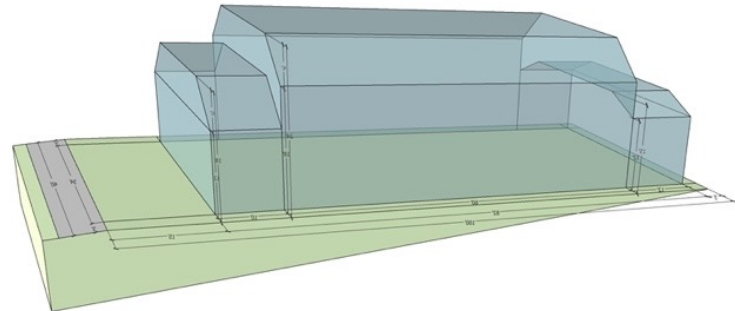
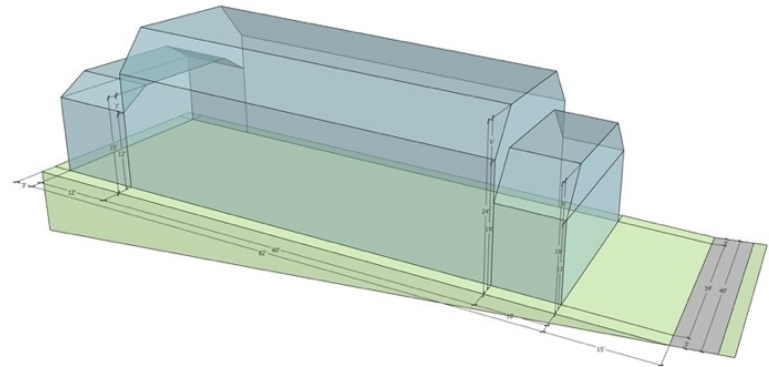


Carmel Zoning Code Update

Buildable Envelope

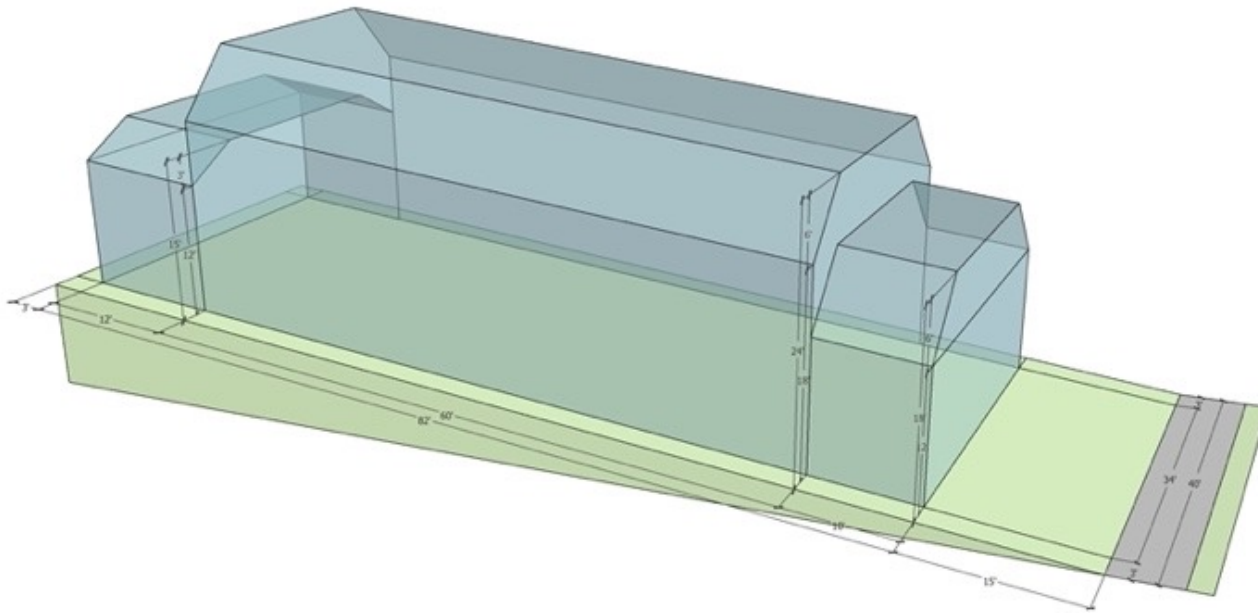
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- Also known as:
 - Bulk plane
 - Encroachment plane
 - Daylight plane



