

SLAB ON GRADE VS. GYPCRETE REPORT

Project: Rambler Gainesville / 420 SW 8th Street

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

Issue: Document-Driven Comparison of Slab-on-Grade Conditions Versus Gypcrete / Cast Underlayment Conditions

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SCOPE LIMITATIONS

Review limited strictly to Division 03 and Division 09 impacts related to slab-on-grade concrete, vapor barrier, gypsum-based underlayment / gypcrete, acoustic mat, moisture testing, substrate prep, and directly related flooring substrate conditions. Report is document-driven and based on the uploaded drawing and specification files reviewed.

1. SLAB ON GRADE CONDITIONS

- Architectural details identify slab on grade on vapor barrier on compacted gravel.
- Section 03 0516 requires a sheet vapor barrier below concrete slabs on grade.
- Specified underslab vapor barrier is ASTM E1745 Class A, 15 mils, with seams and penetrations required to be sealed watertight and lapped a minimum of 6 inches.
- Section 03 3000 and Section 03 3511 require curing methods and curing compounds to remain compatible with floor finish installation, with removal required where incompatible.
- Section 09 0561 requires moisture vapor emission testing, internal relative humidity testing, and alkalinity testing of concrete slabs prior to flooring installation.

2. GYPCRETE / CAST UNDERLAYMENT 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 surface locations 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 limits to be confirmed from the drawings.
- Section 03 5400 requires substrate preparation for underlayment, including mechanical preparation of steel-troweled concrete; acid etching is specifically prohibited.
- Section 03 5400 also requires ASTM F1869 moisture testing before underlayment installation, with installation to proceed only when substrate moisture conditions are within specified limits.

3. PRIMARY DIFFERENCES - SLAB ON GRADE VS. GYPCRETE

- Slab-on-grade is a structural concrete substrate condition tied to underslab vapor barrier and direct slab moisture management.
- Gypcrete is an applied underlayment system placed above the structure or base substrate and is used where indicated to achieve elevation, acoustic, or finish-support conditions.
- Slab-on-grade requirements emphasize vapor barrier integrity, curing compatibility, and finished-slab testing prior to flooring.
- Gypcrete requirements emphasize underlayment thickness, acoustic mat coordination, substrate preparation, and pre-install moisture limits before the underlayment is placed.
- The two systems are therefore not interchangeable and should be qualified separately at bid time.

4. FLOORING RISK / BIDDING IMPLICATIONS

- Where flooring is installed directly over slab-on-grade, carry slab testing, alkalinity testing, moisture remediation if required, floor prep, and curing-compound compatibility review.
- Where flooring is installed over gypcrete, carry underlayment extent confirmation, acoustic mat coordination, thickness confirmation, mechanical prep as required, and compatibility of the finished substrate with the selected flooring adhesive / setting materials.
- Section 03 5400 defers exact gypcrete locations and thicknesses to the drawings, so those extents should be confirmed at bid time.
- Where the drawings do not provide a consolidated matrix clearly separating slab-on-grade areas from gypcrete areas, bidder responsibility should preserve the right to qualify substrate assumptions and adjust pricing if governing substrate extents change.
- Overall, slab-on-grade and gypcrete carry different prep, testing, and risk profiles and should not be treated as one combined substrate condition.

CONCLUSION

The reviewed documents establish both slab-on-grade and gypsum-based underlayment conditions within the project framework. Slab-on-grade scope is driven by underslab vapor barrier, curing compatibility, and post-placement moisture / RH / pH testing. Gypcrete scope is driven by drawing-indicated extents, acoustic mat coordination, thickness confirmation, and underlayment-specific prep and moisture limits. These conditions should be qualified independently when bidding.