

# MEMBRANE/HOOP HOUSE GUIDELINES

## WHEN IS A PERMIT NOT REQUIRED

1. A Permit is not required for a Membrane/Hoop House if the total size of the structure is under 120 sq. ft.
  - a. Setback guidelines apply
    - i. The structure must be 5' from the property lines
    - ii. Corner lots must be 10'

## WHEN IS A PERMIT REQUIRED

1. A building permit is required if the structure is 120 sq. ft. or larger
  - a. You can find the application at: <https://www.elmhurst.org/documentcenter/view/1357>
2. The permit fee is listed as a miscellaneous building permit fee
3. The Structure will count against your available lot coverage
4. Stormwater Management is required
5. You will need to complete final inspections for both the structure and stormwater
6. Permit is only good for 6 months in a calendar year
  - a. You can only apply for this permit once in a calendar year
7. The Structure must be shown on a plat and include the following
  - a. Total size of structure
  - b. Measurement for setbacks from property line (must be 5' from property lines)



# HOOP HOUSE GUIDELINES / STANDARDS

Design standard for temporary garden structure commonly known as "Hoop Houses"

The design criteria is based on membrane structures as identified in the 2021 International Building Code.

All connections as shown are considered "mechanical fasteners" and as such do not rely on compression fittings, clamping, adhesives etc.

The membrane shall be a minimum of 6 mil in thickness and shall be UV rated for a minimum of four (4) years and shall display proper stamp. Stamp on the membrane shall be located on the inside face of the hoop house once installed.

Fastening of the membrane to the main structure is achieved by a mechanical fastener of the lock channel to the wood base board and the hoop end wall support, with the use of spring plastic coated "wiggle" wire.

All hoops and purlins shall be constructed from 1-3/8" chain link top rail 16 gauge galvanized, minimum 10 feet in length. It will require (2) 10 foot sections per hoop for a 12 foot wide x 9 foot high hoop.

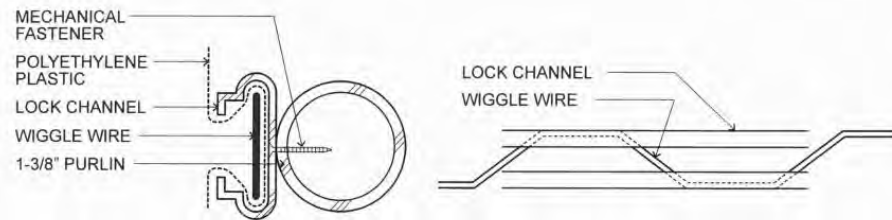
All base posts shall be 1-5/8" chain link end line post, 16 gauge galvanized 4 feet minimum in length.

All bolts for mechanical fastening of hoops together, purlin to hoop, and ground post to hoop to base board, shall be a minimum of 1/4" carriage bolts stainless steel with the bolt head ALWAYS facing the membrane side.

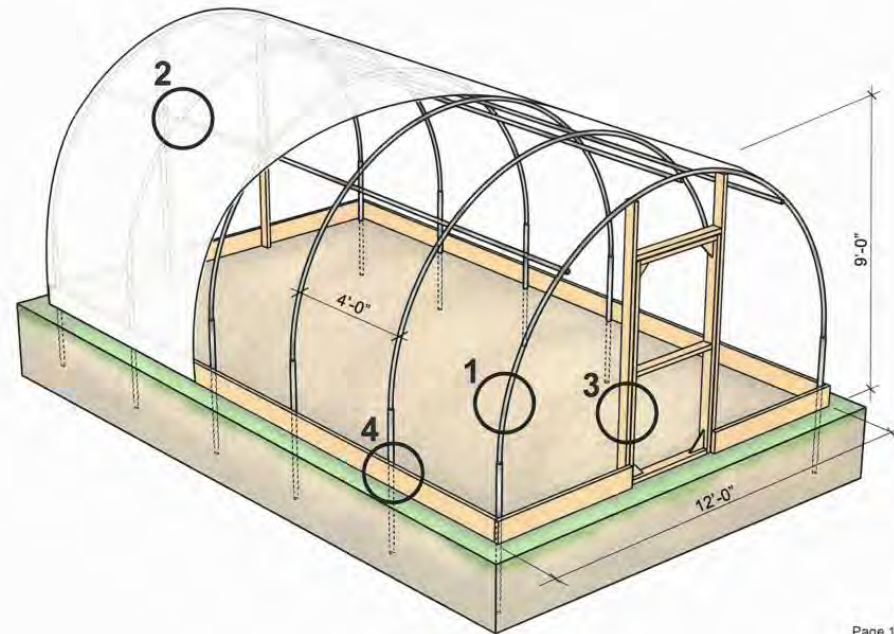
Lock channel shall be fastened to end wall hoop, and wood base board with stainless steel #10 self-tapping screws at a minimum of 16" o.c.

