INTERNATIONAL CODE COUNCIL®

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Building Valuation Data – FEBURARY 2022

The International Code Council is pleased to provide the following Building Valuation Data (BVD) for its members. The BVD will be updated at six-month intervals, with the next update in August 2022. ICC strongly recommends that all jurisdictions and other interested parties actively evaluate and assess the impact of this BVD table before utilizing it in their current code enforcement related activities.

The BVD table provides the "average" construction costs per square foot, which can be used in determining permit fees for a jurisdiction. Permit fee schedules are addressed in Section 109.2 of the 2021 *International Building Code* (IBC) whereas Section 109.3 addresses building permit valuations. The permit fees can be established by using the BVD table and a Permit Fee Multiplier, which is based on the total construction value within the jurisdiction for the past year. The Square Foot Construction Cost table presents factors that reflect relative value of one construction classification/occupancy group to another so that more expensive construction is assessed greater permit fees than less expensive construction.

ICC has developed this data to aid jurisdictions in determining permit fees. It is important to note that while this BVD table does determine an estimated value of a building (i.e., Gross Area x Square Foot Construction Cost), this data is only intended to assist jurisdictions in determining their permit fees. This data table is not intended to be used as an estimating guide because the data only reflects average costs and is not representative of specific construction.

This degree of precision is sufficient for the intended purpose, which is to help establish permit fees so as to fund code compliance activities. This BVD table provides jurisdictions with a simplified way to determine the estimated value of a building that does not rely on the permit applicant to determine the cost of construction. Therefore, the bidding process for a particular job and other associated factors do not affect the value of a building for determining the permit fee. Whether a specific project is bid at a cost above or below the computed value of construction does not affect the permit fee because the cost of related code enforcement activities is not directly affected by the bid process and results.

Building Valuation

The following building valuation data represents average valuations for most buildings. In conjunction with IBC Section 109.3, this data is offered as an aid for the building official to determine if the permit valuation is underestimated. Again it should be noted that, when using this data, these are "average" costs based on typical construction methods for each occupancy group and type of construction. The average costs include foundation work, structural and nonstructural building components, electrical, plumbing, mechanical and interior finish material. The data is a national average and does not take into account any regional cost differences. As such, the use of Regional Cost Modifiers is subject to the authority having jurisdiction.

Permit Fee Multiplier

Determine the Permit Fee Multiplier:

1. Based on historical records, determine the total annual construction value which has occurred within the jurisdiction for the past year.
2. Determine the percentage (%) of the building department budget expected to be provided by building permit revenue.
3.

$$\text{Permit Fee Multiplier} = \frac{\text{Bldg. Dept. Budget x (\%)}}{\text{Total Annual Construction Value}}$$

Example

The building department operates on a $300,000 budget, and it expects to cover 75 percent of that from building permit fees. The total annual construction value which occurred within the jurisdiction in the previous year is $30,000,000.

$$\text{Permit Fee Multiplier} = \frac{\$300{,}000 \times 75\%}{\$30{,}000{,}000} = 0.0075$$

Permit Fee

The permit fee is determined using the building gross area, the Square Foot Construction Cost and the Permit Fee Multiplier.

Permit Fee = Gross Area x Square Foot Construction Cost
X Permit Fee Multiplier

Example

Type of Construction: IIB
Area: 1st story = 8,000 sq. ft.
2nd story = 8,000 sq. ft.
Height: 2 stories
Permit Fee Multiplier = 0.0075
Use Group: B

1. Gross area:

Business = 2 stories x 8,000 sq. ft. = 16,000 sq. ft.

2. Square Foot Construction Cost:
   B/IIB = $214.08/sq. ft.
3. Permit Fee:
   Business = 16,000 sq. ft. x $214.08/sq. ft x 0.0075
   = $25,690

Important Points

- The BVD is not intended to apply to alterations or repairs to existing buildings. Because the scope of alterations or repairs to an existing building varies so greatly, the Square Foot Construction Costs table does not reflect accurate values for that purpose. However, the Square Foot Construction Costs table can be used to determine the cost of an addition that is basically a stand-alone building which happens to be attached to an existing building. In the case of such additions, the only alterations to the existing building would involve the attachment of the addition to the existing building and the openings between the addition and the existing building.
- For purposes of establishing the Permit Fee Multiplier, the estimated total annual construction value for a given time period (1 year) is the sum of each building's value (Gross Area x Square Foot Construction Cost) for that time period (e.g., 1 year).
- The Square Foot Construction Cost does not include the price of the land on which the building is built. The Square Foot Construction Cost takes into account everything from foundation work to the roof structure and coverings but does not include the price of the land. The cost of the land does not affect the cost of related code enforcement activities and is not included in the Square Foot Construction Cost.