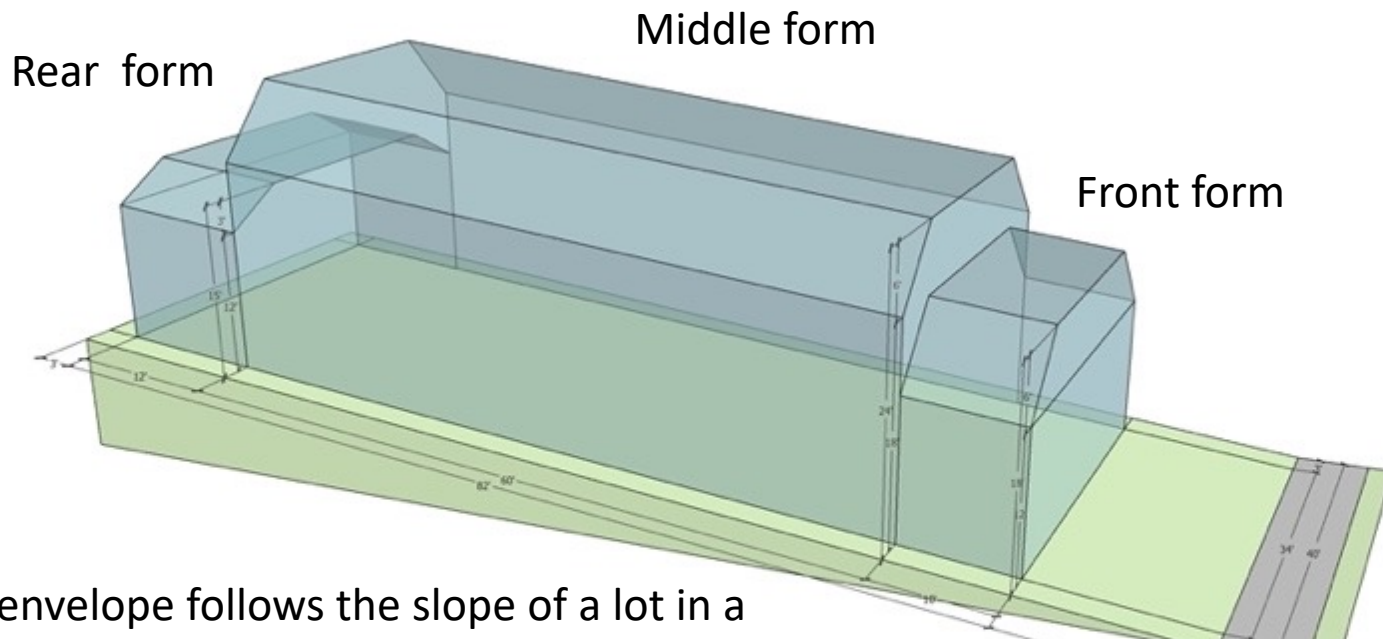
Definition

- A Buildable Envelope is a series of horizontal and vertical planes which, when applied in three-dimensions, sets the boundaries of the space a building may occupy.
- (It does NOT imply the maximum building size.)



Proposed Buildable Envelope Shape

- Front Form: Maintains a one-story scale close to the street
- Middle Form: Taller component which located behind the Front Form where two-story elements may occur
- Rear Form: A lower component in the rear, as provided in the current code.



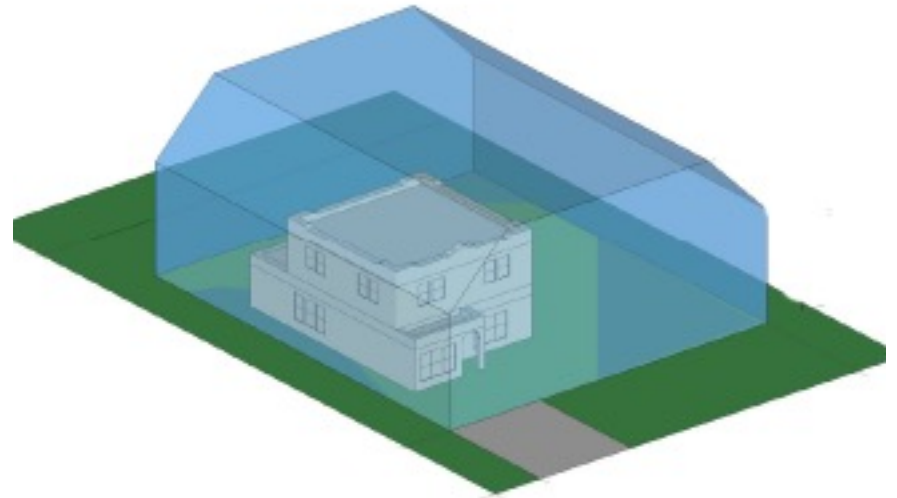
The envelope follows the slope of a lot in a continuous line

