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Building & Fire Protection Plan Review
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December 15, 2023

██████████
City of West Chicago
475 Main Street
West Chicago, IL

RE: **SFR – Green House**

██
Project No. 1129875
Permit No. 23070088

Dear ██████████,

The plans and/or documents submitted were reviewed for compliance based on the codes and ordinances adopted by your municipality as listed on the following pages.

Based on the information submitted, these plans **DO NOT COMPLY** with the applicable code(s). Our report(s) identify areas of non-compliance followed by the applicable code and section referenced for the following disciplines:

Building Review No.	_____	Mechanical Review No.	_____
Electrical Review No.	_____	NFPA 101 Review No.	_____
Elevator Review No.	_____	Plumbing Review No.	_____
Energy Review No.	_____	Single Family Review No.	<u>1</u>
Fire Alarm Review No.	_____	Sprinkler Review No.	_____
Fire Code Review No.	_____	Hood Suppression Review No.	_____
Hood & Duct Review No.	_____		_____

This review is limited to a review of the information submitted and no responsibility is implied or accepted for results of construction. Failure to identify a code violation does not relieve the owner of the obligation to compliance. Final construction and installations must be in conformance with the code. Only authority having jurisdiction may grant approval for permit issuance.

Please read all comment letters thoroughly. For specific questions related to each comment letter, please review the last page and contact the respective plan reviewer.

Sincerely,



Peter Tutanés
Technical Advisor & Building Plans Examiner

Report Processed By: pt

December 15, 2023

SINGLE FAMILY PLAN REVIEW NO. 1

PROJECT NAME: SFR – Green House
PROJECT NUMBER: 1129875
PERMIT NUMBER: 23070088
LOCATION: [REDACTED]
CODE(S) REFERENCED: 2015 International Residential Code
2014 National Electrical Code
2014 Illinois Plumbing Code
2018 International Energy Conservation Code

These plans **DO NOT COMPLY** with the above applicable code(s). Please refer to the following comments to identify areas of non-compliance. Each comment references the appropriate code section(s).

Revised plans and specifications must be re-submitted including a written response stating the corrective action taken corresponding to the appropriate comment number.

This review is based on the documents received on December 14, 2023.

Note: This scope of this review is for an existing greenhouse and any future work.

1. Indicate on the plans all plumbing work shall be performed in accordance with the 2014 Illinois Plumbing Code.

Section: 890.110

2. Sheet EP-1 shows a future sink with a grey water filtration system. The Illinois Plumbing Code does not regulate greywater systems. The plans and specifications for a plumbing system whose design does not comply with this Part must be submitted to the Illinois Department of Public Health for approval prior to installation of such a plumbing system. Such approval shall be in writing from the Department and shall be based on a determination that the system is expected to perform and exhibit durability as if meeting the requirements of Plumbing Code.

Section: 890.1940

3. Sheet EP-1 shows a future sink. Indicate on the plans the sink shall be properly trapped and vented.

Section: 890.1420 b)

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4. Sheet EP-1 shows a domestic water service extended from the house and supplying the green house. Indicate on the plans a reduced pressure back flow preventer (RPZ) shall be installed on the water service line and shall not be subject to freezing. A main shut-off valve shall be installed inside the house and inside the greenhouse. Also what type of material is the water service?

Section: 890.1130 f), 890.1190 f), 890.Appendix A Table A

5. Sheet EP-1 shows a hose bib. Indicate on the plans any and all hose bibs shall have proper backflow protection.

Section: 890.1130 f)

6. Indicate on the plans the water service and water distribution system shall be properly protected from freezing.

Section: 890.1210 a)

7. Indicate on the plans where a health or safety hazard exists because of an existing plumbing installation or lack thereof, the owner or his agent shall install additional plumbing or make such corrections as may be necessary to abate the hazard or violation.

Section: 890:140 c)

8. Local amendment 9.3-1 has use restrictions for accessory structures including:
- a. No accessory building shall exceed fifteen feet-six inches (15'-6") in height (this structure appears to do so).
 - b. Use of any accessory structure as a dwelling unit is strictly prohibited. Dwelling unit is defined as: "Any rooms or group of rooms located within a structure and forming a single habitable unit with facilities which are used or intended to be used for living, sleeping, cooking and eating."

Revise accordingly.

Section: Local Amendment: 9.3-1 C 1 & 4

9. Provide structural calculations and the design loads utilized for the design of the dome, bearing the seal and signature of a currently active Illinois Licensed Structural Engineer responsible.

