30

Parcel ID Number: 08-14-030-009-00 Zoning District AG/Res Wetlands Present? No

Parcel Size Frontage: 1,110 feet Depth: 970 feet Area: 28.93 [Acres or square feet]

Master Plan Future Land Use Map Designation for Parcel: AR

Current Use of Property [Describe] Vacant Property. Partially mined with stockpiles of material, small trees & brush.

Describe Proposed Special Land Use: Renewal of mineral extraction activities, along with a 2.69 acre

Contractor Yard for the temporary stockpiling of asphalt & concrete rubble.

Aggregate processing (crushing, screening, etc.) will take place within said Contractor Yard.

Section of Zoning Ordinance Allowing Special Land Use: _____

Provide a land survey and/or legal description of the subject property on a page attached to this petition

APPLICANT INFORMATION

1. Applicant

Identify the person or entity making this petition:

Name: Top Grade Aggregates, LLC

Cell Phone 616-490-5809

Mailing Address: 3407 58th Street

Telephone 269-751-8898

City Hamilton State MI Zip 49419

FAX 269-751-8870

E-Mail kdekock@topgradesmc.com

2. Applicant Interest

The applicant must have a legal interest in the subject property, please check one below:

☐ Property Owner ☐ Purchase by Land Contract ☐ Option to Purchase ☐ Purchase Agreement ☒ Lessee over 1 year

3. Property Owner ☐ Check here if applicant is also property owner

Identify person or entity that owns the subject property:

Name: Bohn Meadows, LLC

Cell Phone 269-369-9671

Mailing Address: 5914 Dunham Lane

Telephone 269-985-0055

City Stevensville State MI Zip 49127

Fax _____

E-Mail jyerington@gmail.com

Application of Special Use – Continued

4. Authorized Agent

Identify person or entity representing the property owner or applicant in this petition:

Name: Kurt DeKock Cell Phone 616-490-5809
Mailing Address: 3407 58th Street Telephone 269-751-8898
City Hamilton State MI Zip 49419 Fax 269-751-8870
E-Mail kdekock@topgradesmc.com

REQUIRED PETITION – WRITTEN ATTACHMENTS

- ✓ Provide narrative to explain need for the proposed Special Land Use
- ✓ Provide narrative addressing Section 19.3(1)-(10) criteria.
- ✓ Site Plan, if required

REQUEST & AFFIDAVIT

The applicant must read the following statement carefully and sign below:

The undersigned requests Thornapple Township review this petition and companion documents as provided in the zoning ordinance now in effect. The applicant further affirms and acknowledges the following:

- ✓ That the petitioner has a legal interest in the property described in this petition, and
- ✓ The answers and statements contained in this petition and attachment are in all respects true and correct to the best of my knowledge, and
- ✓ The petitioner offers the conditions set forth herein on its own volition and completely voluntary.
- ✓ The approval of this petition does not relieve the undersigned from compliance with all other provisions of the Zoning Ordinance or other applicable codes and ordinances and does not constitute granting of a variance, and
- ✓ The undersigned hereby grants Thornapple Township staff and Planning Commission member the right to access the subject property for the sole purpose of evaluating this petition.

[Signature]
Applicant Signature

6-21-23
Date

Applicant Signature

Date

If the petitioner is not the property owner, the property owner must sign below:

[Signature]
Property Owner Signature

6-14-23
Date

OFFICE USE ONLY:

Fee \$ _____ Fee Paid by ☐ Cash ☐ Check Receipt # _____ Received by: _____



APPLICATION FOR SITE PLAN REVIEW ARTICLE XX

Thornapple Township, 200 E. Main St., Middleville, MI 49333

Phone: 269-795-7202 Fax: 269-795-8812

Email: zoning-administrator@thornapple-twp.org

PROPERTY INFORMATION

Property Address: -Vacant- N Patterson Road, Middleville, MI 49333 Section 30

Parcel ID Number: 08-14-030-009-00 Zoning District AG/Res Wetlands Present? No

Parcel Size Frontage: 1110 feet Depth: 970 feet Area: 28.93 [Acres or square feet]

Master Plan Future Land Use Map Designation for Parcel: AR

Current Use of Property [describe]: Vacant Property. Partially mined with stockpiles of material, small trees & brush.

Proposed Use (describe): Renewal of mineral extraction activities, along with a 2.69 acre

Contractor Yard for the temporary stockpiling of asphalt & concrete rubble.

Aggregate processing (crushing, screening, etc.) will take place within said Contractor Yard.

APPLICANT INFORMATION

1. Applicant

Identify the person or organization requesting the Special Land Use:

Name: Top Grade Aggregates, LLC

Cell Phone 616-490-5809

Organization _____

Telephone 269-751-8898

Mailing Address: 3407 58th Street

FAX _____

City _____ State _____ Zip _____

E-Mail kdekock@topgradesmc.com

2. Applicant Interest

The applicant must have a legal interest in the subject property, please check one below:

- ☐ Property Owner ☐ Purchase by Land Contract ☐ Option to Purchase
☐ Purchase Agreement ☒ Lessee over 1 year

3. Property Owner

☐ Check here if applicant is also property owner

Identify person or organization that owns the subject property:

Name: John Yerington II

Cell Phone 269-369-9671

Organization Bohn Meadows, LLC

Telephone 269-985-0055

Mailing Address: 5914 Dunham Lane

FAX _____

City Stevensville State MI Zip 49127

E-Mail jyerington@gmail.com

Application for Site Plan Review – Continued

4. Authorized Agent

Identify person or entity representing the property owner or applicant in this petition:

Name: Kurt DeKock	Cell Phone	616-490-5809
Organization	Telephone	
Mailing Address:	FAX	
City	State	Zip
	E-Mail	kdekock@topgradesmc.com

REQUIRED APPLICATION ATTACHMENTS (see Sec. 20.4(a) & 20.4(b))

- **Description of Project** (Use applicant's letterhead if possible)
Written description of the proposed site and/or building layout, building and structure design information, floor plans, parking calculations, current environmental conditions, and other pertinent information.
- **Site Plans, Building Elevations, and Floor Plans**
Enclose 14 copies of site plans, building elevations and floor plans as required on the Site Plan Review Checklist.

REQUEST & AFFIDAVIT

The applicant must read the following statement carefully and sign below:

The undersigned requests Thornapple Township review this application, related required documents and site plans as provided in Article 20 of the Thornapple Township Zoning Ordinance. The applicant further affirms and acknowledges the following:

- *That the applicant has a legal interest in the property described in this application, and*
- *The answers and statements contained in this application and attachment are in all respects true and correct to the best of my knowledge, and*
- *That the approval of this application does not relieve the undersigned from compliance with all other provisions of the Zoning Ordinance or other codes or statutes and does not constitute granting of a variance, and*
- *That the applicant will comply with any and all conditions imposed in granting an approval of this application, and*
- *If also the owner, the applicant grants the Township staff and Planning Commission members the right to access the subject property for the sole purpose of evaluating the application.*



Applicant Signature



Date

Applicant Signature

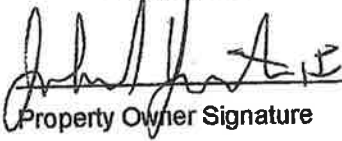
Date

Application for Site Plan Review – Continued

If the applicant is not the property owner, the property owner must sign below:

The undersigned affirms and acknowledges that he, she or they are the owner(s) of the property described in this application, and:

- o I am / we are aware of the contents of this application and related enclosures.
- o Authorizes the applicant to submit this application and represent the undersigned in the matter being reviewed by Thornapple Township.
- o Grants the Township staff and the Planning Commission members the right to access the subject property for the sole purpose of evaluating the application.



Property Owner Signature

6-14-23

Date

Property Owner Signature

Date

OFFICE USE ONLY:

Assigned Site Plan # _____

Fee \$ _____ **Fee Paid by** ☐ Cash ☐ Check **Receipt #** _____

Application Received by: _____



APPLICATION FOR APPROVAL OF SPECIAL USE

Thornapple Township, 200 E. Main St., Middleville, MI 49333
Phone: 269-795-7202 Fax: 269-795-8812
Email: zoning-administrator@thornapple-twp.org

Case # SU- _____
Hearing Date ____/____/____

PROPERTY INFORMATION

Property Address: -vacant- N. Patterson Rd, Middleville, MI 49333. SW 1/4 o/t SE 1/4 Section 30
Parcel ID Number: 08-14-030-006-00 Zoning District AG/Res Wetlands Present? No
Parcel Size Frontage: 0 feet Depth: 1519 feet Area: 40 [Acres or square feet]
Master Plan Future Land Use Map Designation for Parcel: AR
Current Use of Property [Describe] Vacant Property-Agricultural Use
Describe Proposed Special Land Use: Mineral extraction activities, plus adjacent properties to the west, owned by Robert Reurink, Bohn Meadows, LLC, John Yerington, & Michael Bekius, respectively.

Section of Zoning Ordinance Allowing Special Land Use: _____

Provide a land survey and/or legal description of the subject property on a page attached to this petition

APPLICANT INFORMATION

1. Applicant

Identify the person or entity making this petition:

Name: Top Grade Aggregates, LLC Cell Phone 616-490-5809
Mailing Address: 3407 58th Street Telephone 269-751-8898
City Hamilton State MI Zip 49419 FAX 269-751-8870
E-Mail kdekock@topgradesmc.com

2. Applicant Interest

The applicant must have a legal interest in the subject property, please check one below:

☐ Property Owner ☐ Purchase by Land Contract ☐ Option to Purchase ☐ Purchase Agreement ☒ Lessee over 1 year

3. Property Owner ☐ Check here if applicant is also property owner

Identify person or entity that owns the subject property:

Name: Robert V Wenger Trust, Helen J Wenger Trust Cell Phone 703-217-1459
Mailing Address: c/o Christina Gibson, 338 Bayberry Lane Telephone 734-386-1135
City Reedville State VA Zip 22539 Fax _____
E-Mail ewhimsey_london@hotmail.com

Application of Special Use – Continued

4. Authorized Agent

Identify person or entity representing the property owner or applicant in this petition:

Name:	Kurt DeKock	Cell Phone	616-490-5809
Mailing Address:	3407 58th Street	Telephone	269-751-8898
City	Hamilton	State	MI
Zip	49419	Fax	269-751-8870
E-Mail	kdekock@topgradesmc.com		

REQUIRED PETITION – WRITTEN ATTACHMENTS

- ✓ Provide narrative to explain need for the proposed Special Land Use
- ✓ Provide narrative addressing Section 19.3(1)-(10) criteria.
- ✓ Site Plan, if required

REQUEST & AFFIDAVIT

The applicant must read the following statement carefully and sign below:

The undersigned requests Thornapple Township review this petition and companion documents as provided in the zoning ordinance now in effect. The applicant further affirms and acknowledges the following:

- ✓ That the petitioner has a legal interest in the property described in this petition, and
- ✓ The answers and statements contained in this petition and attachment are in all respects true and correct to the best of my knowledge, and
- ✓ The petitioner offers the conditions set forth herein on its own volition and completely voluntary.
- ✓ The approval of this petition does not relieve the undersigned from compliance with all other provisions of the Zoning Ordinance or other applicable codes and ordinances and does not constitute granting of a variance, and
- ✓ The undersigned hereby grants Thornapple Township staff and Planning Commission member the right to access the subject property for the sole purpose of evaluating this petition.

Applicant Signature

Date

Applicant Signature

Date

If the petitioner is not the property owner, the property owner must sign below:

Property Owner Signature

Date

OFFICE USE ONLY:

Fee \$ _____ Fee Paid by ☐ Cash ☐ Check Receipt # _____ Received by: _____



APPLICATION FOR SITE PLAN REVIEW ARTICLE XX

Thornapple Township, 200 E. Main St., Middleville, MI 49333

Phone: 269-795-7202 Fax: 269-795-8812

Email: zoning-administrator@thornapple-twp.org

PROPERTY INFORMATION

Property Address: -Vacant- N Patterson Road, Middleville, MI 49333 Section 30

Parcel ID Number: 08-14-030-006-00 Zoning District AG/Res Wetlands Present? No

Parcel Size Frontage: 0 feet Depth: 1519 feet Area: 40 [Acres or square feet]

Master Plan Future Land Use Map Designation for Parcel: AR

Current Use of Property [describe]: Vacant Property-Agricultural Use

Proposed Use (describe): Mineral extraction activities, plus adjacent properties to the east & west, owned by Robert Wenger, Bohn Meadows, LLC, John Yerington, & Michael Bekius, respectively.

APPLICANT INFORMATION

1. Applicant

Identify the person or organization requesting the Special Land Use:

Name: Top Grade Aggregates, LLC

Cell Phone 616-490-5809

Organization _____

Telephone 269-751-8898

Mailing Address: 3407 58th Street

FAX _____

City _____ State _____ Zip _____

E-Mail kdekock@topgradesmc.com

2. Applicant Interest

The applicant must have a legal interest in the subject property, please check one below:

- ☐ Property Owner ☐ Purchase by Land Contract ☐ Option to Purchase
☐ Purchase Agreement ☒ Lessee over 1 year

3. Property Owner

☐ Check here if applicant is also property owner

Identify person or organization that owns the subject property:

Name: Robert V Wenger Trust, Helen J Wenger Trust

Cell Phone 703-217-1459

Organization c/o Christina Gibson, 338 Bayberry Lane

Telephone 734-386-1135

Mailing Address: _____

FAX _____

City _____ State _____ Zip _____

E-Mail ewhimsey_london@hotmail.com

Application for Site Plan Review – Continued

4. Authorized Agent

Identify person or entity representing the property owner or applicant in this petition:

Name: <u>Kurt DeKock</u>	Cell Phone	<u>616-490-5809</u>
Organization <u></u>	Telephone	<u>269-751-8898</u>
Mailing Address: <u>3407 58th Street</u>	FAX	<u>269-751-8870</u>
City <u>Hamilton</u> State <u>MI</u> Zip <u>49419</u>	E-Mail	<u>kdekock@topgradesmc.com</u>

REQUIRED APPLICATION ATTACHMENTS (see Sec. 20.4(a) & 20.4(b))

- **Description of Project** (Use applicant's letterhead if possible)
Written description of the proposed site and/or building layout, building and structure design information, floor plans, parking calculations, current environmental conditions, and other pertinent information.
- **Site Plans, Building Elevations, and Floor Plans**
Enclose 14 copies of site plans, building elevations and floor plans as required on the Site Plan Review Checklist.

REQUEST & AFFIDAVIT

The applicant must read the following statement carefully and sign below:

The undersigned requests Thornapple Township review this application, related required documents and site plans as provided in Article 20 of the Thornapple Township Zoning Ordinance. The applicant further affirms and acknowledges the following:

- *That the applicant has a legal interest in the property described in this application, and*
- *The answers and statements contained in this application and attachment are in all respects true and correct to the best of my knowledge, and*
- *That the approval of this application does not relieve the undersigned from compliance with all other provisions of the Zoning Ordinance or other codes or statutes and does not constitute granting of a variance, and*
- *That the applicant will comply with any and all conditions imposed in granting an approval of this application, and*
- *If also the owner, the applicant grants the Township staff and Planning Commission members the right to access the subject property for the sole purpose of evaluating the application.*



Applicant Signature

6-21-23

Date

Applicant Signature


Date

Application for Site Plan Review – Continued

If the applicant is not the property owner, the property owner must sign below:

The undersigned affirms and acknowledges that he, she or they are the owner(s) of the property described in this application, and:

- I am / we are aware of the contents of this application and related enclosures.
- Authorizes the applicant to submit this application and represent the undersigned in the matter being reviewed by Thornapple Township.
- Grants the Township staff and the Planning Commission members the right to access the subject property for the sole purpose of evaluating the application.



Property Owner Signature

6/15/23

Date

Property Owner Signature

Date

OFFICE USE ONLY:

Assigned Site Plan # _____

Fee \$ _____ **Fee Paid by** ☐ **Cash** ☐ **Check** **Receipt #** _____

Application Received by: _____



Vriesman
& Korhorn

August 16, 2023
922

Via Email: pgensterblum@thornapple-twp.org

Phil Gensterblum, Zoning Administrator
Thornapple Township
200 E Main St
Middleville, MI 49333

RE: Special Use #149 and Site Plan #120 Renewal: Excel Excavating Mineral Extraction
9582 Adams Road
Section 27, Thornapple Township

Dear Phil,

We have reviewed the application for mineral removal operation renewal on parcel 14-027-003-20 owned by Heidi and Michael Flierman and operated by Excel Excavating. A site plan committee meeting was held at the site on July 26, 2023. The applicant was not present at the meeting. The aerial plan presented in 2021 has not been updated.

Mining within the site has proceeded according to the proposed plan. Bank limits remain relatively similar to those indicated on the site plan due to relatively limited mining activity. The small stand of trees to the west of the pit have been removed in preparation for mining. No update for the site plan is needed. Snow fence is in place along the west and north extents, protecting the bank as required. The pit floor elevation has remained consistent since mining started. The appearance of the pit is neat and clean.

We do not find it necessary for an updated site plan at this time. We recommend the renewal of the special use and site plan without changes and with conditions as currently in place, with dates updated as needed. Please feel free to contact our office if you have any questions regarding this review.

Sincerely,

VK Civil

A handwritten signature in black ink, appearing to read 'Todd Boerman'.

Todd Boerman, PE

TMB/jmg



APPLICATION FOR APPROVAL OF SPECIAL USE

Thornapple Township, 200 E. Main St., Middleville, MI 49333
Phone: 269-795-7202 Fax: 269-795-8812
Email: zoning-administrator@thornapple-twp.org

Case # SU- 149
Hearing Date / /

PROPERTY INFORMATION

Property Address: 9582 Adams Road
Parcel ID Number: 14-027-003-20 Zoning District AR Wetlands Present? ☒ or N
Parcel Size Frontage: 1330 feet Depth: 1310 feet Area: 40.14 [Acres or square feet]
Master Plan Future Land Use Map Designation for Parcel: Agricultural Residential
Current Use of Property [Describe] Residence in the front, all remaining tillable acres currently farmed
Describe Proposed Special Land Use: Mine sand in approx 10 to 12 acres of the North portion of the property.
Restore to farmland as we go. Remove hills and level the land. No ponds to be dug.

Section of Zoning Ordinance Allowing Special Land Use: 32.2.68

Provide a land survey and/or legal description of the subject property on a page attached to this petition

THORNAPPLE TWPBEG S ¼ POST SEC 27 T4N R10W; TH S89°09'13"W 1330.52FT,
TH N0°25'58"W 1317.4FT, TH N89°25'50"E 1330.6FT, TH S0°25'40"E 1310.97FT TO POB. 40.141 AC (04)

APPLICANT INFORMATION

1. Applicant

Identify the person or entity making this petition:

Name: Carson Galloway (Excel Excavation) Cell Phone 616-558-9666
Mailing Address: 5640 108th St SE Telephone NA
City Caledonia State MI Zip 49316 FAX NA
E-Mail carson.galloway@excelexc.com

2. Applicant Interest

The applicant must have a legal interest in the subject property, please check one below:

☐ Property Owner ☐ Purchase by Land Contract ☐ Option to Purchase ☐ Purchase Agreement ☒ Lessee over 1 year

3. Property Owner ☐ Check here if applicant is also property owner

Identify person or entity that owns the subject property:

Name: Michael Fliearman Cell Phone 269-908-9436
Mailing Address: 9582 Adams Road Telephone NA
City Middleville State MI Zip 49333 Fax NA
E-Mail mikefliearman@gmail.com

Name: SAME AS APPLICANT

Mailing Address: _____

City _____ State _____ Zip _____

E-Mail _____

Cell Phone _____

Telephone _____

Fax _____

REQUIRED PETITION – WRITTEN ATTACHMENTS

- ✓ Provide narrative to explain need for the proposed Special Land Use
- ✓ Provide narrative addressing Section 19.3(1)-(10) criteria.
- ✓ Site Plan, if required

REQUEST & AFFIDAVIT

- ✓ That the petitioner has a legal interest in the property described in this petition, and
- ✓ The answers and statements contained in this petition and attachment are in all respects true and correct to the best of my knowledge, and
- ✓ The petitioner offers the conditions set forth herein on its own volition and completely voluntary.
- ✓ The approval of this petition does not relieve the undersigned from compliance with all other provisions of the Zoning Ordinance or other applicable codes and ordinances and does not constitute granting of a variance, and
- ✓ The undersigned hereby grants Thornapple Township staff and Planning Commission member the right to access the subject property for the sole purpose of evaluating this petition.

