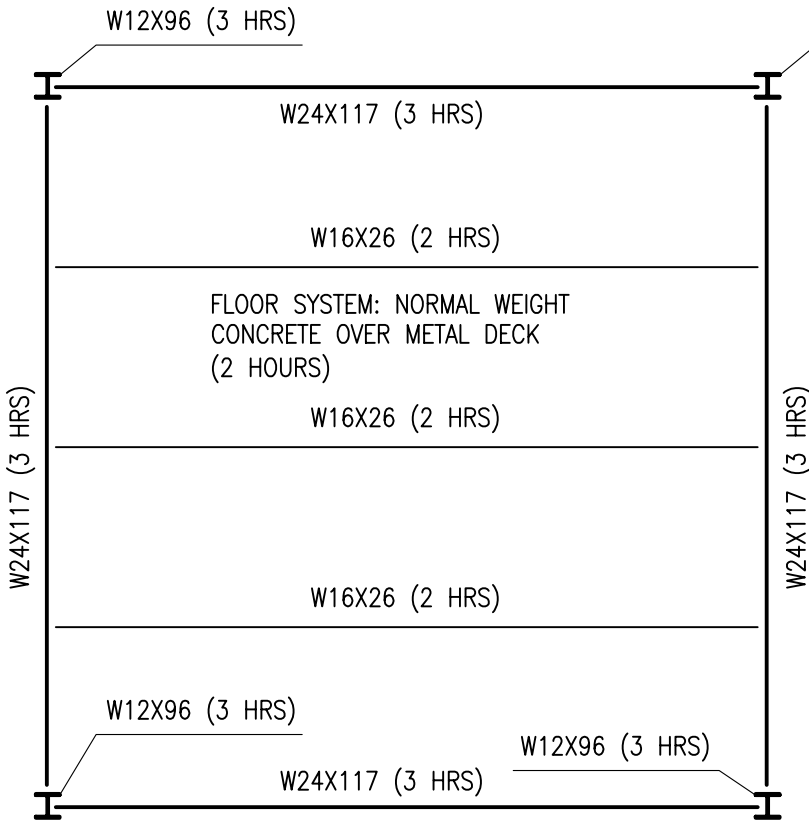
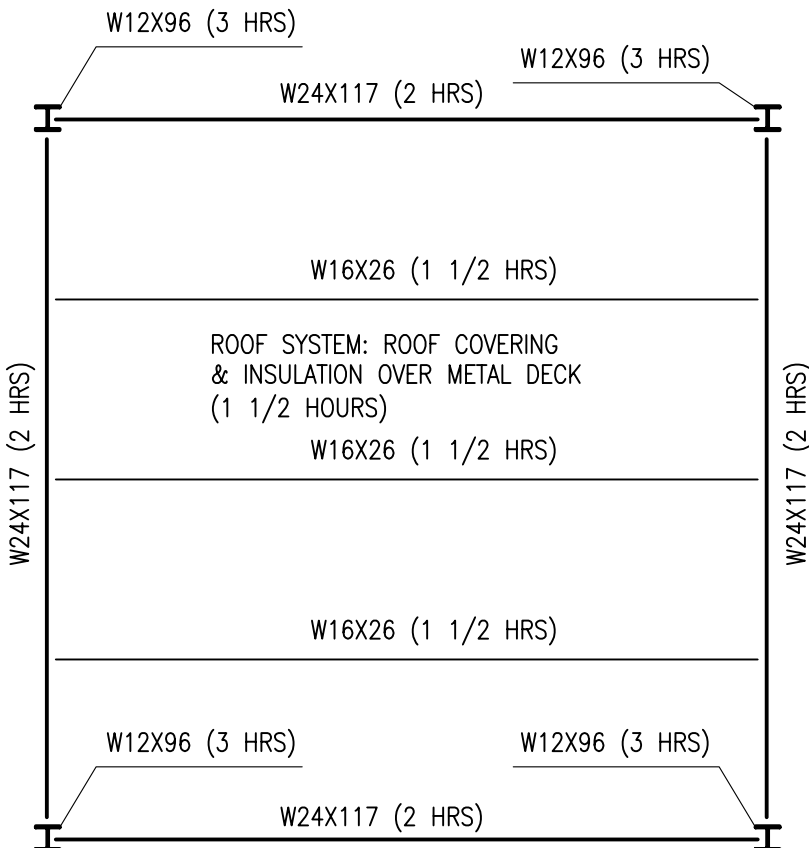


STEEL FIREPROOFING: STRUCTURAL FRAMING BACKGROUNDS



FLOOR PLAN (FOR REFERENCE ONLY)



ROOF PLAN (FOR REFERENCE ONLY)

