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REVISION	△
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PROFESSIONAL STAMP

PROJECT TITLE  
**COMPLETE ACCESS STAIRS & RAMPS**  
 CODE: IBC 2009, 2007 UBC

SHEET TITLE  
**RAMP NOTES**

PROJECT NUMBER  
 10027

DRAWN BY  
 ST

CHECKED BY  
 RT

DATE  
 05-14-2010

SHEET NO.  
**A1.0**

**HANDRAIL NOTES:**

- 1) MANEUVERING CLEARANCE ON EXTERIOR PULL SIDE OF DOOR SHALL BE 24" MINIMUM WITH 60" MINIMUM LANDING IN FRONT OF DOOR.
- 2) HANDRAILS SHALL BE CONTINUOUS ALONG BOTH SIDES. HANDRAILS SHALL BE PARALLEL WITH THE SURFACE AND PROJECT 1 1/2" ON TOP OF RISER AND 1 1/2" PLUS 1 TREAD AT BOTTOM RISER. AT RAMPS WHERE HANDRAIL ARE NOT CONTINUOUS BETWEEN RUNS THE HANDRAIL SHALL EXTEND HORIZONTALLY ABOVE THE LANDING 12" MINIMUM BEYOND TOP AND BOTTOM RAMPS
- 3) TOP OF HANDRAILS SHALL BE MOUNTED BETWEEN 33" AND 36" ABOVE THE SURFACE.
- 4) CLEARANCE BETWEEN RAIL AND WALL SHALL BE A MINIMUM OF 1 1/2".
- 5) GUARD RAILS ARE TO BE DESIGNED FOR A CONCENTRATED LOAD OF 200# APPLIED @ ANY POINT AND ANY DIRECTION ALONG THE RAIL OR A UNIFORM LOAD OF 50#/L.F APPLIED HORIZONTALLY @ GUARD HEIGHT.
- 6) BALLUSTERS ARE INDEPENDENTLY DESIGNED FOR A CONCENTRATED LOAD OF 200# APPLIED TO ONE SQUARE FOOT OF AREA.
- 7) HANDRAILS SHALL HAVE A CIRCULAR CROSS SECTION WITH AN OUTSIDE DIAMETER OF 1 1/4" MINIMUM AND NOT GREATER THAN 2" MAXIMUM.
- 8) GRIPPING SURFACE SHALL BE UNINTERRUPTED BY POSTS OR OTHER CONSTRUCTION ELEMENTS OR OBSTRUCTIONS.
- 9) HANDRAILS SHALL NOT ROTATE IN THEIR FITTINGS.
- 10) ENDS OF HANDRAILS SHALL RETURN SMOOTHLY TO FLOOR, WALL OR POST.

**2 RAILING NOTES** SCALE: NTS

REFERENCE IBC 2009

DESIGN LOADS:  
 LIVE LOAD- 100 PSF  
 HANDRAIL IMPACT- 200 PSF

MATERIALS

ROUND STEEL TUBE- ASTM A513 Fy= 35 KSI  
 SQUARE STEEL TUB- ASTM A500 GR. B Fy= 46 KSI  
 ALUMINUM SHEET- 3003-H12 Fy= 27 KSI Fy= 21 KSI  
 OR 5052-H34 Fy= 24 KSI Fy= 24 KSI

WELDS  
 WELDING SHALL BE IN ACCORDANCE WITH AWS D. 1. 1.68  
 USING E70XX ELECTRODES FOR STEEL

**3 STRUCTURAL NOTES** SCALE: NTS

- 1) RAMP SHALL HAVE A RUNNING SLOPE NOT STEEPER THAN 1/12 (8% SLOPE)
- 2) THE MAXIMUM VERTICAL RISE OF RAMP RUN SHALL BE 30" MAXIMUM.
- 3) THE SLOPE PERPENDICULAR TO THE DIRECTION OF TRAVEL AND THE SLOPE ON LANDINGS SHALL NOT BE STEEPER THAN ONE UNIT VERTICAL IN 48 UNITS HORIZONTAL.
- 4) WHEN CHANGES IN DIRECTION OF TRAVEL OCCUR AT LANDINGS BETWEEN RAMP RUNS, THE LANDING SHALL BE 60"x60" MINIMUM
- 5) MANEUVERING CLEARANCE ON PULL SIDE OF DOOR SHALL BE 1'8" ON INTERIOR AND 24" EXTERIOR WITH 60" LANDING IN FRONT OF DOOR.
- 6) HANDRAILS SHALL BE CONTINUOUS ALONG BOTH SIDES. HANDRAILS SHALL BE PARALLEL WITH THE SURFACE AND PROJECT 1 1/2"
- 7) TOP OF HANDRAILS SHALL BE MOUNTED BETWEEN 33" AND 36" ABOVE THE SURFACE.
- 8) CLEARANCE BETWEEN RAIL AND WALL SHALL BE 1 1/2".
- 9) GUARD RAILS SHALL TO BE DESIGNED FOR A CONCENTRATED LOAD OF 200# APPLIED @ ANY POINT AND ANY DIRECTION ALONG THE RAIL OR A UNIFORM LOAD OF 50#/L. F. APPLIED HORIZONTALLY TO THE GUARD HEIGHT.
- 10) BALLUSTERS ARE INDEPENDENTLY DESIGNED FOR A CONCENTRATE LOAD OF 200# APPLIED TO ONE SQUARE FOOT OF AREA.
- 11) HANDRAILS SHALL HAVE A CIRCULAR CROSS SECTION WITH AN OUTSIDE MAXIMUM DIAMETER OF 1 1/4" MINIMUM AND 2" MAXIMUM.
- 12) GRIPPING SURFACE SHALL BE UNINTERRUPTED BY POSTS OR OTHER CONSTRUCTION ELEMENTS OR OBSTRUCTIONS.
- 13) HANDRAILS SHALL NOT ROTATE IN THEIR FITTINGS.
- 14) ENDS OF HANDRAILS SHALL RETURN SMOOTHLY TO FLOOR, WALL OR POST.
- 15) STEPS, RAMPS AND PLATFORMS SHALL BE DESIGNED FOR 100 PSF LIVE LOAD.
- 16) SUBMIT SHOP DRAWINGS FOR APPROVAL

**1 RAMP NOTES** SCALE: NTS