Carson Gellan
Applicant Signature

6-14-2023
Date

Applicant Signature

Date _____

If the ~~petitioner is~~ not the property owner, the property owner must sign below:

Michael H. Thompson
Property Owner Signature

7/5/23
Date

Fee \$ 250 Fee Paid by Cash ☒ X Check Receipt # 23981 Received by: X. Bruch
☐ [] Approved, ☐ [] Approved w/conditions, ☐ [] Denied: by the Planning Commission on _____

Planning Commission Secretary



APPLICATION FOR SITE PLAN REVIEW ARTICLE XX

FEE: \$250

Thornapple Township, 200 E. Main St., Middleville, MI 49333
Phone: 269-795-7202 Fax: 269-795-8812
Email: zoning-administrator@thornapple-twp.org

PROPERTY INFORMATION

Property Address: 9582 Adams Road
Parcel ID Number: 14-027-003-20 Zoning District AR Wetlands Present? ☒ Y or N East side
Parcel Size Frontage: 1330 feet Depth: 1310 feet Area: 40.14 [Acres or square feet]
Master Plan Future Land Use Map Designation for Parcel: Agricultural Residential
Current Use of Property [describe]: Residence in the front, all remaining tillable acres currently farmed
Proposed Use (describe): Mine sand (no processing) off approx 10 acres of the North portion of the land and restore to farm land as we go. Only leveling off the hills and restoring.
We are NOT digging any ponds. The intension is to finish it off in better quality farmland than what it is right now. It will be more level and have much thicker more fertile topsoil than existing

APPLICANT INFORMATION

1. Applicant

Identify the person or organization requesting the Special Land Use:

Name: <u>Carson Galloway</u>	Cell Phone	<u>616-558-9666</u>
Organization <u>Excel Excavation Group LLC</u>	Telephone	<u>N/A</u>
Mailing Address: <u>5640 108th St SE</u>	FAX	<u>N/A</u>
City <u>Caledonia</u> State <u>MI</u> Zip <u>49316</u>	E-Mail	<u>carson.galloway@excelexc.com</u>

2. Applicant Interest

The applicant must have a legal interest in the subject property, please check one below:

☐ Property Owner ☐ Purchase by Land Contract ☐ Option to Purchase
☐ Purchase Agreement ☒ Lessee over 1 year

3. Property Owner ☐ Check here if applicant is also property owner

Identify person or organization that owns the subject property:

Name: <u>Michael Fliearman</u>	Cell Phone	<u>269-908-9436</u>
Organization <u>Individual Landowner</u>	Telephone	<u>N/A</u>
Mailing Address: <u>9582 Adams Road</u>	FAX	<u>N/A</u>
City <u>Middleville</u> State <u>MI</u> Zip <u>49333</u>	E-Mail	<u>mikefliearman@gmail.com</u>

4. Authorized Agent

Name: SAME AS APPLICANT

Cell Phone

Organization

Telephone

Mailing Address:

FAX

City

State

Zip

F-Mail

- **Description of Project** (Use applicant's letterhead if possible)

- **Site Plans, Building Elevations, and Floor Plans**

REQUEST & AFFIDAVIT

- o *That the applicant has a legal interest in the property described in this application, and*
- o *The answers and statements contained in this application and attachment are in all respects true and correct to the best of my knowledge, and*
- o *That the approval of this application does not relieve the undersigned from compliance with all other provisions of the Zoning Ordinance or other codes or statutes and does not constitute granting of a variance, and*
- o *That the applicant will comply with any and all conditions imposed in granting an approval of this application, and*
- o *If also the owner, the applicant grants the Township staff and Planning Commission members the right to access the subject property for the sole purpose of evaluating the application.*

Carroll Gilliam

6-14-2023

Applicant Signature

Date _____

Applicant Signature

Date _____

Application for Site Plan Review – Continued

If the applicant is not the property owner, the property owner must sign below:

The undersigned affirms and acknowledges that he, she or they are the owner(s) of the property described in this application, and:

- I am / we are aware of the contents of this application and related enclosures.
- Authorizes the applicant to submit this application and represent the undersigned in the matter being reviewed by Thornapple Township.
- Grants the Township staff and the Planning Commission members the right to access the subject property for the sole purpose of evaluating the application.

Michael H. Flierman
Property Owner Signature

7/5/23
Date

Neidi Flierman
Property Owner Signature

7/5/23
Date

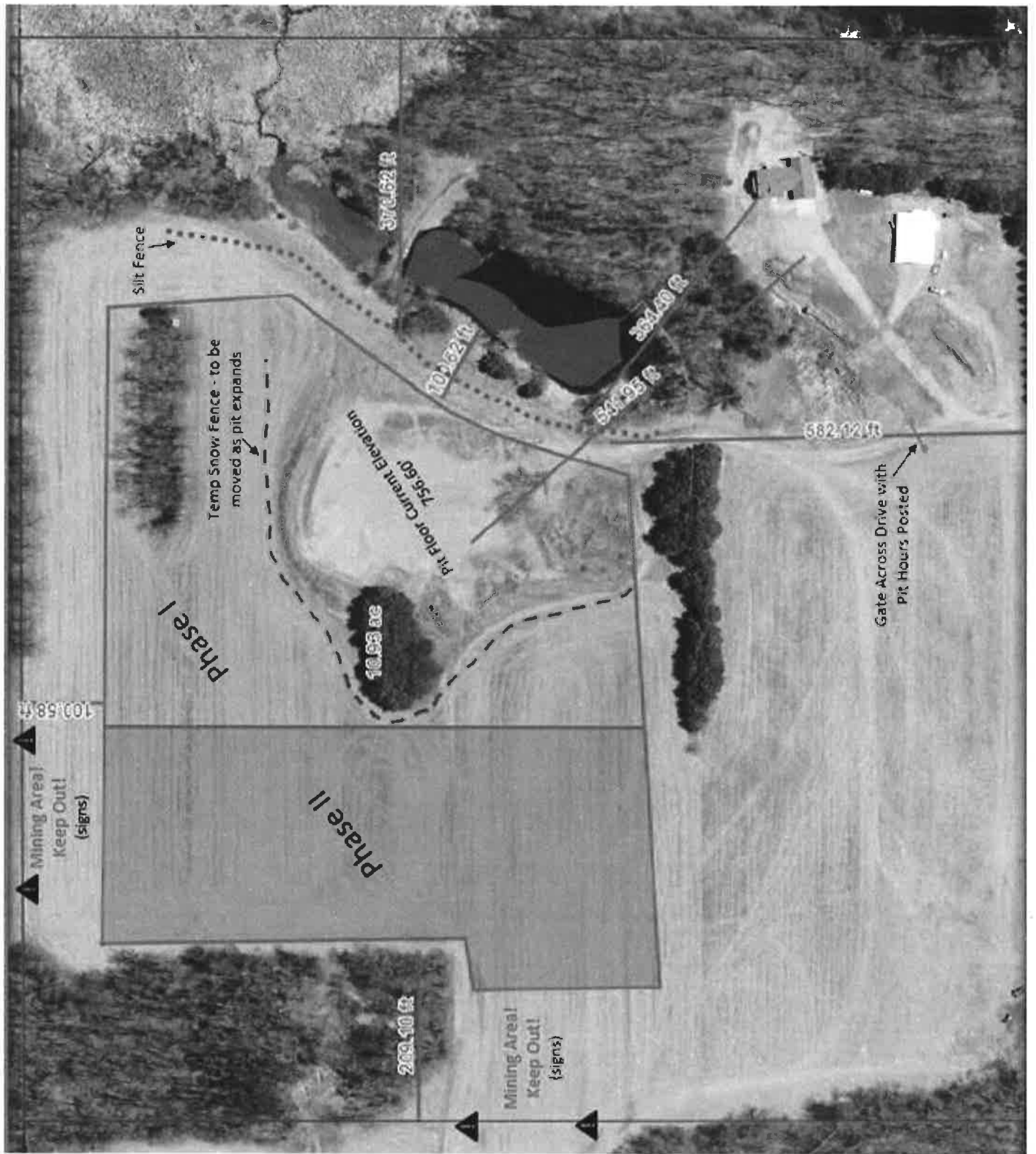
OFFICE USE ONLY:

Assigned Site Plan # _____

Fee \$ 250 Fee Paid by ___ Cash ☒ Check Receipt # 24007

Application Received by: _____





June 28, 2021

Conditions of Approval

Special Use #149 and Site Plan #120 – Mineral Extraction

The following conditions are the Planning Commission's conditions of approval from their meeting on June 28, 2021.

1. The term of this renewal shall be June 28, 2021 through June 26, 2023.
2. Operations for mineral extraction must be in strict compliance of Section 19.53 of the Zoning Ordinance.
3. A reclamation bond for the property shall be in the amount of \$6,000 per acre in accordance to the terms specified in Section 19.53(s)(1). Total bond amount determined by number of acres shown on Phase 1 of site plan provided at the Planning Commission meeting on June 28, 2021.
4. The applicant must maintain a minimum escrow amount of \$1,000 for inspection fees according to Section 19.53(r) of the Zoning Ordinance. Regular inspections will be made to assure:
 - A. verify elevations and compliance of condition of the special use permit
 - B. verify progress of reclamation efforts
 - C. verify general compliance of the Zoning Ordinance and permit conditions.

Inspections by a Thornapple Township official or by a hired consultant may be performed at any time with notification to the applicant.

5. Excavation is proposed to remain a minimum of 5 feet above the groundwater table. The current pit floor of 756.60 will be maintained, which is above the adjacent water elevation of approximately 750 feet. The pit floor will slope gently from that elevation.
6. Snow fence along the top perimeter of the pit face was determined to be an adequate safety measure by the site plan committee. A permanent fence along the property lines was deemed as a burden to the current agricultural use, as the adjacent parcels are farmed as one large field. Warning signs will be placed at the tree gaps along the tree gaps along the north and west property lines as well. Fencing may be required in future mining renewals pending changes in adjacent uses of properties.
7. Final side slopes along the perimeter of the mining area must be 1:4 per zoning ordinance requirements.

8. Grading shall direct stormwater to the pit floor away from the adjacent ponds. A silt fence shall remain installed during the duration of the mineral extraction permit.
9. Insurance certificate in the amount of \$1,000,000 in property damage and \$1,000,000 in personal injury coverage with Thornapple Township as co-named insured (required by Section 19.53(s)(2)).

9582 Adams Road Sand Pit – Excel Excavation Updated

Section 19.3 Basis of Decision

The decision of the Planning Commission on a special land use shall be incorporated in a statement which sets forth the findings, determinations and conclusion relative to the special land use application being considered. The statement shall specify the basis for the decision of the Planning Commission and any conditions imposed.

Prior to the approval of a special land use application, the Planning Commission shall ensure that the standards specified in this section, as well as applicable standards established elsewhere in this Article, shall be satisfied by the special land use application being considered.

The Planning Commission shall review the particular circumstances of the special land use request under consideration in terms of the following general standards, and shall approve a special land use only upon finding compliance with each of the following standards, as well as applicable standards established elsewhere in this Article:

- (1) The special land use shall be designed, constructed, operated, and maintained in a manner harmonious with the character of adjacent property. **Agreed and achieved through our proposal of removing hills and returning to superior farmland. Also, based upon the multiple sand pits in the surrounding 2 miles, it is quite similar to the area surrounding it.**
- (2) The special land use shall not impair the essential character of the surrounding area. **Achieved as stated above, everything around it is either farm land or sand pits. The main tree line running East to West in the middle of the land is to remain, so as to ensure the visual barrier to the pit as it does right now.**
- (3) The special land use shall not create serious nuisance nor be hazardous to the adjacent property or involve uses, activities, materials, or equipment which will be detrimental to the public health, safety and general welfare. **We will spread millings on the existing drive to reduce dust, water as necessary, and ensure no track out onto public roads. Also – given how far back the operation is and the tree line, there will be little to no noise able to be heard by any neighbors. This land is not near any houses. It is in a valley. Passing cars and other farm operations will be more audible than this pit. We will also maintain the operating hours prescribed in the ordinance.**
- (4) The special land use shall not have a substantial adverse effect on storm water drainage; street capacity and volume of traffic; traffic safety and vehicle circulation; sanitary sewage disposal and water supply; or other adverse effects. **The storm drainage will stay the same. The existing pit floor is at 756.6. We will likely cut that down to about 751 and slope the pit floor up to 756.6 on the western edge so water still flows West to East as it is right now. We will ensure no run off. There will not be a sizable traffic addition to the area. I have calculated based off the yards likely to be exported over the pits timeline and then divided by actual working days and truck size, we will**

average only 4.5 trucks per working day added. That is an average. Some days will be 25 trucks, some days none. But an average of 4.5 actual arrivals and departures per WORKING DAY is not a large add. Any truck traffic is similar to that around it from other pits or farm operations. No sanitary or water affected.

- (5) The special land use shall not have a substantial adverse effect on the need and extent of law enforcement and fire protection services, or other public safety and emergency services. **No change foreseen.**
- (6) The special land use shall not have a substantial negative impact on the natural resources and natural features. **No change foreseen. If anything the ground will end up more fertile with thicker topsoil re-spread. There is only about 4" of light material currently.**
- (7) Vehicular and pedestrian traffic circulation shall be designed to minimize conflicts on public streets and upon the property thereof. Safe and convenient off-street parking areas, appropriate to the special land use shall be provided. **There is already a large driveway there on top of the hill. Plenty of sight line in either direction. No pedestrian traffic.**
- (8) The period of day and times of the year during which a special land use activity commences or continues shall be reasonably related to both the use and the neighborhood or area in which it is proposed. **We will follow the no holiday rule as well as the time of operation stated in the mining ordinance below.**
- (9) The special land use shall not place demands on public services and facilities in excess of current capacities. **None foreseen.**
- (10) The special land use is in general agreement with the Township's Master Plan. **The land is to return to farmland as fast as possible. This is the current use and the current intended use of this parcel.**

Section 19.53 Mineral Extraction and Processing

Each mineral extraction and/or processing facility shall conform to the following standards:

- (a) Permits for mineral extraction and processing shall be in the names of both the operator and the landowner (hereinafter, "permit holder"). **Agreed.**
- (b) It shall be the responsibility of the permit holder to use ecological conservation practices for all areas used for excavation. **Agreed. There is approximately a 10 to 12' berm in between the existing pit floor and the pond and wetlands to the east. This ground barrier will be maintained to ensure 0 run off towards the pond. We will also have silt fence on the edge of the pond and wetlands installed. There will be no chance of any of the natural wetlands being affected.**
- (c) No business or industrial buildings or structures of a permanent nature shall be erected except in the Industrial District. **Agreed – no buildings or structures needed for this small operation.**
- (d) Before the commencement of any mineral extraction, a 10/47 fence (standard farm-type fence) or six foot chain link fence (or a suitable substitute approved by

the Planning Commission) shall be erected around the perimeter of the active extraction and/or processing site and maintained in good condition until extraction and mining operations have been completed. A locked gate shall be provided at all access points from the public road to the extractive operation. Said gates shall be closed and locked at all times except during the permitted hours of operation. We can erect a gate down to the pit at the entrance but we respectfully request a waiver on the fence as we will be within the Flierman parcel at all times with plenty of buffer. If the fence is required it will hinder the farming operation that is intended as the pit is restored. The Janose/Oetman pit is a very similar operation down the road and does not have a fence. We would like to propose installing a 4' minimum height orange snow fence around the mining boundaries and move the snow fence as the operation is moved and reclaimed. This will be a good visual barrier and warning. We will also place "Warning, Mining area. Keep Out" signs on the property lines.

- (e) No excavation shall occur within 100 feet of a road right-of-way. The Planning Commission may allow excavation within this minimum setback area as part of the reclamation process provided no excavation is allowed within 50 feet of any road right-of-way. No excavation shall occur within 200 feet of an off-site residence. No excavation shall be within 100 feet of a property line. The Planning Commission may allow excavation within this minimum setback area as part of the reclamation process provided no excavation is allowed within 25 feet of any property line. The Planning Commission may also allow mineral extraction within the minimum setbacks set forth above if those residents and property owners abutting that portion of the site affected by the minimum setbacks consent in writing. **Agreed and achieved through this plan.**
- (f) No processing of minerals, including washing, sorting, grating, grading, crushing, etc. shall be conducted within 500 feet of any off-site residence or within 300 feet of any property line. The Planning Commission may permit processing to be located within the set back requirements if, due to environmental or topographical features, such location will create less adverse impact than strict compliance with the set back requirements. **Agreed and achieved.**
- (g) Noise and vibration shall be minimized in their effect upon adjacent properties by the utilization of modern equipment designed to accomplish such minimization and by the proper use of berms, walls and natural planting screens. All equipment shall be maintained and operated in such manner so as to eliminate, as far as practicable, excessive noise and vibrations which are not necessary in the operation of such equipment. **This piece is in a valley with little to no noise reaching nearby residences. One loader will be used to load trucks. A dozer or tractors and pans to strip. This is nothing to be used louder than any farm machinery which is quite prevalent in the area.**
- (h) Air pollution in the form of dust and dirt shall also be kept to a minimum by the use of modern equipment and methods of operation designed to avoid any excessive dust or dirt or other air pollution injurious or substantially annoying to adjoining property owners. **Understood and achievable easily. The main way we will keep dust down is using asphalt millings on the truck paths.**

Interior and adjoining roads used in the operations shall have their surface treated to minimize any such nuisance. Ingress and egress to a public right-of-way shall be paved with asphalt or concrete for a distance of 200 feet from the property line.

We respectfully request a waiver to this requirement as we believe we can keep dust and tracking down with millings given the very long distance traveled before entering the public road. It is also pure sand land, which does not track easily. None of the Fliearmans driveway to the East is paved so it will not match their home entrance. The millings will harden and mold into a mostly asphaltic surface as trucks push them in anyways.

- (i) The operation of mineral extraction and processing shall be restricted to the hours of 7 a.m. until 6 p.m. Monday through Friday and 7 a.m. to 12 p.m. on Saturday. No operations shall be conducted on Sundays or legal holidays, or at any time over the Memorial Day or Labor Day weekend, or the Independence Day weekend if July 4 falls on a Monday or Friday. The operation hours, days, seasons or months may be further restricted by the Planning Commission in order to minimize nuisance impacts on neighbors or for public safety considerations with respect to the use of roads. **Agreed.**
- (j) All truck operations shall be directed away from residential streets, whenever practical. **Agreed.**
- (k) In approving the processing area, the Planning Commission may require berms and/or other screening to reduce sound or vibration impact on neighboring properties. **Agreed – although there are natural ones in place currently**
- (l) Reclamation and rehabilitation of mined areas shall be accomplished progressively as the area is being mined. Exclusive of processing and storage areas, not more than 10 acres of the intended project area may be disturbed at one time. Substantial completion of reclamation and rehabilitation shall be effected within one year after the termination of mining or excavation activity in each area. **Agreed. The entire operation start to finish is only 10 to 12 acres, but we plan to reclaim and open up in 2 sections so there is never more than 6 to 7 acres open. The first section will be the Eastern part that is half open already. The second phase will be the Western half after the majority of the Eastern phase (excluding access paths) has been restored to farmland.**
- (m) The banks of all excavations shall be sloped to the water line in a water-producing excavation, and to the pit floor in a dry operation at a final slope which shall not be steeper than one foot vertical to four feet horizontal. **Agreed. The pit floor when reclaimed will slope towards the east.**
- (n) Top soil of a quality equal to that occurring naturally in the area shall be replaced on excavated areas not covered by water, except where streets, beaches or other planned improvements are to be completed within a 1-year period. Where used, top soil shall be applied to a minimum depth of 4 inches sufficient to support vegetation. **Agreed. We already have a topsoil deficit on site given what the late Bill Miller had left on site from his small operation. There is approximately 10 percent the topsoil needed to reclaim what is there. Therefore – we will be importing heavier topsoil spoils from other jobs over time to assist with the reclamation and actually leave the parcel with better**

growing dirt than what is there currently. The native ground currently has about 4" of sandy topsoil and we will be placing a minimum of 6" or thicker heavier soil to help hold the sand in place and provide better growth potential.

- (o) Vegetation similar to that which existed prior to the excavation shall be restored by the appropriate seeding of grasses or the planting of trees and shrubs to establish a permanent vegetative cover on the land surface and to minimize erosion. Agreed. Any area not farmed will get a cover crop installed immediately after topsoil.
- (p) Upon cessation of mining operations by abandonment or otherwise, the operation company, within a reasonable period of time not to exceed 12 months thereafter, shall remove all plant structures, foundations, buildings, stockpiles and equipment, provided that buildings and structures which have a function under the reclamation plan and which can be lawfully used under the requirements of the zoning district in which they will be located may be retained. Agreed.
- (q) No special use permit for mineral extraction or processing shall exceed a term of 2 years. In any request for extension or renewal of a mineral extraction and processing special use permit, the Planning Commission shall take into consideration any violations of restrictions during the preceding period. Agreed.
- (r) Inspection fees:

For the purpose of reimbursing the Township for inspections, monitoring, administration and enforcement of this Ordinance with respect to the permit holder, and in view of the relative impossibility of calculating and precisely anticipating amounts to be required for such purpose, the permit holder shall, upon approval of the special use, and prior to commencing operation, make an initial deposit of an amount determined by the Township to be sufficient to provide for the cost of regular and/or extraordinary inspections, monitoring and enforcement, as required, including reasonable fees for attorneys, engineers and/or other experts, to insure compliance with this Ordinance to the Township. The Township Treasurer shall hold such amount in an interest bearing account for the permit holder for each approved special use. Interest earned will accrue to the account held in the name of the permit holder. Balance of deposited inspections fees with accumulated earned interest shall be returned to applicant after reclamation is completed and approved by the Township Board.