Square Foot Construction Costs [a, b, c]

Group (2021 International Building Code)	IA	IB	IIA	IIB	IIIA	IIIB	IV	VA	VB
A-1 Assembly, theaters, with stage	309.06	298.66	291.64	280.58	263.98	255.82	272.02	244.80	237.02
A-1 Assembly, theaters, without stage	282.85	272.45	265.42	254.37	237.77	229.61	245.81	218.59	210.80
A-2 Assembly, nightclubs	237.31	230.23	224.56	215.36	202.99	197.40	207.69	183.68	177.40
A-2 Assembly, restaurants, bars, banquet halls	236.31	229.23	222.56	214.36	200.99	196.40	206.69	181.68	176.40
A-3 Assembly, churches	286.90	276.49	269.47	258.42	242.23	234.07	249.86	223.05	215.26
A-3 Assembly, general, community halls, libraries, museums	244.77	234.37	226.34	216.29	198.94	191.79	207.73	179.77	172.98
A-4 Assembly, arenas	281.85	271.45	263.42	253.37	235.77	228.61	244.81	216.59	209.80
B Business	240.90	232.07	223.51	214.08	194.91	187.36	205.68	172.02	164.34
E Educational	257.70	248.89	242.35	231.90	216.47	205.54	223.92	189.21	183.31
F-1 Factory and industrial, moderate hazard	144.93	138.11	130.39	125.40	112.49	107.10	120.02	92.69	86.88
F-2 Factory and industrial, low hazard	143.93	137.11	130.39	124.40	112.49	106.10	119.02	92.69	85.88
H-1 High Hazard, explosives	135.29	128.47	121.75	115.76	104.14	97.75	110.39	84.34	N.P.
H234 High Hazard	135.29	128.47	121.75	115.76	104.14	97.75	110.39	84.34	77.53
H-5 HPM	240.90	232.07	223.51	214.08	194.91	187.36	205.68	172.02	164.34
I-1 Institutional, supervised environment	244.45	236.08	229.06	219.82	202.16	196.58	220.10	181.25	175.81
I-2 Institutional, hospitals	401.22	392.40	383.83	374.40	354.29	N.P.	366.00	331.40	N.P.
I-2 Institutional, nursing homes	279.15	270.32	261.76	252.33	234.64	N.P.	243.93	211.75	N.P.

I-3 Institutional, restrained	273.40	264.57	256.00	246.57	229.13	220.58	238.17	206.24	196.56
I-4 Institutional, day care facilities	244.45	236.08	229.06	219.82	202.16	196.58	220.10	181.25	175.81
M Mercantile	177.02	169.94	163.27	155.07	142.48	137.88	147.40	123.17	117.89
R-1 Residential, hotels	246.94	238.56	231.54	222.30	204.35	198.77	222.58	183.44	178.00
R-2 Residential, multiple family	206.81	198.43	191.41	182.17	165.41	159.83	182.46	144.50	139.06
R-3 Residential, one- and two-family [d]	192.58	187.37	182.53	178.04	172.85	166.59	175.01	160.35	150.87
R-4 Residential, care/assisted living facilities	244.45	236.08	229.06	219.82	202.16	196.58	220.10	181.25	175.81
S-1 Storage, moderate hazard	134.29	127.47	119.75	114.76	102.14	96.75	109.39	82.34	76.53
S-2 Storage, low hazard	133.29	126.47	119.75	113.76	102.14	95.75	108.39	82.34	75.53
U Utility, miscellaneous	104.98	99.04	93.31	89.21	80.44	74.45	85.33	63.42	60.43

a. Private Garages use Utility, miscellaneous
b. For shell only buildings deduct 20 percent
c. N.P. = not permitted
d. Unfinished basements (Group R-3) = $23.20 per sq. ft.

Construction Types - Definitions

TYPE I-A--Fire Resistive Non-combustible (Commonly found in high-rise buildings and Group I occupancies).
3 Hr. Exterior Walls*
3 Hr. Structural Frame
2 Hr. Floor/Ceiling Assembly
1 ½ Hr. Roof Protection

TYPE I-B--Fire Resistive Non-Combustible (Commonly found in mid-rise office & Group R buildings).
2 Hr. Exterior Walls*
2 Hr. Structural Frame
2 Hr. Ceiling/Floor Separation
1 Hr. Ceiling/Roof Assembly

TYPE II-A--Protected Non-Combustible (Commonly found in newer school buildings).
1 Hr. Exterior Walls
1 Hr. Structural Frame
1 Hr. Floor/Ceiling/Roof Protection

TYPE II-B--Unprotected Non-Combustible (Most common type of non-combustible construction used in commercial buildings).
Building constructed of non-combustible materials but these materials have no fire resistance.

TYPE III-A--Protected Combustible (Also known as "ordinary" construction with brick or block walls and a wooden roof or floor assembly which is 1 hour fire protected).
2 Hr. Exterior Walls*
1 Hr. Structural Frame
1 Hr. Floor/Ceiling/Roof Protection

TYPE III-B--Unprotected Combustible (Also known as "ordinary" construction; has brick or block walls with a wooden roof or floor assembly which is not protected against fire. These buildings are frequently found in "warehouse" districts of older cities.)
2 Hr. Exterior Walls*
No fire resistance for structural frame, floors, ceilings, or roofs.

TYPE IV--Heavy Timber (also known as "mill" construction; to qualify all wooden members must have a minimum nominal dimension of 8 inches.)
2 Hr. Exterior Walls*
1 Hr. Structural Frame or Heavy Timber
Heavy Timber Floor/Ceiling/Roof Assemblies

TYPE V-A--Protected Wood Frame (Commonly used in the construction of newer apartment buildings; there is no exposed wood visible.)
1 Hr. Exterior Walls
1 Hr. Structural Frame
1 Hr. Floor/Ceiling/Roof

TYPE V-B--Unprotected Wood Frame (Examples of Type V-N construction are single family homes and garages. They often have exposed wood so there is no fire resistance.)

- Note exceptions in the building code for fire resistance ratings of exterior walls and opening protection.