

## **CITY OF AUBURN HILLS GARAGE RESTRICTIONS & SAMPLES**

1. The following is a list of items that the applicant must provide when applying for a building permit to construct a residential garage or an addition.
2. Building permit application, filled out completely.
3. Two copies of plot plan, indicating the location and dimensions of the project distances from lot lines and/or existing structures, the location of any roads, driveways, septic of well, and utilities. Also the plan must include the applicant's name, address, and telephone number.
4. Two copies of construction drawings including:
  - A. A floor plan, with size and location of any doors and windows, interior partitions and materials used.
  - B. Elevation drawings showing all sides of project
  - C. A wall section indicating the size and spacing all materials (studs, joists, rafters, etc.) and size and depth of footings.

**NOTE:** All residential builders licensed by the State of Michigan are required to register in the city of Auburn Hills in constructing within the city.

When registering with the city, the applicant must sign all forms bearing his/her name, ex. License, application, etc. A copy of the licenses must accompany the application for a permit.

CITY OF AUBURN HILLS

The following is the City of Auburn Hills building Department’s minimum requirements for unattached garage construction for one and two family dwellings.

- Inspections
  1. Open trench and sand inspection.
  2. Final building inspection (Note: a rough building inspection is required if interior walls are to be covered).
  
- Setbacks:
  - Front Yard – Check Zoning Ordinance
  - Side Yard – Five (5) feet minimum
  - Rear Yard – Five (5) feet minimum
  - From House – Minimum ten (10) feet
    - If corner lot, if must meet front yard setbacks on both streets
    - Setbacks are excluded in zone R1-A
  
- Footings:
  - 12” x 42” footing, if over 400 feet
  - 8” x 42” for masonry or if attached to main building
  - 4” x 12” minimum is else than 400 square feet and detached
  
- Sand:
  - 4” base with 95% compaction, 3000 psi minimum
  
- Concrete:
  - 2500 psi with 20 days, minimum
  - 5 bag minimum mix with 5 to 5 ½ gallons water per bag.
  
- Site Preparation:
  - Remove all sod and organic materials (roots). Fill material and forms must be in place at time of trench footing inspection.
  
- Framing:
  - 2” x 4” x 16” on center or 2” x 5” at 24” on center
  
- Wall Plates:
  - Double Top, Pressured treated bottom, walls must be anchored to concrete slab with minimum ½” bolts at 6’ on center minimum
  
- Wind Bracing:
  - 1” x 5” at 45 degree angle let into studs at each corner or ½” plywood at each corner (4’ x 8’ sheets) both sides.
  
- Headers:
 

<u>Span</u>	<u>Non-Bearing</u>	<u>Bearing</u>
4’	(2) 2’ x 4’	(2) 2’ x 6’
8’	(2) 2’ x 6’	(2) 2’ x 8’
9’	(2) 2’ x 8’	(2) 2’ x 10’
16’	(2) 2’ x 12’	(2) 2’ x 12’

With 3/8” bolts each 2’ staggered top and bottom or two 2’ x 12’ with steel plates minimum 1/4 “x 10” x 16”

Rafters:	<u>Garage Width</u>	<u>Size</u>
	18'	2' x 6' at 16" on center
	24'	2' x 8' at 16" on center
Ridgeboard:	One (1) full rafter bearing (i.e. next normal size larger than rafter)	
Cross Ties/ Ceiling Joists:	2" x 6" at 4'-0" on center	
Corner Studs:	Two (2) minimum	

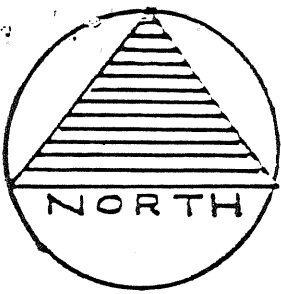
All attached garages (which include any garage within ten (10) feet of house) must meet the requirements of the CABO 1 & 2 Family Code and all requirements of the Zoning Ordinance of the City of Auburn Hills.

Attached garages or garages within ten (10) feet of the main building shall have any electrical permit be wired and approved prior to final building inspection.

