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PROJECT DELIVERY – DESIGN BUILD

1. It is determined that a definite need exists that must be filled. A design-build contractor can be hired at this time to provide professional input from this point, but usually is not.
2. A determination is made of what the budget for the project will be. This budget can be determined a number of ways, ranging from an actual estimate using current market data applied to a complete scope of work, to a guess based on average square foot costs. Usually it is limited to monies that can be made available.
3. After the budget parameter has been determined, a site is usually picked, often without an assessment from design or construction professionals as to suitability.
4. A selection process is then used to determine which design-build firm will spearhead the process of designing and building the facility as a single source of responsibility
5. An assessment of current and future needs should be made by a designer hired by the DB Company to insure the site is used in such a way the current project does not hinder future growth.
6. The DB Company then creates a program based on current and future needs, wishes, budget, code requirements, site constraints, utilities, etc., and presents it to the Owner for confirmation of parameters that must be met.
7. Upon approval of the parameters, a preliminary design is established to the satisfaction of all parties using construction methods and materials the DB Company feels are most suited to the building requirements. These preliminary drawings and outline specifications are usually sufficient to determine the scope of the project and include site plans, floor plans, preliminary engineering plans, exterior building elevations, and sometimes building sections. Schedules are developed for finishes, doors and window selections, etc.
8. At this point, a preliminary cost is established that can either be offered as a guaranteed cost or further refined at the next step. This cost is the actual cost for which the project will be built. If it is within budget, no further redesign need be done. If it is not, redesign occurs at that point rather than after time is spent in final design and bidding.
9. At this point, project components have also been examined and tweaked by the estimators, project managers, and designers who are and will be involved in the project. The systems, construction methods, materials, sizes, etc. of the building components can be evaluated and modified for the most economical means to accomplish their intended use. This service is called value engineering.
10. Upon approval of the preliminaries, an outside Architect of Record is often hired to complete the drawings. The design of building systems begins to be finalized, structural design begins to be finalized, building details begin to be completely worked out, and the overall design is tweaked to accommodate system requirements and value engineering concepts acceptable to the Owner. This phase is called the design development phase and at the end of this phase, all decisions required from the Owner have been obtained and incorporated into the drawings. If not guaranteed before this point, the guaranteed cost can be established at this point as well.
11. Upon approval of the design development drawings, the Architect of Record proceeds with the completion of construction documents, including drawings detailing the quantity of materials and specifications detailing the quality of materials to be included. At the

- same time, site preparation, ordering of materials, scheduling of crews, any remaining bidding to subcontractors, and scheduling of subcontractors can be accomplished in order to expedite the Work.
12. Meanwhile the final construction documents are presented, reviewed, and approved by the Owner for Construction.
 13. Upon submission to regulatory agencies and receipt of permits, the Work is begun.
 14. During the Work, the Architect hired by the DB acts as an observer of the Work to help assure Work is being done in accordance with the contract documents, drawings, bid documents, specifications, and acceptable construction practices. All subcontractors and material purchases and deliveries are coordinated by the DB. All changes to the scope of the Work in terms of price or time are documented by the DB for the Owner.
 15. When the DB Company feels that the project has been substantially completed, the Architect hired by the DB normally reviews the Work with the Owner and creates a punch list of items still felt to be deficient, needing correction before the Owner takes possession of the Work
 16. After the Work has been completed, the Architect normally reviews the Work with the DB and the Owner to make sure all punch list items have been completed before the final payment is requested

ADVANTAGES OF DESIGN BUILD

1. There is sometimes a savings in time as the design process is done by or in conjunction with the DB Company. Materials can be ordered and portions of the Work bid and scheduled as the drawings are being completed.
2. Projects are engineered early in the process for value, and professional contractors and subcontractors give input early in the design phase to assist in obtaining the best design possible.
3. A single source of responsibility is provided to the Owner. The Design Build Company is responsible for all aspects of the project, including cost and time frame.
4. There are usually no change orders other than those generated by changes in scope by the Owner. Mistakes made in drawings and coordination between trades are the responsibility of the DB Company if the price given was guaranteed.
5. The actual cost needed is established early and usually guaranteed, unless the Owner makes changes in scope from the preliminary drawings and specifications agreed upon. This makes funds appropriation and fund-raising procedures easier.
6. There is a singleness of purpose between design and building professionals involved in the process.

DISADVANTAGES OF DESIGN BUILD

1. The check and balance system normally working on behalf of the Owner is compromised because the Architect of Record is being paid by the Design Build Company. If the DB firm represents further work, it is not to the Architect's advantage to blow the whistle on poor construction practices by the DB.
2. This is why it is important to deal with a firm that can demonstrate integrity in their dealings with past and ongoing clients. A good indication of this is the number of repeat clientele the Company continues to assist in their projects.
3. The process is new and is can seem intimidating.