All lumber species shall be rated for direct exposure to ground.

Note: treated lumber may have chemicals that can leach into the soil and disturb the plants.



## 1 | WIGGLE WIRE ENLARGED SECTION & ELEVATION



NEED TO SUBMIT: PLAT OF SURVEY, A DRAWING OF PROJECT, AND THE DEMENSIONS OF STRUCTURE. (PERMIT NEEDED IF OVER 120 SQ FT)



# HOOP HOUSE

## GUIDELINES / STANDARDS

End wall door shall be a minimum of 36 inches in width. All lumber shall be exterior grade and all hardware shall be of fence type accessories, zinc plated or corrosive resistant. The door frame shall be a minimum of (2) 1x4 stiles and rails with plastic membrane sandwiched between. Door jamb and head shall be a minimum 2x4 lumber.

Understanding that this is considered a temporary structure, a maintenance program shall be established to ensure the longevity of the hoop house and components. The program shall include the following:

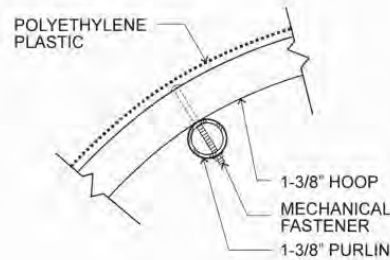
- Continuous removal of snow from the membrane during the winter months.
- Periodic inspection of the membrane for tears or rips. Membrane shall be repaired immediately to relieve further potential damage.
- Periodic inspection of all carriage bolts for tightness.

All hoops shall be spaced at 4'-0" o.c. Hoop material can be bent with a hoop bender and male and female ends shall fit tightly together with (2) 1/4" carriage bolts thru bolted, stainless.

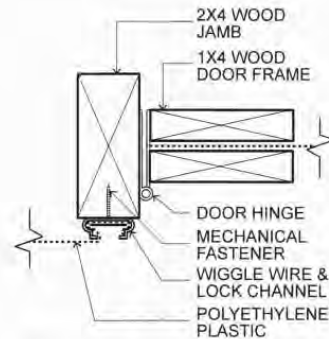
Each 1-3/8" hoop shall be connected to each 1-5/8" post base with (2) 1/4" thru bolts with the hoop pipe slid fully into the base post for a length of 2 feet.

All base posts shall be driven into undisturbed grade to a minimum depth of 2'-0". Care shall be taken not to deform the top of each base post during installation.

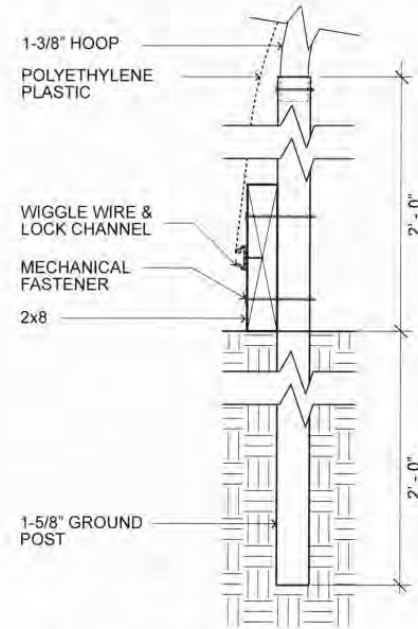
An Additional wiggle wire and lock channel may be installed horizontally at a desired height to allow roll up sides. If so, any rolled up membrane must be securely fastened.



**2 | PURLIN / HOOP CONNECTION DETAIL**



**3 | DOOR JAMB DETAIL**



**4 | GROUND POST DETAIL**