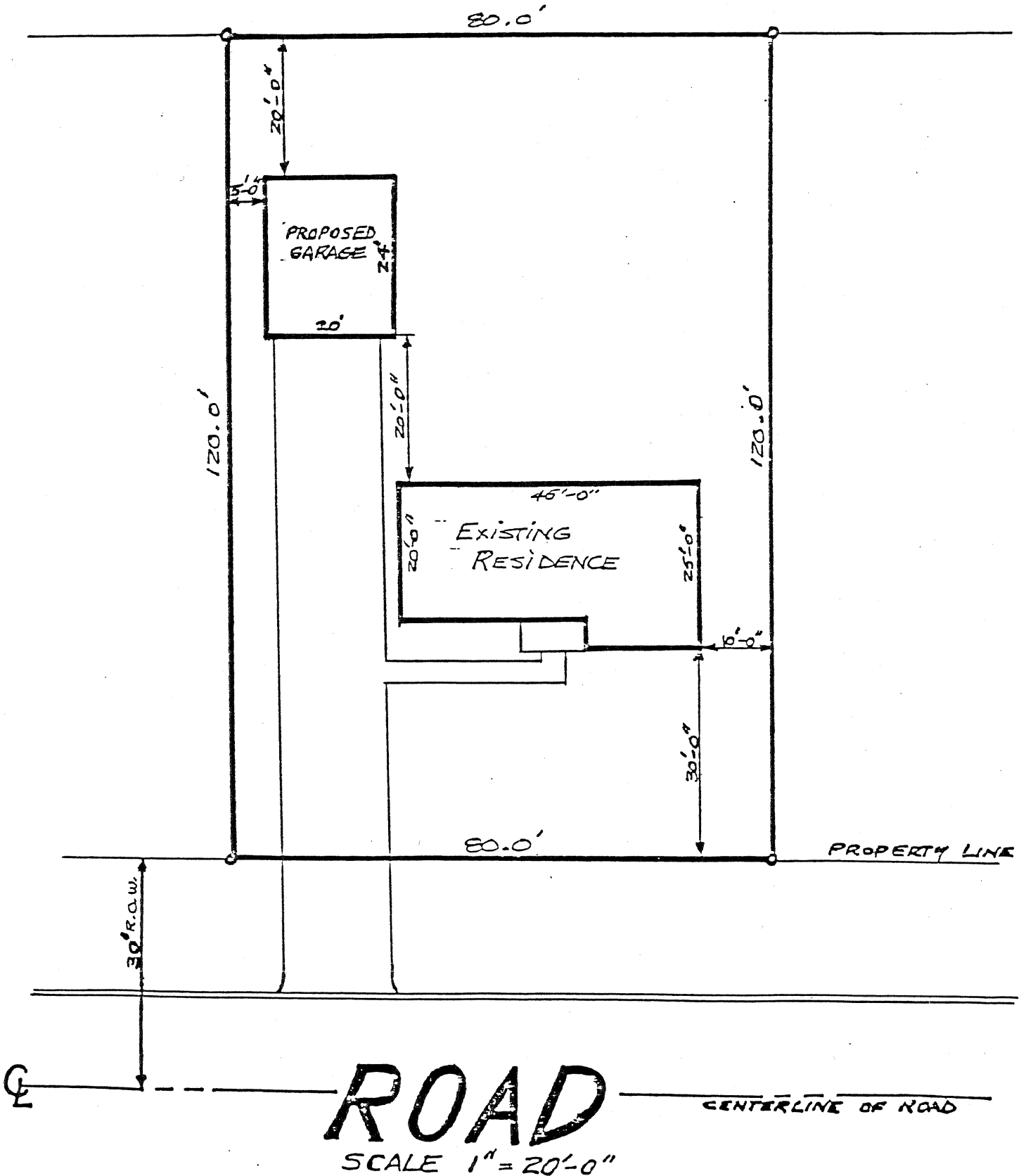
OTHER ITEMS COVERD BY CODE AND GOOD WORKMANSHIP

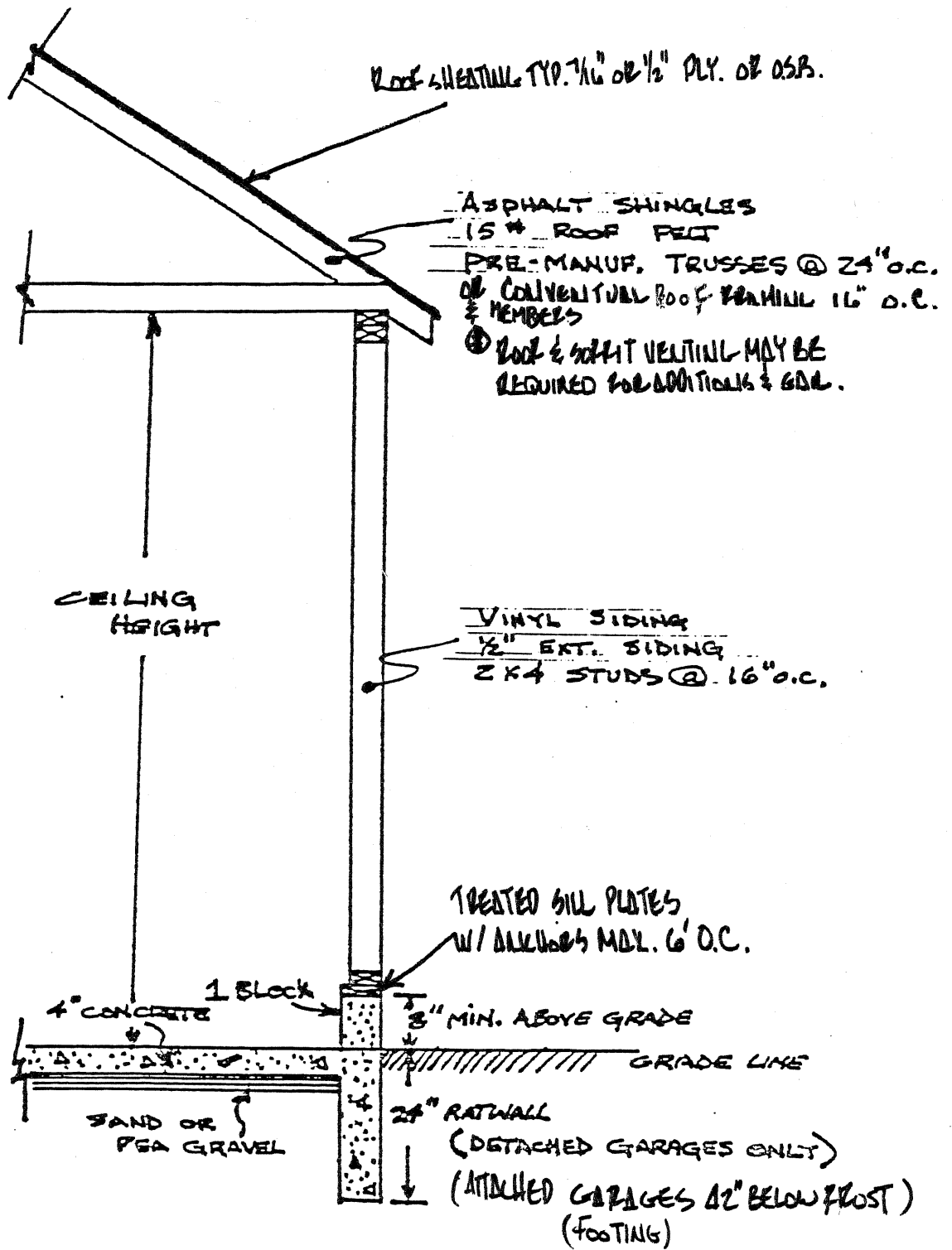
- Two (2) #16D nails through plates into studs
- Two (2) nails in 1 x 6 roof boards at each rafter
- Four (4) nails in each shingle
- Jack rafters to hip ((3 #8D or 2 #16D)
- Rafter to ridge (2 nails each)
- Headers over all openings
- Two light barn sash – no header required
- Control joints in all two car garage slabs
- Aluminum siding – when uninsulated siding is used, install backer strip at joints
- One (1) x 6 (6) single-lap siding – use one (1) nail at every stud; other types use two (2) nails
- All cross ties must have hanger braces from rafters
- All gable walls must be braced to ridge or gable to gable tie
- Stiff back required above ceiling joist

THIS SUMMARY IS DESIGNED AS GENERAL INFORMATION TO ASSIST THE HOMEOWNER OR CONTRACTOR. SHOULD YOU HAVE ANY QUESTIONS, PLEASE CONTACT BUILDING SERVICES.

