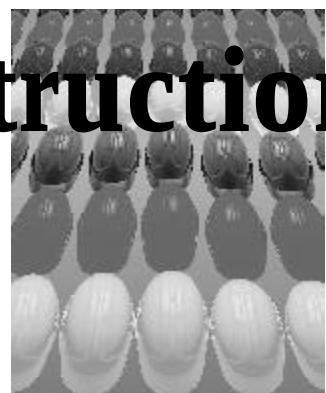


CAPITAL DEVELOPMENT BOARD



Design & Construction Manual



September 2002

MEMBERS OF THE CAPITAL DEVELOPMENT BOARD

Raymond Mota, Chairman

Dennis J. Gannon

George Fleischli

Joby H. Berman

Shirley Anderson

Mark J. Ladd

Glyn Ramage

Kim Robinson, Executive Director

CAPITAL DEVELOPMENT BOARD

3rd Floor, Wm. G. Stratton Building
401 South Spring Street
Springfield, Illinois 62706
217.782.2864
Fax No. 217.782.8625
TDD No. 217.524.4449

CAPITAL DEVELOPMENT BOARD

Suite 14-600, James R. Thompson Ctr.
100 West Randolph Street
Chicago, Illinois 60601
312.814.6000
Fax No. 312.814.2041

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Introduction

Welcome to the 2002 edition of CDB's design and construction guide for architects and engineers.

While this version of the A/E contract documents appears quite different from the versions of the past few years, little has actually changed regarding A/E duties and responsibilities. We have consolidated all detailed project phase requirements - from design through closeout - into one manual, so the A/E will have one reference to look to. The legalese, all the things that make a contract, insurance requirements, and a skeleton description of A/E duties and responsibilities are now included in the PSA. The detailed requirements of the old A/E Manual, the Project Manual Workbook, and A/E duties included in Procedures and Forms - Construction Phase are incorporated into this new Design and Construction Manual.

The purpose of this reorganization of material is to make it easier for the A/E to determine and carry out their duties and responsibilities. By combining material that was included in three different manuals into one manual, overlaps and conflicts are eliminated, the material can be organized and presented in a logical, project-related sequence, and printing, distribution, and keeping track of multiple manuals can be eliminated.

More than 95% of this DCM is compiled from the above sources - with nothing added, although many items were reordered, and some rewritten for clarification. The major change is the incorporation of design checklists for the PA/DD and 50% review stages. These checklists clarify the minimum requirements to be met before CDB will review a design document submittal at these stages. This will minimize confusion regarding what a PA/DD or 50% submittal consists of and maximize the efficiency of CDB's reviewers by ensuring that they do not waste their time reviewing incomplete submittals.

We have also highlighted the items relating to building commissioning. This is a topic which is becoming of greater importance as building systems become more and more complex and has been an area of confusion in the past. Highlighting and clarifying A/E and contractor responsibilities regarding commissioning activities will make it easier for the project team to produce building systems which satisfy the design criteria, which can be shown to be in good operating order at substantial completion, and which the Using Agency will be able to maintain properly and operate efficiently.

Article 1 BASIC INFORMATION

- 1.1 **General.** This guide has been prepared for use with the 2002 Standard Documents for Construction (SDC) and the 2002 A/E PSA.
- 1.2 **Web Site.** Most CDB documents (including this manual) are available on CDB's Internet site (www.cdb.state.il.us) in read-only format.
- 1.3 **Benchmarks.** The A/E is required to provide or obtain surveys essential to the design and construction of the project as a basic service. A/E is responsible for obtaining its own benchmarks, location of utilities and topography information for establishing building and site improvement locations.
- 1.4 **Meeting Minutes.** The A/E shall record minutes of all meetings held throughout the course of the project and distribute copies to participants and other project team members as directed by the CDB PM within seven (7) calendar days.
 - A. Orientation/Fee Negotiation
 - B. Design Submittal Review
 - C. Pre-Bid
 - D. Pre-Construction
 - E. Construction Progress/Pay
 - F. Substantial Completion
 - G. Final Acceptance
- 1.5 **Monthly Progress Reports.** The A/E shall submit monthly progress reports of design/construction activities to the CDB Project Manager. Failure to submit monthly reports may result in delay to A/E's progress payments. The report shall include:
 - A. Activities completed since last report. Items pending from last report
 - B. Projected progress
 - C. Comparison of schedule and actual progress
 - D. Decisions or information required
- 1.6 **A/E Pay Requests**
 - A. Design Phase: The A/E may submit a pay request upon completion of each phase of work as outlined on the A/E PSA. On large projects, the A/E may request to be paid on a monthly basis. In either case, the A/E must submit to the PM proof of satisfactory progress, commensurate with the payment requested.
 - B. Construction Phase: A/E may submit a pay request monthly; the amount of base fee payment is based on overall completion of project.
 - C. CAF: CAF shall be billed on the first pay request. A/E will send a check for the CAF to CDB before submitting second pay request. If CAF is increased by contract modification, A/E will bill increase in CAF on first pay request after approval of modification and send CAF check to CDB before submitting next pay request.
 - D. The pay request package shall include:
 1. Invoice-Voucher (CDB Form C-13) **completed** and signed by A/E.
 2. A/E PRB (Payment Request Breakdown form) completed based upon the terms of the PSA and updated to reflect current status. ([Appendix 1](#))

3. Back-up in the form of itemized invoices, breakdown of hours and/or work performed, etc. for reimbursable Items (testing, printing, etc.).
 - a. A/E shall provide at least two quotes from local vendors as backup for in-house printing reimbursement.
 - b. All plan deposits not returned to bidders shall be credited to the printing reimbursable account and reported with the A/E's regular pay requests.
4. On-Site Representative Summary form ([Appendix 1](#)) when payment for observation is requested. Include all on-site hours on form and indicate whether in fulfillment of basic services or on-site observation. Backup in the form of Daily Reports for each day or partial day of observation by each observer must be in PM's possession. A/E must submit verification of each observer's wage rate (DWE) by copy of a payroll checkstub or by the payroll information form.