The fee requirement shall be determined on a monthly basis and paid out of said account, and shall be equal to the aggregate of the statements and invoices to the Township for all costs and expenses incurred which are reasonably related to inspections, monitoring, administration and enforcement of this Ordinance.

The fee requirement shall be invoiced to the permit holder on a monthly basis, and shall be paid to the Township within 30 days. Upon receipt, the payment shall be disbursed as follows: the amount equal to the statements and invoices shall be credited to the permit holder's account, to reimburse the amounts paid out, as aforementioned.

The amount on account with the Township in connection with the permit holder shall be maintained at a minimum of the amount determined by the Township to be sufficient to provide for the Township's cost of regular and/or extraordinary inspections, monitoring and enforcement, as required, including reasonable fees for attorneys, engineers and/or other experts, to insure compliance with this ordinance. The permit holder shall be invoiced immediately for the deficiency and such amount shall be paid within 30 days. Agreed.

(s) Performance Bond: Insurance

(1) Bond

The mining operation shall not commence until such time as the permit holder has posted with the Township Clerk a performance bond in an amount determined by the Planning Commission, following recommendation of its experts, to be reasonably necessary to ensure reclamation. The bond shall be in the form of cash, an irrevocable letter of credit issued by a banking or savings and loan institution licensed to do business in the State of Michigan, or a corporate surety bond issued by a company licensed for such purposes in the State of Michigan. The conditions of such bonds shall be that, if the permit holder has satisfactorily reclaimed the property being the subject of the special use permit in accordance with the approved reclamation plan, the performance bond shall be returned to the permit holder; otherwise, the Township shall have a right to use the performance bond to the extent necessary to reclaim the property and to cover the costs of enforcing and bringing about compliance with this Ordinance, including reasonable attorney's fees. Irrevocable letters of credit and corporate surety bonds shall be in a form approved by the Township's attorneys.

The performance bond for reclamation shall be in the name of the applicant on the special use permit and, if different, the property owner.

The performance bond shall remain in effect with the Township until the parcel or parcels have been reclaimed, *inspected* and all equipment, machinery, materials, buildings and other operation related improvements removed as required by this Ordinance and/or by the terms of the special use permit.

In the establishment of the amount of the performance bond, the Planning Commission shall take into account the size and scope of the proposed operation, the maximum acreage allowed to be disturbed prior to requiring reclamation, the current and projected costs of reclamation in the event of default by the operator at such time as it is likely to be most costly, and other such conditions and factors as might be relevant in determining a sum reasonable in light of all the facts and circumstances. The Planning Commission, in considering any application to renew the special use permit, may in its discretion, increase or decrease the amount of the performance bond, based upon increased costs, new information, or partial reclamation.

In the event that the permit holder chooses to post cash in lieu of an irrevocable letter of credit or corporate bond, as provided above, such cash may be deposited in an interest bearing account in control of the Township at a bank or savings and loan institution satisfactory to the Township, provided that all sums of deposit shall be readily accessible to the Township in the event of need. Such interest shall accrue for the benefit of the permit holder, or be paid over to the permit holder. **Agreed.**

(2) Insurance

Insurance shall be a pre-condition to commencement of operations. Insurance shall be a pre-condition to the right to continue operations. Insurance shall be maintained in full force during the term of special use approval. The permit holder shall provide personal injury and property damage insurance for the project to be carried by an insurance company licensed to do business in the State of Michigan during all times when any reclamation is left to be done, and during all times that any machinery and/or equipment remains on the site, or any structures, equipment or improvements to be removed remain on the site, said insurance to name the Township, its officers and employees as co-insured or additional insured. This insurance shall be carried in amounts no less than one Million Dollars (\$1,000,000.00) for injury and damage to more than one person's property arising out of single occurrence. This insurance shall cover injury or damage occurring upon the site of the operations, as well as injuries or damage occurring upon adjoining property as the result of conditions or activities conducted upon the subject property.

The insurance certificate shall contain a clause stating that, coverage to be the same as dates of the special land use permit. Insurance shall be in the name of the applicant on the special use permit and, if different, the property owner. **Agreed.**

(Sect. 19.53 effective June 1, 2013)



APPLICATION FOR ZONING COMPLIANCE PERMIT

Thornapple Township, 200 E. Main St., Middleville, MI 49333
Phone: 269-795-7202 Fax: 269-795-8812
Email: zoning-administrator@thornapple-twp.org

PERMIT #: _____

DATE: _____

FEE: \$40

IMPORTANT: This is NOT a BUILDING PERMIT.

Projects requiring a building permit must contact PCI for your building permit application, 269-948-4088.

PROPERTY OWNER INFORMATION

PARCEL #: 08-14-015 - 016 - 30

Owner: Harold Uwe

Cell: (616) 717-2609

Email: uherold@msn.com

Address: 5100 Squier Ln Middleville, Mi 49333

Contractor Name: Steve Sherer

Cell: 888.217.6620

Contractor Email: info@getsolaron.com

PURPOSE OF APPLICATION

PURPOSE (Check One)

☐ New Construction ☐ Remodel ☐ Demolition ☐ Deck ☐ Pool ☒ Other

OCCUPANCY

☐ New Dwelling ☐ Addition to dwelling ☒ Residential Accessory Building -detached
☐ Agricultural Building (Affidavit of Exclusive Agricultural Use Required)
☐ Garage attached to home ☐ Fence ☒ Other Ground Mount Solar Array

CONSTRUCTION STYLE Traditional Frame ☐ Pole ☐ Modular ☐

SIZE OF BUILDING Width _____ Depth _____

DWELLING [state floor area in sq. ft]: 1st Floor: _____ 2nd Floor: _____

STYLE OF BUILDING ☐ 1 Story ☐ 2 Story ☐ Multi-Level

BASEMENT ☐ Conventional ☐ Walk-out ☐ Slab

ROOF TYPE ☐ gambrel ☐ gable ☐ mansard ☐ hip ☐ shed ☐ A-Frame ☐ flat

BUILDING HEIGHT _____ feet

PROPERTY AND BUILDING SITE INFORMATION

Building Site Address: 5100 Squier Ln Middleville, Mi 49333 Overlay District: _____

Current Zoning _____ Lot Area _____ Wetlands Present? ☐ yes ☐ no

Proposed Setbacks Front _____ Rear _____ Side 1 _____ Side 2 _____

Required Setbacks Front _____ Rear _____ Side 1 _____ Side 2 _____

APPLICATION FOR ZONING COMPLIANCE PERMIT MUST INCLUDE:

- Scaled drawing or survey of property and proposed improvement *
- Set of building plans (electronic version preferred – pdf)
- Well/Septic permits or location approval (Barry/Eaton County Health Department, 945-9516)
- Driveway Permit (if required) (Barry County Road Commission, 945-3449)
- Address or Address Assignment if vacant land (Barry County Planning Office, 945-1290)
- Erosion Control Permit if more than one(1) acre of surface disturbed or within 500' of a lake or stream (Barry County Planning Office, 945-1290)

* Please attach a scaled drawing or survey showing the following: dimensions of property; all roads; adjacent to property; indicate private or public; existing easements; lakes and streams; all structures; existing or proposed septic tank and field; existing or proposed well, distance from buildings to property line; dimensions of proposed building. Applicant assumes responsibility for all measurements in regards to setbacks. Township inspection is based solely on information supplied by applicant.

PROOF OF OWNERSHIP

___ Deed ___ Assessment/Tax Records ___ Other (_____)

Applicant Signature: Danielle Moore (☐ owner) (☒ agent)

I hereby certify all information and data attached to and made part of this application are true and accurate to the best of my knowledge and belief. I understand that there may be deed restrictions on this land and it is my obligation to determine what they are. I give permission for the Township staff to conduct a site inspection to verify improvements on site plan.

ZONING PERMIT # _____ - _____

- Approved
- Approved with Condition(s) as follows:

☒ Denied due to Solar not permitted in front yard

This is NOT a BUILDING PERMIT. Projects requiring a building permit must contact PCI for your building permit application, 269-948-4088.

This permit is good for a period of 365 days. If construction is not started during this period, permit is void and a new application is required.

Zoning Administrator:

[Signature] 6/26/2023
signature

Date of Approval _____

Fee Payment Type: ___ Cash ___ Check ___ Credit Card Receipt # _____

Section 21.37 Solar Energy Collectors

[As Amended Ordinance 2019-01 effective 9-21-2019]

(a) Purpose. Thornapple Township promotes the effective and efficient use of solar energy collection systems. It is the intent of the Township to permit these systems by regulating the site, design, and installation of such systems to protect the public health, safety and welfare, and to ensure compatibility of land uses in the vicinity of solar energy collectors, as defined in this ordinance, shall comply with the provisions of this Section.

(b) Criteria for the Use of All Solar Energy Equipment.

(1) Solar energy equipment shall be located in the least visibly obtrusive location where panels would be functional

(2) Solar energy equipment shall be repaired, replaced or removed within three (3) months of becoming non-functioning.

(3) Each system shall conform to applicable industry standards including those of the NEC 2014, as amended.

(c) Application for Administrative Review. An applicant who seeks to install building-mounted solar energy equipment or ground-mounted solar energy collectors totaling less than 600 square feet shall submit an application for administrative review, as provided by the Township. The application shall include the following:

(1) Photographs of the property's existing conditions.

(2) Renderings or catalogue cuts of the proposed solar energy equipment

(3) Certificate of compliance demonstrating that the system has been tested and approved by Underwriter Laboratories (UL) or other approved independent testing agency.

(4) Plot plan to indicate where the solar energy equipment is to be installed on the property

(5) Description of the screening to be provided for ground or wall mounted solar energy equipment

(6) Any fee(s) as determined by the Township Board from time to time.

(d) Exclusions from Administrative Review

(1) The installation of one (1) solar panel with a total area of less than eight (8) square feet.

(2) Repair and replacement of existing solar energy equipment, provided that there is no expansion of the size or coverage area of the solar energy equipment.

(e) Building-Mounted Solar Energy Collector Requirements. A building-mounted solar energy collector shall be a permitted accessory use in all zoning districts subject to the following requirements.

(1) An Administrative Review is required of all building-mounted solar energy collectors permitted as an accessory use.

(2) Solar energy collectors that are mounted on the roof of a building shall not project more than five (5) feet above the highest point of the roof but, in any event, shall not exceed the maximum building height limitation for the zoning district in which it is located, and shall not project beyond the eaves of the roof.

(3) Solar energy collectors mounted on the roof of a building shall be only of such weight as can safely be supported by the roof. Proof thereof, in the form of certification by a professional engineer or other qualified person, shall be submitted to the Township Building official prior to installation; such certification shall be subject to the Building Official's approval.

(4) Solar energy collectors that are roof-mounted, wall-mounted or are otherwise attached to a building or structure shall be permanently and safely attached to the building or structure. Proof of the safety and reliability of the means of such attachment shall be submitted to the Building Official prior to installation; such proof shall be subject to the Building Official's approval.

(5) Solar energy collectors that are wall-mounted shall not exceed the height of the building wall to which they are attached.

(6) Solar energy collectors shall not be mounted on a building wall that is parallel to an adjacent public right-of-way.

(7) The exterior surfaces of solar energy collectors that are mounted on the roof or on a wall of a building, or are otherwise attached to a building or structure, shall be generally neutral in color and substantially non-reflective of light.

(8) Solar energy collectors shall be installed, maintained, and used only in accordance with the manufacturer's directions. Upon request, a copy of such directions shall be submitted to the Township Building Official prior to installation. The Building Official may inspect the completed installation to verify compliance with the manufacturer's directions.

(9) Solar energy collectors, and the installation and use thereof, shall comply with the State construction code, the electrical code, and other applicable codes and ordinances.

(f) Ground-Mounted Solar Energy Collector Requirements. A ground-mounted solar energy collector system shall be subject to the following requirements.

(1) Commercial ground-mounted solar energy collector systems and fields are subject to a Special Land Use requiring approval by the Planning Commission in the following zoning districts: Agriculture, Agriculture Residential, Rural Residential, Office, and Commercial Zoning Districts.

(2) Ground-mounted solar collectors less than 600 square feet are permitted as an accessory use in all zoning districts and are subject to Administrative Review.

(3) Ground-mounted solar collectors 600 square feet and greater shall be considered a Solar Farm and shall be subject to a Special Land Use requiring approval by the Planning Commission.

(4) Ground mounted solar energy collectors shall be located only as follows: a. They may be located in the rear yard and side yard, but not in the required rear yard setback unless permitted by the Planning Commission in its approval of a special land use.

b. They may be located in the front yard only if permitted by the Planning Commission as a special land use but, in any event, they shall not be located in the front yard setback.

(5) Ground mounted solar energy collectors shall not exceed sixteen (16) feet in height, measured from the ground at the base of such equipment.

(6) Total area of all ground mounted solar energy collectors on a lot shall be limited as follows:

a. Residential ground mounted solar arrays shall not exceed 3% of lot area.

b. Commercial ground mounted solar energy collector systems lot coverage is subject to Planning Commission review.

(7) Solar energy collectors shall be permanently and safely attached to the ground. Proof of the safety and reliability of the means of such attachment shall be submitted with the special use application and shall be subject to the Planning Commission's approval.

(8) Solar energy collectors shall be installed, maintained and used only in accordance with the manufacturer's directions. A copy of such directions shall be submitted with the Special Use application. The Special Use, if granted, may be subject to the Building Official's inspection to determine compliance with the manufacturer's directions.

(9) The exterior surfaces of solar energy collectors shall be generally neutral in color and substantially non-reflective of light.

(10) Ground-mounted solar energy collectors, and the installation and use thereof, shall comply with the State construction code, the electrical code and other applicable Township codes and ordinances.

(11) The Special Use may include terms and conditions in addition to those stated in this subsection.



APPLICATION FOR APPROVAL OF SPECIAL USE

Thornapple Township, 200 E. Main St., Middleville, MI 49333
Phone: 269-795-7202 Fax: 269-795-8812
Email: zoning-administrator@thornapple-twp.org

Case # SU-162
Hearing Date 8/28/2023

PROPERTY INFORMATION

Property Address: 5100 Squire Lane Middleville MI 49333

Parcel ID Number: 1401501630 Zoning District _____ Wetlands Present? No

Parcel Size Frontage: _____ feet Depth: _____ feet Area: _____ [Acres or square feet]

Master Plan Future Land Use Map Designation for Parcel: _____

Current Use of Property [Describe] Residential Home

Describe Proposed Special Land Use: Ground mounted solar array on side of house near private dirt road. The only place on the property that has sun is in this clearing and the array will be 50' from the side of the dirt road.

Section of Zoning Ordinance Allowing Special Land Use: _____

Provide a land survey and/or legal description of the subject property on a page attached to this petition

APPLICANT INFORMATION

1. Applicant

Identify the person or entity making this petition:

Name: Solar On, Inc. Cell Phone 5863544433
Mailing Address: 14460 Lakeside Circle s 240 Telephone 8882176620
City Sterling Heights MI Zip 48 FAX _____
E-Mail 31

2. Applicant Interest

3

The applicant must have a legal interest in the subject property, please check one below:

☒ Property Owner ☐ Purchase by Land Contract ☐ Option to Purchase ☐ Purchase Agreement ☐ Lessee over 1 year

3. Property Owner ☐ Check here if applicant is also property owner

Identify person or entity that owns the subject property:

Name: Uwe Herold Cell Phone 6167172609
Mailing Address: 5100 Squier Lane Telephone 6167172609
City Middleville MI 49333 State _____ Zip _____ Fax _____
E-Mail uherold@msn.com

Application of Special Use – Continued

4. Authorized Agent

Identify person or entity representing the property owner or applicant in this petition:

Name: Solar On, Inc. Cell Phone 5863544433
Mailing Address: 14460 Lakeside Circle Suite 240 Telephone 888.217.6620
City Sterling Heights State MI Zip 48313 Fax _____
E-Mail danielle@getsolaron.com

REQUIRED PETITION – WRITTEN ATTACHMENTS

- ✓ Provide narrative to explain need for the proposed Special Land Use
- ✓ Provide narrative addressing Section 19.3(1)-(10) criteria.
- ✓ Site Plan, if required

REQUEST & AFFIDAVIT

The applicant must read the following statement carefully and sign below:

The undersigned requests Thornapple Township review this petition and companion documents as provided in the zoning ordinance now in effect. The applicant further affirms and acknowledges the following:

- ✓ That the petitioner has a legal interest in the property described in this petition, and
- ✓ The answers and statements contained in this petition and attachment are in all respects true and correct to the best of my knowledge, and
- ✓ The petitioner offers the conditions set forth herein on its own volition and completely voluntary.
- ✓ The approval of this petition does not relieve the undersigned from compliance with all other provisions of the Zoning Ordinance or other applicable codes and ordinances and does not constitute granting of a variance, and
- ✓ The undersigned hereby grants Thornapple Township staff and Planning Commission member the right to access the subject property for the purpose of evaluating this petition.

Applicant Signature

2023-07-12

Date

Applicant Signature

Date

If the petitioner is not the property owner, the property owner must sign below:

2023-07-12

Property Owner Signature

Date

OFFICE USE ONLY:

Fee \$ 250 Fee Paid by ☐ Cash ☒ Check Receipt # 24048 Received by: _____



APPLICATION FOR SITE PLAN REVIEW ARTICLE XX

Thornapple Township, 200 E. Main St., Middleville, MI 49333
Phone: 269-795-7202 Fax: 269-795-8812
Email: zoning-administrator@thornapple-twp.org

SR 129

PROPERTY INFORMATION

Property Address: 5100 Squier Ln Middleville MI 49333
Parcel ID Number: 1401501-630 Zoning District _____ Wetlands Present? No
Parcel Size Frontage: _____ feet Depth: _____ feet Area: _____ [Acres or square feet]
Master Plan Future Land Use Map Designation for Parcel: _____
Current Use of Property [describe]: Residence
Proposed Use (describe): Install a ground mounted solar array 50' from private dirt drive

APPLICANT INFORMATION

1. Applicant

Identify the person or organization requesting the Special Land Use:

Name: Uwe Herold Cell Phone 5863544433
Organization _____ Telephone 8882176620
Mailing Address: 5100 Squier Ln FAX _____
City Middleville Ln State MI Zip 49333 E-Mail _____

2. Applicant Interest

The applicant must have a legal interest in the subject property, please check one below:

☒ Property Owner ☐ Purchase by Land Contract ☐ Option to Purchase
☐ Purchase Agreement ☐ Lessee over 1 year

3. Property Owner

☒ Check here if applicant is also property owner

Identify person or organization that owns the subject property:

Name: _____ Cell Phone _____
Organization _____ Telephone _____
Mailing Address: _____ FAX _____
City _____ State _____ Zip _____ E-Mail _____

Application for Site Plan Review – Continued

4. Authorized Agent

Identify person or entity representing the property owner or applicant in this petition:

Name:	Danielle Moore	Cell Phone	5863544433
Organization	Solar On Inc	Telephone	8882176620
Mailing Address:	14460 Lakeside Circle Suite 240	FAX	
City	Sterling Heights	State	MI
	Zip	48313	E-Mail
			danielle@getsolaron.com

REQUIRED APPLICATION ATTACHMENTS (see Sec. 20.4(a) & 20.4(b))

- **Description of Project** (Use applicant's letterhead if possible)
Written description of the proposed site and/or building layout, building and structure design information, floor plans, parking calculations, current environmental conditions, and other pertinent information.
- **Site Plans, Building Elevations, and Floor Plans**
Enclose 14 copies of site plans, building elevations and floor plans as required on the Site Plan Review Checklist.

REQUEST & AFFIDAVIT

The applicant must read the following statement carefully and sign below:

The undersigned requests Thornapple Township review this application, related required documents and site plans as provided in Article 20 of the Thornapple Township Zoning Ordinance. The applicant further affirms and acknowledges the following:

- *That the applicant has a legal interest in the property described in this application, and*
- *The answers and statements contained in this application and attachment are in all respects true and correct to the best of my knowledge, and*
- *That the approval of this application does not relieve the undersigned from compliance with all other provisions of the Zoning Ordinance or other codes or statutes and does not constitute granting of a variance, and*
- *That the applicant will comply with any and all conditions imposed in granting an approval of this application, and*
- *If also the owner, the applicant grants the Township staff and Planning Commission members the right to access the subject property for the sole purpose of evaluating the application.*

Danielle Moore

2023-07-12

Applicant Signature

Date

Uwe Herold

2023-07-13

Applicant Signature

Date

Application for Site Plan Review – Continued

If the applicant is not the property owner, the property owner must sign below:

The undersigned affirms and acknowledges that he, she or they are the owner(s) of the property described in this application, and:

- I am / we are aware of the contents of this application and related enclosures.
- Authorizes the applicant to submit this application and represent the undersigned in the matter being reviewed by Thornapple Township.
- Grants the Township staff and the Planning Commission members the right to access the subject property for the sole purpose of evaluating the application.