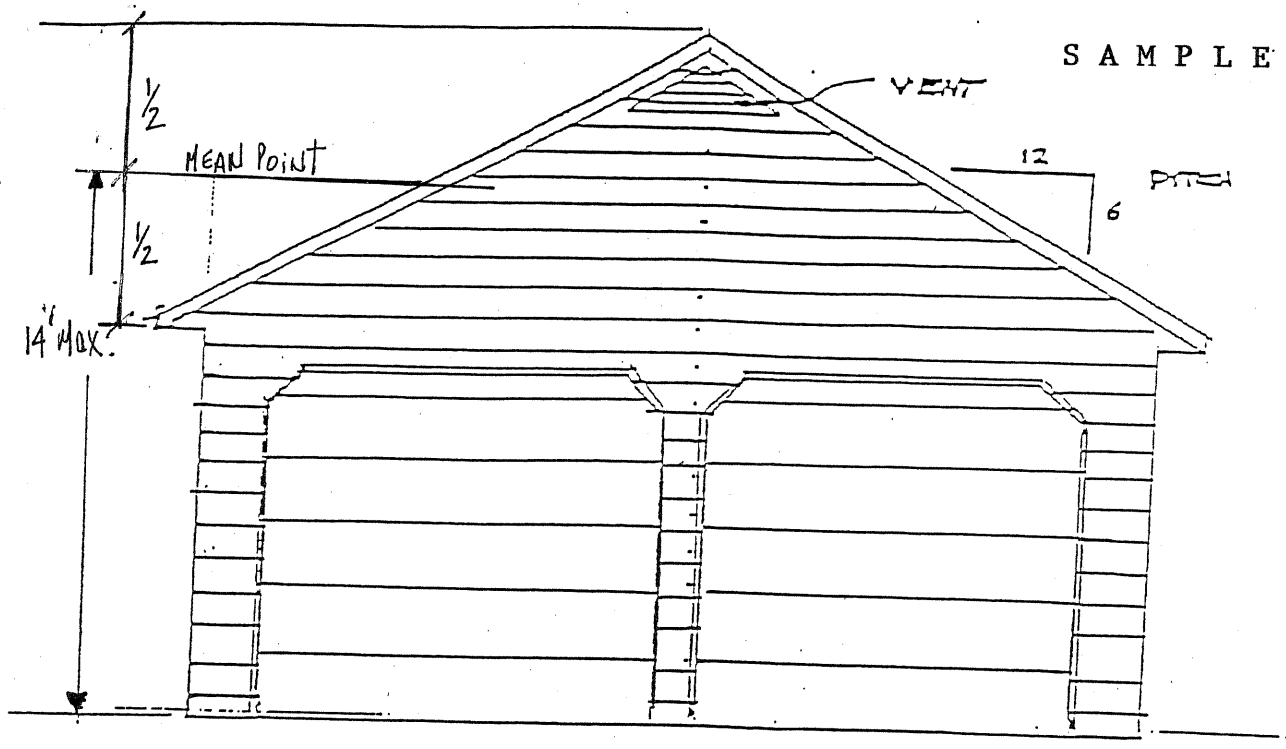


PROJECT ADDRESS & LOT NO:  
BUILDER - CONTRACTOR  
OWNERS NAME & PHONE  
BUILDERS PHONE

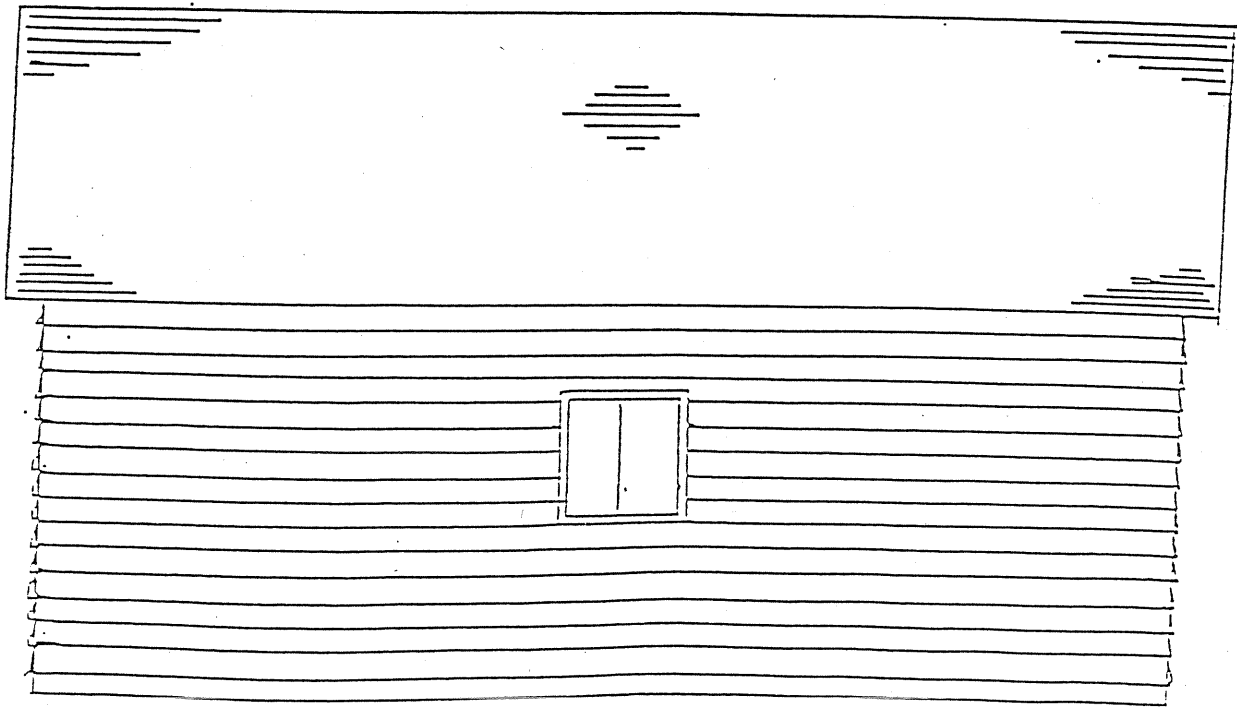




**WALL SECTION**  
 TYPICAL GARAGE CONSTRUCTION  
 SCALE 1/2" = 1'-0"



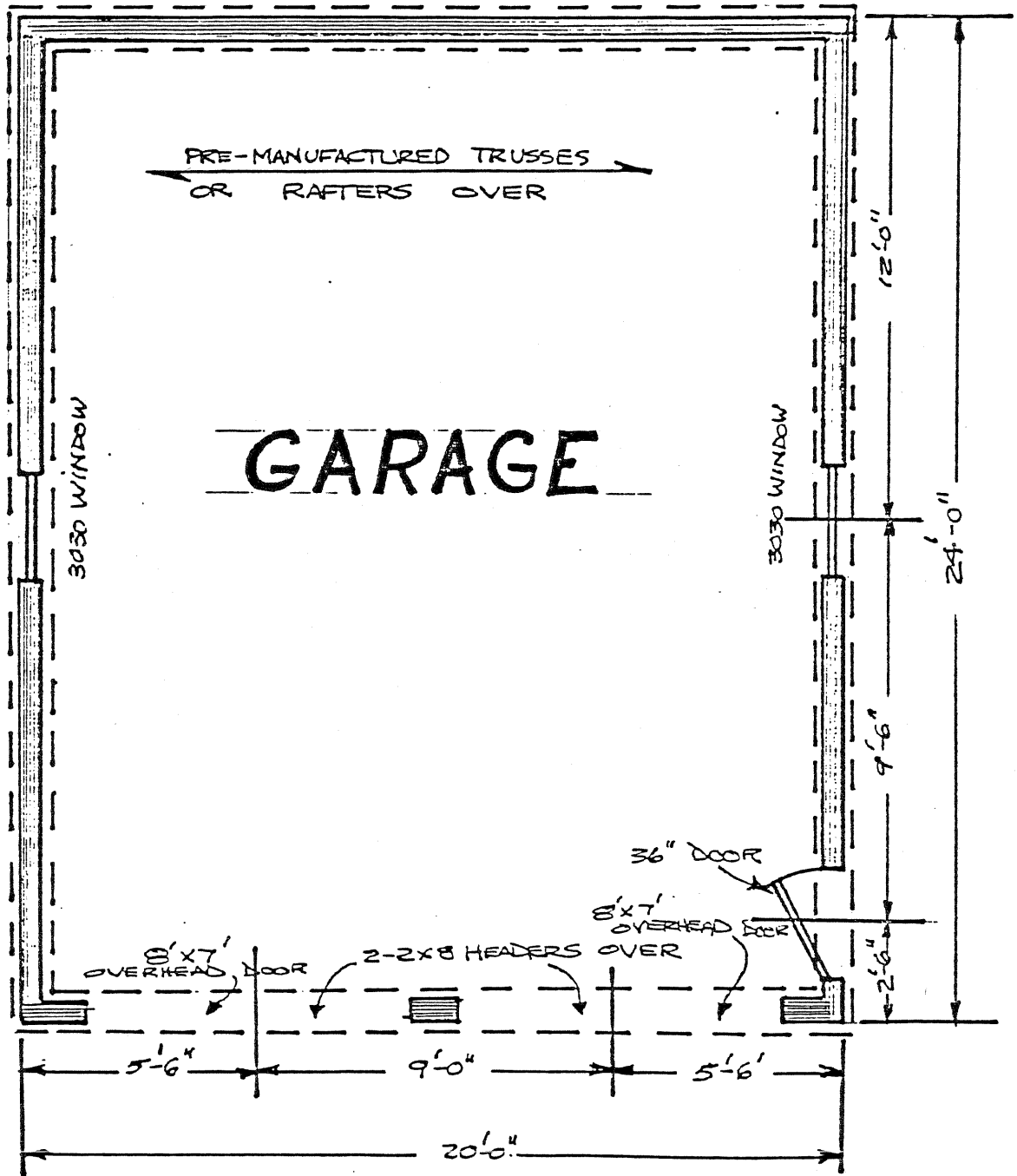
FRONT ELEVATION



SIDE ELEVATION

SCALE  $\frac{1}{4}'' = 1'-0''$

# SAMPLE



## FLOOR PLAN

SCALE 1/4" = 1'-0"

## Section R-214—Stairways

**R-214.1—General.** All treads shall have a nosing or effective projection of approximately 1 inch when risers are closed.

The greatest riser height within any flight of stairs shall not exceed the smallest by more than  $\frac{3}{8}$  inch.

Stairways shall not be less than 3 feet in clear width, and the headroom, rise and run shall conform to Figure No. R-214. Handrails may project from each side of a stairway a distance of  $3\frac{1}{2}$  inches into the required width.

