Table 7-E. Coefficients of Transmission (*U*) of Various Types of Masonry Wall Construction

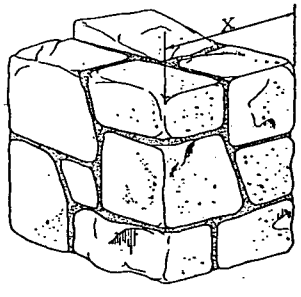
Note.—These coefficients are expressed in B.t.u. per hour per square foot per 1 deg. fahr. difference in temperature between the air on the two sides and are based on an outside wind exposure of 15 miles per hour.

Limestone or Sandstone Walls

The values of U in this Table are based on the following Internal Conductivities (C) which are expressed in B.t.u. per Hr. per Sq.ft. per 1°F

Stone	10.00	per 1"
Cement Mortar	8.00	per 1"
Plaster Board	3.04	per 1"
Plaster (Gypsum)	2.32	per 1"
Wood Lath & Plaster	2.00	as applied
Cork board	0.30	per 1"
Fiber Insulation (Board form)	0.33	per 1"
Cellular Gypsum (18#)	0.59	per 1"
Flaked Gypsum, Dry (26#)	0.52	per 1"

Y = Thickness of Insulation where specified



Wall Number	Interior Construction	Y	Thickness of Stone - X					
			8"	10"	12"	16"	20"	24"
			a	b	c	d	e	f
45	Plain Walls — No Interior Finish		0.556	0.502	0.457	0.339	0.334	0.295
46	½" Plaster on Stone		0.497	0.452	0.415	0.356	0.311	0.277
47	¾" Plaster on Metal Lath — Furred		0.277	0.262	0.249	0.227	0.208	0.192
48	½" Plaster on Wood Lath - Furred		0.264	0.251	0.239	0.218	0.200	0.185
49	½" Plaster on ⅜" Plaster Board - Furred		0.275	0.261	0.248	0.226	0.207	0.191
50	½" Plaster on Wood Lath on 2" Furring Strips — Cellular Gypsum Fill	1⅝"*	0.198	0.191	0.184	0.171	0.160	0.150
51	½" Plaster on Wood Lath on 2" Furring Strips — Flaked Gypsum Fill	1⅝"*	0.185	0.178	0.172	0.161	0.151	0.143
52	½" Plaster on Fiber Insulation — (Board form) Furred	½"	0.199	0.192	0.184	0.172	0.161	0.151
53		1"	0.153	0.149	0.144	0.136	0.129	0.123
54	½" Plaster on Cork board set in ½" Cement Mortar	1½"	0.141	0.138	0.134	0.127	0.121	0.115
55		2"	0.114	0.112	0.109	0.105	0.101	0.098

*Based on 1⅝ in., the actual thickness of 2 in. furring strips.

Note.—The coefficient used for plasterboard is 3.04 per inch thickness—recent data indicate values as low as 1.30 for this material.

Note.—The coefficient used for cellular gypsum, 0.59 is for 18 lb. weight—weights as low as 12 lb. may be used.

Table 7-F. Coefficients of Transmission (*U*) of Various Types of Masonry Wall Construction

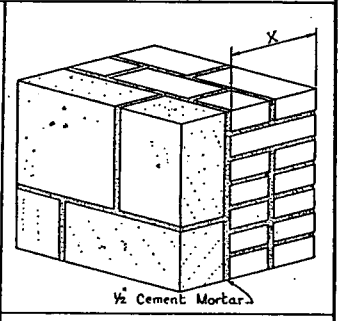
Note.—These coefficients are expressed in B.t.u. per hour per square foot per 1 deg. fahr. difference in temperature between the air on the two sides and are based on an outside wind exposure of 15 miles per hour.

4" Cut Stone Veneer on Brick Walls

The values of U in this Table are based on the following Internal Conductivities (C) which are expressed in B.t.u. per Hr. per Sq.Ft. per 1°F

Stone	10.00	per 1"
Brick	5.00	per 1"
Cement Mortar	8.00	per 1"
Plaster Board	3.04	per 1"
Plaster (Gypsum)	2.32	per 1"
Wood Lath & Plaster	2.00	as applied
Cork board	0.30	per 1"
Fiber Insulation (Board form)	0.33	per 1"
Cellular Gypsum (18#)	0.59	per 1"
Flaked Gypsum, Dry (26#)	0.52	per 1"

Y = Thickness of Insulation where specified



Wall Number	Interior Construction	Y	Thickness of Brick - X			
			9"	13"	18"	24"
			a	b	c	d
56	Plain Walls — No Interior Finish		0.281	0.246	0.198	0.160
57	½" Plaster on Brick		0.280	0.234	0.190	0.155
58	¾" Plaster on Metal Lath - Furred		0.193	0.170	0.146	0.124
59	½" Plaster on Wood Lath - Furred		0.187	0.165	0.142	0.121
60	½" Plaster on ⅜" Plaster Board - Furred		0.193	0.170	0.145	0.125
61	½" Plaster on Wood Lath on 2" Furring Strips - Cellular Gypsum Fill	1⅝"*	0.151	0.137	0.120	0.105
62	½" Plaster on Wood Lath on 2" Furring Strips — Flaked Gypsum Fill	1⅝"*	0.143	0.130	0.115	0.101
63	½" Plaster on Fiber Insulation — (Board form) Furred	½"	0.152	0.137	0.121	0.105
64		1"	0.124	0.114	0.102	0.091
65	½" Plaster on Cork board set in ½" Cement Mortar	1½"	0.116	0.107	0.097	0.087
66		2"	0.097	0.091	0.083	0.076

*Based on 1⅝ in., the actual thickness of 2 in. furring strips.

Note.—The coefficient used for plasterboard is 3.04 per inch thickness—recent data indicate values as low as 1.30 for this material.

Note.—The coefficient used for cellular gypsum, 0.59 is for 18 lb. weight—weights as low as 12 lb. may be used.