*PLAN CONTENTS:

- COMPLETE BUILDING CODE ANALYSIS PREPARED BY ARCHITECT OF RECORD INDICATING APPLICABLE CODES, TYPE OF CONSTRUCTION, AND FIRE-RESISTANCE RATING REQUIREMENTS FOR ALL BUILDING ELEMENTS
- ENSURE EACH SHEET HAS BEEN SIGNED/STAMPED AND DATED BY THE DESIGN PROFESSIONAL
- STRUCTURAL FRAMING BACKGROUND PLANS DRAWN TO SCALE INDICATING THICKNESS OF SPRAY-APPLIED FIREPROOFING AND/OR HOURLY FIRE-RESISTANCE RATING FOR EACH MEMBER & FLOOR SYSTEM (SAMPLE SHOWN IS FOR TYPE I-A, PER TABLE 601, 2006 I.B.C.)
- FIREPROOFING SCHEDULES (SEE F-101-2)

*Partial list (Part V) shown from Clark County's "Fireproofing for Steel Construction Building Permit Guide." for a complete list of requirements (Part I thru Part VI) download the guide from Clark County's website (go to Index Guide F, Fireproofing for Steel Construction) at http://dsnet.co.clark.nv.us/dsweb/guides_index.html

NOTE:

1. CONCRETE FLOOR & ROOF SLABS MUST SATISFY THE MINIMUM SLAB THICKNESS PER TABLE 721.2.2.1 FOR THE REQUIRED FIRE RESISTANCE RATING OR MUST PROVIDE THE MIN. THICKNESS OF SPRAY APPLIED FIREPROOFING FOR THE REQUIRED FIRE RESISTANCE RATING.
2. 1704.10 SPRAYED FIRE-RESISTANT MATERIALS. SPECIAL INSPECTION FOR SPRAYED FIRE-RESISTANT MATERIALS APPLIED TO STRUCTURAL ELEMENTS AND DECKS SHALL BE IN ACCORDANCE WITH SECTIONS 1704.10.1 THROUGH 1704.10.5. SPECIAL INSPECTIONS SHALL BE BASED ON THE FIRE-RESISTANCE DESIGN AS DESIGNATED IN THE APPROVED CONSTRUCTION DRAWINGS.
3. 1704.11 MASTIC AND INTUMESCENT FIRE-RESISTANT COATINGS. SPECIAL INSPECTIONS FOR MASTIC AND INTUMESCENT FIRE-RESISTANT COATINGS APPLIED TO STRUCTURAL ELEMENTS & DECKS SHALL BE IN ACCORDANCE WITH AWCI 12-B. SPECIAL INSPECTIONS SHALL BE BASED ON THE FIRE-RESISTANCE DESIGN AS DESIGNATED IN THE APPROVED CONSTRUCTION DRAWINGS.
4. THE APPLICANT IS RESPONSIBLE TO PROVIDE A COMPLETED APPLICATION PER CLARK COUNTY'S "FIREPROOFING FOR STEEL CONSTRUCTION BUILDING PERMIT GUIDE."

STEEL FIREPROOFING: SCHEDULE

PRODUCT: _____, FLANGE PROTECTION: (FULL OR HALF TIP THICKNESS), U.L. DESIGN NO. _____

COLUMN	W/D	FIRE RATING	THICKNESS	RESTRAINT CONDITION
W12X96	1.34	3 HR		UNRESTRAINED

PRODUCT: _____, FLANGE PROTECTION: (FULL FLANGE OR HALF TIP THICKNESS), U.L. DESIGN NO: _____, CONCRETE WEIGHT: (NORMAL WEIGHT OR LIGHTWEIGHT CONCRETE)

FLOOR BEAM	W/D	FIRE RATING	THICKNESS	RESTRAINT CONDITION
W24X117	1.38	3 HR		UNRESTRAINED
W16X26	0.558	2 HR		UNRESTRAINED

FLOOR SYSTEM, UL DESIGN NO. _____,

FIRE RATING	THICKNESS
2 HR	

PRODUCT: _____, FLANGE PROTECTION: (FULL OR HALF TIP THICKNESS), U.L. DESIGN NO: _____, CONCRETE WEIGHT: (NORMAL WEIGHT OR LIGHTWEIGHT CONCRETE, IF APPLICABLE)

ROOF BEAM	W/D	FIRE RATING	THICKNESS	RESTRAINT CONDITION
W24X117	1.38	2 HR		UNRESTRAINED
W16X26	0.558	1 1/2 HR		UNRESTRAINED

ROOF SYSTEM, UL DESIGN NO. _____,

FIRE RATING	THICKNESS
1 1/2 HR	

MANUFACTURER: _____

SCHEDULE OUTLINE SHOWN ABOVE IS FOR REFERENCE ONLY. THICKNESS – SPRAY-APPLIED FIREPROOFING, DEPENDENT ON MANUFACTURER’S PRODUCT, UL DESIGN NO. AND/OR APPLIED CALCULATIONS.

