PART 1 - GENERAL

1.01 Include adequate expansion joints for anticipated temperature extremes to protect concrete from cracking and without exceeding the expansion joint spread capability. Fiber mesh is acceptable for cracking control.

1.02 FS/DDC Project Manager to determine if material testing is to be performed by the construction contractor or contracted directly by UAF. In any instance, Consultant to specify minimum number of tests required and intervals between tests.

1.03 No signs on exterior concrete stair treads:

1.04 Utilize cast-in-place, durable, abrasive nosing installed integral with the stairs unless otherwise directed in Division 09.

1.05 Require inspection of reinforcing by FS/DDC prior to placement of concrete at a minimum and inspect reinforcing by Special Inspection as required by building code.

1.06 Require samples of special finishes for FS/DDC approval.

1.07 Refer to Div 32 for exterior concrete requirements.

1.08 Design all concrete with proper expansion, contraction, and construction joints. Concrete overlays on existing concrete must have provisions to control cracking.

1.09 Install dowels at all locations where new concrete connects to existing concrete.

1.10 Interior slabs must be designed to accommodate uniform and concentrated loads as prescribed in the building code. Some floor loading criteria may need to be specified above and beyond the code requirements such as laboratories; consult with the FS/DDC Project Manager for final floor loading criteria.

PART 2 - PRODUCTS

2.01 All concrete to have a minimum compressive strength of 3,500 psi with the exception 2.02 below.

2.02 Concrete exposed to freezing temperatures and/or subject to equipment loading (i.e. snow removal) to have a minimum compressive strength of 4,000 psi. Refer to Division 32 for further requirements.

2.03 Design capacities of drilled in anchors per ICBO reports.
PART 3 - EXECUTION

3.01 Finishing slabs: No water or cement added to the surface.

3.02 Repairs to concrete: Acceptable means included with project specifications.

3.03 Minimum tolerances:

   A. Horizontal work - Install surface within 1/8 inch of the required elevation at any point. Uniform surface; maximum variation 1/8 inch from the bottom of a 10 foot straight edge.

   B. Vertical work – For work in finished spaces: Install structure within 1/8 inch of the specified horizontal location. Maximum thickness variation within 1/8 inch from specified thickness. Maximum variation of 1/8 inch of true plumb for any 10 foot vertical section. Uniform vertical surfaces with maximum variation within 1/8 inch from a 10 foot straight edge. For work in unfinished spaces, the tolerance can be increased to 1/4 inch.

   C. Uniform stair riser height within current building code requirements.

   D. Mechanical rooms and rooms with concrete floors and floor drains: Slope uniformly from walls to drain at a slope between 1/8 inch per foot and 1/4 inch per foot or at a grade that accommodates floor finish and equipment being installed.

END OF SECTION