1714 BLAKE STREET
DENVER, COLORADO

COMPREHENSIVE STUDIO
DECEMBER 9, 2011

KIRSTEN ERICKSON & PATRICIA KASCH
INSTRUCTOR: DAVID CARNICELLI
VERTICAL ELEVATION ANALYSIS
EGRESS STAIRS AND ENCLOSURES

504.1 Stair Width: The width of egress stairs shall be determined as follows:
   
   504.1.1 Stairs with a travel distance of 44 feet (13.4 m) or less shall be
   
   at least 44 inches (1120 mm) wide. Stairs with a travel distance of
   
   more than 44 feet (13.4 m) shall be the larger of the following:
   
   1. 48 inches (1210 mm) for single-decked stairs
   
   2. 44 inches (1120 mm) for double-decked stairs

504.2 Stair Run: Stairs with a travel distance of 44 feet (13.4 m) or less shall be
   
   no less than 11 inches (279 mm) wide and 7 inches (178 mm) deep
   
   (11 inches [279 mm] wide minimum for single-decked stairs)

504.3 Handrails: Handrails shall extend not less than 36 inches (914 mm) above
   
   the stair treads and shall be at a maximum height of 32 inches (813 mm)
   
   above the stair treads. Handrails shall be securely fastened to the enclosure
   
   structure. Handrails shall be of a material, color, or finish that will not
   
   detract from the visual clarity of the stairway.

504.4 Escalators: Escalators shall be provided in accordance with Section 503.

504.5 Raptors: Stair enclosures shall be provided in a manner consistent with
   
   Section 505.

504.6 Light Sources: Light sources shall be provided in a manner consistent with
   
   Section 506.

504.7 Fire Stairway: Fire stairways shall be provided in accordance with
   
   Section 507.

504.8 Other Stairs: Other stairs shall be provided in accordance with
   
   Section 508.

504.9 Access Stairs: Access stairs shall be provided in accordance with
   
   Section 509.

504.10 Exit Stairs: Exit stairs shall be provided in accordance with
   
   Section 510.

504.11 Emergency Stairs: Emergency stairs shall be provided in accordance with
   
   Section 511.

504.12 Service Stairs: Service stairs shall be provided in accordance with
   
   Section 512.

504.13 Guard Rails: Guard rails shall be provided in accordance with
   
   Section 513.

504.14 Stair Sections: Stair sections shall be provided in accordance with
   
   Section 514.

504.15 Stair Enclosures: Stair enclosures shall be provided in accordance with
   
   Section 515.

504.16 Stair Landings: Stair landings shall be provided in accordance with
   
   Section 516.

504.17 Stair Steps: Stair steps shall be provided in accordance with
   
   Section 517.

504.18 Stair Treads: Stair treads shall be provided in accordance with
   
   Section 518.

504.19 Stair Ramps: Stair ramps shall be provided in accordance with
   
   Section 519.

504.20 Stair Railings: Stair railings shall be provided in accordance with
   
   Section 520.

504.21 Stair Lighting: Stair lighting shall be provided in accordance with
   
   Section 521.

STAIR SECTION - ALLEY STAIRWELL

ENLARGED PLAN - ALLEY STAIRWELL

DRAWING NUMBERS:

ARCH 8106 & 8107

DESIGN DEVELOPMENT

DATE: DECEMBER 8, 2011

INSTRUCTION:

DAVID CAMERON

DRAWN BY:

PATRICK MATTHEW AND KARIEN EDWARDS

SHEET TITLE:

EGRESS STAIR PLANS & SECTIONS

A 4.04
VERTICAL CIRCULATION ANALYSIS
CODE COMPLIANCE -IBC 2009

RESIDENTIAL STAIRS:

1010.2 Stairway widths: Stairways serving an occupant load of at least 10 shall have a width of not less than 36 inches (914 mm).

1010.2.1 In Group R-2, required interior stairways shall be 36 inches (914 mm) wide. The minimum handrail shall be 1.25 inches (32 mm) high and 1.5 inches (38 mm) thick and have a minimum clear handrail height of 34 inches (864 mm) above the surface of the tread or landing. Railings shall be continuous at landings.

1010.2.2 Stairways serving an occupant load of less than 10 shall have widths based on not less than 24 inches (610 mm) for each 100 square feet (9.3 m²) of floor area.

905.12 Height, riser height, measured above and tread measurements: All flights of stairs shall have uniform rise and step tread. Rise shall not be less than 6 inches (152 mm) and not more than 8 inches (203 mm). Tread shall be not less than 11 inches (279 mm) and not more than 14 inches (356 mm).

905.13 Handrail vertical clearances: Handrail vertical clearances shall be not less than 10 inches (254 mm). Handrails shall extend vertically a minimum of 4 inches (102 mm) below the top of the tread and a minimum of 3 inches (76 mm) above the finish tread surface.

905.14 Stair nosings: Stair nosings shall be constructed of skid-resistant material and shall project a minimum of 2 inches (51 mm) into the flight of the stair.

905.15 Landing: Landings shall be not less than the width of the adjacent flight of stairs and shall project not less than the width of the stair nosing in any direction. Landings shall be not less than 36 inches (914 mm) wide.

905.16 Stair handrails: Handrails shall be continuous at landings and shall be constructed of materials that are noncombustible or of materials that have a combustion rating of B or better according to ASTM E 84. Handrails shall be not less than 36 inches (914 mm) wide and shall be constructed of materials that are noncombustible or have a combustion rating of B or better according to ASTM E 84.

Stair section - Residential units 2 & 3

Enlarged stair plan - Residential units 2 & 3
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