Uwe Herold

2023-07-13

Property Owner Signature

Date

Property Owner Signature

Date

OFFICE USE ONLY:

Assigned Site Plan # _____

Fee \$ 250 Fee Paid by ☐ Cash ☒ Check Receipt # 24048

Application Received by: _____

Signature Certificate

Reference number: CRMCA-EC2US-X8BPZ-GFSD2

Signer

Timestamp

Signature

Danielle Moore

Email: danielle@getsolaron.com

Sent: 12 Jul 2023 17:19:08 UTC
Viewed: 12 Jul 2023 17:19:27 UTC
Signed: 12 Jul 2023 17:19:37 UTC

Danielle Moore

Recipient Verification:

✓ Email verified 12 Jul 2023 17:19:27 UTC

IP address: 73.191.197.57

Location: Macomb, United States

Uwe Herold

Email: uherold@msn.com

Sent: 12 Jul 2023 17:19:08 UTC
Viewed: 12 Jul 2023 20:52:54 UTC
Signed: 13 Jul 2023 11:12:19 UTC

Uwe Herold

Recipient Verification:

✓ Email verified 12 Jul 2023 20:52:54 UTC

IP address: 104.49.99.189

Location: Grand Rapids, United States

Document completed by all parties on:

13 Jul 2023 11:12:19 UTC

Page 1 of 1



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Barry County GIS



Map Publication:

07/31/2023 2:58 PM



powered by
FetchGIS

Disclaimer: This map does not represent a survey or legal document and is provided on an "as is" basis. Barry County expresses no warranty for the information displayed on this map document.



Scott E. Wyssling, PE
Coleman D. Larsen, SE, PE
Gregory T. Elvestad, PE

76 North Meadowbrook Drive
Alpine, UT 84004
office (201) 874-3483
swyssling@wysslingconsulting.com

June 20, 2023
Revised June 22, 2023

Current Insight
2852 W. Amini Way
South Jordan, UT 84095

Re: Engineering Services
Uwe Solar Residence
5100 Squier Lane, Middleville, MI
8.000 kW System

To Whom it May Concern,

Pursuant to your request, we have reviewed the following information regarding ground mount solar panel installation at the above referenced location:

1. Structural drawings prepared by Unirac identifying specific racking layout and components for the proposed ground mount system.
2. Design drawings of the proposed system including a site plan, and details for the solar panels. This information was prepared by Current Insight and will be utilized for approval and construction of the proposed system.

Based on our review of the Photovoltaic Array installed at 2 modules high and 9 modules wide, the PV array shall have a max pile spacing of 8'-0". Based on a wind speed of 115 mph, Exposure C and a ground snow load of 35 PSF, it was determined that the minimum required pile embedment depth is 5.87 feet below grade with a 6" x 4.5" C-shape piles. The pile size is based upon the worst case loading due to horizontal and vertical wind loading. The installer is to test the capacity of one pile per array to verify uplift capacity is a minimum of 2,500 lbs and provide the results to the office.

Based on the above evaluation, it is the opinion of this office that with appropriate construction the post assembly will adequately support the proposed solar array. This evaluation is in conformance with the 2015 IBC, current industry and standards, and based on information supplied to us at the time of this report.

Should you have any questions regarding the above or if you require further information do not hesitate to contact me.

Very truly yours,

Scott E. Wyssling, PE
Michigan License No. 6201068147



SCOPE OF WORK

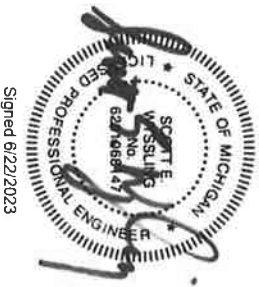
PHOTOVOLTAIC SYSTEM SUMMARY
SYSTEM SIZE: DC - / 38 KW
AC - 8.00 KW
MODULES (18) JINKO JK4410M-2H (410W) MODULES
INVERTER (1) SOLARWATTS-45-ST INVERTER
ARRAY 1-AZIMUTH: 180°
ARRAY 1-TILT: 30°
ELECTRICAL INFORMATION
UTILITY COMPANY: CONSUMER ENERGY
MAIN SERVICE AMPERAGE: 200A
GOVERNING CODES & STANDARDS:
INTERNATIONAL RESIDENTIAL CODE 2018
INTERNATIONAL BUILDING CODE 2018
INTERNATIONAL PLUMBING CODE 2018
NATIONAL ELECTRICAL CODE 2020
NATIONAL FIRE PROTECTION ASSOCIATION 2020
NATIONAL ELECTRICAL CODE 2020

SHEET INDEX

- PV-0 COVER SHEET
- PV-1 SITE PLAN
- PV-2 PV MODULES
- PV-2A ELECTRICAL SITE PLAN
- PV-3 ATTACHMENT DETAIL
- PV-3A ATTACHMENT DETAIL
- PV-4 ELECTRICAL LINE DIAGRAM
- PV-5 WIRING CALCULATIONS
- PV-6 PLACARDS
- PV-7 to 11 EQUIPMENT SPECIFICATION
- PV-12 to 13 UNIRAC REPORT

GENERAL NOTES:

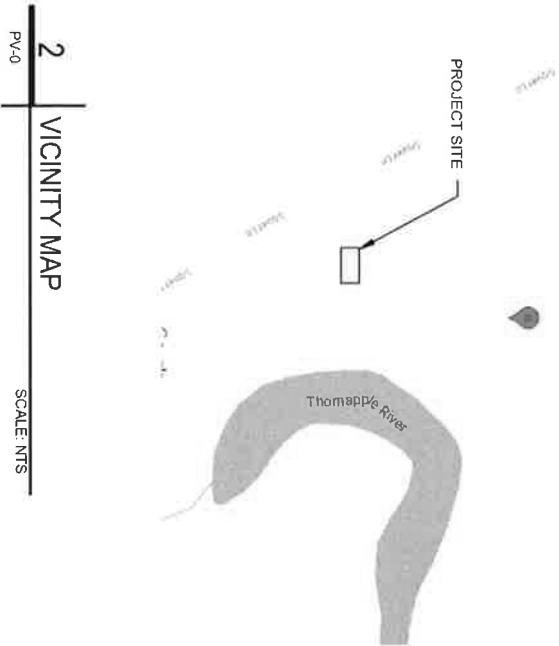
- CONTRACTOR SHALL FIELD VERIFY ALL DIMENSIONS PRIOR TO INITIATING CONSTRUCTION
- CONTRACTOR SHALL REVIEW ALL MANUFACTURER INSTALLATION DOCUMENTS PRIOR TO INITIATING CONSTRUCTION
- ALL EQUIPMENT SHALL BE LISTED BY U.L. (OR EQUAL) AND LISTED FOR ITS SPECIFIC APPLICATION.
- ALL EQUIPMENT SHALL BE RATED FOR THE ENVIRONMENT IN WHICH IT IS INSTALLED
- ALL EQUIPMENT SHALL BE INSTALLED IN ACCORDANCE WITH THE MANUFACTURER'S INSTALLATION INSTRUCTIONS.
- ACCESS TO ELECTRICAL COMPONENTS OVER 150 VOLTS TO GROUND SHALL BE RESTRICTED TO QUALIFIED PERSONNEL.
- WHERE SIZES OF JUNCTION BOXES, RACEWAYS, AND CONDUITS ARE NOT SPECIFIED, CONTRACTOR SHALL SIZE THEM ACCORDING TO NATIONAL ELECTRICAL CODE PER THE FOLLOWING SIZES SHALL BE USED: 1/2" RIGID PVC OR BARE COPPER G.E.C. PER THE FOLLOWING MANUFACTURER'S LISTED INSTRUCTION SHEET
- PV MODULE RACKING RAIL SHALL BE BOWDED TO BARE COPPER G.E.C. VIA WEEB LUG, ILSCO G80-40BT LAY-IN LUGS OR EQUIVALENT LISTED LUG
- GROUNDING ELECTRODE CONDUCTOR (G.E.C.) SHALL BE CONTINUOUS AND/OR IRREVERSIBLY SPICED/WEELDED
- ALL JUNCTION BOXES, COMBINER BOXES, AND DISCONNECTS SHALL BE INSTALLED IN AN ACCESSIBLE LOCATION
- WORKING SPACE AROUND ELECTRICAL EQUIPMENT SHALL COMPLY WITH NEC 110.26



1 AERIAL VIEW

PV-0

SCALE: NTS



2 VICINITY MAP

PV-0

SCALE: NTS

SOLAR ON

SOLAR ON

14400 LAKESIDE CIRCLE SUITE 240
STERLING HEIGHTS, MI 48313
LICENSE# 6270861

REVISIONS

DESCRIPTION	DATE	REV
CHANGES	06-22-23	A
COMMENTS		

Signature with Seal

DATE: 06/22/2023

PROJECT NAME & ADDRESS

UWE SOLAR
RESIDENCE
5100 SQUIER LN,
MIDDLEVILLE, MI 49333

SHEET NAME

COVER SHEET

SHEET SIZE

ANSI B
11" X 17"

SHEET NUMBER

PV-0

SYSTEM SIZE: DC - 7.38 KW
AC - 8.00 KW

MODULES: (18) JINKO JKM410M-7H (410W) MODULES
INVERTER: (1) SOL-AKX-9K-48-ST INVERTER

AC DISCONNECT IS ACCESSIBLE,
LOCATABLE, LABELED BLADE STYLE SWITCH
WITHIN 5' OF THE UTILITY METER.



SOLAR ON

SOLAR ON

1440 LAKESIDE CHURCH SUITE 240
STERLING HEIGHTS, MI 48313
LICENSE# 9270800

REVISIONS

DESCRIPTION	DATE	REV
CLIENT	06-22-23	A
COMMENTS		

Signature with Seal

DATE: 06/22/2023

PROJECT NAME & ADDRESS

UWE SOLAR
RESIDENCE

5100 SQUIER LN,
MIDDLEVILLE, MI 49333

SHEET NAME

SITE PLAN

SHEET SIZE

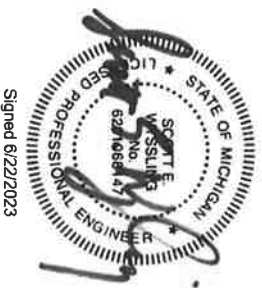
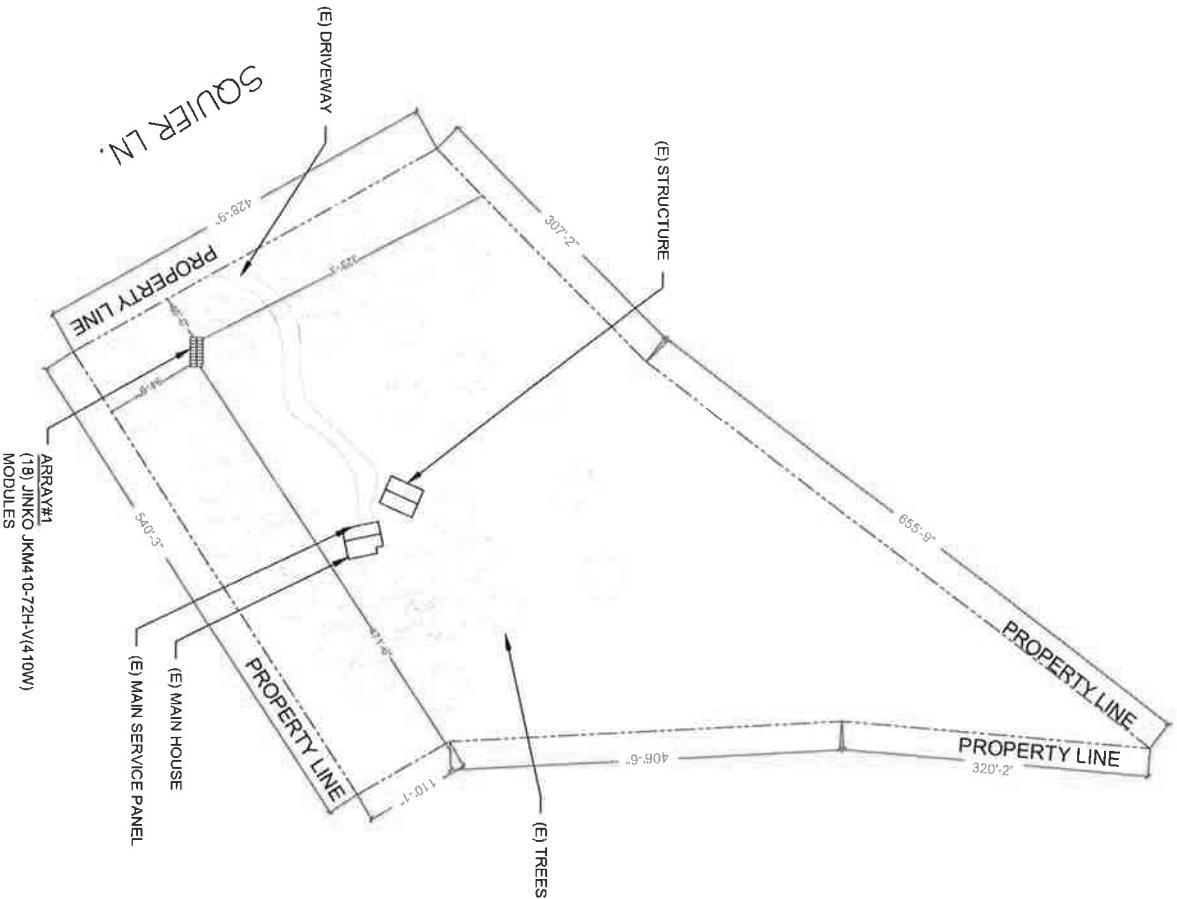
ANSI B
11" X 17"

SHEET NUMBER

PV-1

1 SITE PLAN

PV-1 SCALE: 1/128" = 1'-0"



MODULE TYPE, DIMENSIONS & WEIGHT

NUMBER OF MODULES = 18 MODULES
MODULE TYPE = JINKO JKM410M-72H (410W) MODULES
MODULE WEIGHT = 49.6 LBS / 22.5 KG
MODULE DIMENSIONS = 79.06" x 39.45" = 2165 SF

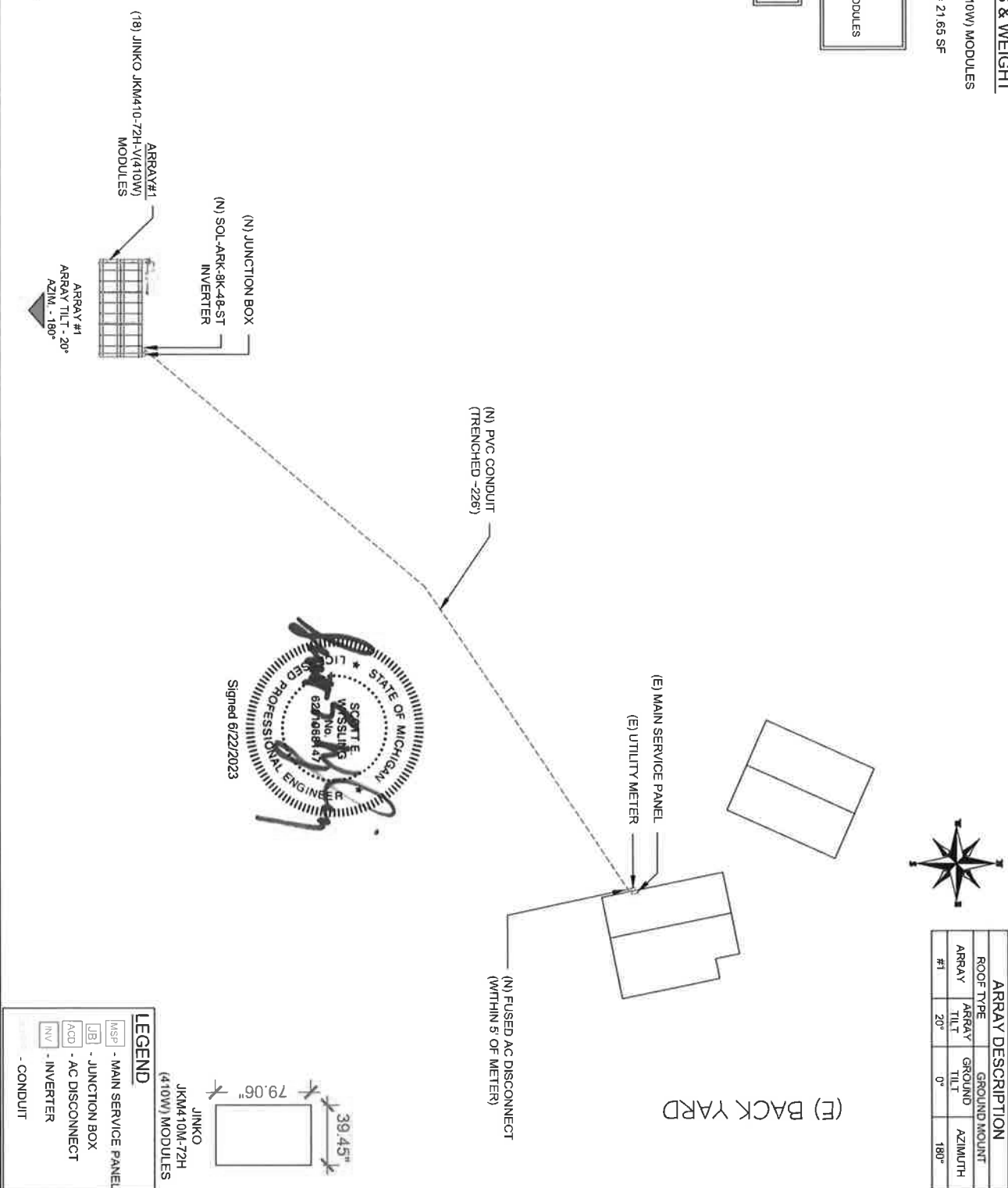
SYSTEM SIZE: DC - 7.38 KW
AC - 8.00 KW

MODULES: (18) JINKO JKM410M-72H (410W) MODULES
INVERTER: (1) SOL-ARK-8K-48-ST INVERTER

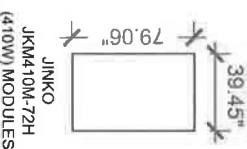
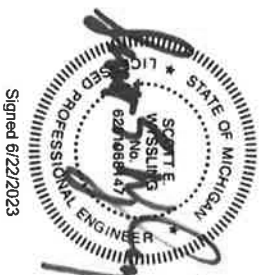
AC DISCONNECT IS ACCESSIBLE,
LOCABLE LABELED BLADE STYLE SWITCH
WITHIN 5' OF THE UTILITY METER.

SQUIER LN.
(E) FRONT YARD

1 PV MODULES
SCALE: 1"=30'



ARRAY DESCRIPTION			
ROOF TYPE	GROUND MOUNT		
ARRAY	TILT	TILT	AZIMUTH
#1	20°	0°	180°



LEGEND	
	MAIN SERVICE PANEL
	JUNCTION BOX
	AC DISCONNECT
	INVERTER
	CONDUIT

(E) BACK YARD

SOLAR ON

SOLAR ON

1440 LAKESIDE CIRCLE SUITE 240
STERLING HEIGHTS, MI 48313
LIC# 06010001

REVISIONS

DESCRIPTION	DATE	REV
CLIENT COMMENTS	06-22-23	1

Signature with Seal

DATE: 06/20/2023

PROJECT NAME & ADDRESS

UWE SOLAR RESIDENCE
5100 SQUIER LN,
MIDDLEVILLE, MI 49333

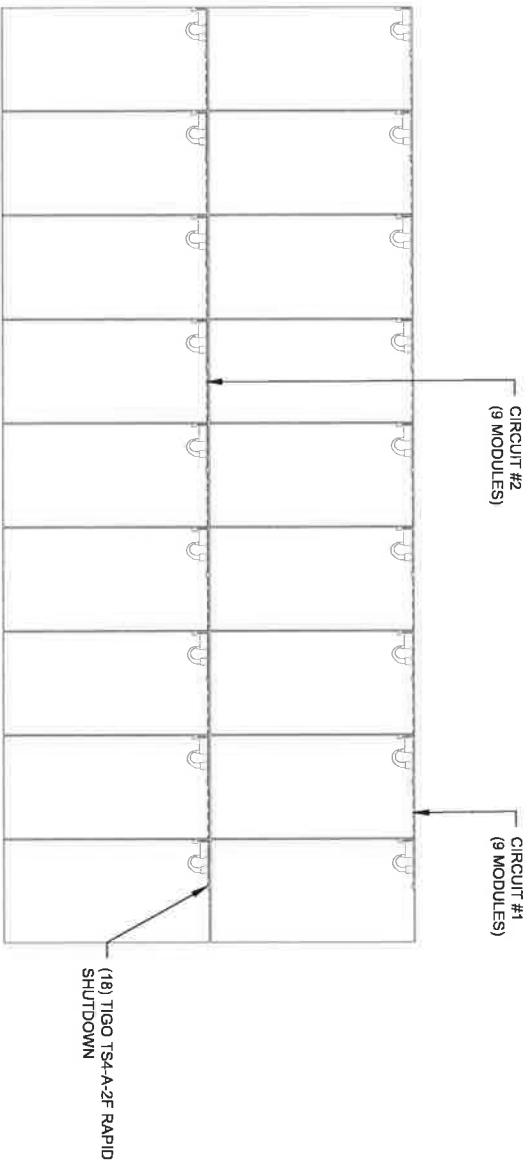
SHEET NAME
PV MODULES

SHEET SIZE
ANSI B
11" X 17"

SHEET NUMBER
PV-2

DC SYSTEM SIZE: 7.38 KW
AC SYSTEM SIZE: 8.00 KW
(18) JINKO JK6410M-72H (410W) MODULES
(1) SOL-ARRK-48-ST INVERTER
(02) CIRCUIT OF 9 MODULES

AC DISCONNECT IS ACCESSIBLE.
LOCATABLE LABELED BLADE STYLE SWITCH
WITHIN 5' OF THE UTILITY METERS.