Article 2 CODES AND STATUTORY REQUIREMENTS

- 2.1 **General.** The A/E shall comply with all State and Federal requirements governing the design of the project and this agreement.
- 2.2 **Local Codes.** It is the policy of CDB to design projects in substantial compliance with building codes formally adopted by the unit of local government in which the project is located. All requests for deviations from the local codes shall be documented by the A/E and subject to approval by CDB. When “approval by local authority” or “authority having jurisdiction” is referenced, substitute CDB for the local authority.
- 2.3 **Building Code.** Where no local code applies, the building code shall be deemed to be one of the following unless another is mutually acceptable to the using agency, CDB and the A/E.
- A. BOCA National Building Code, current edition, published by the Building Officials and Code Administrators International, Inc., 4051 West Flossmoor Road, Country Club Hills, IL, 60477, or
 - B. International Building Code, current edition, published by the International Conference of Building Officials, International Code Council, 5203 Ceesburg Pike, Suite 708, Falls Church, VA 22041-3401 (703/931-4533)
- 2.4 **Illinois Building Related Requirements.** To assist the A/E in determining which codes might be applicable to a project, the Illinois Building Commission has assembled a [Directory of Illinois Building Related Requirements](#) that lists all of the statutory requirements relative to state construction. It also includes a table of primary codes/standards/specifications for State of Illinois Building Requirements. This directory is available from the Illinois Building Commission web site (www.ibc.state.il.us) or by calling 217/557-7500.
- 2.5 **Special Statutory Requirements**
- A. The following are statutory requirements that may impact the project. This list is not exclusive. Some of these requirements are unique to State projects.
 - B. The A/E, in cooperation with CDB, shall review the project and determine if any of these statutory requirements apply. CDB will make every attempt to note these requirements in the project program or scope statements when they can be anticipated.
 - C. Major statutory requirements include:
 - 1. Life Cycle Cost Analysis
 - 2. Farmland Preservation Act
 - 3. Endangered Species Act
 - 4. Wetlands Policy Act
 - 5. Historic Preservation Act
 - 6. Archeological and Paleontological Resources Protection Act
 - 7. Steel Products Procurement Act
 - 8. Clean Water Act
 - D. Refer to [Appendix 2](#) for a more complete description of these requirements.
- 2.6 **Design Policies.** CDB has adopted certain design policies in force at the time of execution of this agreement. The A/E shall determine the policies required for the project and obtain the current policy from the PM.

- A. **Flood Plain Construction Policy.** In response to Executive Order IV (1979), CDB adopted a policy that all new construction under CDB jurisdiction must comply with the Flood Plain Regulations of the Illinois Department of Natural Resources (IDNR), Office of Water Resources. Prior to the design of a project, the A/E shall determine if the site is in a special flood hazard area. Assistance may be requested from IDNR Office of Water Resources.
 - B. **Roofing Program Policy.** CDB has a comprehensive manual including sample specifications and a list of acceptable manufacturers that must be utilized for all projects which include new roofs, re-roofing, or modifications, including penetrations, of existing roofs. The policy manual addresses single and multi-ply membrane roofing, metal roofing and decking, and pre-engineered metal buildings. The manual is available on CDB's website or you may request a copy from your PM.
 - C. **Asbestos Abatement and other Hazardous Pollutants.** A comprehensive manual (Project Manual Workbook for Asbestos, Lead, UST and PCB) including sample specifications, estimating worksheets and complete procedures required for inspection, sampling, operations and maintenance plans, abatement design and design review procedures, and complete bidding and construction phase procedures is available on our website.
 - D. **Energy Policy Act.** Projects shall be designed in conformance with the Federal Energy Policy Act of 1992 (EPAC) which mandates compliance with ASHRAE 90.1-current edition. A statement indicating compliance with the Federal Energy Policy Act and ASHRAE 90.1-current edition should be submitted with the design development submittal.
 - E. **Prohibited Products Policy.** The following products are prohibited from use on all CDB projects:
 - 1. Asbestos and asbestos containing material. (ACM)
 - 2. Fire retardant treated (FRT) wood products in structural applications.
 - 3. Chlorofluorocarbons (CFC).
 - 4. Polychlorinated Biphenyl (PCB)
 - 5. Lead Based Coatings
 - 6. Fire suppression systems using ozone depleting halons
- 2.7 **Permits.** A/E shall design to the standards necessary to receive permits from state and federal agencies having jurisdiction over any aspect of the project (EPA, IEPA, IDNR, Corps of Engineers, etc.) and is responsible to submit for and obtain such permits.
- 2.8 **Federally Funded Projects.** Certain projects may be funded in full or in part with federal funds which may have specific restrictions. On federally funded projects, standards of the federal agency may supplement or take precedence. Special requirements for individual projects will be provided by the CDB PM.

