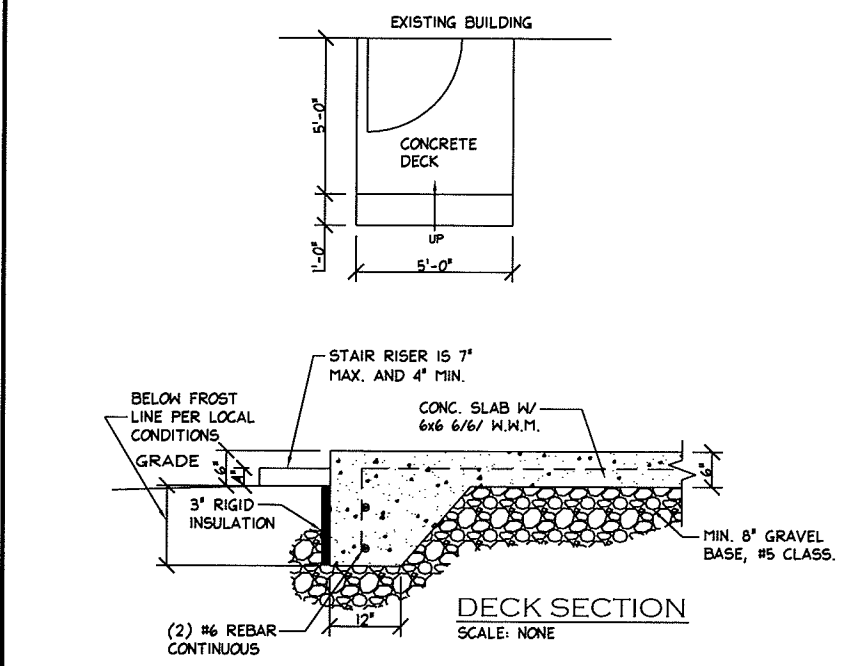
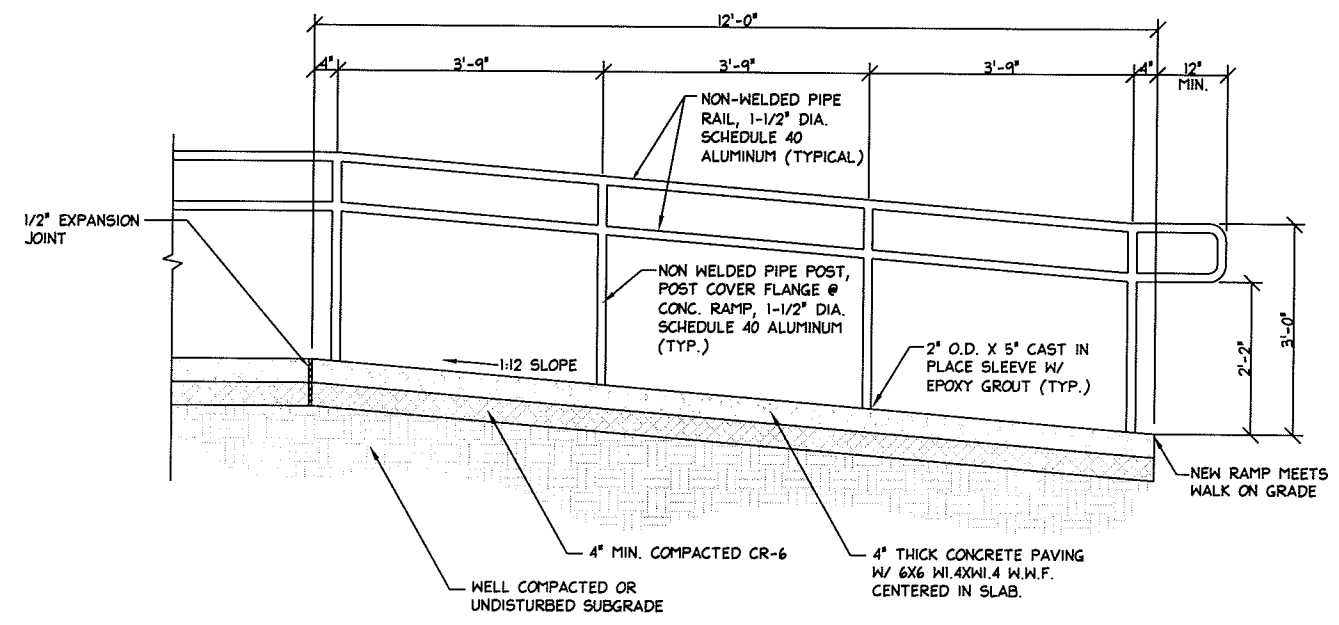
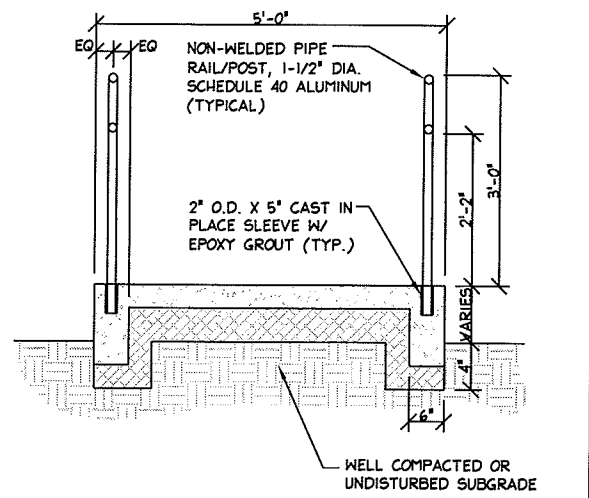
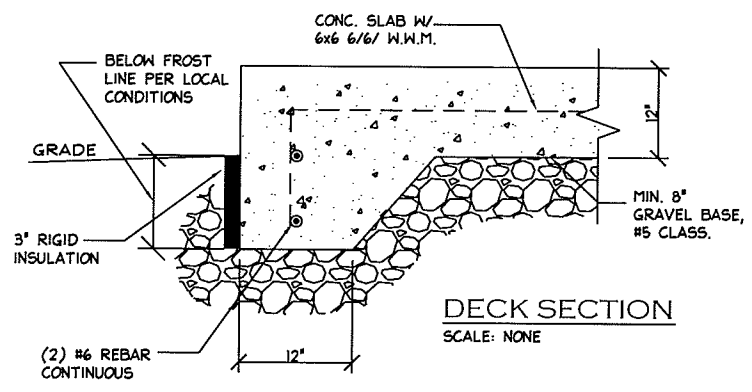
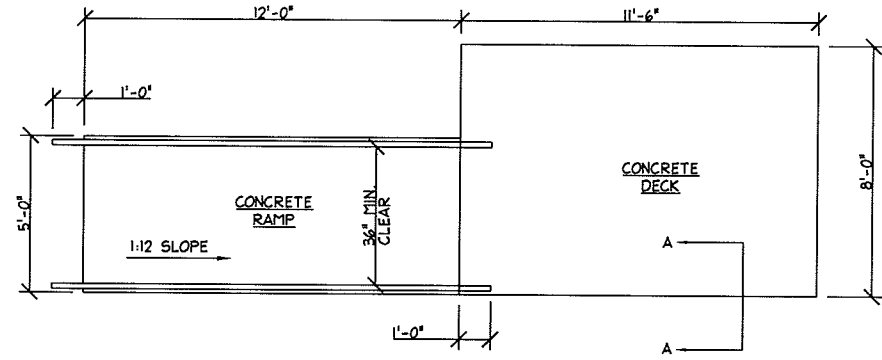


STAIRS	RAMPS	HANDRAILS
<p>STAIR TREADS AND RISERS: STAIR RISER HEIGHTS SHALL BE 7 INCHES MAXIMUM AND 3 INCHES MINIMUM. STAIR TREAD DEPTHS SHALL BE 11 INCHES (279 mm) MINIMUM. THE RISER HEIGHT SHALL BE MEASURED VERTICALLY BETWEEN THE LEADING EDGES OF ADJACENT TREADS. THE TREAD DEPTH SHALL BE MEASURED HORIZONTALLY BETWEEN THE VERTICAL PLANES OF THE FOREMOST PROJECTION OF ADJACENT TREADS AND AT RIGHT ANGLE TO THE TREAD'S LEADING EDGE.</p> <p>DIMENSIONAL UNIFORMITY: STAIR TREADS AND RISERS SHALL BE OF UNIFORM SIZE AND SHAPE. THE TOLERANCE BETWEEN THE LARGEST AND SMALLEST RISER OR BETWEEN THE LARGEST AND SMALLEST TREAD SHALL NOT EXCEED 0.375 INCH (9.5 mm) IN ANY FLIGHT OR STAIRS.</p> <p>PROFILE: THE RADIUS OF CURVATURE AT THE LEADING EDGE OF THE TREAD SHALL BE NOT GREATER THAN 0.5 INCH (12.7 mm). BEVELING OF NOSINGS SHALL NOT EXCEED 0.5 INCH (12.7 mm). RISERS SHALL BE SOLID AND VERTICAL OR SLOPED FROM THE UNDERSIDE OF THE LEADING EDGE OF THE TREAD ABOVE AT AN ANGLE NOT MORE THAN 30 DEGREES (0.52 rad) FROM THE VERTICAL. THE LEADING EDGE (NOSINGS) OF TREADS SHALL PROJECT NOT MORE THAN 1.25 INCHES (32 mm) BEYOND THE TREAD BELOW AND ALL PROJECTIONS OF THE LEADING EDGES SHALL BE OF UNIFORM SIZE, INCLUDING THE LEADING EDGE OF THE FLOOR AT THE TOP OF A FLIGHT.