SOLAR ON
SOLAR ON
1460 LAKESIDE CIRCLE SUITE 200
STERLING HEIGHTS, MI 48313
LIC#0876 02/08/20

REVISIONS			
DESCRIPTION	DATE	REV	
CLIENT	06-22-23	A	
COMMENTS			

Signature with Seal

DATE: 06/22/2023

PROJECT NAME & ADDRESS

UWE SOLAR
RESIDENCE
5100 SQUIER LN,
MIDDLEVILLE, MI 49333

SHEET NAME
ELEC. SITE
PLAN

SHEET SIZE
ANSI B
11" X 17"
SHEET NUMBER
PV-2A

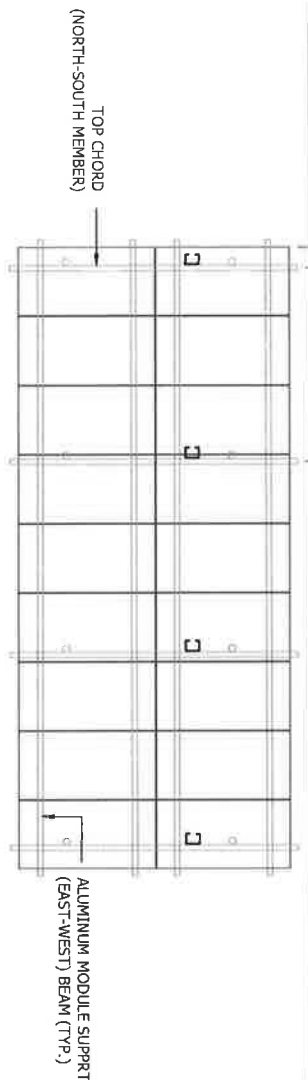
1 STRING LAYOUT

SCALE: 1/4" = 1'-0"

BILL OF MATERIALS

ITEM NUMBER	DESCRIPTION	QUANTITY	UNIT PRICE	TOTAL LIST PRICE
41710001	1/2" ALUM. RAIL	4	73.82	295.28
41710002	1/2" ALUM. RAIL BRACKET	8	179.46	1435.68
41710003	1/2" ALUM. RAIL CLIP	8	15.67	125.36
41710004	1/2" ALUM. RAIL END CAP	2	2.07	4.14
41710005	1/2" ALUM. RAIL CONNECTOR	8	2.53	20.24
41710006	1/2" ALUM. RAIL END CAP	2	2.53	5.06
41710007	1/2" ALUM. RAIL END CAP	2	2.53	5.06
41710008	1/2" ALUM. RAIL END CAP	2	2.53	5.06
41710009	1/2" ALUM. RAIL END CAP	2	2.53	5.06
41710010	1/2" ALUM. RAIL END CAP	2	2.53	5.06
41710011	1/2" ALUM. RAIL END CAP	2	2.53	5.06
41710012	1/2" ALUM. RAIL END CAP	2	2.53	5.06
41710013	1/2" ALUM. RAIL END CAP	2	2.53	5.06
41710014	1/2" ALUM. RAIL END CAP	2	2.53	5.06
41710015	1/2" ALUM. RAIL END CAP	2	2.53	5.06
41710016	1/2" ALUM. RAIL END CAP	2	2.53	5.06
41710017	1/2" ALUM. RAIL END CAP	2	2.53	5.06
41710018	1/2" ALUM. RAIL END CAP	2	2.53	5.06
41710019	1/2" ALUM. RAIL END CAP	2	2.53	5.06
41710020	1/2" ALUM. RAIL END CAP	2	2.53	5.06
41710021	1/2" ALUM. RAIL END CAP	2	2.53	5.06
41710022	1/2" ALUM. RAIL END CAP	2	2.53	5.06
41710023	1/2" ALUM. RAIL END CAP	2	2.53	5.06
41710024	1/2" ALUM. RAIL END CAP	2	2.53	5.06
41710025	1/2" ALUM. RAIL END CAP	2	2.53	5.06
41710026	1/2" ALUM. RAIL END CAP	2	2.53	5.06
41710027	1/2" ALUM. RAIL END CAP	2	2.53	5.06
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41710031	1/2" ALUM. RAIL END CAP	2	2.53	5.06
41710032	1/2" ALUM. RAIL END CAP	2	2.53	5.06
41710033	1/2" ALUM. RAIL END CAP	2	2.53	5.06
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41710035	1/2" ALUM. RAIL END CAP	2	2.53	5.06
41710036	1/2" ALUM. RAIL END CAP	2	2.53	5.06
41710037	1/2" ALUM. RAIL END CAP	2	2.53	5.06
41710038	1/2" ALUM. RAIL END CAP	2	2.53	5.06
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41710041	1/2" ALUM. RAIL END CAP	2	2.53	5.06
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41710043	1/2" ALUM. RAIL END CAP	2	2.53	5.06
41710044	1/2" ALUM. RAIL END CAP	2	2.53	5.06
41710045	1/2" ALUM. RAIL END CAP	2	2.53	5.06
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41710055	1/2" ALUM. RAIL END CAP	2	2.53	5.06
41710056	1/2" ALUM. RAIL END CAP	2	2.53	5.06
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41710058	1/2" ALUM. RAIL END CAP	2	2.53	5.06
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41710095	1/2" ALUM. RAIL END CAP	2	2.53	5.06
41710096	1/2" ALUM. RAIL END CAP	2	2.53	5.06
41710097	1/2" ALUM. RAIL END CAP	2	2.53	5.06
41710098	1/2" ALUM. RAIL END CAP	2	2.53	5.06
41710099	1/2" ALUM. RAIL END CAP	2	2.53	5.06
41710100	1/2" ALUM. RAIL END CAP	2	2.53	5.06

BILL OF MATERIALS		
EQUIPMENT	QTY	DESCRIPTION
SOLAR PV MODULE	18	JINKO JK6410M-72H (410W) MODULES
INVERTER	1	SOL-ARRK-48-ST INVERTER
AC DISCONNECT	1	60A FUSED 240V NEMA 3R UL LISTED.
MID CLAMPS	32	MID CLAMPS
END CLAMPS	8	END CLAMPS



20 DEGREE UNIRAC STEEL C-PILE FOUNDATION DEPTHS

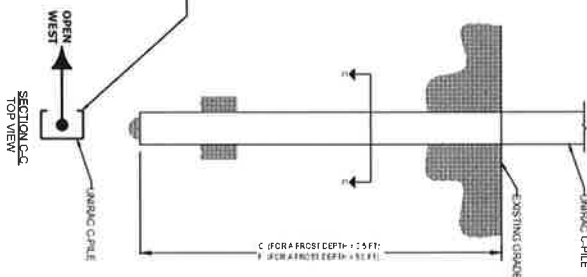
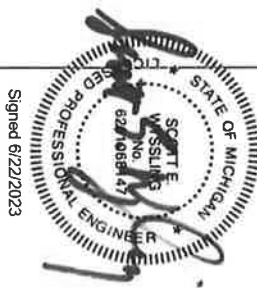
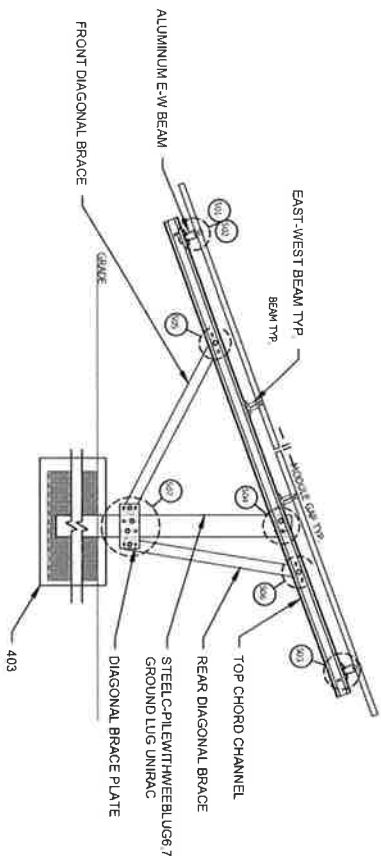
(REFER TO SHEET SR-200 FOR FILE SLICK-UP HEIGHT) (E)

FOUNDATION TYPE	DETAIL NUMBER	NO FROST DEPTH			FROST DEPTH = 3.5 FT OR LESS			FROST DEPTH = 5.0 FT		
		DIMENSION "A"	DIMENSION "B"	DIMENSION "C"	DIMENSION "A"	DIMENSION "B"	DIMENSION "C"	DIMENSION "D"	DIMENSION "E"	DIMENSION "F"
FULL CAST-IN-PLACE CONCRETE	400	8'-0" (A)	7'-0" (B)	7'-0" (C)	8'-0" (A)	7'-0" (B)	8'-0" (C)	8'-0" (D)	7'-0" (E)	7'-0" (F)
CAST-IN-PLACE	401	8'-0" (A)	7'-0" (B)	7'-0" (C)	8'-0" (A)	7'-0" (B)	8'-0" (C)	8'-0" (D)	7'-0" (E)	7'-0" (F)
BARREL JOINTED PILE WITH FROST BREAK (a)	402	7'-0" (A)	7'-0" (B)	7'-0" (C)	7'-0" (A)	7'-0" (B)	7'-0" (C)	7'-0" (D)	7'-0" (E)	7'-0" (F)
FULL DRIVE PILE (a)	403	7'-0" (A)	7'-0" (B)	7'-0" (C)	7'-0" (A)	7'-0" (B)	7'-0" (C)	7'-0" (D)	7'-0" (E)	7'-0" (F)

(a) THIS FROST EMERGENT REQUIRES CUTTING 2" OFF OF THE BOTTOM OF A 12" DIA. CAST-ON END OF PILE WITH PRE-PUNCTURED HOLES. IF CUTTING IS NOT PREFERRED, AN 8" CONC. CAPPING IS ACCEPTABLE.

(b) SHALL COVER EMERGENT DETAILS USE POSSIBLE POWER-PILE TESTING AND/OR APPROVAL FROM A GEOTECHNICAL OR PROFESSIONAL ENGINEER ARE REQUIRED.

(c) BASED ON THE PILE STOP-UP HEIGHT FOR A STANDARD 20 DEGREE GRT TABLE. ALL PILE EMERGENT DETAILS THAT ARE 7" OR GREATER, REQUIRING A 15' FT LONG PILE.



403 FULLY DRIVEN PILE
(ALTERNATE OPTION) NOT TO SCALE

- FOUNDATION #30 FULLY DROWN PILE
1. DROWN PILE FOUNDATIONS MAY NOT BE USED IN SOILS THAT CONTAIN SILT OR CLAY WITH GROUNDWATER WITHIN 12 FEET OF THE SURFACE UNLESS APPROVED BY A GEOTECHNICAL ENGINEER IT IS RECOMMENDED TO FOUNDATIONS TYPE IN FOREST PROTECT REGIONS
2. PILES MUST BE AND TALLER TO THE PILL DEPTH PILES NOT DROWN TO LIT DEPTH ARE CONSIDERED FAILED PILES AND APPROPRIATE FOUNDATION MUST BE UTILIZED
3. FOUNDATIONS WILL NOT BE RE-INSTALLED IN GRAVING
4. SOILS OF PARAWAY WITH GROUNDWATER NEAR THE SURFACE
5. PILE EMBEDMENT MUST BE DETERMINED BY A LICENSED CIVIL ENGINEER OR BY SITE PILE TESTS

LICENSÉE 021680

Signature with Seal

PROJECT NAME & ADDRESS

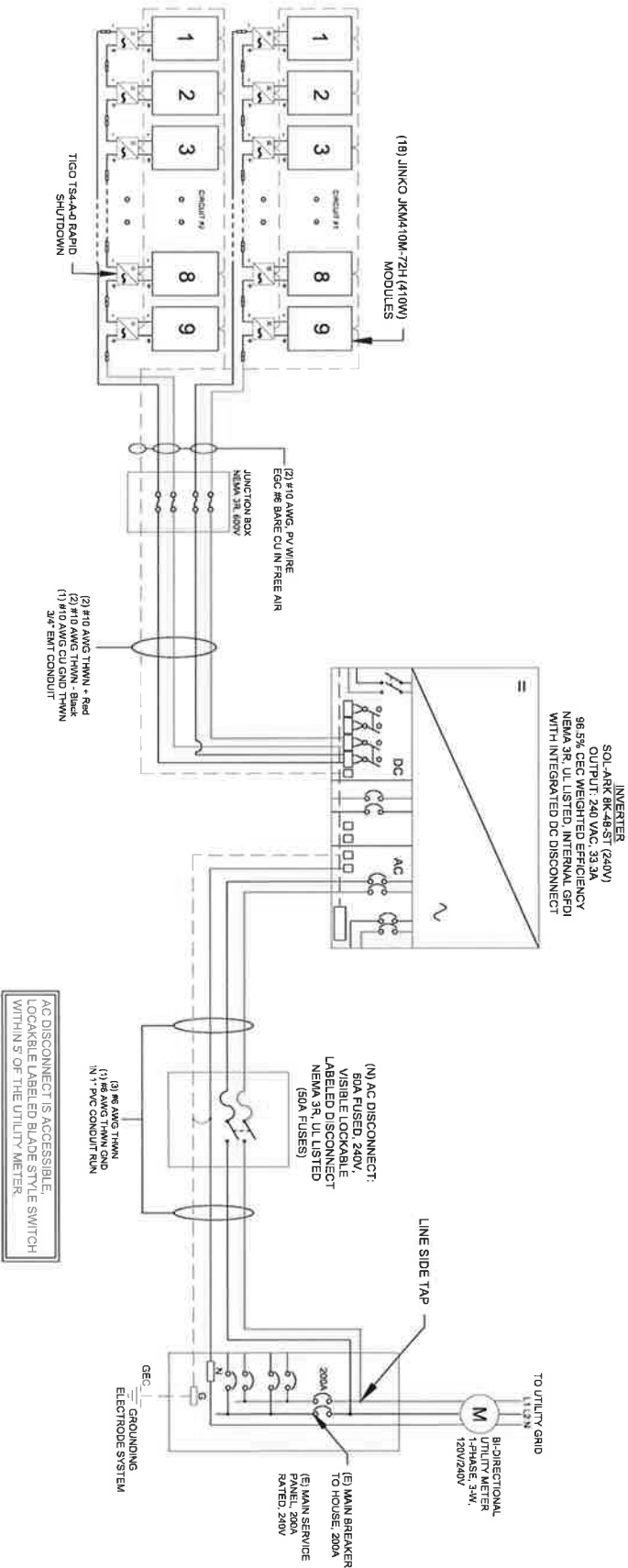
5100 SQUIER LN,
MIDDLEVILLE,MI 49333



PROFESSIONAL ENGINEER
No. 621068-47
Signed and dated: 2/2/2023

PV-3A

DC SYSTEM SIZE: 7.38 KW
AC SYSTEM SIZE: 8.00 KW
(18) JINKO JK6410M-72H (410W) MODULES
(1) SOL-ARK-8K-48-ST INVERTER
(02) CIRCUIT OF 9 MODULES



1 ELECTRICAL LINE DIAGRAM
PV-4 SCALE: NTS

SOLAR ON
SOLAR ON
14460 LAKESIDE CIRCLE SUITE 240
STERLING HEIGHTS, MI 48313
LICENSEE 6218601

REVISIONS			
DESCRIPTION	DATE	REV	BY
CLIENT	06-22-23	A	
COMMENTS			

Signature with Seal

DATE: 06/22/2023

PROJECT NAME & ADDRESS

UWE SOLAR RESIDENCE
5100 SQUIER LN,
MIDDLEVILLE, MI 49333

SHEET NAME	
ELECTRICAL LINE DIAGRAM	
SHEET SIZE	
ANSI B 11" X 17"	
SHEET NUMBER	
PV-4	

REVISIONS	DATE	REV
DESCRIPTION	06-22-23	A
CLIENT		
COMMENTS		

Signature with Seal

DATE: 06/20/2023

PROJECT NAME & ADDRESS

UWE SOLAR
RESIDENCE

5100 SQUIER LN,
MIDDLEVILLE, MI 49333

SHEET NAME
WIRING
CALCULATIONS
SHEET SIZE
ANSI B
11" X 17"
SHEET NUMBER
PV-5

AC CONDUCTOR AMPACITY CALCULATIONS:
FROM INVERTER TO POI :

NO. OF INVERTER	1
EXPECTED WIRE TEMP (in Celsius)	33°
TEMP. CORRECTION PER TABLE (310.15)(B)(2)(a)	0.96
NO. OF CURRENT CARRYING CONDUCTORS	3
CONDUIT FILL CORRECTION PER NEC 310.15(B)(3)(a)	1
CIRCUIT CONDUCTOR SIZE	6AWG
CIRCUIT CONDUCTOR AMPACITY	75A
REQUIRED CIRCUIT CONDUCTOR AMPACITY PER NEC 690.8(B)	41.63A
1.25 X MAX INVERTER OUTPUT CURRENT	
DERATED AMPACITY OF CIRCUIT CONDUCTOR PER NEC (310.15)(B)(2)(a)	
TEMP. CORRECTION PER TABLE (310.15)(B)(2)(a) X CONDUIT FILL CORRECTION PER NEC 310.15(B)(3)(a) X CIRCUIT CONDUCTOR AMPACITY	72.00A
Result should be greater than (41.63A) otherwise less the entry for circuit conductor size and ampacity	

DC CONDUCTOR AMPACITY CALCULATIONS:
ARRAY TO JUNCTION BOX :

EXPECTED WIRE TEMP (in Celsius)	31°
TEMP. CORRECTION PER TABLE (310.15)(B)(2)(a)	0.96
NO. OF CURRENT CARRYING CONDUCTORS	4
CONDUIT FILL CORRECTION PER NEC 310.15(B)(3)(a)	0.80
CIRCUIT CONDUCTOR SIZE	10 AWG
CIRCUIT CONDUCTOR AMPACITY	40A
REQUIRED CIRCUIT CONDUCTOR AMPACITY PER NEC 690.8(A&B)	16.56A
1.25 X MAX DC OUTPUT CURRENT	
DERATED AMPACITY OF CIRCUIT CONDUCTOR PER NEC (310.15)(B)(2)(a)	
TEMP. CORRECTION PER TABLE (310.15)(B)(2)(a) X CONDUIT FILL CORRECTION PER NEC 310.15(B)(3)(a) X CIRCUIT CONDUCTOR AMPACITY	30.72A
Result should be greater than (16.56A) otherwise less the entry for circuit conductor size and ampacity	

DC CONDUCTOR AMPACITY CALCULATIONS:
FROM JUNCTION BOX TO INVERTER:

AMBIENT TEMPERATURE ADJUSTMENT FOR EXPOSED CONDUIT PER NEC 310.15(B)(2)(c)	+31°
TEMP. CORRECTION PER TABLE (310.15)(B)(2)(a)	0.76
NO. OF CURRENT CARRYING CONDUCTORS	4
CONDUIT FILL CORRECTION PER NEC 310.15(B)(3)(a)	0.80
CIRCUIT CONDUCTOR SIZE	10AWG
CIRCUIT CONDUCTOR AMPACITY	40A

REQUIRED CIRCUIT CONDUCTOR AMPACITY PER NEC 690.8(A&B)	16.56A
1.25 X MAX DC OUTPUT CURRENT	
DERATED AMPACITY OF CIRCUIT CONDUCTOR PER NEC (310.15)(B)(2)(a)	
TEMP. CORRECTION PER TABLE (310.15)(B)(2)(a) X CONDUIT FILL CORRECTION PER NEC 310.15(B)(3)(a) X CIRCUIT CONDUCTOR AMPACITY	24.32A
Result should be greater than (16.56A) otherwise less the entry for circuit conductor size and ampacity	

SOLAR MODULE SPECIFICATIONS

MANUFACTURER / MODEL #	JINKO SOLAR JKM 410M-72H
VMP	42.3 V
IMP	9.69 A
VOC	50.4 V
ISC	10.80 A
MODULE DIMENSION	79.06"L x 39.45"W x 1.57"D (in inch)

INVERTER SPECIFICATIONS

MANUFACTURER / MODEL #	SOL-ARK-4K-48-ST
AC MAX. CONTINUOUS OUTPUT	33.3A
AC MAX. CONT. OUTPUT POWER	8000W
CEC WEIGHTED EFFICIENCY	97.0%

PERCENT OF VALUES	NUMBER OF CURRENT CARRYING CONDUCTORS IN EMT
.80	4-6
.70	7-9
.50	10-20

AMBIENT TEMPERATURE SPECS

RECORD LOW TEMP	-22°
AMBIENT TEMP (HIGH TEMP 2%)	31°
CONDUIT HEIGHT	0.5°
ROOF TOP TEMP	53°
CONDUCTOR TEMPERATURE RATE	90°
MODULE TEMPERATURE COEFFICIENT OF VOC	-0.28%/°C

ELECTRICAL NOTES

- 1.) ALL EQUIPMENT SHALL BE LISTED BY UL OR OTHER NRTL, AND LABELED FOR ITS APPLICATION.
- 2.) ALL CONDUCTORS SHALL BE COPPER, RATED FOR 600 V AND 90°C WET ENVIRONMENT.
- 3.) WIRING, CONDUIT, AND RACEWAYS MOUNTED ON ROOFTOPS SHALL BE ROUTED DIRECTLY TO, AND LOCATED AS CLOSE AS POSSIBLE TO THE NEAREST RIDGE, HIP, OR VALLEY.
- 4.) WORKING CLEARANCES AROUND ALL NEW AND EXISTING ELECTRICAL EQUIPMENT SHALL COMPLY WITH NEC 110.26.
- 5.) DRAWINGS INDICATE THE GENERAL ARRANGEMENT OF SYSTEM. CONTRACTOR SHALL FURNISH ALL NECESSARY OUTLETS, SUPPORTS, FITTINGS, AND ACCESSORIES TO MEET APPLICABLE CODES AND STANDARDS.
- 6.) WHERE SIZES OF JUNCTION BOXES, RACEWAYS, AND CONDUITS ARE NOT SPECIFIED, THE CONTRACTOR SHALL SIZE THEM ACCORDINGLY.
- 7.) ALL WIRE TERMINATIONS SHALL BE APPROPRIATELY LABELED AND ACCESSIBLE.
- 8.) INSTALL MODULE AND RACKING GROUNDING HARDWARE PER MANUFACTURERS INSTRUCTION.