Steps in Developing the Buildable Envelope:

1. Analyzed examples in town of desired building forms and their scale.
2. Determined the type of forms to use.
3. Tested the dimensions of the variables.
 1. Height of plane at setbacks
 2. Angle of upper plane
 3. Length of the envelopes
4. Field confirmed dimensions with existing buildings.

The Buildable Envelope works with:

- Maximum building area, set by:
 - Floor Area Ratio
 - Absolute maximum SF
- Minimum yard setbacks
 - Front
 - Side
 - Rear
- Maximum building height

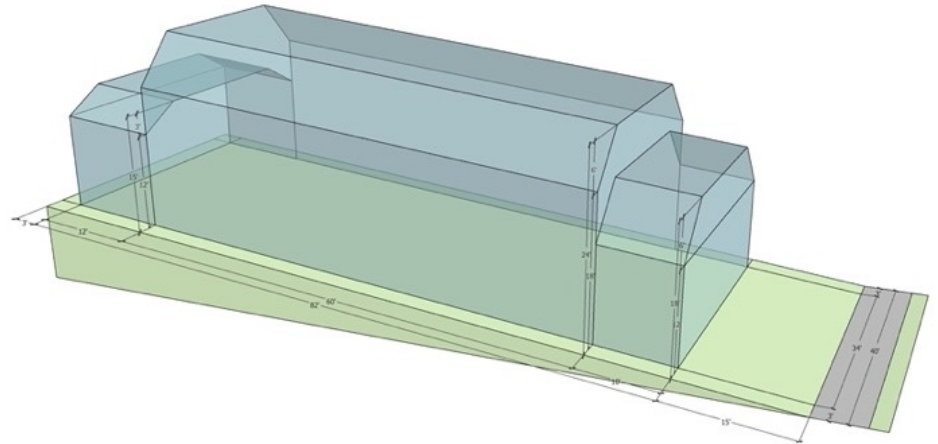


* Note that the Composite Setback regulations continue to apply.

Note: Some models shown in this presentation are from other communities.

What the Buildable Envelope does:

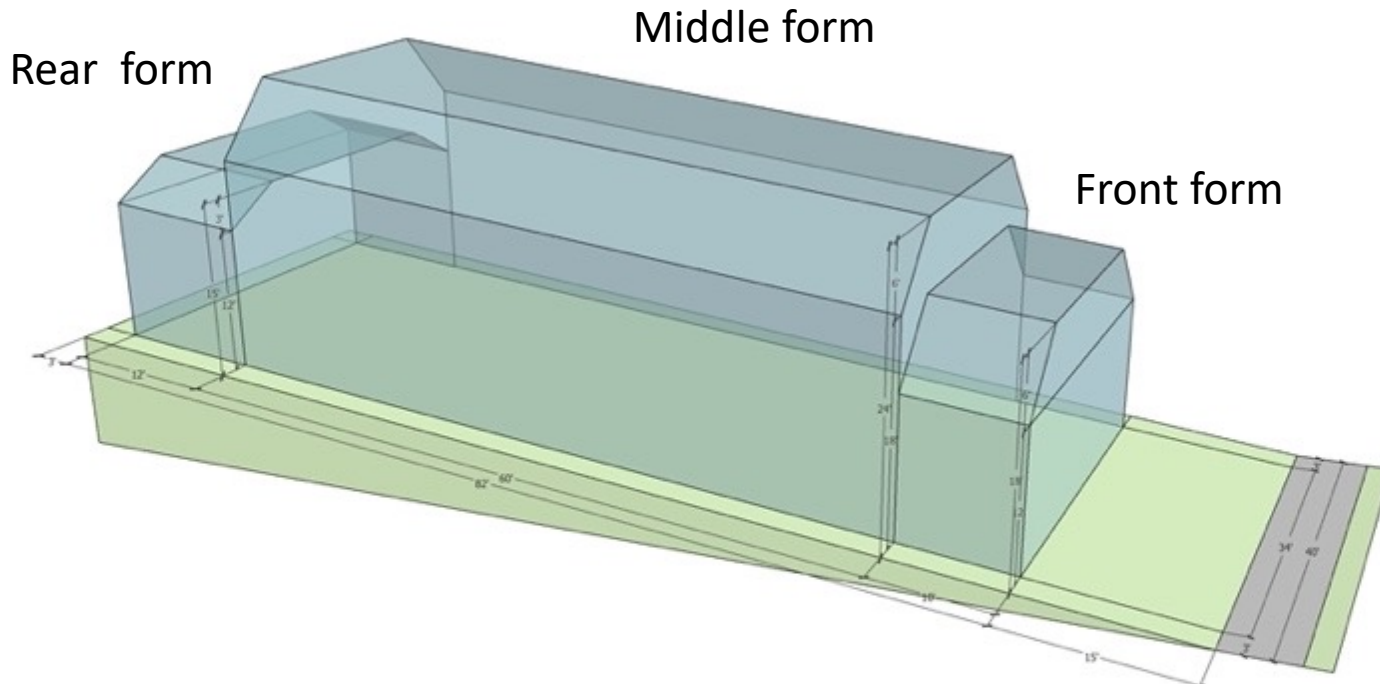
1. Defines the limits of building **height** based on location within the site.
2. Shifts mass to the **center** of the site
3. Does **not** dictate form
4. Does **not** dictate style



