GENERAL DESIGN INFORMATION:
Gypsum plaster may be used to decorate the interior side of concrete and masonry walls. This practice is centuries old in Europe and still practical today. The need for additional weatherproofing on the exterior side will depend on exposure to the elements, thickness of the wall and/or exterior cladding. Gypsum plaster provides sound absorbing and attenuation qualities to concrete and/or masonry walls. It is often used to level a wall to provide a flat attractive surface. Gypsum plaster should not be applied in thicknesses over 3/4 inch without metal reinforcement (lath) to any substrate.

SKIM COAT:
For substrates no more than 1/4 inch out of tolerance, a skim coat of finish gypsum plaster may be used. A veneer plaster is commonly used for skim coating. Veneer plaster may be one or two-coat applications. Two-coat applications are typically done the same day. If the second coat is applied more than 12 hours after the first coat, a bonding agent is recommended.

CAVEAT: Gypsum plaster is not intended to be exposed to moisture and/or high humidity for prolonged periods of time. The use of portland cement plaster over concrete walls and/or masonry walls is recommended.

ABUSE RESISTANCE:
Gypsum plaster is fairly abuse resistant. For extreme requirements, gypsum manufacturers produce a high-abuse resistance gypsum plaster. These plasters are suitable for security areas such as police stations, jails and correctional facilities.

SURFACE PREPARATION:
The bond of any plaster to a cement or masonry substrate depends on good suction. Some masonry products and concrete have poor suction and bonding the plaster will be questionable. Coatings may have been applied to the masonry or concrete that may inhibit a good bond. Examples of products applied to cement/masonry substrates that limit bonding abilities for plaster are:

- Loose paint
- Form release oils
- Damp-proofing
- Waterproofing
- Bituminous compounds
- Curing compounds
Removal of bond breaking coatings is recommended by sandblasting, grinding, power washing, acid washing or chipping. Surface should be free of dirt, friable particles and allowed to dry prior to plastering. The applicator of the gypsum plaster may choose to dampen the substrate to even the suction and make application of the plaster workable.

Some new concrete products have admixtures blended at the factory to provide enhanced waterproofing abilities. The plasterer may not be aware of these admixtures and should be notified if these products have been used as they can create bonding problems.

**BONDING AGENTS:**
The use of a bonding agents will aid in the ability of the gypsum plaster to adhere to a questionable substrate coating. The use of the bonding agent may not be adequate in all applications. Well adhered paint coatings may not be strong enough to hold the additional weight of the plaster, particularly after the plaster has put tension on the paint coating during its initial set. Test patches are strongly recommended to ensure a good long lasting bond of plaster to masonry/concrete substrates. When relying on a bonding agent, gypsum plaster should be applied to no more than a maximum thickness of 1/2 inch.

Always use plaster and bonding products in strict accordance with manufacturer’s recommendations.

**MASONRY/CMU (CONCRETE MASONRY UNITS):**
On new masonry/CMU walls, it is recommended to have the grout joints “struck flush” when a plaster is to be applied. This will help prevent joints from telegraphing through the plaster. If the grout joints are tooled, the options are:

- A base coat of sanded gypsum plaster and finish coat
- A skim coat of sanded veneer gypsum plaster and a finish coat
- Two coats of finish plaster (veneer plaster)
- A skim coat of veneer plaster or setting type joint compound over the joint and struck flush to the masonry face and a finish coat of plaster

A single skim coat of finish plaster over tooled joints may allow the joints to telegraph.