RESTRAINT CONDITION – RESTRAINED OR UNRESTRAINED, DEPENDENT ON STRUCTURAL DESIGN.

***PLAN CONTENTS:**

- FIREPROOFING SCHEDULES THAT IDENTIFY UL DESIGN NUMBERS, W/D AND/OR A/P RATIOS, RESTRAINT CONDITIONS (RESTRAINED OR UNRESTRAINED), REQUIRED HOURLY FIRE-RESISTANCE RATINGS, TYPE OF CONCRETE (NORMAL OR LIGHTWEIGHT), AND THE MINIMUM THICKNESS OF SPRAY-APPLIED FIREPROOFING OR INTUMESCENT FIREPROOFING FOR EACH STRUCTURAL STEEL ELEMENT APPLICABLE TO THE PROJECT.
- IF USING THE INFORMATION (I.E. UL DESIGN NUMBERS, W/D AND/OR A/P RATIOS, MINIMUM THICKNESS OF FIREPROOFING) PROVIDED BY THE MANUFACTURER (I.E. W.R. GRACE, ISOLATEK), INCLUDE A NOTE IN THE FIREPROOFING PLANS INDICATING THE NAME OF THE MANUFACTURER BEING USED.
- GENERIC, ALL-INCLUSIVE FIREPROOFING SCHEDULES ARE NOT ACCEPTABLE (I.E. ONLY THE STRUCTURAL MEMBERS USED IN THE PROJECT ARE TO BE INCLUDED IN THE FIREPROOFING SCHEDULE).
- MULTIPLE MANUFACTURERS ARE NOT ACCEPTABLE.
- REFER TO TABLE 601, 2006 I.B.C. FOR THE REQUIRED FIRE-RESISTANCE RATING.

*Partial list (Part V) shown from Clark County’s “Fireproofing for Steel Construction Building Permit Guide.” for a complete list of requirements (Part I thru Part VI) download the guide from Clark County’s website (go to Index Guide F, Fireproofing for Steel Construction) at http://dsnet.co.clark.nv.us/dsweb/guides_index.html

TABLE 601

FIRE-RESISTANCE RATING REQUIREMENTS FOR BUILDING ELEMENTS (hours)

BUILDING ELEMENT	TYPE I		TYPE II		TYPE III		TYPE IV	TYPE V	
	A	B	A e	B	A e	B	HT	A e	B
Structural Frame a	3 b	2	1	0	1	0	HT	1	0
Bearing walls									
Exterior g	3	2	1	0	2	2	2	1	0
Interior	3 b	2 b	1	0	1	0	1/HT	1	0
Nonbearing walls and partitions									
Exterior	See Table 602								
Nonbearing walls and partitions									
Interior f	0	0	0	0	0	0	See Section 602.4.6	0	0
Floor construction									
Including supporting beams and joists	2	2	1	0	1	0	HT	1	0
Roof construction									
Including supporting beams and joists	1 1/2 c	1 c,d	1 c,d	0 c,d	1 c,d	0 c,d	HT	1 c,d	0

For SI: 1 foot = 304.8 mm

- The structural frame shall be considered to be the columns and the girders, beams, trusses, and spandrels having direct connections to the columns and bracing members designed to carry gravity loads. The members of floor or roof panels which have no connection to the columns shall be considered secondary members and not part of the structural frame.
- Roof supports: Fire-resistance ratings of structural frame and bearing walls are permitted to be reduced by 1 hour where supporting a roof only.
- Except in Group F-1, H, M and S-1 occupancies, fire protection of structural members shall not be required, including protection of roof framing and decking where every part of the roof construction is 20 feet or more above any floor immediately below. Fire-retardant-treated wood members shall be allowed to be used for such unprotected members.
- In all occupancies, heavy timber shall be allowed where a 1-hour or less fire-resistant rating is required.
- An approved automatic sprinkler system in accordance with Section 903.3.1.1 shall be allowed to be substituted for 1-hour fire-resistance-rated construction, provided such system is not otherwise required by other provisions of the code or used for an allowable area increase in accordance with Section 506.3 or an allowable height increase in accordance with Section 504.2. The 1-hour substitution for the fire resistance of exterior walls shall not be permitted.
- Not less than the fire-resistance rating required by other sections of this code.
- Not less than the fire-resistance rating based on fire separation distance (see Table 602).