Dimensional factors: FRONT Form

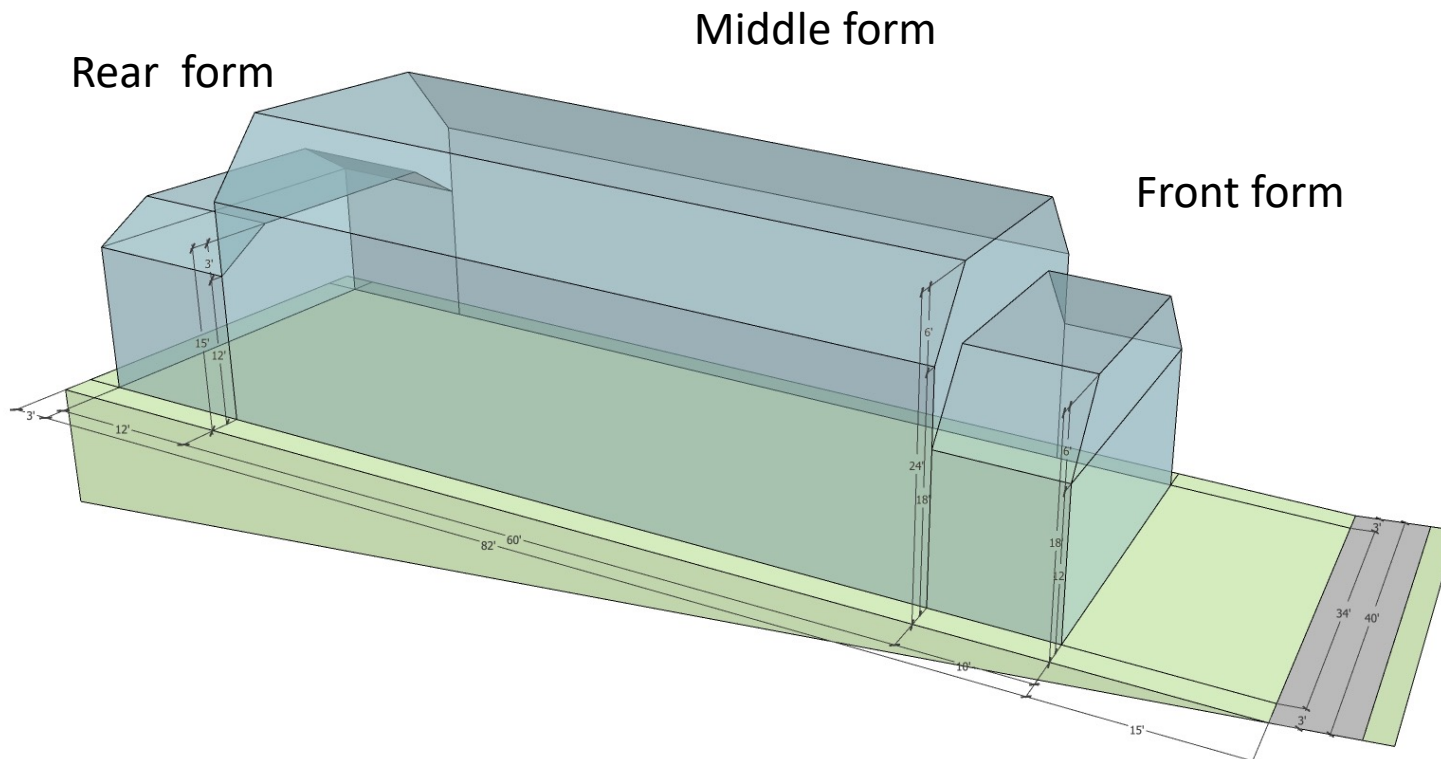
- A. Height at the minimum side yard setback: 12 feet
- B. Angle of side envelope planes: 12/12 slope
- C. Length of envelope along the side yard setback: 10 feet
- D. Maximum height of the Buildable Envelope: 18 feet