Article 3 DESIGN GUIDELINES

- 3.1 **Division of the Work.** The A/E shall divide the work into distinct trade contracts as required by CDB and in accordance with the Illinois Procurement Code. This division shall be clear, concise and comprehensive. All work must be explicitly assigned to a particular trade contract. The A/E shall not include any clause or provision in the contract documents that attempts to assign any of the work by common trade practice, by indirect linkage, etc.
- A. If the estimated value of the construction work exceeds \$250,000, the work must be divided into at least five trade contracts. They are:
 - 1. General
 - 2. Plumbing
 - 3. Heating
 - 4. Ventilation
 - 5. Electrical
 - B. Below the \$250,000 level, the work may be bid as one or more contracts as approved by the PM.
 - C. If the A/E estimate for an individual trade is less than \$30,000 adjusted 4% annually for inflation (as of July 1, 2002: \$33,745.00), that trade's work may be combined with another trade. The A/E shall discuss with and obtain concurrence from the CDB PM before combining trades in the bidding documents.
 - D. Do not reference a "mechanical contractor." Refer specifically to the individual Heating, Ventilating, Plumbing or Sprinkler contractors.
 - E. The required five trade contracts may be expanded as appropriate for the project. The A/E shall confer with the PM for the appropriate contract trade designations. Some examples of additional designations are:
 - 1. General/Roofing
 - 2. General/Paving
 - 3. Asbestos Abatement
 - 4. Sprinkler
 - 5. Test and Balance
 - 6. Temperature Control/Building Automation
 - 7. Electrical/Communications
 - F. Project Manual. The trade contracts and the work assigned to each shall be described in Paragraph 1.1 of each specification section.
 - G. Drawings. An appropriate letter identification (as described in [Article 9](#)) shall be used on the drawings to designate separate contracts within the project.
 - 1. 'M' **shall not** be used as a drawing letter identification.
 - 2. If work of a trade other than that indicated by the drawing letter designation is depicted on a drawing, that work must be clearly noted and distinguished from the other work on the drawing
- 3.2 **Competitive Product Selection.** It is the responsibility of the A/E to select and specify products. The A/E shall write specifications that are explicit, realistic, and non-restrictive.

- A. Products shall be specified by manufacturer and model number with a minimum of three manufacturers named who make comparable products. When available, specifications shall include Illinois manufacturers. A/E may include more than three manufacturers if all products are considered to be of equal quality.
- B. The A/E may request approval from CDB to prepare a performance specification for a specific material or equipment item when that product or system can be specified by reference to commonly accepted standards such as ASTM, IEEE, NEMA, etc. Performance specifications are allowable only on commodity-type products with multiple manufacturers producing similar items, such as lumber, structural steel members, piping, etc..
- C. The use of the phrases "or approved equal", "similar products manufactured by...", and "equal products manufactured by..." or any similar phrase in the bidding documents is prohibited.
- D. Only those products named in the bidding documents or approved by written change order shall be approved for installation, and the language shall so state. Do not use the phrase "includes, but is not limited to" the following products or manufacturers.
- E. Products or systems cannot be sole or dual sourced unless the A/E receives written approval from CDB to specify less than three sources.
 - 1. Requests for single or dual sourcing may be initiated by the A/E or the using agency and shall be in writing, addressed to the PM. A/E shall review and make recommendations to CDB on any using agency requests.
 - 2. Each request shall include justification for the request, including a cost/benefit analysis that establishes that the product or system is economically procurable from only one manufacturer and a comparison of the value of the sole (or dual) sourced item(s) to the total value of the project..
 - 3. Approvals will not be given for aesthetic desirability alone.
 - 4. A request must be made for each product for each project even if CDB has approved a similar request in the past.
 - 5. Where sole sourcing has been approved by CDB for use in the bidding documents because it is meant to be restrictive, the language shall state that no substitutions will be acceptable.

3.3 **Specified Contractors.** The A/E shall not specify a restrictive list of acceptable contractors or subcontractors for furnishing and installation of any component or system without the written approval of the CDB Regional Manager. Although the A/E may have determined that their equipment is acceptable, the firm may not be a responsible contractor. Determination of contractor responsibility is the province of CDB. The A/E shall submit a written request to the PM indicating the system or component of the work for which the A/E desires to specify a list of furnishing and installing contractors. This request shall indicate the justification for specifying the installing firms in addition to the equipment desired. The specification language must state that all the specified contractors must be or become pre-qualified with CDB (whether they will be subcontractors or prime contractors). CDB may direct the A/E to publicly solicit additional qualified firms.

3.4 **Project Construction Duration.** A/E shall determine the construction duration based on complexity of the design, site availability, material procurement duration, season of construction start and end,

needs of the using agency, and any other relevant circumstances. When requested by CDB PM, A/E shall provide written evidence to support their estimate of the construction duration.

- 3.5 **Sequence of Construction.** A/E shall recommend a sequence of construction for all unusual conditions, such as rehabilitation of existing structures, underpinning of existing foundation, constructing openings through an existing wall or floors, etc.

3.6 **Civil**

- A. Any project site larger than one acre with on-going activity as of March 8, 2003, must have a storm water discharge permit under NPDES. A/E shall follow IEPA guidelines including SWPPP and NOI. Additional information is available in [Appendix 2](#).
- B. The A/E shall use IDOT Standard Specifications for Road and Bridge Construction including Supplemental Specifications and Recurring Special Provisions for site work including roads, bridges and miscellaneous concrete. Provide reference to appropriate articles when applicable and include a statement under Quality Assurance in each relevant specification section which deletes reference to the Method of Measurement and Basis of Payment and changes the term "Engineer" to "Architect/Engineer".
- C. The A/E may use the latest edition of Illinois Society of Professional Engineers (ISPE) Standard Specifications for Water and Sewer Main Construction in Illinois for preparing water and sewer specifications. Provide reference to appropriate sections as applicable. Copies of the latest edition are available from ISPE, 1304 S. Lowell, Springfield, IL, 62704.
- D. Comply with local regulations for storm water piping or retention. Notify CDB at program analysis if there is an absence of local governing agency criteria.
- E. Parking lots shall be designed to accommodate a minimum five-year storm.
- F. Buildings shall be protected from the effects of a 100-year storm.
- G. New grading plan shall consider adequate site drainage including building and paved areas, and shall consider erosion and sediment control.
- H. The compaction requirements and bearing limits of soils and fill material shall be based on the recommendation of the soils consultant or structural engineer.
- I. Only ACI Standards shall be specified in Division 3 "Concrete" specifications, except as otherwise approved for IDOT projects, which shall be governed by IDOT's Standard Specifications and Design Manual for concrete as noted in [Article 3.6 B above](#).
- J. Fire hydrants shall be located within 10 feet of a road or a fire lane and at least 50 feet from the building. Any point on the perimeter of any building shall be covered with a maximum hose length of 300 feet.