**R-214.2—Spiral Stairs and Winders.** Spiral stairways and winders are permitted, provided the width of the tread at a point not more than 12 inches from the side where the treads are narrower is not less than 9 inches and the minimum width is not less than 6 inches. Winders are permitted, provided the minimum width of any tread is not less than 4 inches and the average width of any tread is not less than 9 inches.

Figure No. R-214  
STAIRWAYS

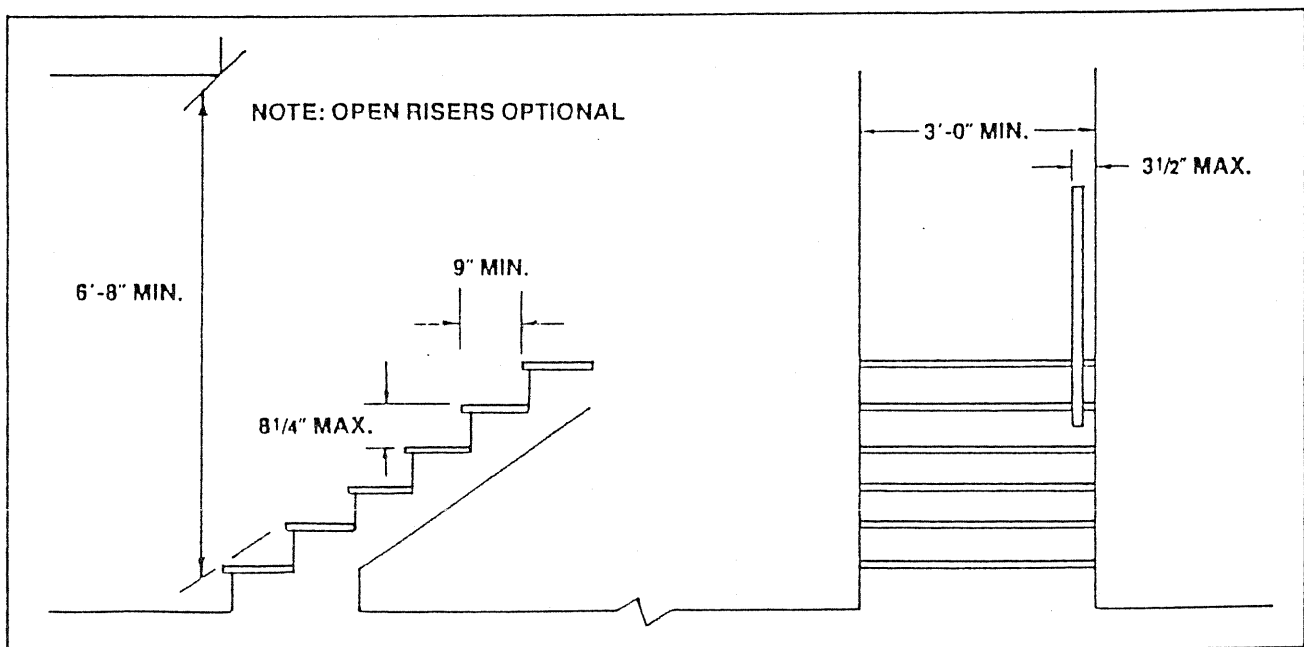
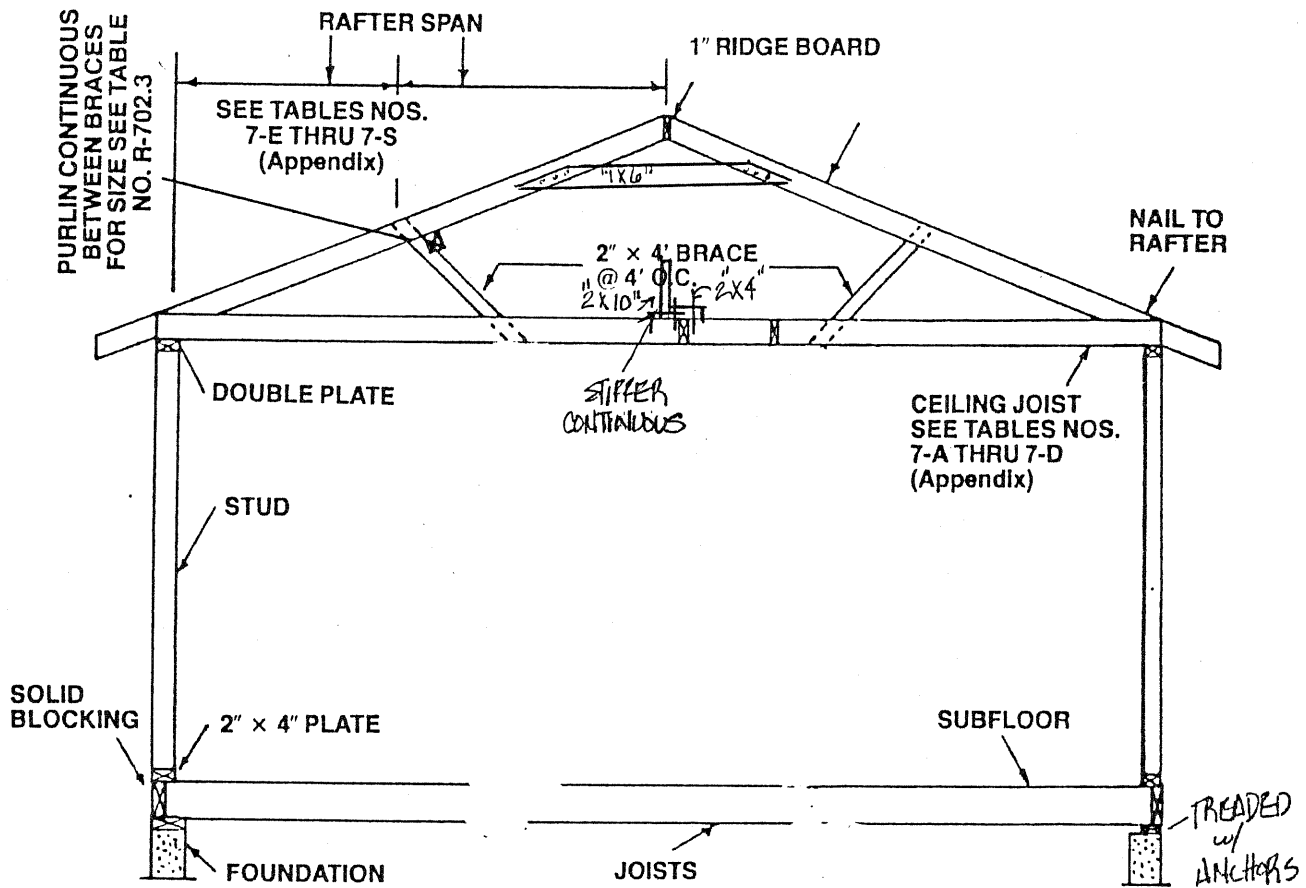