* Note: Does not apply along along Scenic.



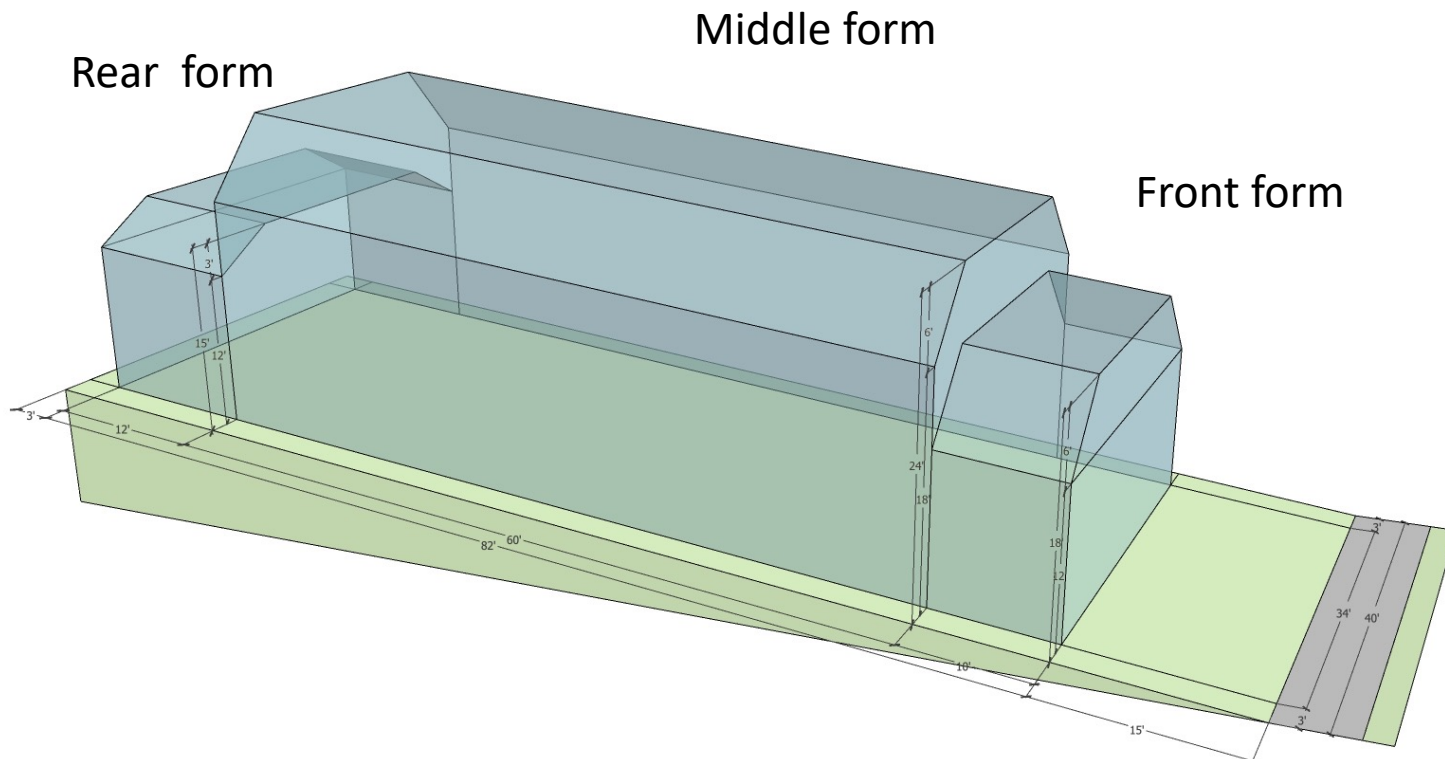
Dimensional factors: MIDDLE Form

E. Height at the minimum side yard setback:	18 feet
F. Angle of side planes:	12/12 slope
- Length of envelope along the side yard setback:	Remainder of lot
G. Maximum height of the Buildable Envelope:	24 feet



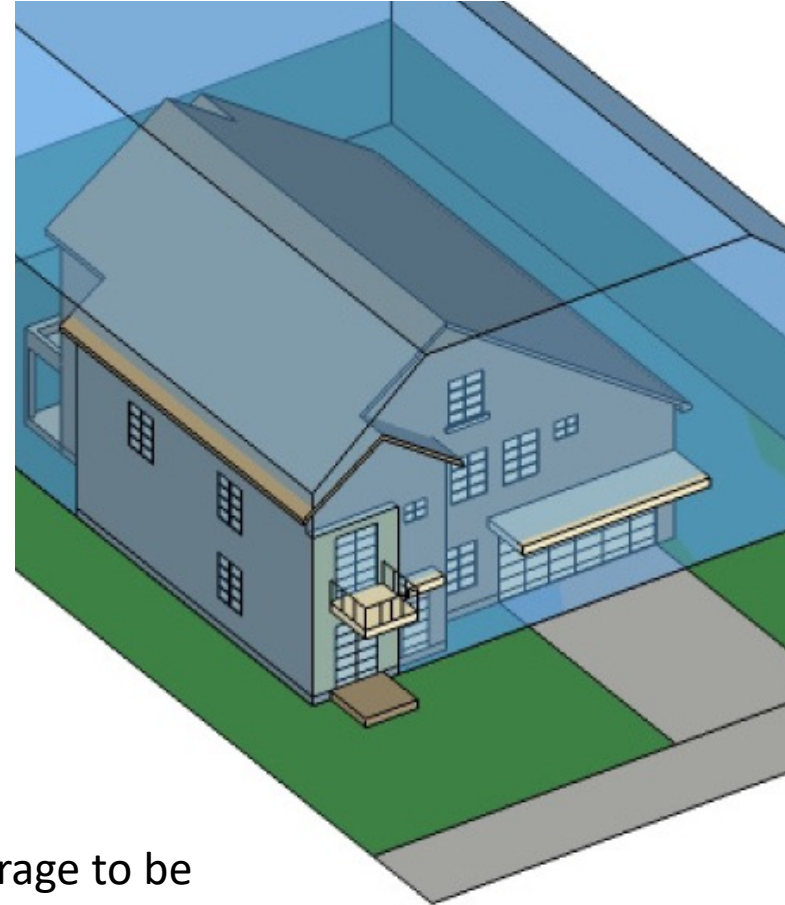
Dimensional factors: REAR Form

H. Height at the minimum side yard setback:	12 feet
I. Angle of side planes:	12/12
J. Length of envelop along the side yard setback:	12 feet (15 ft – 3ft)
K. Maximum height of the Buildable Envelope:	15 feet



Encroachments to be allowed :

1. Dormers
2. Solar panels
3. Chimneys
4. Eaves (with a limit on depth)
5. Weathervanes
6. Flagpoles
7. Decorative roof cresting
8. Other encroachments noted in Table 17.10-B of the code



In some situations, the City may permit a one-story garage to be located within the front setback. These have specific dimensional limitations. Any portion of the garage that would project outside the Buildable Envelope would continue to be subject to those regulations.