⚠ WARNING

ELECTRIC SHOCK HAZARD
IF A GROUND FAULT IS INDICATED
NOMINALLY GROUNDED CONDUCTORS
MAY BE ENERGIZED AND ENERGIZED

LABEL LOCATION:

DISCONNECT, INVERTER
(PER CODE: CEC 690.55(F))
[To be used when inverter is ungrounded]

⚠ WARNING

ELECTRIC SHOCK HAZARD
THE DC CONDUCTORS OF THIS
PHOTOVOLTALIC SYSTEM ARE UNGROUNDED
AND MAY BE ENERGIZED

LABEL LOCATION:

DC DISCONNECT, INVERTER
(PER CODE: CEC 690.55(F))
[To be used when inverter is ungrounded]

⚠ WARNING

ELECTRIC SHOCK HAZARD
DO NOT TOUCH TERMINALS
TERMINALS ON BOTH LINE AND
LOAD SIDES MAY BE ENERGIZED
IN THE OPEN POSITION
DC VOLTAGE IS ALWAYS PRESENT
WHEN SOLAR MODULES ARE
EXPOSED TO SUNLIGHT

LABEL LOCATION:

AC DISCONNECT, POINT OF INTERCONNECTION
(PER CODE: CEC 690.17(E))

⚠ WARNING

ELECTRIC SHOCK HAZARD
DO NOT TOUCH TERMINALS
TERMINALS ON BOTH LINE AND
LOAD SIDES MAY BE ENERGIZED
IN THE OPEN POSITION

LABEL LOCATION:

AC DISCONNECT, POINT OF INTERCONNECTION
(PER CODE: CEC 690.17(E), C8)

⚠ WARNING - Electric Shock Hazard

No user serviceable parts inside.
Contact authorized service provider for assistance.

LABEL LOCATION:

INVERTER, JUNCTION BOXES, (ROOF), AC DISCONNECT
(PER CODE: CEC690.13.9.3 & CEC 690.13.9.4)

⚠ WARNING: PHOTOVOLTAIC POWER SOURCE

LABEL LOCATION:

CONDUIT, COMBINER BOX
(PER CODE: CEC690.31(G)(3)(4) & CEC 690.13(G)(4)

LABEL LOCATION:

ADHESIVE FASTENED SIGNS
WHERE IT IS INSTALLED

• THE LABEL SHALL BE SUITABLE FOR THE ENVIRONMENT
• APPLIED LABELS, WARNINGS, AND MARKINGS SHOULD
• ADHESIVE FASTENED SIGNS MAY BE ACCEPTABLE IF
PROPERLY ADHERED VINYL SIGNS SHALL BE WEATHER
RESISTANT (IFC 605.11.1.3)

PHOTOVOLTAIC SYSTEM AC DISCONNECT

RATED AC OPERATING CURRENT 41.62 AMPS
AC NOMINAL OPERATING VOLTAGE 240 VOLTS

LABEL LOCATION:

AC DISCONNECT, POINT OF INTERCONNECTION
(PER CODE: CEC690.54)

⚠ WARNING

INVERTER OUTPUT CONNECTION DO NOT
RELOCATE THIS OVERCURRENT DEVICE

LABEL LOCATION:

POINT OF INTERCONNECTION
(PER CODE: CEC 705.12(D)(7))
[Not required if panelboard is rated not less than sum of ampere ratings
of all overcurrent devices supplying it]

CAUTION: SOLAR CIRCUIT

LABEL LOCATION:

WARNINGS PLACED ON ALL INTERIOR AND EXTERIOR DC CONDUIT, RACEWAYS, ENCLOSURES,
AND CABLE ASSEMBLIES AT LEAST EVERY 10 FT, AT TURNS AND ABOVE/BELOW PENETRATIONS
AND ALL COMBINER/JUNCTION BOXES (PER CODE: IFC605.11.1.4)

SOLAR DISCONNECT

LABEL LOCATION:

DISCONNECT, POINT OF INTERCONNECTION
(PER CODE: CEC690.13(B))

⚠ CAUTION: SOLAR ELECTRIC SYSTEM CONNECTED

LABEL LOCATION:

WEATHER RESISTANT MATERIAL, DURABLE ADHESIVE,
UL969 AS STANDARD TO WEATHER RATING (UL LISTING
OF MARKINGS NOT REQUIRED), MIN 1/2" LETTER HEIGHT
ARIAL OR SIMILAR FONT NON-BOLD, PLACED WITHIN
THE MAIN SERVICE DISCONNECT, PLACED ON THE
OUTSIDE OF THE COVER WHEN DISCONNECT IS
OPERABLE WITH SERVICE PANEL CLOSED
(PER CODE: CEC690.15, 690.13(B))

NOTICE

PV SYSTEM COMBINER PANEL
DO NOT ADD LOADS TO THIS PANEL

LABEL LOCATION:

LOAD CENTER
[Only use when applicable for PV load center]

PHOTOVOLTAIC DC DISCONNECT

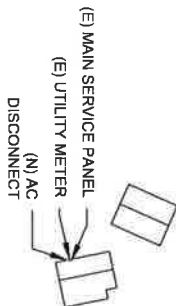
MAXIMUM SYSTEM VOLTAGE 500 VDC
MAXIMUM CIRCUIT CURRENT 18 ADC
MAY RATED OUTPUT CURRENT OF THE CHARGE
CONTROLLER OR DC-TO-DC CONVERTER (IF INSTALLED) ADC

LABEL LOCATION:

INVERTER(S), DC DISCONNECT(S)
(PER CODE(S): NEC 2017: 690.53, NEC 2014: 690.53, NEC 2011: 690.53)

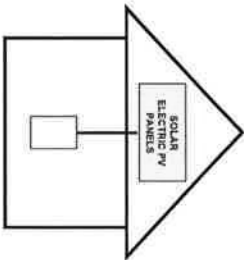
CAUTION

POWER TO THIS BUILDING IS ALSO SUPPLIED FROM THE
FOLLOWING SOURCES WITH DISCONNECTS LOCATED AS SHOWN
AT:
AC DISCONNECT
INVERTER



SOLAR PV SYSTEM EQUIPPED WITH RAPID SHUTDOWN

TURN RAPID SHUTDOWN
SWITCH TO THE "OFF"
POSITION TO SHUT DOWN
PV SYSTEM AND REDUCE
SHOCK HAZARD IN THE
ARRAY.



LABEL LOCATION:

ON OR NO MORE THAT 1 M (3 FT) FROM THE SERVICE DISCONNECTING
MEANS TO WHICH THE PV SYSTEMS ARE CONNECTED.
(PER CODE(S): NEC 2017: 690.56(C)(1)(a))

SOLAR ON

SOLAR ON

14460 LAKESIDE CIRCLE SUITE 240
STERLING HEIGHTS, MI 48313
LICENSER 6798601

REVISIONS

DESCRIPTION DATE REV
COMMENTS 06-22-23 A

Signature with Seal

DATE: 06/29/2023

PROJECT NAME & ADDRESS

UWE SOLAR
RESIDENCE
5100 SQUIER LN,
MIDDLEVILLE, MI 49333

SHEET NAME

PLACARDS

SHEET SIZE

ANSI B

PV-6

Cheetah HC 72M

390-410 W/m²

MONO PERC HALF CELL MODULE

Positive power tolerance of 0+/-3%

Half Cell

Mono PERC 72 Cell



PERC

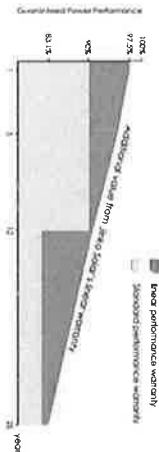


KEY FEATURES

- 5 Busbar Solar Cell**
5 busbar solar cell adopts new technology to improve the efficiency of modules, offers a better aesthetic appearance, making it perfect for rooftop installation.
- High Efficiency**
Higher module conversion efficiency (up to 20.38%), benefit from half cell structure (low resistance characteristic).
- PID Resistance**
Excellent anti-PID performance guarantee limited power degradation for mass production.
- Low-light Performance**
Advanced 3bus and cell surface textured design ensure excellent performance in low-light environment.
- Severe Weather Resistance**
Certified to withstand wind load (2400 Pascal) and snow load (1500 Pascal).
- Durability Against Extreme Environmental Conditions**
High salt mist and ammonia resistance certified by TÜV HCB.

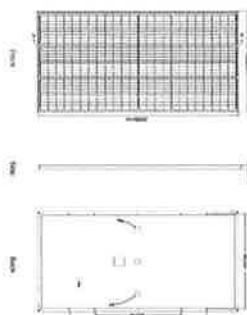
LINEAR PERFORMANCE WARRANTY

12 Year Product Warranty - 25 Year Linear Power Warranty

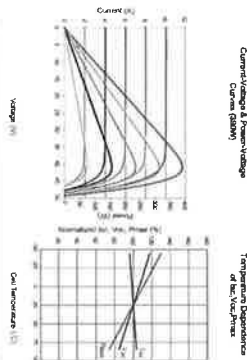


- ISO9001:2015, ISO14001:2015, OHSAS18001 certified factory
- IEC61215, IEC61730, UL1703 certified product

Electrical Drawing



Electrical Performance & Temperature Dependence



Packaging Configuration



Specification: 390-410W/m² condition

SPECIFICATIONS

Module Type	JNK60M-72H	JNK60M-72HV	JNK60M-72H	JNK60M-72HV	JNK60M-72H	JNK60M-72HV
STC	NOCT	STC	NOCT	STC	NOCT	STC
Maximum Power (P _{max})	390Wp	390Wp	400Wp	400Wp	410Wp	410Wp
Maximum Power Voltage (V _{mp})	41.1V	39.1V	41.4V	39.3V	42.0V	40.0V
Maximum Power Current (I _{mp})	9.48A	7.54A	9.55A	7.56A	9.89A	7.76A
Open-circuit Voltage (V _{oc})	45.3V	43.0V	45.3V	43.2V	46.0V	43.9V
Short-circuit Current (I _{sc})	10.15A	8.02A	10.23A	8.09A	10.56A	8.24A
Module Efficiency (STC)	19.38%	19.38%	19.63%	19.63%	20.13%	20.13%
Operating Temperature (°C)	-40°C ~ +85°C	-40°C ~ +85°C	-40°C ~ +85°C	-40°C ~ +85°C	-40°C ~ +85°C	-40°C ~ +85°C
Maximum System Voltage	1000V (MCC/IEC)	1000V (MCC/IEC)	1000V (MCC/IEC)	1000V (MCC/IEC)	1000V (MCC/IEC)	1000V (MCC/IEC)
Maximum Series Fuse Rating	20A	20A	20A	20A	20A	20A
Panel Tolerance	±0.3mm	±0.3mm	±0.3mm	±0.3mm	±0.3mm	±0.3mm
Temperature Coefficient of P _{max}	-0.30%/°C	-0.30%/°C	-0.30%/°C	-0.30%/°C	-0.30%/°C	-0.30%/°C
Temperature Coefficient of V _{oc}	-0.26%/°C	-0.26%/°C	-0.26%/°C	-0.26%/°C	-0.26%/°C	-0.26%/°C
Temperature Coefficient of I _{sc}	0.04%/°C	0.04%/°C	0.04%/°C	0.04%/°C	0.04%/°C	0.04%/°C
Normal Operating Cell Temperature (NOCT)	45±3°C	45±3°C	45±3°C	45±3°C	45±3°C	45±3°C

STC: Irradiance 1000W/m²

Cell Temperature 25°C

AM=1.5

NOCT: Irradiance 800W/m²

Ambient Temperature 20°C

AM=1.5

Wind Speed 1m/s

* P max measurement tolerance: ± 3%

The company reserves the final right for explanation on any of the informations presented hereby. JNK560-410M-72H (V)-A3-EN

SOLAR ON

SOLAR ON

14400 LAKESIDE CIRCLE SUITE 240
STERLING HEIGHTS, MI 48313
LIC#5816 6768501

REVISIONS

DESCRIPTION	DATE	REV
CLIENT COMMENTS	06-22-23	A

Signature with Seal

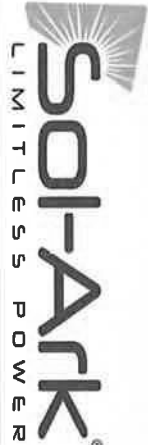
DATE: 06/20/2023

PROJECT NAME & ADDRESS

UWE SOLAR RESIDENCE
5100 SQUIER LN,
MIDDLEVILLE, MI 49333

SHEET NAME
EQUIPMENT SPECIFICATION
SHEET SIZE

ANSI B
11" X 17"
SHEET NUMBER
PV-7



RESIDENTIAL

8K-2P-N

OUTDOOR

INSTALLATION GUIDE | USER MANUAL



Solar	Input Power 11,000W
Max Allowed PV Power	5,500W + 5,500W = 11,000W
Max PV Power Delivered to Battery & AC Outputs	8,000W
Max DC Voltage (Voc)	500V @ 18A, 450V @ 20A
MPPT Voltage Range	150-425V
Starting Voltage	125V
Number of MPPT	2
Max Solar Strings Per MPPT	2
Max DC Current per MPPT (Self Limiting)	20A
Max AC Coupled Input (MicroString Inverters)	9,600W

AC	Output Power 8kW On-Grid & Off-Grid
Connections	120/240/208V Split Phase
Continuous AC Power to Grid (On-Grid)	8,000W 33 3A-L (240V)
Continuous AC Power to Load (Off-Grid)	8,000W 33 3A-L (240V)
Surge AC Power 10sec	16,000VA L-L (240V)
Surge AC Power 100ms	25,000VA L-L (240V)
Fault Current 100ms	10kA L-L (240V)
Parallel Stacking	No
Frequency	60/50Hz
Continuous AC Power with Grid or Generator	15,120W 63A L-L (240V) 7,560W 63A L-N (120V)
CEC Efficiency	96.5% (Peak 97.5%)
Idle Consumption Typical—No Load	60W
Sell Back Power Modes	Limited to Household/fully Grid-Tied
Design (DC to AC)	Transformerless DC
Response Time (Grid-Tied to Off-Grid)	4ms
Power Factor	±0.9 - 1.0

Battery (optional)	Output Power 8,000W
Type	Lead-Acid or Li-Ion
Nominal DC Input	48V
Capacity	50 – 9900Ah
Voltage Range	43.0 – 63.0V
Continuous Battery Charging Output	155A
Charging Curve	3-Stage w/ Equalization
Grid to Batt Charging Efficiency	96.0%
External Temperature Sensor	Included
Current Shunt for Accurate % SOC	Integrated
External Gen Start Based on Voltage or %SOC	Integrated
Communication to Lithium Battery	Canbus & RS485

General	
Dimensions (H x W x D)	30.0" x 18.3" x 10.0"
Weight	78 lbs
Enclosure	NEMA 3R
Ambient Temperature	-25-55°C, -5°F-131°F Derating
Installation Style	Wall-Mounted
Wi-Fi & LAN Communication	Included
Standard Warranty (verified by HALT Testing)	5 Years (10 yr ext)

Contact Sales@sol-ark.com for 10 year extension

Protections & Certifications	
Electronics Certified Safety by SGS Labs to NEC & UL Specs - NEC 690.48 & NEC 706.4/6	Yes
Grid Sell Back - UL1741-2010/2018, IEC-62109-1-2014/2014, FCC 15 Class B, UL1741SA, CA Rule 21, HECO Rule 14H	Yes
PV DC Disconnect Switch - NEC 240.15	Integrated
Ground Fault Detection - NEC 690.5	Integrated
PV Rapid Shutdown Control - NEC 690.12	Integrated
PV Arc Fault Detection - NEC 690.11	Integrated
PV Input Lightning Protection	Integrated
PV String Input Reverse Polarity Protection	Integrated
AC Output Breakers - 63A	Integrated
250A Battery Breaker / Disconnect	Integrated
Surge Protection	DC Type II / AC Type II

SOLAR ON
SOLAR ON

1480 LAKESIDE CIRCLE SUITE 240
STERLING HEIGHTS, MI 48313
LICENSE# 0218601

REVISIONS		
DESCRIPTION	DATE	REV
CLIENT	06-22-23	A
COMMENTS		

Signature with Seal

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PROJECT NAME & ADDRESS

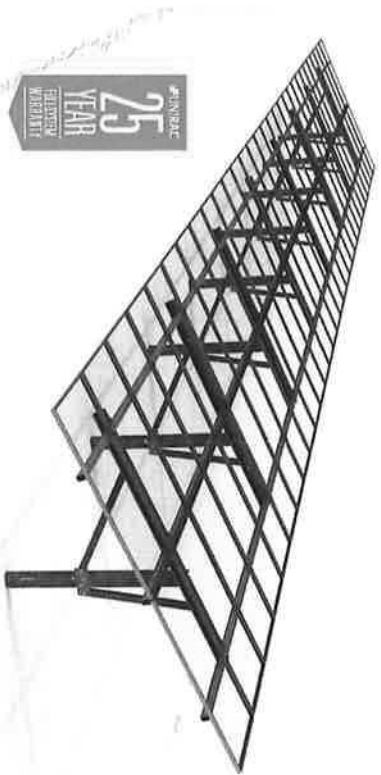
UWE SOLAR
RESIDENCE
5100 SQUIER LN,
MIDDLEVILLE, MI 49333

SHEET NAME
EQUIPMENT SPECIFICATION
SHEET SIZE
ANSI B 11" X 17"
SHEET NUMBER
PV-8

GROUND FIXED TILT



GROUND FIXED TILT (GFT) is an engineered system of standard, lightweight ground mount components that are in stock and ready to ship from North America's largest ground mount distribution network. UNIRAC's unmatched commercial project support makes construction easy, from permitting through installation, including region-specific engineering. GFT's refined solution, including a new shared rail design, delivers enhanced system and labor optimization. Plus, enjoy peace of mind with **SOLARMOUNT** Mounting Technology and UNIRAC's industry-leading 25-year warranty.



25
YEAR
WARRANTY



IN STOCK & READY TO SHIP
THE BEST SOLUTION IS AVAILABLE



COMMERCIAL PARTNERSHIP
EXPERIENCE THAT MAKES A DIFFERENCE



INSTALLATION EXPERIENCE
REFINED WITH YOU IN MIND

MAKE GROUND MOUNT SIMPLE

FOR QUESTIONS OR CUSTOMER SERVICE VISIT UNIRAC.COM OR CALL (505) 248-2702

GROUND FIXED TILT



IN STOCK AND READY TO SHIP

THE BEST SOLUTION IS AVAILABLE

Simple and straightforward with 20' and 33' tall options, Standard engineered and built to last. Ground Fixed Tilt is a proven solution for your solar project. It's the only ground mount system that's been proven to last 25 years. Plus, it's the only ground mount system that's been proven to last 25 years. Plus, it's the only ground mount system that's been proven to last 25 years.

