

SLAB CONDITIONS REPORT

Project: Rambler Gainesville / 420 SW 8th Street

Documents Reviewed: Architecture Volumes 1-3; Interiors; Project Manual / Specs

Issue: Document-Driven Slab / Underlayment / Moisture / Curing / Substrate Conditions Review

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SCOPE LIMITATIONS

Review limited strictly to Division 03 and Division 09 impacts related to concrete slabs, vapor barriers, cast underlayment / gypcrete, curing compounds, slab moisture testing, alkalinity testing, and direct flooring substrate preparation requirements. Report is document-driven only and based solely on the uploaded drawing and specification files reviewed.

1. SLAB ON GRADE / VAPOR BARRIER CONDITIONS

- Specification Section 03 0516 requires sheet vapor barrier under concrete slabs on grade.
- Underslab vapor barrier is specified as ASTM E1745 Class A, 15 mils, with water vapor permeance not greater than 0.010 perms.
- Section 03 0516 requires barrier seams and penetrations to be sealed watertight, with minimum 6 inch laps, and states no penetration is allowed except reinforcing steel and permanent utilities.
- Architectural details identify concrete slab on grade on vapor barrier on compacted gravel.
- Architectural elevator pit details also identify under slab HDPE waterproofing membrane, basis of design Polyguard Underseal, at the elevator pit condition.

2. CURING / SEALER / FLOOR FINISH COMPATIBILITY

- Section 03 3000 states the preferred cure process is wet curing; if curing compounds are proposed instead, the contractor is required to submit curing compound product data and a concrete finishing schedule.
- Section 03 3000 further requires curing compound manufacturer certifications and floor finish manufacturer approvals confirming compatibility with the applicable floor finish.
- Section 03 3511 requires moisture curing materials for concrete to receive tile, seamless flooring, membranes, and coatings.
- Section 03 3511 states curing compound used below floor finishes must be compatible with bonding of the required floor covering finishes; if not compatible, the contractor is to remove the compound by shot blasting or other approved methods.
- This creates a direct slab-condition risk item for any flooring area where curing method, removal responsibility, or finish compatibility is not clearly confirmed before bidding.

3. FLOORING SUBSTRATE TESTING / REMEDIATION REQUIREMENTS

- Section 09 0561 applies to slabs receiving resilient tile and sheet, carpet tile, and thin-set ceramic tile and stone tile.
- Section 09 0561 requires concrete slab testing for moisture vapor emission, internal relative humidity, and alkalinity (pH).
- Testing sequence required by Section 09 0561 includes preliminary cleaning, moisture vapor emission testing, internal RH testing, pH testing, remediation if required, patching / smoothing / leveling, and adhesive bond / compatibility testing.
- Moisture vapor emission testing is specified per ASTM F1869, with remediation required where values exceed flooring manufacturer limits; absent manufacturer limits, remediation is required when values exceed 3 pounds per 1000 square feet per 24 hours.
- Internal relative humidity testing is specified per ASTM F2170 Procedure A; absent manufacturer limits, remediation is required when any test value exceeds 75 percent RH.
- Section 09 0561 requires the moisture and alkalinity testing to be performed by an independent testing agency employed and paid by the contractor.

4. CAST UNDERLAYMENT / GYPCRETE CONDITIONS

- Section 03 5400 specifies liquid-applied self-leveling floor underlayment and states gypsum-based type is to be used at locations indicated on the drawings.
- Basis of design underlayment is Maxxon Gypcrete, with Maxxon Acousti-Mat 1/4 specified below underlayment at unit hard surfaces and as otherwise indicated on the drawings.
- Specified gypsum-based underlayment thickness is 3/4 inch minimum to 3-1/2 inch maximum, with exact thickness and locations deferred to the drawings.
- Section 03 5400 requires substrate preparation to include mechanical preparation of steel troweled concrete; acceptable methods include bead blasting and scarifying, and acid etching is specifically prohibited.
- Section 03 5400 requires ASTM F1869 moisture testing prior to underlayment installation, and installation is to proceed only after substrates do not exceed 3 pounds moisture vapor emission per 1000 square feet in 24 hours.
- Architectural details include gypcrete-related perimeter poly strip and turn-up conditions, supporting that gypcrete / underlayment conditions occur within the drawing set.

5. DRAWING-LEVEL OBSERVATIONS / QUALIFICATIONS

- Architecture details confirm slab-on-grade, vapor barrier, elevator pit waterproofing, and lightweight concrete conditions, but the full slab-by-slab flooring substrate matrix is not explicitly consolidated in one reviewed drawing location.
- Section 03 5400 states underlayment thickness and locations are to be taken from the drawings; those extents should be confirmed at bid time against the final governing architectural / structural details.
- Where flooring is to be installed over new concrete, underlayment, or lightweight concrete conditions, qualify all substrate preparation, testing, remediation, curing compatibility, and floor prep as required by Sections 03 3000, 03 3511, 03 5400, and 09 0561.
- Overall, the reviewed documents establish slab-condition requirements and testing standards, but bidder responsibility should expressly preserve the right to address moisture remediation, leveling, bond testing, and curing-compound removal where field conditions or testing results require it.

CONCLUSION

The reviewed documents establish a slab package that includes underslab vapor barrier at slab-on-grade conditions, floor-finish-sensitive curing requirements, mandatory moisture / RH / pH testing for flooring substrates, and gypsum-based cast underlayment at drawing-indicated locations. The principal bidding risks are not absence of standards, but the need to carry all required testing, remediation, curing-compound compatibility, mechanical substrate preparation, and drawing-based confirmation of underlayment extents and thicknesses.