3.7 **Architectural**

- A. Include building expansion and control joints at intervals determined by the design criteria and the shape of the building, but not to exceed 200 feet. Provide complete expansion joints between existing and new structures.
- B. All masonry shall be designed in accord with building code requirements for masonry structures (ACI 530) and standards set forth by the Brick Industry Association (BIA) technical notes.

- C. When project design includes brick veneer with steel studs, the A/E shall calculate location of dewpoint within the wall, and verify that dewpoint falls within the cavity or brick veneer. A/E shall submit calculations to CDB for review with the PA/PD submittal.

3.8 Structural

- A. Design for optimum use of materials. Plastic design or load and resistance factor design in steel and ultimate strength design in concrete construction shall be considered for more economical and efficient use of materials.
- B. State buildings which are administrative, (National Guard armories, State Police headquarters, Emergency Operation facilities) residential, (hospitals, skilled care), or institutional facilities (K-12 schools, prisons, mental health centers) shall be considered essential facilities for assignment of importance factors.
- C. Seismic design requirements.
 - 1. A/E may use either International Building Code or BOCA standards
 - a. In accordance with the International Code Council 2000 International Building Code, use the Maximum Considered Earthquake (MCE) Ground Motion maps Figures 1615(1) and 1615(2) to determine the Mapped S_s and S_1 values and follow code procedure.
 - b. In accordance with the BOCA NBC 1999 edition, use the Contour Maps of Effective Peak Velocity-Related Acceleration Coefficient values (A_v) and Effective Peak Acceleration Coefficient values (A_a) (Figures 16121.3(1) and (2)) and follow code procedures.
 - c. A/E will verify project location within the county and will be conservative using linear interpolation for S_s and S_1 or A_v and A_a values.
 - 2. Seismic design criteria will be included with the submittal for the Design Development phase.
 - 3. The A/E will ensure the seismic performance Seismic Use Group, the Maximum Considered Earthquake Ground Motion, the Site Class and Coefficient, and the Seismic Design Category are added to the structural notes on the drawings.
- D. Snow load design requirements. In accord with the applicable building codes; with the following modifications: Roofs for new buildings shall be designed to support a snow load using a Ground Snow Load Factor P_g of 30 psf in Northern Illinois (Peoria and north), 25 psf in Central Illinois (south of Peoria through Carbondale), and 20 psf in Southern Illinois (south of Carbondale).
- E. Applicable Codes and Standards:
 - 1. Building Code Requirements for Reinforced Concrete - ACI 318.
 - 2. Specifications for Structural Steel for Buildings - AISC.
 - a. Allowable Stress Design and Plastic Design.
 - b. Load and Resistance Factor Design.
 - 3. Specifications for the Design of Light Gauge Cold-Formed Steel Structural Members - AISI, Cold-Formed Steel Design Manual.
 - 4. Structural Welding Code AWS.
 - 5. Steel, AWS D1.1.
 - 6. Sheet Steel, AWS D1.3.

7. National Design Specification for wood construction, and Supplemental Design Values for Wood Construction, NFPA.
8. Specifications for the Design and Construction of Load-Bearing Concrete Masonry - NCMA.
9. Recommended Practice for Engineered Brick Masonry - BIA.
10. Metal Building Systems-Metal Building Mfg. Association.
11. Code of Recommended Standard Practice for Composite Deck, Form Deck, and Roof Deck Construction - SDI Design Manual
12. Standard Specification for Steel Joists, Including Load and Weight Tables, SJI
 - a. Open Web-Type K Series.
 - b. Longspan and Deep Long Span-Type LH and DLH Series.
 - c. Joist Girders.
13. When project design includes pre-cast concrete, the A/E shall include the Precast/Prestressed Concrete Institute Plant Certification Program in the appropriate sections of the specifications.

3.9 **Plumbing**

- A. Specify dielectric insulating unions between all dissimilar metals.
- B. Specify insulation thickness per Table 5.1 of ASHRAE 90.
- C. Underslab plumbing drain and waste lines shall be 4" diameter minimum. Plastic pipe under slabs and in inaccessible areas shall be permitted where permitted by local code, providing CDB and the using agency consent to use of plastic pipe.
- D. The use of pipe heat tracing systems in lieu of pumped recirculation systems must be approved by CDB.
- E. Design roof drains in accordance with requirements of the locally adopted code. Built-in gutters are subject to approval by CDB.
- F. Place rooftop piping and conduit on factory fabricated pipe supports.
- G. Sprinkler Systems shall be designed in compliance with NFPA 13.
 1. The water line and water hydrants outside the building and entering the building including the backflow preventer is plumbing work. Sprinkler work begins at the outlet of the backflow preventer.
 2. Design sprinkler work as a separate bid where it is a major portion of a project. When specifying matching fire protection components, include cabinet, hose, extinguisher, etc. in the general contract.
- H. Testing and balancing should be specified as part of the plumbing contractor's work.