Section: Illinois Structural Engineering Practice Act – 225 ILCS 340

10. Revise the plans to indicate the maximum riser height shall be seven and three-fourths inches (7 ¾"). The greatest riser height within any flight of stairs shall not exceed the smallest by more than three-eighths inch (3/8").

Section: R311.7.5.1

11. Attach a soil test, or alternatively provide an assumed load-bearing pressure of the soil.

Section: R401.4, R401.4.1, Table R401.4.1

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12. It appears that the glazing in the dome is accessible from the loft. If this is the case, the glazing would need to be safety rated. Clarify on plans or provide safety glazing.

Section: R106.1.1
13. Revise the plans to indicate the species and grade of lumber proposed for floor joists, ceiling joists and rafters. The joist and rafter spans varies per the lumber used.

Section: R502.1
14. Provide manufacturer's structural calculations for the 2x10 LVLs. Clarify the span distances and whether or not there is a break in the beam at the post connection. Clarify the width of LVLs.

Section: R502.11.1
15. Clarify whether the post holding the loft (as shown per Detail 1/A1-3) is wood or metal. Provide structural verification for the bearing properties of this post.

Section: R106.1.1
16. Indicate on the plans how the dome shall be connected to wall plates and how the walls shall be connected to the sill plates.

Section: R106.1.1
17. Provide detail of the loft framing including joist size and spacing.

Section: R502.1
18. Columns in middle of loft appears to be connected to the glazing of the dome, shown per Detail 1/A1-3. Provide a detail showing how this is anchored to ceiling and clarify whether purpose for this is structural.

Section: R106.1.1
19. Included in submission is information about a wood stove for heating. Clarify if this is intended to be a conditioned space, and if so, how will the requirements of the energy code be met (U-factor, insulation, etc.)

Section: R106.1.1

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20. Traditionally, greenhouses have high moisture levels. Clarify if this space will be used as a traditional greenhouse. If so, detail how moisture levels will be monitored and whether materials, listed in the following below, shall be rated for wet conditions:

- a. Treated wood
- b. Drywall
- c. Lights
- d. Windows

Section: R106.1.1

21. Provide framing detail for entryway structure including materials used and dimensions.

Section: R106.1.1

22. On Sheet A1-2, it appears that part of the roof utilizes asphalt shingles. Indicate on the plans that weather-resistant sheathing paper (or housewrap, such as Tyvek) shall be provided under siding to protect the building envelope.

Section: R703.1

23. Indicate on the plans the roof sheeting material and thickness.

Section: R803.2.1

24. Provide an ice and water barrier. It shall consist of not fewer than two (2) layers of underlayment cemented together or a self-adhering polymer-modified bitumen sheet used in place of normal underlayment. This ice barrier shall extend from the lowest edges of all roof surfaces to a point not less than twenty-four inches (24") from the inside of the exterior wall line of the building.

Section: R905.1.2

25. Provide a drip edge at the eaves and rake edges of shingle roofs.

Section: R905.2.8.5.

26. Doors and windows on east elevation appear to be below grade. Clarify this condition with dimensioned details.

Section: R106.1.1

27. Indicate the raceway and conductors that are to be utilized for the project.

Section: R106.1.1

28. Provide electrical load calculation, submit a panel schedule showing all circuits and sizes for each room.

Section: R106.1.1

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29. Luminaires installed in wet or damp locations shall be installed such that water cannot enter or accumulate in wiring compartments, lamp holders, or other electrical parts. All luminaires installed in wet locations shall be marked, "Suitable for Wet Locations." All luminaires installed in damp locations shall be marked "Suitable for Wet Locations" or "Suitable for Damp Locations."

Section: NEC 410.10(A)

30. A single electrode consisting of a rod, pipe, or plate that does not have a resistance to ground of 25 ohms or less shall be augmented by one additional electrode of any of the types specified by 250.52(A)(2) through (A)(8). Where multiple rod, pipe, or plate electrodes are installed to meet the requirements of this section, they shall not be less than six feet (6') apart. Revise the ground detail accordingly.

Section: NEC 250.5 (A)(2-3)

31. A minimum of ninety percent (90%) of lights in permanently installed lighting fixtures shall be high-efficacy lights.

Section: IECC R404.1

32. A bathroom is referenced in the electrical notes on sheet EP-1. No bathroom indicated elsewhere in the plans. Clarify whether this is part of the project. Further comments may arise.

Section: R106.1.1

33. Provide a response letter and cloud and highlight changes made to the drawings. Upon receipt of the requested information a subsequent plan review with additional comments may be necessary.

Section: R106.1.1

For questions concerning items 1-7 in this review contact Bob Del Principe.

For questions concerning items 8-32 in this review contact Benjamin Rohde.