</p> <p>STAIRWAY LANDINGS: THERE SHALL BE A FLOOR OR LANDING AT THE TOP AND BOTTOM OF EACH STAIRWAY. THE WIDTH OF LANDINGS SHALL NOT BE LESS THAN THE WIDTH OF STAIRWAYS THEY SERVE. EVERY LANDING SHALL HAVE A MINIMUM DIMENSION MEASURED IN THE DIRECTION OF TRAVEL EQUAL TO THE WIDTH OF THE STAIRWAY. SUCH DIMENSION NEED NOT EXCEED 48 INCHES (1219 mm) WHERE THE STAIRWAY HAS A STRAIGHT RUN.</p> <p>STAIRWAY WALK SURFACE: THE WALKING SURFACE OF TREADS AND LANDINGS OF A STAIRWAY SHALL NOT BE SLOPED STEEPER THAN ONE UNIT VERTICAL IN 48 UNITS HORIZONTAL (2-PERCENT SLOPE) IN ANY DIRECTION. STAIRWAY LANDINGS SHALL HAVE A SOLID SURFACE. FINISH FLOOR SURFACES SHALL BE SECURELY ATTACHED.</p>	<p>SLOPE: RAMPS USED AS PART OF A MEANS OF EGRESS SHALL HAVE A RUNNING SLOPE NOT STEEPER THAN ONE UNIT VERTICAL IN 12 UNITS HORIZONTAL (8-PERCENT SLOPE)</p> <p>CROSS SLOPE: THE SLOPE MEASURED PERPENDICULAR TO THE DIRECTION OF TRAVEL OF A RAMP SHALL NOT BE STEEPER THAN ONE UNIT VERTICAL IN 48 UNITS HORIZONTAL (2-PERCENT SLOPE)</p> <p>RISE: THE RISE FOR ANY RAMP SHALL BE 30 INCHES (762 mm) MAXIMUM.</p> <p>LANDINGS: RAMPS SHALL HAVE LANDINGS AT THE BOTTOM AND TOP OF EACH RAMP, POINTS OF TURNING, ENTRANCE, EXITS AND AT DOORS.</p> <p>SLOPE (LANDINGS): LANDINGS SHALL HAVE A SLOPE NOT STEEPER THAN ONE UNIT VERTICAL IN 48 UNITS HORIZONTAL (2-PERCENT SLOPE) IN ANY DIRECTION. CHANGES IN LEVEL ARE NOT PERMITTED.</p> <p>WIDTH: THE LANDING SHALL BE AT LEAST AS WIDE AS THE WIDEST RAMP RUN ADJOINING THE LANDING.</p> <p>LENGTH: THE LANDING LENGTH SHALL BE 60 INCHES (1525 mm) MINIMUM.</p> <p>CHANGE IN DIRECTION: WHERE CHANGES IN DIRECTION OF TRAVEL OCCUR AT LANDINGS PROVIDED BETWEEN RAMP RUNS, THE LANDING SHALL BE 60 INCHES (1524 mm) MINIMUM BY 60 INCHES (1524 mm) MINIMUM.