3.10 **Heating**

- A. Refrigerants/Halons.
 1. The use of chlorofluorocarbon (CFC) refrigerants is not permitted in new cooling/refrigeration equipment.
 2. CFC alternates such as HCFCs and HFCs are scheduled to be phased out in the future. Specifications should be written for the refrigerant offering the best life cycle cost commensurate with engineering judgement as to industry trends.

- B. Specify dielectric insulating unions between all dissimilar metals.
- C. Specify insulation thickness per Table 5.1 of ASHRAE 90.
- D. The use of pipe heat tracing systems in lieu of pumped recirculating systems must be approved by CDB.
- E. HVAC temperature controls should provide energy-efficient operation where possible (i.e., demand type economizers, night setback, non-simultaneous heating and cooling, low leakage outdoor air dampers, etc.)
- F. Building automation systems shall use 'open' communication protocols such as ASHRAE standard 135.
- G. Mount rooftop equipment on a curb or on supports that provide a minimum of 24" clearance above the roof. Avoid interior angles to facilitate flashing.
- H. Place rooftop piping and conduit on factory fabricated pipe supports.
- I. Testing and balancing may be specified as part of the contractor's work or as a separate contract.

3.11 Ventilation

- A. Specify insulation thickness per Table 5.1 of ASHRAE 90.
- B. Ductwork:
 - 1. Underfloor duct systems must be approved in writing by CDB. Request shall include groundwater evaluation, water table location, and a description of the engineering controls necessary to prevent moisture from entering the system.
 - 2. Fiberboard ductwork shall not be specified.
 - 3. Reference SMACNA duct gauges for all ductwork.
- C. HVAC temperature controls should provide energy-efficient operation where possible (i.e., demand type economizers, night setback, non-simultaneous heating and cooling, low leakage outdoor air dampers, etc.)
- D. Mount rooftop equipment on a curb or on supports that provide a minimum of 24" clearance above the roof. Avoid interior angles to facilitate flashing.
- E. Place rooftop piping and conduit on factory fabricated pipe supports.
- F. Testing and balancing may be specified as part of the contractor's work or as a separate contract.

3.12 Electrical.

- A. Comply with NFPA 70 latest edition.
- B. A/E to provide specifications that are applicable to the project, having the correct voltage, circuit elements, products, and wiring methods for the particular work at hand. Specifications that do not apply to the particular project shall not be included.

- C. A/E shall perform the load analysis calculations necessary to determine service size, panel and transformer capacities, available fault currents and voltage drop, a coordination study, and size equipment accordingly. Calculations will be made available to CDB upon request.
- D. Transient voltage surge suppression shall be provided in the main disconnect in all buildings. Additional transient protection shall be provided for sensitive electronic equipment.
- E. The effects of harmonics shall be evaluated and appropriate design methods shall be utilized to minimize their effects. Overdesigning the distribution system as standard practice without evaluating the harmonics shall not be done.
- F. Illumination levels listed in the I.E.S. Lighting Handbook shall be used.
- G. Select service voltages to minimize energy losses. The use of 480Y/277 volt system is encouraged for all ballast lighting and power with reduction to 208/120 for general receptacles and incandescent lighting.
- H. Use energy efficient ballasts, lamps, reflectors and refractors. The use of electronic ballasts and T-8 lamps for energy efficiency is encouraged. Where suitable, use of specular or semi-specular reflectors should be considered. When rehabilitating existing fixtures the use of replacement specular reflectors may be considered in addition to ballast and lamp replacement. When specifying electronic ballasts include:
 - 1. minimum power factor of 0.99
 - 2. less than 10 percent total harmonic distortion
 - 3. less than 6 percent third harmonic distortion
 - 4. five (5) year manufacturer's warranty
 - 5. compliance with ANSI spec
 - 6. no polychlorinated biphenyls (PCB's)
- I. Telecommunications Equipment.
 - 1. Telecommunications or radio equipment for State facilities generally falls under the jurisdiction of the Division of Telecommunications, Department of Central Management Services.
 - 2. Consult with the telephone company to establish network point of presence (NET POP) at the building (for a single building facility) or at a common distribution point for a multi-building complex.
 - 3. Consult with PM early in design to determine if telephone system beyond NET POP will be provided by using agency, CMS, or as part of project. The PM will instruct the A/E when/where outlets, conduits, wiring, etc. are to be included in the CDB project.
- J. Define switching methods employed for lighting, motor control, and other systems.
- K. Cable Testing.
 - 1. When high voltage cable testing is required, specify that it shall be performed by a firm employed by the A/E with the contractor assisting.
 - 2. Properly identify the phase conductors tested in all test records.

- 3. If during the testing, a fault in the cable, splice, termination, etc., is apparent, the fault shall be cleared, necessary repairs or replacement made, and the cable retested.
 - L. Spares should not exceed 10 percent of poles used.
- 3.13 **Alternate Bids.** The A/E shall prepare the bidding documents to include all elements of the work. When the total scope clearly exceeds the design budget, the A/E shall evaluate the components of the design, in conjunction with CDB and the Using Agency, and move any portion not essential to the function of the project to an alternate bid.
- A. Alternate bids may not be included in the project without prior approval of the PM.
 - B. Alternate bids are intended to complete the original scope of work.
 - C. Alternate bids shall be developed in manageable dollar values. No more than three alternates shall be developed unless approved by CDB.
 - D. Alternates must be clearly defined by trade and work item in the specifications and on the drawings.
 - E. All alternate bids shall be clearly identified on the Proposed Project Cost Budget form.
- 3.14 **Unit Prices.**
- A. The use of unit prices is discouraged.
 - B. CDB must approve the use of unit prices in any construction contract.
 - C. When unit prices are used, it is preferable that they be extended to, and included in, the contractor's base bid. (Note: If a unit price is rejected, the project must be rebid.)
 - D. Only in extreme cases may unit prices be utilized that are not included in the base bid. The A/E must write a letter justifying why the unit prices should not be included in the base bid.
 - E. Unit price estimates shall include overhead, profit and all relevant costs within the unit price.

