NOTE TO CONSULTANTS: Edit with Track Changes turned on, any text in this section that appears in bold and italics then turn off the bold and italics for the final approved version. (Remove this Note).

PART 1 - GENERAL

1.01 Regulations: The work shall conform to requirements of the IBC and the Seattle Building Code for concrete finishing, as supplemented and modified on drawings or herein.

1.02 Reference Standards: The Concrete Finishing shall conform to requirements of the following Reference Standards or as modified and supplemented hereinafter.

A. American Concrete Institute (ACI) Specifications for Structural Concrete for Buildings, ACI 301

B. ACI Recommended Practice for Cold Weather Concreting, ACI 306

C. ACI Recommended Practice for Hot Weather Concreting, ACI 605

1.03 Related Sections:

Section 03 10 13 - Concrete Formwork for Skate Park Work
Section 03 20 13 - Concrete Reinforcement for Skate Park Work
Section 03 35 13 - Cast in Place Concrete for Skate Park Work

1.04 Quality Assurance: Concrete Finishing work, where indicated to be exposed, is architecturally finished concrete. Special care must be taken to provide specified, finished surfaces without gravel pockets, and other defacements. The Engineer shall inspect concrete after removal of forms and before concrete repair work begins.

1.05 Protection: Protect persons and adjacent materials and finishes from dust, dirt and other surface or physical damage during finishing operations, including materials driven by wind.

PART 2 - PRODUCTS *Not Used*

PART 3 - EXECUTION

3.01 Repairs: Immediately after the removal of forms inspect all surfaces for defects. Repair or patch defects only after defects are inspected by the Engineer and then only with the Engineer's permission. Do all cutting and repair within 48 hours after removal of forms; cure repairs same as new concrete.

3.02 Finishes for Formed Surfaces:

A. Rough Form Finish: Provide for surface of walls and footings adjacent to grade or below grade. This is the concrete surface having texture imparted by form facing material use with tie holes and defective areas repaired and patched and fins and other projections exceeding 1/4 inch in height rubbed down or chipped off.

B. Smooth Formed Finish: Provide a smooth formed finish on formed concrete surfaces exposed to view. This is an as-cast concrete surface obtained with selected form facing material, arranged in an orderly and symmetrical manner with a minimum of seams. Remove fins and other projections completely and smoothed. Repair and patch honeycombs and defective areas as directed by the Engineer. Tie holes shall not be filled.

C. Sacked Finish:

1. On all designated surfaces of the exposed concrete, provide a sacked finish by coating the concrete with sacking mortar. Sacking of patched or defective concrete surfaces may be required by the Engineer for areas not other wise already requiring this work.
2. Repair and patch tie holes, honeycombs and defective areas and trowel to smooth finish. Remove fins and other projections completely and smoothed.
3. Thoroughly wet surface to prevent absorption.
4. Coat entire surface with sacking mortar as soon as surface of concrete approaches surface dryness.
5. Thoroughly and vigorously rub mortar over area with clean burlap pads to fill all voids.
6. While mortar is still plastic but partially set (so it cannot be pulled from voids), sack-rub surface with dry mix of sacking mortar (leave out water). There should be no discernible thickness of mortar on concrete surface, except in voids; all surfaces should be uniformly textured.
7. Immediately begin a continuous moist cure for 72 hours.

D. Related Unformed Surfaces: At tops of walls, horizontal offsets, and similar unformed surfaces adjacent to formed surfaces, strike off smooth and finish with a texture matching adjacent formed surfaces. Continue final surface treatment of formed surfaces uniformly across adjacent unformed surfaces unless otherwise indicated. Provide for face surface of walls adjacent to plaza, walks and stairs.

3.03 Finishes for Unformed Surfaces:

A. Screed all slabs, for whatever finishes, to true levels or slopes, work surfaces only to the degree required to produce the desired finish; do no finishing in areas where water has accumulated until they have been drained and excess moisture has dried. Carefully finish all joints and edges with proper tools, unless otherwise specified.

B. Rough Screed Finish: Consolidate, level, and screed all surfaces to obtain evenness and uniformity; remove all surplus concrete after consolidation by striking off with sawing motion against guide strips.

C. Float Finish: Apply float finish to monolithic slabs to receive trowel or other finishes. After screeding, consolidating, and leveling concrete slabs, do not work surface until ready for floating. Begin floating, using floats appropriate to the surface contours only, when surface water has disappeared, or when concrete has stiffened sufficiently to permit operation of power-driven floats, or both. Consolidate surface with power driven floats or by hand floating if area is small or inaccessible to power units. Finish surfaces to tolerances of F(F) 18 (floor flatness) and F(L) 15 (floor levelness) measured according to ASTM E 1155. Uniformly slope surfaces to drains. Cut down high spots and fill low spots immediately after leveling, re-float surface to a uniform, smooth, granular texture.

D Hard Trowel Finish: After floated surface is firm enough to receive steel trowels, trowel at least two complete passes, or until last stage before blackening. Leave no trowel marks discernible to the touch. Do not use excessive water, especially on last the pass.

E. Defective Work: Remove and replace when directed by the Engineer, surfaces which show inferior finish quality.

3.05 Curing:

A. Protect freshly deposited concrete from premature drying and excessively hot or cold temperatures; maintain minimal moisture loss at relatively constant temperature for necessary hydration time and proper relatively constant temperature for necessary hydration time and proper hardening of concrete. Seal transitions, flats and decks with acrylic cure and seal.

B. Duration of Curing: In addition to the initial overnight curing, continue final curing operations until the cumulative number of days or fractions thereof (not necessarily consecutive) occurs, during which time the temperature of the air in contact with the concrete is above 50 degrees F, equals 7 days. If high-early strength concrete has been used, continue final curing operation for 3 days total time, calculated as before. Take care to prevent rapid drying at the end of the curing period. If early removal of forms is approved and forms are removed during the curing period, apply one of the curing methods specified in City of Seattle Standards Specifications (most recent edition), and continue curing for the remainder of the required curing period.

3.06 Inspection: Contractor shall notify Engineer that they are starting concrete finish repair work at least 48 hours prior to the beginning of work.

3.07 Cleaning: Leave premises clean and free of residue from work in this section.

END OF SECTION