Figure No. R-702.3  
FRAMING DETAILS



**NOTES:**

1. Trusses may be approved for use in the roof framing system, provided their design admits of a rational analysis in accordance with established principles of mechanics or has been properly tested in an approved manner.
2. Where ceiling joists run perpendicular to the rafters, rafter ties shall be nailed to the rafters near the plate line and spaced not more than 4 feet o.c.
3. This figure is for illustration purposes only and written text shall apply.



# Residential Building and Multi-Family Application

<b>1.</b>	<p><b>*All residential buildings must have smoke alarms installed. See <a href="http://www.michigan.gov/bccfs">www.michigan.gov/bccfs</a>. Attach copy of Contractors Registration and Driver's License with application.</b></p>	
	<p><b>Project Name:</b> _____</p> <p><b>Address:</b> _____</p> <p><b>Zoning:</b> _____</p> <p><b>Sidwell Number(s):</b> _____</p> <p><b>Project Description:</b> _____</p>	<p style="text-align: center;"><u>City Use Only</u></p> <p><b>PB #:</b> _____</p> <p><b>Address:</b> _____</p> <p><b>Date Received:</b> _____</p> <p>District: _____ Use: _____ Type: _____</p> <p>Front Yard: _____ Rear Yard: _____</p>
<b>2.</b>	<b>Contractor</b>	<p>Contractor: _____ Phone: _____</p> <p>Mailing Address: _____ Fax: _____</p> <p>Workers Comp Carrier: _____ Lic.# _____</p> <p>MESC#: _____ Self Employed: _____</p> <p>Fed ID#: _____</p> <p><b>Must submit copy of contractor's license and driver's license with application.</b></p>
<b>3.</b>	<b>Applicant</b>	<p>Name: _____ Signature: _____</p> <p>Business Name and Address: _____</p> <p>City: _____ State: _____ Zip Code: _____ Phone Number: _____</p> <p>Fax Number: _____ Alt. Phone Number(s): _____</p>
<b>4.</b>	<b>Property Owner(s)</b>	<p>Name: _____ Address: _____</p> <p>City: _____ State: _____ Zip Code: _____ Phone Number: _____</p> <p><i>(Provide additional sheet if necessary for multiple property owners)</i></p>
<b>City Use Only</b>	<b>Calculations and Stipulations</b>	<p>Registration Fee: _____ Engineering Fee: _____</p> <p>Building Permit Fee: _____ Imaging Fee: _____</p> <p>Construction Bond: _____</p> <p>Plan Review Fee: _____ Permit Based on: _____</p> <p>Approved by: _____ Date: _____</p>

5

RESIDENTIAL:

Type of Improvement:

- New Bldg.  Addition  Alteration  Repair  Demolition  Deck  Mobile Home  Premanufacture
- Other: \_\_\_\_\_ \*Mobile Home Installer's License and Driver's License copy required.