Article 4 PROJECT BUDGET AND ESTIMATING

- 4.1 **General.** Estimating is an integral part of the design process. No design, or phase of design, is complete without the related detailed estimate.
- 4.2 **Construction Budget.** The construction budget is the balance of funds available for construction after subtracting the value of the A/E's contract and any miscellaneous items (such as Art-in Architecture or moveable equipment) required by state statute or CDB policy from the total project budget.
- 4.3 **Design Budget.** The design budget is set at 90% of the construction budget; ten percent of the construction budget shall be set aside for the project contingency. The A/E shall make all requests to exceed the 90 percent threshold in writing to the PM and include appropriate documentation, including a detailed estimate. Evaluation of such request shall be at the Regional Manager level and the A/E shall be notified in writing of the result.
- 4.4 **Proposed Project Cost Budget Form.** The A/E shall use the Proposed Project Cost Budget form (PPCB), [Appendix 3](#), to show the distribution of the project costs. The PM shall furnish the A/E any miscellaneous costs deducted from the project budget for inclusion on this form. This form is to be used as a summary of project costs and updated and submitted with each design review phase. This form does not satisfy the requirement of a detailed construction cost estimate as described herein.
- 4.5 **Construction Administration Fee (CAF).** The CAF is required for **each** construction contract. The CAF shall be computed as set forth in the CDB PPCB form as one and one half percent (1.5%) of the base bid estimate plus all the alternate estimates rounded **up** to the next hundred dollars.
- 4.6 **Estimates.** Estimates of probable construction costs shall be prepared at each stage of the project design phase. The A/E shall submit these estimates with each review submittal. These estimates shall be prepared in greater detail as the design progresses.
- A. At program analysis, the estimate may be presented as scope items and their anticipated cost. Parameter based estimating is acceptable at this phase. For example:
- | | |
|-------------------------------|---------------------|
| Install fire detection system | \$5.00 per bldg gsf |
| Replace bituminous paving | \$15.00 per sy |
- B. At the intermediate phases of the design, estimates can be based on components of the work. Components costs as illustrated in R.S. MEANS Square Foot Costs or Assemblies Cost Data manuals is the level of detail required at these stages of design development. For example:
- | | |
|----------------------------------|-----------------------|
| Roofing, built-up tar and gravel | \$1.65 per sf of roof |
| 2-1/2 inch bituminous overlay | \$4.50 per sy paving |
| 6 inch aggregate base | \$8.75 per sy paving |
- C. At the 100% design review, the estimate shall be fully itemized and detailed at a level equal to R.S. MEANS Construction Cost manual. The costs as reported by R.S. MEANS are not endorsed by CDB and are used only as an example.
- D. When project design stages are combined, the A/E shall provide the more detailed estimate level of the combined stages.
- E. At every stage, include CAF and 10% contingency in the budget estimate.

Article 5 PROGRAM ANALYSIS, AND DESIGN DEVELOPMENT PHASE

5.1 Project Scope.

- A. For projects with a simple or well-defined scope CDB will supply a project scope statement containing background and justification for the project and quantification of work items contained in the project.
- B. For new construction and major rehabilitation projects, CDB may provide a program statement describing proposed program activities, space requirements, and equipment needs.
 - 1. When a movable equipment line item is included in the budget, the responsibility for specifying, purchase and installation is that of the using agency and/or the Department of Central Management Services.
 - 2. The A/E shall cooperate by providing the using agency with the dimensional, color, finish, etc. information necessary to specify any equipment not included in the CDB project.
- C. The A/E will utilize this information as the basis of their design effort.

5.2 CDB Review Checklist. A "CDB Review Checklist" will be provided to the A/E identifying specific review requirements for Program Analysis, Design Development and Bidding Document submittals.

- A. A/E and CDB PM together will determine the relevant sections of the checklist to be completed for the project.
- B. A/E will submit the appropriate checklist with each submittal.
- C. A/E will review submittal and checklist and mark each item on the checklist either included or not relevant to project.
- D. Copies of the checklists are included in [Appendix 4](#).

5.3 Program Analysis Phase.

- A. Review and coordinate the data contained in the project scope statement, consult with designated representatives of CDB and the using agency when required and visit the project site to obtain a thorough understanding of the existing conditions and the project.
- B. Provide a program analysis report containing the coordinated project scope supplemented by all other information necessary to form a complete basis for the project design, including field verification of any information provided by CDB and the Using Agency.
- C. Requirements for the program analysis submittal vary with the scope of the project, but generally include the following:
 - 1. Narratives and diagrams required to show all program functions, off-site elements, and their relationships. Provide flow diagrams showing the movement of persons (visitors, staff and residents) and traffic when appropriate.
 - 2. Space itemization including: function and size (show as net assignable sq. ft./area), number and classification of occupants, type and quantity of fixed and movable equipment (noting required utilities), special environmental and/or system requirements.