COMMERCIAL PARTNERSHIP

EXPERIENCE THAT MAKES A DIFFERENCE

From design to installation, UNIRAC's commercial partnership experience makes a difference. Our experienced design team works with you to create a custom design that meets your needs. Our experienced installation team works with you to ensure a smooth and efficient installation. Our experienced customer support team works with you to ensure a smooth and efficient installation.

INSTALLATION EXPERIENCE

REFINED WITH YOU IN MIND

From design to installation, UNIRAC's commercial partnership experience makes a difference. Our experienced design team works with you to create a custom design that meets your needs. Our experienced installation team works with you to ensure a smooth and efficient installation. Our experienced customer support team works with you to ensure a smooth and efficient installation.

UL2703
ELECTRIC
EQUIPMENT
RATED



UNIMOUNT



GROUND



EXPERIENCE



ENGINEER



DESIGN



WARRANTY

ON-TIME DELIVERY

Our experienced design team works with you to create a custom design that meets your needs. Our experienced installation team works with you to ensure a smooth and efficient installation. Our experienced customer support team works with you to ensure a smooth and efficient installation.

CERTIFIED QUALITY PROVIDER

UNIRAC is a certified quality provider. Our experienced design team works with you to create a custom design that meets your needs. Our experienced installation team works with you to ensure a smooth and efficient installation. Our experienced customer support team works with you to ensure a smooth and efficient installation.

BANKABLE WARRANTY

UNIRAC's 25-year warranty is a bankable warranty. Our experienced design team works with you to create a custom design that meets your needs. Our experienced installation team works with you to ensure a smooth and efficient installation. Our experienced customer support team works with you to ensure a smooth and efficient installation.

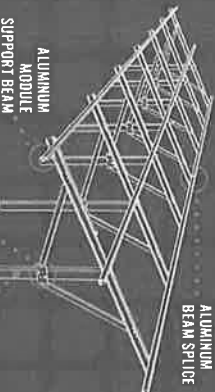
FOR QUESTIONS OR CUSTOMER SERVICE VISIT UNIRAC.COM OR CALL (505) 248-2702



**TOP MOUNTING
MODULE CLAMPS
W/ INTEGRATED BONDING**



**SNAP-ON
WIRE MANAGEMENT**



**ALUMINUM
MODULE
SUPPORT BEAM**

**DIAGONAL BRACE
ASSEMBLY**

**4.5" X 6"
C-PILE
FOUNDATION**

SOLAR ON

SOLAR ON

1440 LAKESIDE CIRCLE SUITE 240
STIRLING HEIGHTS, MI 48373
LICENSE # 06-0001

REVISIONS

DESCRIPTION DATE REV
COMMENTS 06-22-23

Signature with Seal

DATE 06/22/23

PROJECT NAME & ADDRESS

UWE SOLAR
RESIDENCE

5100 SQUIER LN,
MIDDLEVILLE, MI 49333

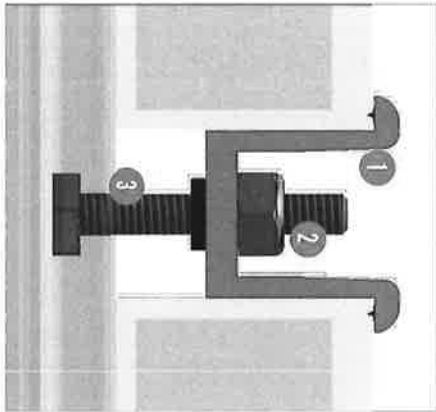
SHEET NAME
EQUIPMENT
SPECIFICATION

SHEET SIZE

ANSI B
11" X 17"

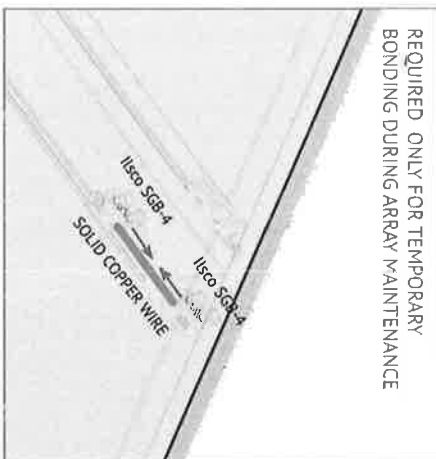
SHEET NUMBER

PV-9



BONDING MIDCLAMP ASSEMBLY

- 1 Aluminum mid clamp with stainless steel bonding pins that pierce module frame anodization to bond module to module through clamp
- 2 Stainless steel nut bonds aluminum clamp to stainless steel T-bolt
- 3 Serrated T-bolt head penetrates rail anodization to bond T-bolt, nut, clamp, and modules to SM rail



TEMPORARY BONDING CONNECTION DURING ARRAY MAINTENANCE

- When removing modules for replacement or system maintenance, any module left in place that is secured with a bonding Midclamp will be properly grounded. If a module adjacent to the end module of a row is removed or if any other maintenance condition leaves a module without a bonding mid clamp, a temporary bonding connection must be installed as shown
- Attach Ilisco SGB4 to wall of GFT rail (Rail shown in picture is not a GFT rail but a representative rail for demonstration only)
- Attach Ilisco SGB4 to module frame
- Install solid #6 AWG copper wire jumper to Ilisco lugs

ELECTRICAL CONSIDERATIONS

GFT is intended to be used with PV modules that have a system voltage less than or equal to that allowable by NEC. For standard system grounding a minimum 10AWG, 105°C copper grounding conductor should be used to ground a system, according to the National Electric Code (NEC). It is the installer's responsibility to check local codes, which may vary. See below for interconnection information.

INTERCONNECTION INFORMATION

There is no size limit on how many GFT & PV modules can be mechanically interconnected for any given configuration, provided that the installation meets the requirements of applicable building and fire codes.

GROUNDING NOTES

The installation must be conducted in accordance with the National Electric Code (NEC) and the authority having jurisdiction. Please refer to these resources in your location for required grounding lug quantities specific to your project.

The grounding / bonding components may overhang parts of the array so care must be made when walking around the array to avoid damage.

Conductor fastener torque values depend on conductor size. See product data sheets for correct torque values.

Mid clamps do not need to be repositioned for re-use.

The list below is not exhaustive of compliant modules but shows those that have been evaluated and found to be electrically compatible with the GROUND FIXED TILT system.

The modules selected for UL 2703 bonding and grounding testing represent the broadest possible range of modules on the market. The tests were performed for each specific bonding location using representative module frame profile sections. The tests performed cover the following basic module parameters:

- The frame profile must not have any feature that might interfere with the bonding devices that are integrated into the racking system
- Use with a maximum over-current protection device OCPD of 30A



U-BUILDER PROJECT REPORT

APPLICATION VERSION: 6.0.5
PROJECT VERSION: 0.0.32

PROJECT TITLE
GFT

PROJECT ID
C860A23D

LAST UPDATED
Jun. 20, 2023

ORIGINALLY CREATED
Jun. 19, 2023

NAME Uwe Solar
ADDRESS 5100 Squier Ln
CITY, STATE Middleville, MI
MODULE Jinko JKM410M-72HL-V 18 - JKM410M-72HL-V 7.38 KW

Designed by daniel@getsoltron.com

GFT

Jinko

18 - JKM410M-72HL-V

7.38 KW

NOTE: Installation of the project is intended to happen within the year of project designed in UBuilder. If it's past one year please
re-run the design or contact Unirac Engineering Services.

ENGINEERING REPORT

Plan Review

TOTAL NUMBER OF MODULES 18
TOTAL KW 7.38 KW

Parameters Used for Design

BUILDING CODE ASCE 7-10
BASIC WIND SPEED 115.00 mph
GROUND SNOW LOAD 35.00 psf
RISK CATEGORY II
SEISMIC, S_s 0.080
SEISMIC, S₁ 0.046
ELEVATION 766.00 ft
WIND EXPOSURE C
WIND ON ICE 0.00 mph
ICE THICKNESS 2.40"
FROST DEPTH 1.50 ft
VELOCITY PRESSURE, q_z 24.38 psf

Inspection

PRODUCT GFT
MODULE MANUFACTURER Jinko
MODEL 18 - JKM410M-72HL-V
MODULE WATTS 410 WATTS
MODULE LENGTH 79.06"
MODULE WIDTH 39.45"
MODULE THICKNESS 1.57"
MODULE WEIGHT 49.60 lbs
RAILS DIRECTION EW
RAILS ANCHOR/CLAMPMENT TYPE Four Rail
TILT 30 degrees
CLAMP SELECTION Standard Clamps
FOUNDATION TYPE Concrete Pile
FRONT EDGE HEIGHT 2.50 ft
FOUNDATION LENGTH 12.50 ft
FOUNDATION DIAMETER 2.00 ft
SUGGESTED ROW SPACING 162.73"

(Not required for design. Calculated based on latitude, tilt and
no module shading between 10am and 2pm on Dec 21st.
(Customer is responsible for final row spacing and energy
production.)



1440 LAKESIDE CIRCLE SUITE 240
STERLING HEIGHTS, MI 48313
LICENSER 0218601

REVISIONS

DESCRIPTION DATE REV
COMMENTS 06-22-23 A

Signature with Seal

DATE 06/20/2023

PROJECT NAME & ADDRESS

UWE SOLAR
RESIDENCE
5100 SQUIER LN,
MIDDLEVILLE, MI 49333

SHEET NAME

UNIRAC
REPORT

SHEET SIZE

ANSI B
11" X 17"

SHEET NUMBER

PV-12

Site Area 1 / Table Size 1 (count:1)

NUMBER OF MODULES:	18
TOTAL KW:	7.38 KW

2 X 9 ARRAY RAIL LAYOUT

	246" RAIL 1 RAIL PER RUN	168" RAIL 1 RAIL PER RUN	END-OF-RUN- SCRAP 51.05 IN
EW ARRAY DIMENSION (MODULES ONLY)		351.05"	
EW MAX ARRAY DIMENSION (RAIL OUT TO OUT)		362.05"	
N/S ARRAY DIMENSION (HORIZONTAL DISTANCE)		158.37"	
OPTIMUM 2" DIMENSION (PILE TO PILE)		96.00"	
OPTIMUM 4" DIMENSION (EAST AND WEST CANTILEVERS)		37.03"	

CONCRETE PILE FOUNDATION	No. of Foundations = 4
	Minimum embedment length required - 5.87 ft
	Maximum Lateral Shear Force - 1363.17 lbs
	Maximum Tensile Force - 1659.03 lbs
	Maximum Compression Force = 3924.76 lbs
	Maximum Moment = 7695.09 ft-lbs

*Refer to Unirac GFT Construction Details and Installation Guide for notes and installation details.
*Foundation lengths may change if a ballasted system is utilized, please contact Unirac Engineering Services for ballasted system design.

GFT U-BUILDER PRODUCT ASSUMPTIONS

GFT - Ground Fixed Tilt

Limitations of Responsibility: It is the user's responsibility to ensure that inputs are correct for your specific project. Unirac is not the solar, electrical, or building engineer of record and is not responsible for the solar, electrical, or building design for this project.

Default Dimensions

1. Top chord length: 138.59"
2. Distance from top of rord edge to front brace bolt and rear brace bolt: 35.88"
3. Clear gap between modules in North-South & East-West direction
 - a. Pro series clamps: 1.00"
 - b. Standard clamps: 0.25"
4. Pile offset from centre of module gap: 20.00"
5. Grade to bottom of diagonal brace mount: 6.00"

Design Parameters

1. Wind Design
 - a. Basic Wind Speed: 85.00 mph - 210.00 mph (ASCE 7-10/ASCE 7-16)
 - b. Risk category: I to IV
 - c. Exposure: B or C (ASCE 7-10/ASCE 7-16)
 - d. 50-year Design life
 - e. Elevation: Inspection of the project at - grade elevation can result in a reduction of wind pressure, if your project is in a special case study region or in an area where wind studies have been performed, please verify with your jurisdiction to ensure that elevation effects have not already been factored into the wind speed. If elevation effects have been included in your wind speed, please select 0.00 ft as the project site elevation.
2. Snow Design
 - a. Ground Snow Load: 0 - 80.00 psf (ASCE 7-10/ASCE 7-16)
3. Seismic Design
 - a. Site class D
4. Loads & combinations of loads
 - a. Self weight, wind, snow, seismic, ice, wind on ice are considered in design of structure.
 - b. Load combinations for allowable stress design: Clause 2.4 (ASCE 7-10/ASCE 7-16)
5. Assumed Foundation capacities
 - a. Lateral bearing capacity: 300.00 psf
 - b. Vertical bearing capacity: 1500.00 psf

Site Specific Engineering

Conditions listed below are beyond the current capabilities of U-Builder. Site specific engineering is required:

1. Any deviations from default assumed design parameters
2. The following design criteria is excluded from the racking and foundation design: flood loading, debris loading, dynamic analysis, acts of god (tornado, hurricane, water inundation loading, etc.), erosion, expansive soils, frost heave, soil liquefaction, dynamic loading from seismic events and conditions.

Notes:

*Please contact commercialservices@unirac.com for additional information.



SOLAR ON

14400 LAKESIDE CIRCLE SUITE 240
STERLING HEIGHTS, MI 48313
LICENSE# 6210601

REVISIONS

DESCRIPTION	DATE	REV
COMMENTS	06-22-23	A

Signature with Seal

DATE: 06/26/2023

PROJECT NAME & ADDRESS

UWE SOLAR
RESIDENCE

5100 SQUIER LN,
MIDDLEVILLE, MI 49333

SHEET NAME
UNIRAC
REPORT

SHEET SIZE

ANSI B
11" X 17"

SHEET NUMBER
PV-13

TOWNSHIP *of* THORNAPPLE



Eric Schaefer, *Supervisor* / Cindy Ordway, *Clerk* / Laura Bouchard, *Treasurer*
Ross DeMaagd, *Trustee* / Kim Selleck, *Trustee* / Curt Campbell, *Trustee* / Sandy Rairigh, *Trustee*

Phone 269-795-7202 * Fax 269-795-8812 * 200 E Main St.,
PO Box 459, Middleville MI 49333 * www.thornapple-twp.org

August 10, 2023

TO: PLANNING COMMISSION

RE: 5100 SQUIER LN FRONT YARD SOLAR INSTALLATION

On August 9 a visit was made to 5100 Squier Lane regarding a solar installation in the front yard of that residence. The lot is significantly occupied by trees. There is an area in the front yard that is behind the required setback that is clear enough for an install being requested. The home sits up on a hill and with some vegetation ahead of this location we felt the system would only be visible to one neighbor and that is only if they're outside looking up towards the right direction. It appears passing vehicles would not even be able to see it.

Respectfully,

Phil Gensterblum

Zoning Administrator



SPECIAL LAND USE APPLICATION
SECTION 19.43 – MINOR HOME BASED BUSINESS

Thornapple Township, 200 E. Main St., Middleville, MI 49333

Phone: 269-795-7202 Fax: 269-795-8812

Email: zoning-administrator@thornapple-twp.org

SLW 163
SP 130

PROPERTY INFORMATION

Property Address: 12076 Olivia Dr. Middleville 49333

Parcel ID Number: 175-019-00 Current Zoning District Res Wetlands Present? No

Parcel Size: Frontage: 300 feet Depth: 207 feet Area: 1.5 [Acres or square feet]

Description of proposed Minor Home Based Business: _____

Licensed Group
home child care.

(Attach added information as needed)

APPLICANT INFORMATION

1. Applicant / Property Owner

Identify the person or entity making this petition:

Name: Sydney R. LaDere

Cell Phone

616-309-8093

Mailing Address: 625 Towne Center #16

Telephone

City Middleville State Mi Zip 49333 FAX _____

E-Mail s.kraima@yahoo

.com

REQUIRED APPLICATION WRITTEN ATTACHMENTS

- ☐ Floor Plan of residence or accessory building, drawn to scale, depicting floor area to be used for the minor home based business.
- ☐ Legal description of the property, including wetlands
- ☐ Site Plan, if required

Section 19.43(c) of the Zoning Ordinance requires compliance with the following listed standards:

A minor home based business shall conform to the following site, building and operating criteria:

- ☐ The use shall be conducted entirely within the dwelling or accessory building.
- ☐ The use shall be operated by persons residing in the dwelling.
- ☐ The exterior appearance of the dwelling shall not be modified to accommodate the home based business.

- o The home based business shall not occupy more than 30 percent of the total dwelling floor area, excluding the basement as defined in this Ordinance.
- o There may be no selling of goods, merchandise, supplies or products, provided that the orders made by telephone, internet or at sales events off the premises may be filled on premise so long as customers do not arrive on premise to acquire orders.
- o Outdoor storage or display is prohibited.
- o There shall be no regular deliveries from commercial suppliers to the premises.
- o There shall be no activity on premise resulting in noise, vibration, smoke, dust, odors, heat or glare that creates a nuisance to adjoining properties.
- o As a result of operating the home based business, there shall occur no more motor vehicle traffic than would be normal for a dwelling.
- o No combustible, toxic or hazardous substances shall be kept on premise attendant to the home based business.
- o Each Minor Home Based Business shall be subject to an annual compliance inspection.
- o The Zoning Administrator shall have discretion to refer any home based business to the Planning Commission for approval.

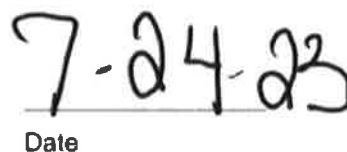
REQUEST & AFFIDAVIT

The applicant must read the following statement carefully and sign below:

The undersigned requests Thornapple Township review this application and companion documents as provided in the zoning ordinance now in effect. The applicant further affirms and acknowledges the following:

- ✓ The applicant understands the foregoing requirements, and
- ✓ The answers and statements contained in this petition and attachment are in all respects true and correct to the best of my knowledge, and
- ✓ The approval of this application does not relieve the undersigned from compliance with all other provisions of the Zoning Ordinance or other applicable codes and ordinances and does not constitute granting of a variance, and
- ✓ The undersigned hereby grants the Zoning Administrator or designee the right to access the subject property for the sole purpose of evaluating this application.


Applicant / property owner signature


Date

2 / 3



MINOR HOME OCCUPATION PERMIT # _____ - _____

Year Number

The Zoning Administrator for Thornapple Township has reviewed the foregoing application and attachments and inspected the subject property and concludes that so long as requirements of the zoning ordinance are complied with, the proposed minor home occupation will not create negative impact or adverse consequence to neighbors or adjoining lands.

This permit # _____ - _____ is issued to the property owner disclosed on page 1 of this application. This permit shall remain in effect for so long as _____ remains the property owner. Upon request, the Zoning Administrator may approve transfer of this Home Based Business permit to a successor owner of the premises, but only if the successor owner agrees to comply with all terms and conditions of the zoning ordinance and this permit.

Zoning Administrator

Effective Date

.....
FOR OFFICE USE ONLY

Fee \$ 250 Fee paid by ☒ Cash ☐ Check Receipt # 24064 Received by Laura Bouchard

- (g) A litter container shall be provided at each vacuum facility. A refuse container larger than 96 gallons shall be enclosed in accordance with Section 21.19.

Section 19.27 Child Care Center

Each child care center shall conform to the following standards:

- (a) All required state and local licensing shall be maintained at all times.
- (b) All outdoor play areas shall have appropriate fencing for the safety of the children. Such fence shall consist of a 6-foot high opaque fence along the area adjoining land used, zoned or planned for residential use and a 4-foot to 6-foot high fence in the rear yard and in the side yard up to the front building line. Play areas abutting a public right-of-way are prohibited.
- (c) Any dumpster on site in excess of 96 gallons shall be enclosed as required by Section 21.19.
- (d) Such facilities shall be located at least 1,500 feet from any one of the following:
 - (1) A licensed or pre-existing operating group day-care home or child care center.
 - (2) Adult foster care facility.
 - (3) A facility offering substance abuse treatment and rehabilitation service to 7 or more people.
 - (4) A community correction center, resident home, halfway house or similar facility under jurisdiction of the County Sheriff or the Department of Corrections.
- (e) Such facilities shall at all times be maintained in a manner consistent with the character of the surrounding neighborhood.
- (f) The Planning Commission shall not prohibit evening operations completely, but may establish limitations on hours of operation and/or activities between the hours of 10 p.m. and 6 a.m.