Square Footage For:

Crawlspace \_\_\_\_\_ sq. ft.      Basement \_\_\_\_\_ sq. ft.      1<sup>st</sup> Fl. \_\_\_\_\_ sq. ft.      2<sup>nd</sup> Fl. \_\_\_\_\_ sq. ft.  
 3<sup>rd</sup> Fl. \_\_\_\_\_ sq. ft.      Garage \_\_\_\_\_ sq. ft.      Other \_\_\_\_\_ sq. ft.

No. of Stories: \_\_\_\_\_ Dwelling Units \_\_\_\_\_ Zoning \_\_\_\_\_

Total Lot Area: \_\_\_\_\_ Yard Setbacks: \_\_\_\_\_ front \_\_\_\_\_ rear \_\_\_\_\_ side \_\_\_\_\_ side

Square Footage of Improvement \_\_\_\_\_ sq. ft.

Use Group: \_\_\_\_\_ Const. Type: \_\_\_\_\_ Separated: Y  N   
 Sprinkler: Y  N  Full System

Total Cost of Improvement \$ \_\_\_\_\_

Existing Square Footage of Home \_\_\_\_\_ sq. ft. Existing Square Footage of Accessory Buildings \_\_\_\_\_ sq. ft.

Height of Primary Structure: \_\_\_\_\_ ft. Proposed Height of New Structure: \_\_\_\_\_ ft.

Proposed Structure:

- One Family  Two or More  Units  Garage  Attached  Non-Attached  Multi-Family

Proposed Use:

- Dwelling  Storage  Recreation  Other, please list \_\_\_\_\_

Section 23a of the state construction code act of 1972, 1972 PA 230, MCL 125.1523A, prohibits a person from conspiring to circumvent the licensing requirements of this state relating to persons who are to perform work on a residential building or residential structure. Violators of Section 23a are subjected to civil fines.

\_\_\_\_\_  
Date: \_\_\_\_\_  
Signature of Licensee or Homeowner (Homeowner signature indicates compliance with Homeowner Affidavit below).

I hereby certify the proposed work is authorized by the owner of record and I have been authorized by the owner to make this application as his authorized agent and we agree to conform to all applicable laws of this jurisdiction.

Signature of Applicant: \_\_\_\_\_ Date: \_\_\_\_\_

Please print name \_\_\_\_\_ Phone: \_\_\_\_\_

Homeowner Affidavit: I hereby certify the building work described on this permit application shall **be installed by myself in my own home** which I am living or about to occupy. All work shall be installed in accordance with the Building code and **shall not be enclosed, covered up, or put into operation** until it has been inspected and approved by the Building Inspector. I will cooperate with the Inspector and assume the responsibility to arrange for necessary inspections.

6

Submit Plot Plan with application. The following items must be listed clearly on the plot plan for approval:

- Lot dimensions
- Show all existing and proposed structures by location and dimensions
- Show all setbacks on existing and proposed structures
- Show utility line locations above and/or underground when possible
- Any other pertinent features/information (ex. Bodies of water/wetlands/steep grades etc.)

7.

Submit two (2) sets of building plans with application.

**City of Auburn Hills  
Community Development  
Building Services  
1827 N. Squirrel Road  
Auburn Hills, MI 48326  
Phone: 248.364.6900  
Fax: 248.364.6939  
Inspection Line: 248.364.6949**



## Site Requirements

The following items are required to be installed or completed prior to the start of the project AND before a final building inspection can be completed:

- 1 Install soil erosion fabric on property lines. (Fabric shall be trenched 6" into ground and stakes shall be installed to back of fabric.)
- 2 Place an address identification board on your site. The board and numbers must be large enough to be read from the thoroughfare.
- 3 Install required protective fencing around appropriate species trees, typically 4' plastic fencing in line with drop edge of tree.
- 4 Obtain a soil erosion permit from Oakland County Drain Commission (248.858.1075) as required.
- 5 Install a crushed stone drive to stop mud/dirt from being tracked onto roads. Road is your responsibility to keep clean on a daily basis.
- 6 Department of Public Works fees must be paid **prior** to picking up a building permit.
- 7 Building construction must comply with the City Engineer and DPW requirements.
- 8 All paperwork; truss specifications, insulation certificates, final grade certificates, etc. must be submitted to our office.
- 9 Last inspection called in should be the Building Inspection – all other inspections; trades, DPW and Fire need to be completed and approved **PRIOR** to calling in final building/site inspection.

If you have any questions or for further clarification of this package, please contact the Department of Building Services at 248.364.6900.

Revised 1/1/09