3. Total of all program areas including a percentage allowance for circulation, mechanical and maintenance functions.
 4. Code analysis report indicating all regulatory agencies, permits, building codes, and standards that apply to the project. Include in this report an action checklist indicating all required regulatory agencies reviews and permits.
 5. For renovation projects, A/E shall provide a statement of the status of asbestos inspections and/or abatement. The A/E shall review the asbestos inspection report and/or management plan, where available. Provide a listing of the type and quantity of materials tested positive that will be disturbed. Note also any materials listed as “assumed” to be positive for containing asbestos and indicate the quantity of samples proposed to be taken and sampled to verify the assumed condition. CDB Form 9 as provided in the CDB Manual for Statewide Asbestos Surveys (most current edition) is an acceptable format for this purpose.
 6. Opinion of probable construction costs including asbestos abatement in scope itemization format per [Article 4.6 A](#) and the PPCB form.
 7. Estimated duration of project construction schedule including asbestos abatement.
 8. Completed Program Analysis checklist.
- D. Resolve, in consultation with CDB and the using agency, any discrepancies in the project scope or budget prior to proceeding to the next design phase.

5.4 Schematic Design

- A. When provided for in Appendix A to the agreement, A/E shall prepare up to three design studies for review and consideration by CDB and the Using Agency, either as part of Program Analysis or as a separate phase.
- B. Design studies may include written alternatives, drawings, or other documents as appropriate. Drawings can be sketch format, single line drawings or other as appropriate to illustrate basic information. Submittal shall include written analysis of the advantages and disadvantages of each alternative
- C. Provide PPCB form and cost estimates for each schematic design study in project component format per [Article 4.6 B](#).
- D. Design Development will be based on the alternative accepted by CDB and the User, as modified by their comments during the review process.

5.5 Design Development Phase.

- A. Prepare design development submittal based on the program analysis (and accepted schematic design). Submittal shall illustrate the resolution of all building and site elements. Fix and illustrate the scope, scale and relationship of the project components for structural, mechanical and electrical systems. Identify materials and specify performance characteristics and quality standards.
- B. Requirements for the design development submittal vary with the scope of the project, but generally include the following:

1. Project Manual:
 - a. Table of Contents.
 - b. Section 01010.
 - c. Specification section outlines for each major project component.
 2. Site Plan. Locate each building, existing and finished contours, ground floor elevations, roads, walks, parking areas, utilities (existing, new and relocated), other site construction, and limits of the contract. (Coordinate any proposed interruptions to services, roads, etc. with the using agency.)
 3. Estimate of probable construction cost per [Article 4.6 B](#) and a PPCB form.
 4. Current project schedule.
 5. Life Cycle Cost Analysis for each alternative energy system (as outlined at the Orientation meeting).
 6. A statement indicating compliance with the Federal Energy Policy Act and ASHRAE 90.1-current edition.
 7. An area analysis tabulation comparing the net and gross square footage with those provided in the Program Analysis Phase.
 8. Floor Plans. Identify room numbers, names, and mechanical spaces.
 9. All elevations showing finishes, window and door styles, etc.
 10. Vertical building sections.
 11. Location and type of primary structural members.
 12. Utility service requirements, including temporary service.
 13. Basic plumbing layouts and fixtures.
 14. Basic HVAC systems and their major components.
 15. Basic layouts of lighting, power, fire alarm, emergency lighting, exit signs, and communication systems.
 16. Fixed equipment in tabular form with utility connection requirements noted.
 17. Identify areas requiring acoustical treatment.
 18. Model or rendering if included in the agreement.
 19. Completed Design Development checklist.
- C. A/E shall not proceed beyond design development phase until provided with a written statement properly endorsed by CDB and the using agency signifying acceptance of the proposed design. Acceptance statement shall include all agreed upon revisions to the design submitted.

Article 6 BIDDING DOCUMENT PREPARATION

- 6.1 **General.** The A/E shall prepare the bidding documents (Project Manual, Drawings and Addenda) based on the accepted design development submittal in conformance with the Illinois Procurement Code and CDB Rules and Regulations.
- 6.2 **Application of Professional Seals.** Bidding documents shall contain a legible seal, signature, date and license expiration date of the architect, structural engineer and/or professional engineer responsible for the document or under whose supervision the document was prepared.
- A. Each sheet of the drawings shall be sealed in the manner prescribed above.
 - B. Project manuals shall be sealed by the design professional responsible for the overall coordination of the project. If more than one design professional has responsibility for portions of the work, additional seals may be provided on the cover or on a separate signature sheet immediately following the table of contents.
 - C. CDB will waive the requirement for professional seal for asbestos abatement projects prepared by a Certified Industrial Hygienist (CIH), providing the CIH binds a copy of its valid IDPH issued license in the Project Manual immediately after the Table of Contents and provides two additional copies of the license to the CDB PM.
- 6.3 **Design Firm Registration Number.** IDPR now requires that all technical submissions prepared by a design firm contain the design firm registration number. This number shall be placed under the firm name on the cover of the project manual and on each sheet of the drawings.
- 6.4 **Permits.** A/E shall apply for any required state or federal (IEPA, IDNR, Corps of Engineers, MWRD, etc.) permits. As stated in [Article 2.7](#) , A/E must comply with all regulations of state and federal agencies necessary to obtain such permits. It is the A/E's responsibility to ensure that such permits are received in a timely fashion so as not to delay construction.
- 1. When specifically directed by CDB, the A/E shall provide the local authority (or authorities, where more than one local authority has jurisdiction) with sufficient design documents as it may require for purposes of review and/or issuance of permits.
 - 2. A/E shall provide CDB with all review correction notices or comments issued by the local authority. When directed by CDB, A/E shall make corrections to the documents and resubmit to the local authority for review and/or issuance of permits.
- 6.5 **Reviews.**
- A. The PM will schedule design review submittals and/or review meetings required by the agreement.
 - B. Documents shall be submitted for review to CDB and the Using Agency at the stages of completion (25%, 50% and/or 75%) set forth in Appendix A of the agreement and at final completion (100%). The A/E shall provide up to ten (10) sets of review documents for CDB and using agency for each review.
 - C. Each submittal will contain (at a minimum), the Project Manual, Drawings, detailed cost estimate and PPCB form. When an in-progress review is required by the agreement, the A/E shall include with the submittal package a "CDB Review Checklist" suitably marked by the A/E as to the topics to be reviewed per [Article 5.2](#) .