</p> <p>RAMP SURFACE: THE SURFACE OF RAMPS SHALL BE OF SLIP-RESISTANT MATERIALS THAT ARE SECURELY ATTACHED.</p> <p>HANDRAILS: RAMPS WITH A RISE GREATER THAN 6 INCHES (152 mm) SHALL HAVE HANDRAILS ON BOTH SIDES.</p>	<p>HEIGHT: HANDRAIL HEIGHT, MEASURED ABOVE STAIR TREAD NOSINGS, OR FINISH SURFACE OF RAMP SLOPE, SHALL BE UNIFORM, NOT LESS THAN 34 INCHES (864 mm) AND NOT MORE THAN 38 INCHES (965 mm).</p> <p>HANDRAIL GRASPABILITY: HANDRAILS WITH A CIRCULAR CROSS SECTION SHALL HAVE AN OUTSIDE DIAMETER OF AT LEAST 1.25 INCHES (32 mm) AND NOT GREATER THAN 2 INCHES (51 mm) OR SHALL PROVIDE EQUIVALENT GRASPABILITY. IF THE HANDRAIL IS NOT CIRCULAR, IT SHALL HAVE A PERIMETER DIMENSION OF AT LEAST 4 INCHES (102 mm) AND NOT GREATER THAN 6.25 INCHES (159 mm) WITH A MAXIMUM CROSS-SECTION DIMENSION OF 2.25 INCHES (57 mm). EDGES SHALL HAVE A MINIMUM RADIUS OF 0.125 INCH (3.2 mm).</p> <p>CONTINUITY: HANDRAIL-GRIPPING SURFACES SHALL BE CONTINUOUS, WITHOUT INTERRUPTION BY NEWEL POSTS OR OTHER OBSTRUCTIONS.</p> <p>HANDRAIL EXTENSIONS: HANDRAILS SHALL RETURN TO A WALL, GUARD OR THE WALKING SURFACE OR SHALL BE CONTINUOUS TO THE HANDRAIL OF AN ADJACENT STAIR FLIGHT. WHERE HANDRAILS ARE NOT CONTINUOUS BETWEEN FLIGHTS, THE HANDRAILS SHALL EXTEND HORIZONTALLY AT LEAST 12 INCHES (305 mm) BEYOND THE TOP RISER AND CONTINUE TO SLOPE FOR THE DEPTH OF ONE TREAD BEYOND THE BOTTOM RISER.</p> <p>CLEARANCE: CLEAR SPACE BETWEEN A HANDRAIL AND A WALL OR OTHER SURFACE SHALL BE A MINIMUM OF 1.5 INCHES (38 mm). A HANDRAIL AND A WALL OR OTHER SURFACE ADJACENT TO THE HANDRAIL SHALL BE FREE OF ANY SHARP OR ABRASIVE ELEMENTS.