

A Crucial Step

The Design Development Phase is an essential part of a capital expense restoration project. It generally occurs after an evaluation has been performed, and it must be completed before Construction Documents can be developed. During this phase, most major project decisions will be made.

The Process

The first step of this process is to review and evaluate with the owner the project agenda and the budget requirements. A site visit is per-



formed to confirm construction and analyze site requirements. Because each elevation is unique with individual characteristics, many

details are verified at the site.

The major considerations for existing conditions include wall systems, materials, openings (windows, doors, grills, louvers, penetrations), joints, flashings, and water protection systems. If necessary, exploratory analysis is performed. This may include destructive through-wall investigations. This minimizes the likelihood for unforeseen problems to arise. Structural analyses might also be required during this process.

Current building conditions are then explored including building history (replacements, renovations, additions, etc.), building requirements, and building usage. Future plans for the building are also analyzed in regard to these same categories. Internal and external considerations for the construction time frame are outlined.

The Solution

Solutions are then proposed for the problem. This could include repairs, restoration, remediation, and/or specialized options for unique situations. Alternatives are discussed and analyzed,

During this phase, most major project decisions will be made.

Restoration considerations may include:

Walls

- Masonry
- Panelized Systems
- Curtain Walls
- EIFS

Openings

- Windows
- Louvers/Grills
- Doors
- Penetrations

Joints

- Control/Isolations
- Expansion

Flashings

- Through-wall
- Sill/Head

Water Protection Systems

- Waterproofing (Below Grade)
- Weatherproofing (Above Grade)

■ **The deliverables produced during this phase include outline specifications, budgets, preliminary drawings, schedule confirmations, and administrative criteria.** ■

BENEFITS

Addresses each project uniquely to achieve the right solution that fits within the framework of the client's objectives

Minimizes the probability of unforeseen problems occurring

Produces value engineering as a result of careful consideration of all options

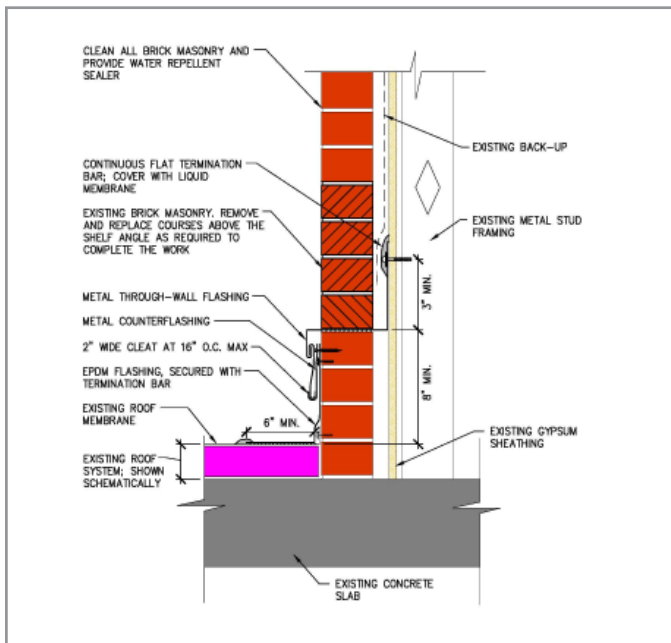
Significantly reduces the potential for expensive design changes at a later stage

Produces a basis for the actual construction documents

Design Selection & Project Requirements

At this stage, a scope of work is chosen. This includes materials, equipment for construction systems, methods, manufacturers, and special requirements. Allowances, alternatives, and unit prices are outlined, and codes and zoning are considered. A preliminary construction schedule is determined. Contract considerations are discussed, including competitive bidding, negotiated contracts, or construction man-

and performance criteria is determined as it relates to the building concerns. If necessary, a life-cycle cost analysis is performed, along with value engineering studies. Preliminary cost estimates are then produced. An initial design is proposed and constructability is analyzed with methods, means, and procedures for construction identified and selected.



Restoration System Preliminary Detail

agement. Special considerations for public funding are also discussed at this time. Bonds and insurance requirements are outlined.

The Outcome

Outline specifications are then developed. These later serve as the basis for the construction documents. The other deliverables produced during this phase include the budgets, preliminary drawings, schedule confirmations, and administrative criteria. By thoroughly engaging in this process, the client has significantly reduced the potential for unforeseen conditions and expensive design changes at a later stage. ■

Total Building Envelope Management SolutionSM

www.structuretec.com

(800) 745-7832