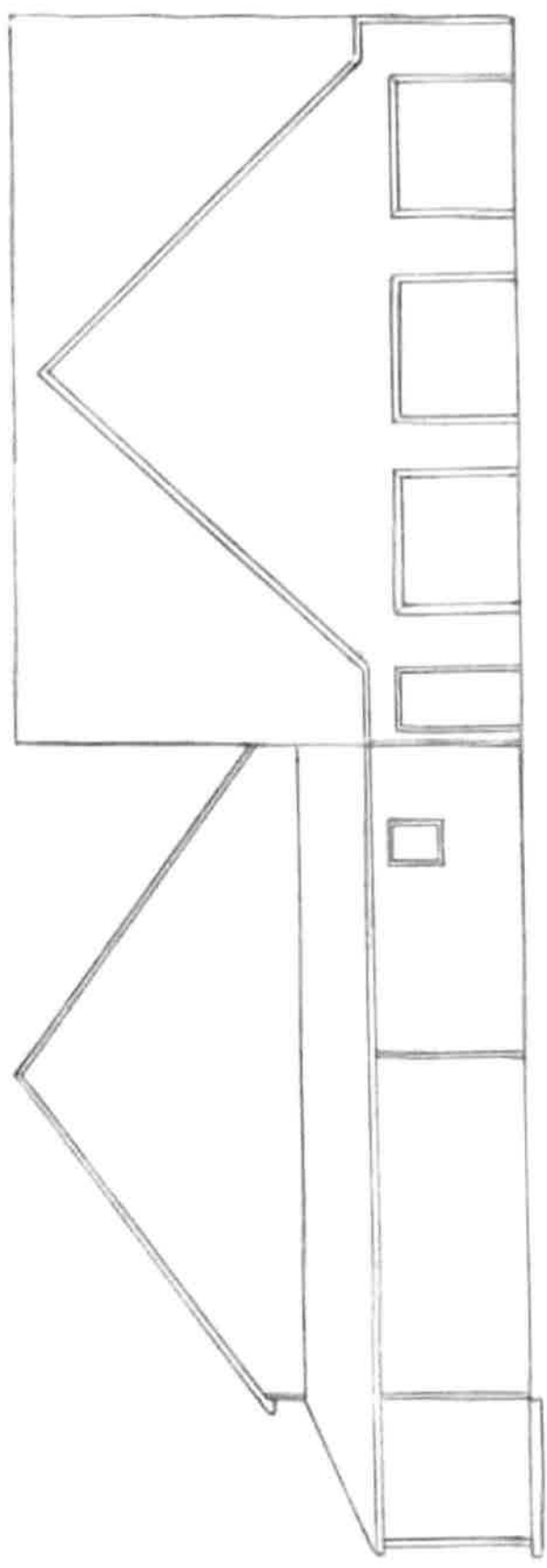
Section 19.28 Churches, Synagogues, Temples, Mosques and Other Recognized Places of Worship

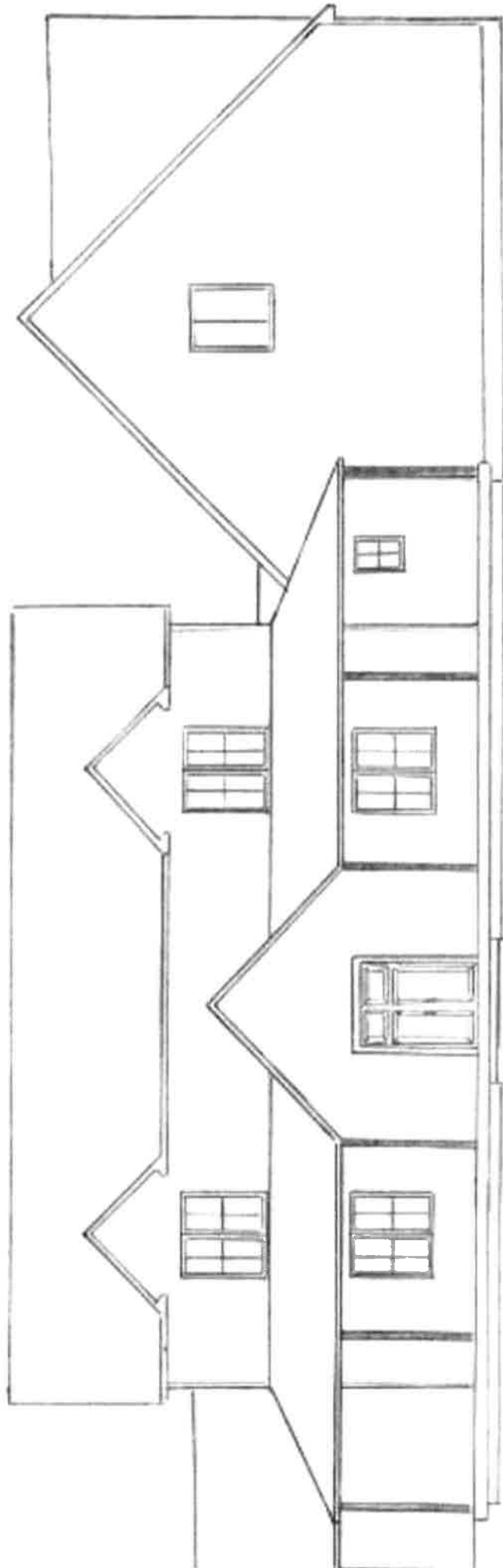
Each place of worship shall conform to the following standards:

- (a) The minimum parcel size shall be 2 acres unless served by public sanitary sewer.
- (a) Indoor or outdoor recreation facilities may be permitted if approved by the Planning Commission.
- (b) A nursery school or child care center may be permitted if approved by the Planning Commission.
- (c) The main access drive to the facility shall accommodate stacking for no less than 6 motor vehicles outside of the adjoining public road right-of-way.

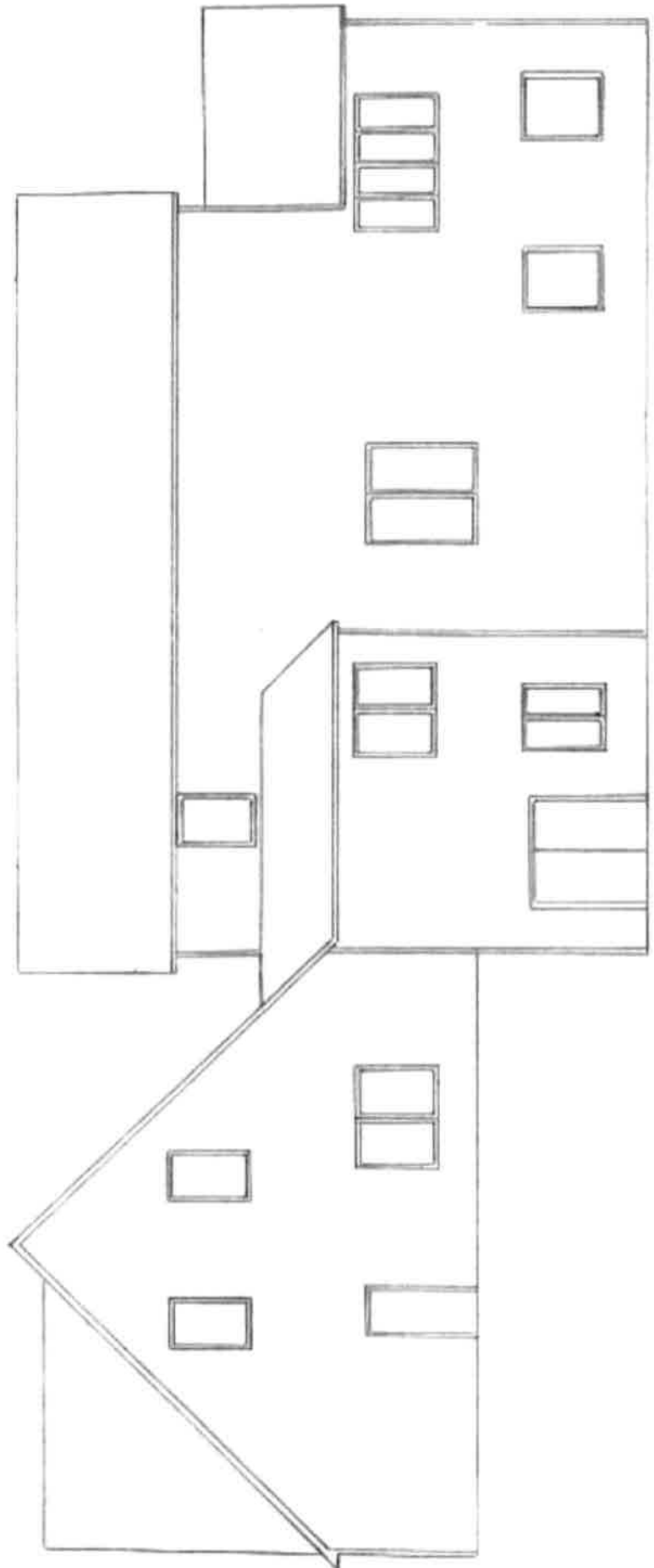
Section 19.29 College or University

2911075 33041
LADEE RESIDENCE
RIGHT ELEVATION

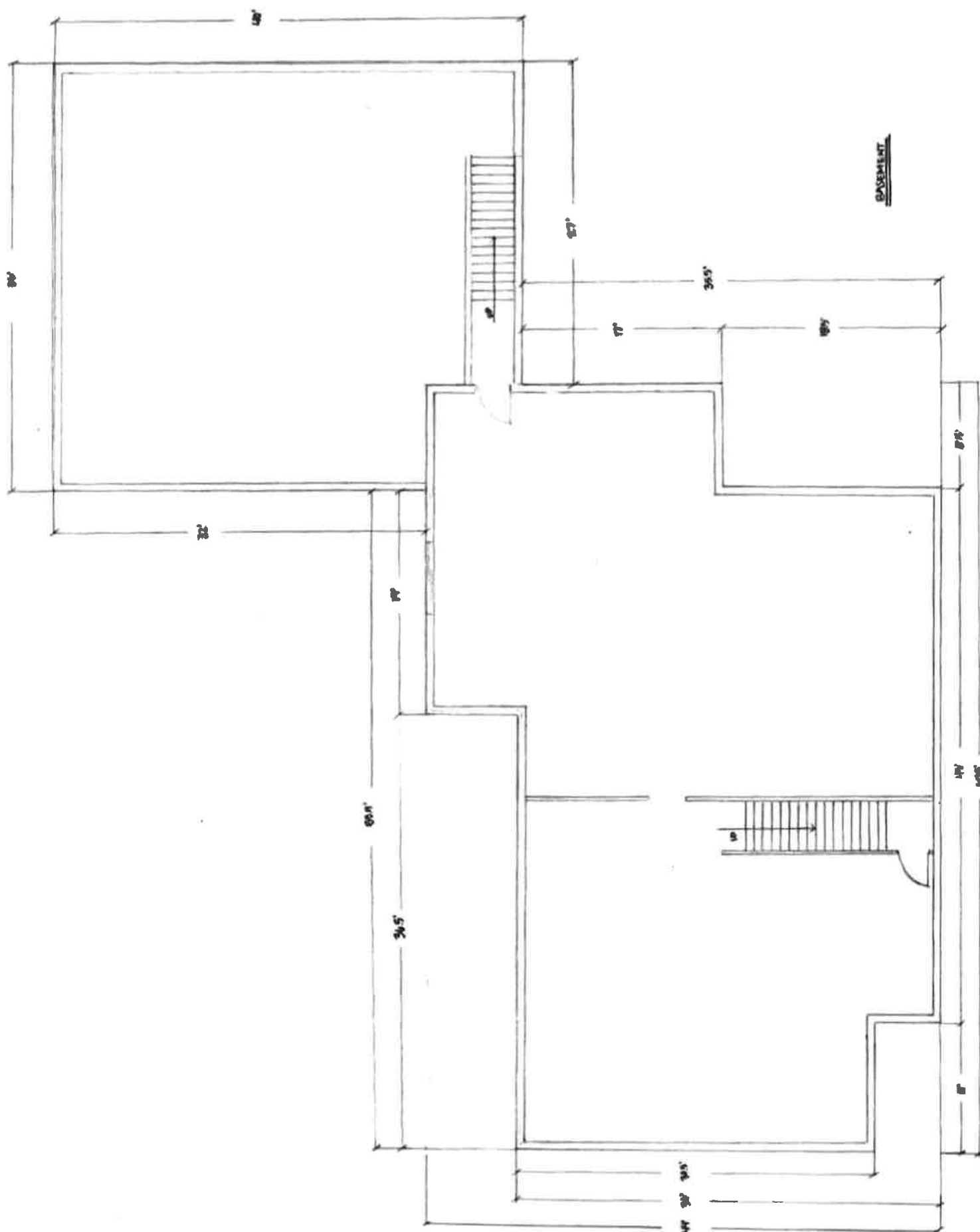


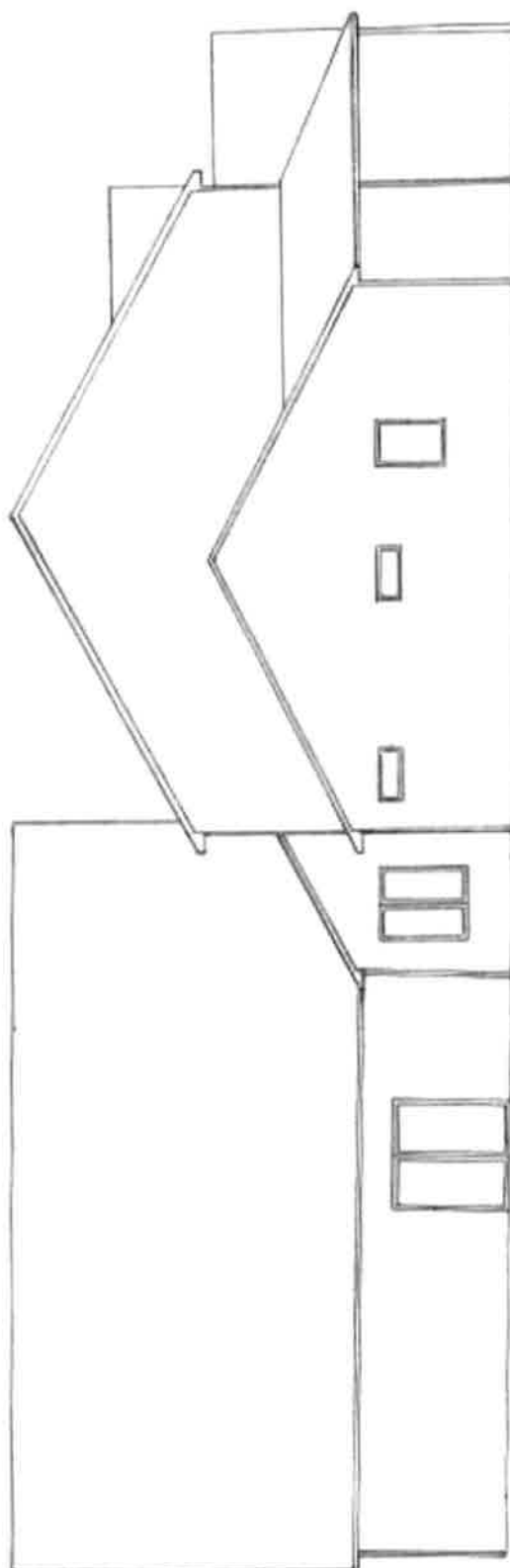


LADDER RESIDENCE
FRONT ELEVATION

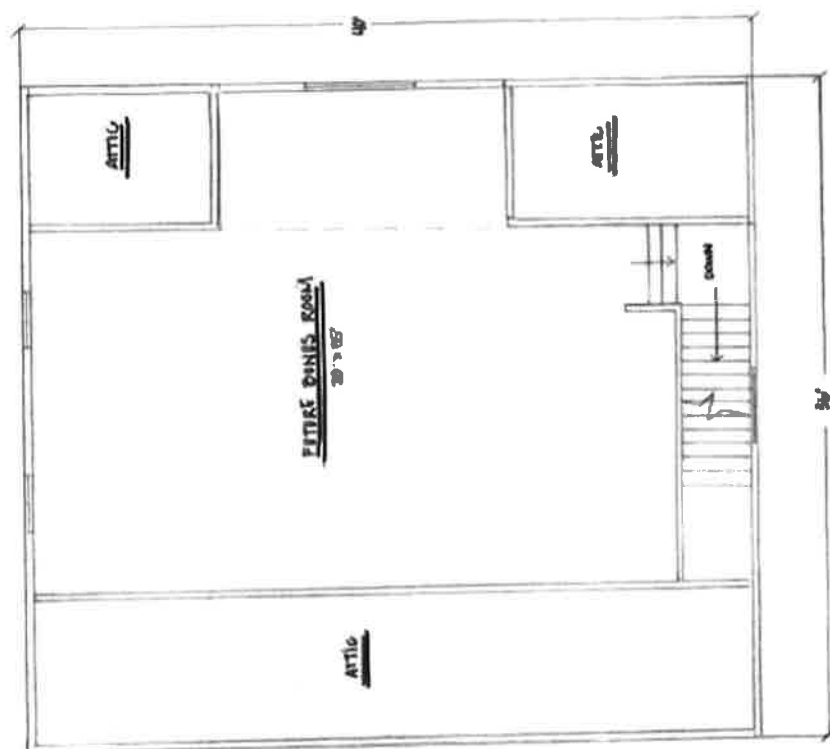


LAURE RESIDENCE
REAR ELEVATION

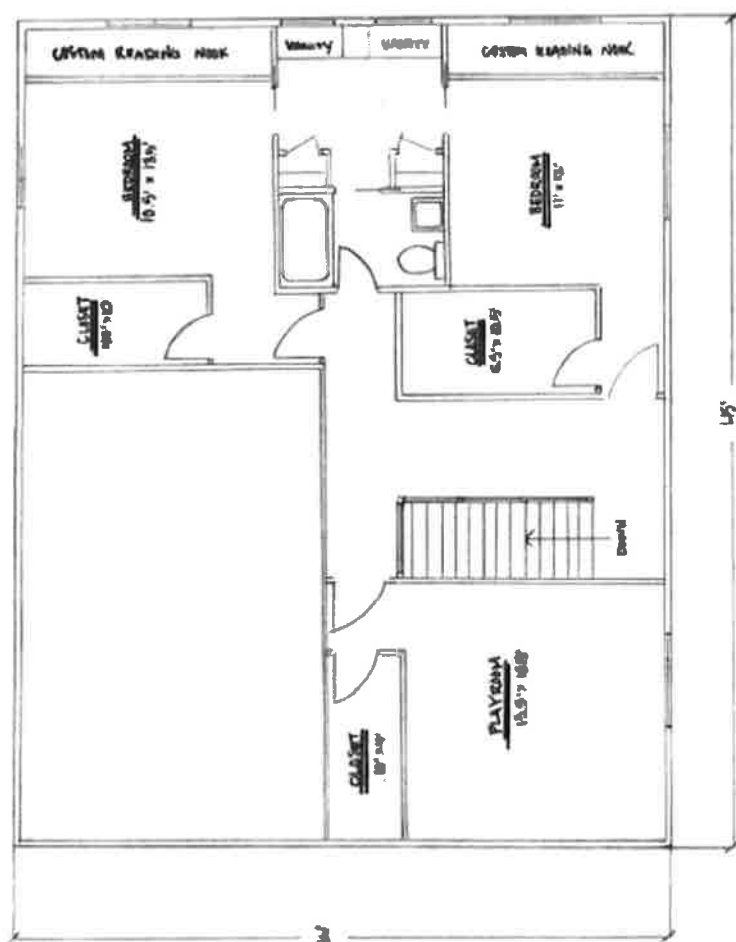




LADDER ROOMING
LEFT ELEVATION



①



11.55
12.50
SECOND FLOOR

TOWNSHIP of THORNAPPLE

Eric Schaefer, *Supervisor* / Cindy Ordway, *Clerk* / Laura Bouchard, *Treasurer*
Ross DeMaagd, *Trustee* / Kim Selleck, *Trustee* / Curt Campbell, *Trustee* / Sandy Rairigh, *Trustee*



Phone 269-795-7202 * Fax 269-795-8812 * 200 E Main St.,
PO Box 459, Middleville MI 49333 * www.thornapple-twp.org

August 1, 2023

MEMORANDUM

To: Township Trustees
From: Phil Gensterblum
RE: Zoning Administrator Report

PERMIT NO.	Address	Parcel Number	Type of Installation	APPROVED / DENIED
				DATE
2023-40	11300 Bass Rd	08-14-032-013-00	Pole structure	7/5/2023
2023-41	5215 M-37	08-14-015-017-00	New sign	7/5/2023
2023-42	6830 Duncan Shores	08-14-007-001-54	Screen porch addition	7/5/2023
2023-43	7527 Bouman Dr	08-14-040-008-00	New SFH	7/12/2023
2023-44	7456 Bouman Dt	08-14-040-025-00	Garage addition	7/24/2023
2023-45	9859 Flat Rock Ct	08-14-022-002-31	Shed	7/24/2023
2023-46	4175 Village Edge Dr	08-14-024-004-00	Solar system >600 Sq ft	Denied 7/24/2023
2023-47	8855 W Parmalee Rd	08-14-002-001-00	Addition to shed	7/24/2023
2023-48	4214 Schad Rd	08-14-019-008-13	New SFH	7/24/2023
2023-05	7125 Loop Rd	08-14-036-005-00	Land Division	Pending
SLU 162	5100 Squier Ln	08-14-015-016-30	Solar project	Pending PC 8/24/2023
SLU 163	12076 Olivia Dr	08-14-175-019-00	Lic Group Child Care	Pending PC 8/24/2023
SLU 161	6850 Cherry Valley Rd	08-14-009-002-00	Addition to church	PC 7/24/2023 Tabled

Construction Land Divisions SLU

THORNAPPLE TOWNSHIP

May 2023

[illegible]