How Building Envelopes would apply:

Overlay A: All of the R-1 district, except Scenic Drive:

- The three-step form

Overlay B: Scenic Drive

- A two-step form (no 1 story form in front)

Unusually shaped lots:

- Director can adjust envelope to fit the shape of the lot

Historic properties:

- Director can permit encroachments to maintain integrity of the resource

Downtown Carmel:

- Does not apply to downtown Carmel

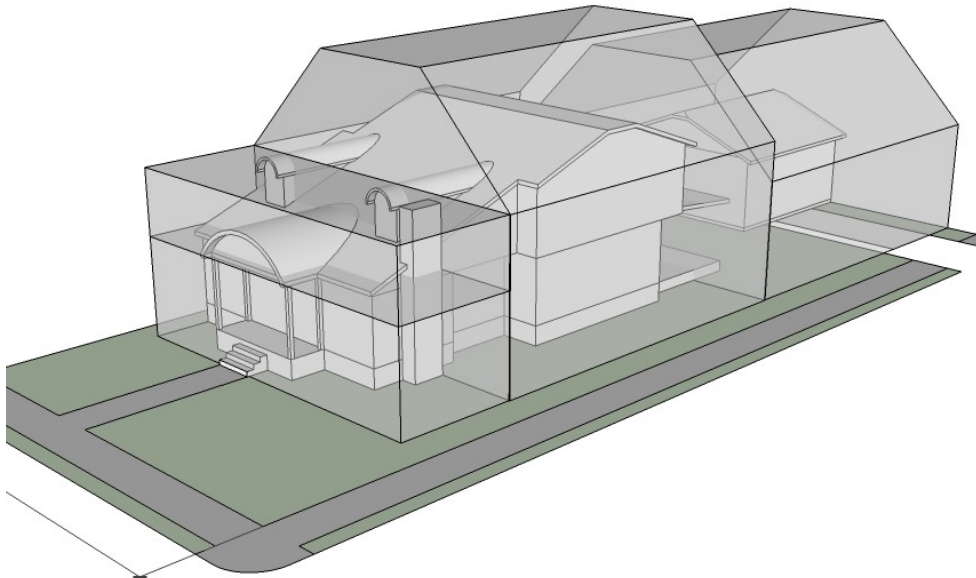
Not Applied to Downtown

- Includes Commercial, Multifamily and Mixed-use areas
- Stepping back building mass from side property lines would be out of character in commercial areas and limit housing opportunities on upper floors



Documenting the Buildable Envelope for a project:

1. The project applicant would depict the location of the Buildable Envelope in their submittal drawings
2. Three-dimensional images could be required for major projects.
3. Staff would then confirm that the design complies with the Buildable Envelope limits.



Setbacks would remain the same

17.10.030 Site Development and Building Standards.



A. Setbacks. Minimum building setbacks shall conform to the standards in Table 17.10-A: Setback Standards for R-1 District.

Lot Type	Front Setback (in feet)	Rear Setback* (in feet)	Side Setbacks		
			Composite** (both sides)	Minimum Setbacks (in feet)	
				Interior Side	Street Side
Interior Site	15	15	25% of site width	3	N/A
Corner Site	15	15	25% of site width	3	5
Resubdivided Corner Site	10	15	25% of site width	3	9
Double-Frontage Site	15	N/A	25% of site width	3	5 (if applicable)

* The rear setback is three feet for those portions of structures less than 15 feet in height.

** See CMC [17.10.030\(A\)\(1\)](#) and [17.06.020](#), Rules of Measurement.

Volumetric limits would be deleted.

3. Exterior Volume.

a. General Provisions. The maximum allowable exterior volume is the total allowed base floor area for the site multiplied by the volume factors in Table 17.10-E. (See also CMC [17.06.020](#) (G), Exterior Volume).

	Maximum Exterior Volume (Cubic Feet) Per Square Foot of Floor Area	
	One-Story Elements of the Building	Two-Story Elements of the Building
Located under a pitched or sloping roof greater than 3:12 pitch	12	11
Located under a flat roofed area of the building 3:12 or less pitch	11	10

b. Volume Option for Additions. It is recognized that existing homes built prior to 2003 may not have been designed to comply with volume standards. For these homes the following option is available: additions of floor area, whether attached or detached, may be approved through design review without determining compliance with the exterior volume standard for the entire site. Instead, the addition(s) shall comply with the applicable volume factor (from the table above), only for the specific floor area contained in the addition(s). This option applies only to the specific location of the addition. No alteration affecting other parts of the building shall be approved through this option. Projects for which applicants have not chosen this option shall be reviewed using volume limits for the entire site.

c. Changes in Design with Limited Affect on Volume. The Director may waive the requirement for a determination of total exterior volume for any changes in design if the volume being added by all of the proposed changes would not exceed two percent of the total allowed volume for the site. The cumulative total volume of changes constructed after February 6, 2003, using such waivers shall not exceed this two percent limit.