</p> <p>LOADS: HANDRAIL ASSEMBLIES AND GUARDS SHALL BE DESIGNED TO RESIST A LOAD OF 50 PLF APPLIED IN ANY DIRECTION AT THE TOP AND TO TRANSFER THIS LOAD THROUGH THE SUPPORTS TO THE STRUCTURE.</p>
<p>CONCRETE CONSTRUCTION NOTES:</p> <ol style="list-style-type: none"> ALL CONCRETE AND CONCRETE REINFORCEMENT SHALL BE DETAILED, FABRICATED, LABELED, SUPPORTED, AND SPACED IN FORM AND SECURED IN PLACE IN ACCORDANCE WITH ACI REQUIREMENTS OUTLINED IN THE LATEST EDITION OF ACI 318 AND ACI-315. CONCRETE TO BE NORMAL WEIGHT AND HAVE A COMPRESSIVE STRENGTH NOT LESS THAN 2500 PSI AT 28 DAYS. PORTLAND CEMENT USED SHALL CONFORM TO THE REQUIREMENTS OF ASTM C150 CONCRETE AGGREGATES SHALL CONFORM TO ASTM C33 MIX WATER SHALL BE FREE FROM INJURIOUS QUANTITIES OF OIL, ALKALI, VEGETABLE MATTER AND SALT. NON-POTABLE WATER SHALL NOT BE USED IN MIXING CONCRETE. REINFORCEMENT BARS SHALL BE THE DEFORMED TYPE AND CONFORM TO ASTM A615, GRADE 60, F_y = 60 KSI. REINFORCEMENT SHALL NOT BE SUBJECTED TO WELDING EXCEPT WHERE SPECIFICALLY NOTED HEREIN. ALL WELDING AND WELDED STUDS SHALL CONFORM TO REQUIREMENTS OF ANSI/AWS D1.1. AIR-ENTRAINING ADMIXTURES SHALL CONFORM TO ASTM C260. ALL OTHER ADMIXTURES SHALL CONFORM TO ASTM C494. CONSTRUCTION JOINTS IN WALL AND SLABS SHALL NOT BE FURTHER APART THAN 60-FT IN ANY DIRECTION. 		



REVISIONS:	SCALE: 3/8" = 1'-0"	APPROVED BY:	MODULAR GENIUS	TITLE: RAMP PLAN	PROJECT NO: MG082206-12
	DATE: 9/14/06	DRAWN BY: A. ROYS		MODEL:	DRAWING NO:

SINGLE RUN RAMP PLAN / ELEVATION