Volume columns would be deleted

Table 17.10-F: Example of Bonus Floor Area Calculations*

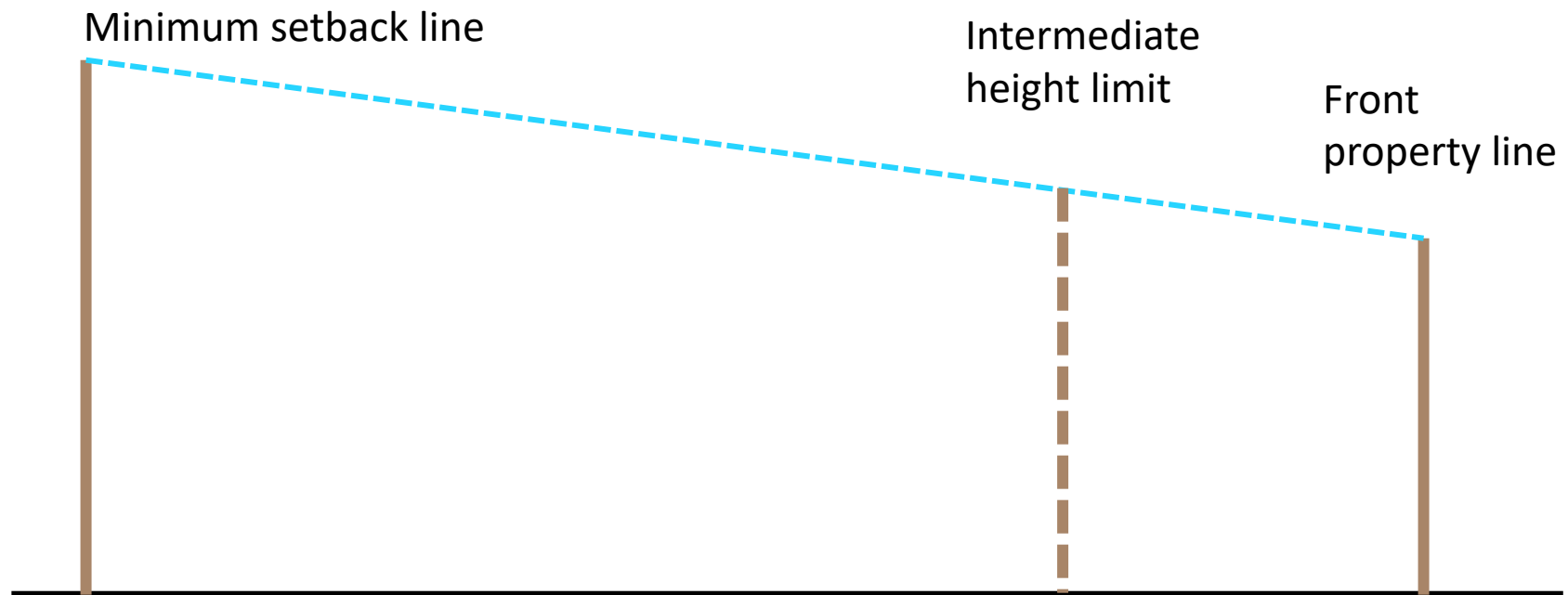
Floor Area Above Ground	Base Floor Area in Basement	Bonus Basement Floor Area	Maximum Exterior Volume**		Total Floor Area
			One Story	Two Story	
1,800	0	0	21,600	19,800	1,800
1,600	200	200	19,200	17,600	2,000
1,500	300	300	18,000	16,500	2,100
1,400	400	400	16,800	15,400	2,200
1,300	500	500	15,600	14,300	2,300
1,200	600	600	14,400	13,200	2,400

* For 4,000 square foot site where base floor area equals 1,800 square feet.

** Exterior volumes for the two-story column assume both floors are of equal size. The allowed exterior volume of a building that is partially one story and partially two stories will have a value that is between the one and two story columns and will be unique for each design based on how much is one story and how much is two story (See Bonus Basement Floor Area Worksheet).

Landscape Structures in Front Setback

- 4ft. Maximum height at front property line
- 6 ft. Maximum height at minimum setback line
- Sloped line between those limits sets heights in between



Buildable Envelope

July 14, 2023