- D. The review of documents by CDB does not constitute a complete and exhaustive review. CDB reviews the documents for general compliance with the program objectives, design standards, contract requirements and budget. CDB may also review for cost effective design, energy conservation, competitive bidding procedures, operating and maintenance costs, and general compliance with applicable codes, rules and regulations. CDB's acceptance of the documents does not relieve the A/E of its responsibilities as a design professional.
- E. The using agency may review the documents for compliance with scope and design intent.
- F. Review comments prepared by CDB, the using agency and/or regulatory agencies will be provided to the A/E at or prior to the review meetings. When a meeting is not required, comments will be transmitted to the A/E by the PM.
- G. CDB will, in writing or at the review meeting, provide notice of the acceptance of the review documents or issue instructions regarding required resubmittal. If the required corrections are minor, CDB may conditionally accept and authorize the A/E to proceed to the next review phase. When documents are not accepted or conditionally accepted, a resubmittal will be required. In this instance, the A/E shall repeat the review stage (including another review meeting) at no additional compensation. A/E may not be paid for completion of a design stage until the majority of the design document submittal for that stage has been accepted by the reviewers.
- H. A/E shall insure that all key design staff and consultants attend the review meeting(s).
- I. Following the reviews, the A/E shall:
 - 1. Prepare meeting minutes indicating issues discussed/resolved.
 - 2. Provide CDB with a written response to all review comments and questions within 14 calendar days.
- J. The 100 percent bidding documents submittal will include the final code analysis/regulatory review action checklist, copies of all permits and approvals, proposed list of critical work (below), explanation of factors used in determining specified construction duration and executed utility agreements, as applicable.
 - 1. A/E shall compile a list of work they have determined to be critical and submit it for CDB and using agency review at the 100% completion stage of design. The submittal shall include justification of the need for on-site representation, the A/E staff responsible for observing the work and an estimate of the duration/frequency of the observation with the resulting cost and overall impact on the on-site representation budget. The CDB, A/E and using agency will reach consensus regarding the critical work list items.
 - 2. Utility agreements are contracts between CDB and a utility company for the installation or relocation of utility service facilities in conjunction with a CDB project to be maintained by either the utility company or the customer (using agency). The A/E shall review such agreements to determine that the required utility service/equipment has been provided for the project and shall include the associated costs in the summary of proposed project costs.
- K. A/E shall also submit 100% Project Manual to CDB's FEP section for review.

6.6 Project Manual.

- A. Specifications shall be written as directions to the contractor.
- B. Soil boring logs must be provided in the Project Manual or on the drawings.
- C. CDB has prepared draft specification sections for the A/E's use on selected project types such as roofing and pre-engineered buildings. Please contact your project manager for the current versions of these specifications if required for your project.
- D. Except as otherwise noted in [Appendix 7](#), provision of spare parts and/or maintenance services shall not be included in the bidding documents.
- E. Specify all tests required for all systems and devices to be tested. Where required, testing procedure shall also be specified.
- F. The A/E shall ensure that each contractor is required by the contract documents to provide sufficient training of the using agency's designated personnel prior to substantial completion.
- G. Any warranties requested beyond two years for HVAC equipment, roof systems, carpet, etc. should be clearly specified by the A/E as warranties from the manufacturer. It is the A/E's responsibility to verify that such warranties are available and to include them in the appropriate Project Manual section. See current Standard Documents for Construction for limitations.
- H. Refer to the PMW for Asbestos, Lead, UST and PCB for procedures and sample specifications when abatement of hazardous materials is required for the project.

6.7 Drawings.

- A. Bid and project record drawings must be submitted to CDB on compact disk (CD), using AutoCad version 14 or later. When using another CAD product, ensure that all drawings and support files convert fully to AutoCad.
- B. The title block and all related information shall appear on each sheet. Standard sheet size 30" x 42" maximum - 24" x 36" minimum unless otherwise approved by CDB.
 - 1. With CDB approval, the complete project or selected details may be prepared on 8 ½" x 11", or 11" x 17" (folded to 8 ½" x 11") paper and bound into the Project Manual.
 - 2. Drawings bound into the Project Manual shall be noted as such in section 00860 and shall be located after the last technical specification section.
 - 3. All drawings shall comply with the requirements of this section. When bound into the Project Manual, a cover sheet is not required.
- C. Minimum scales of drawings, unless approved otherwise by the PM, shall be:
 - 1. Site Plan 1" = 30'
 - 2. Floor and Roof Plan 1/8" = 1'0"
 - 3. Temperature Control 1/16" = 1'0" (Schematics, not to scale, may be acceptable)
- D. All sheets shall contain a graphic scale and a north arrow. North shall be consistent between all sheets.

- E. Minimum acceptable lettering size is 1/8 inch adequately spaced and legible.
- F. Line weights and other techniques shall be used appropriately to clearly communicate the work required and to delineate new work from existing conditions.
- G. Match lines shall be used to identify portions of buildings or sites shown on separate sheets. Match lines shall be consistent throughout drawing set.
- H. Other Drawing Requirements:
 - 1. All floor plans and partial floor plans shall show consistent column grid line indications, room names and numbers and shall be to the same scale. Building elevations and sections shall also indicate column grid lines. Larger scale plans of special areas such as toilets (including elevations), lecture rooms, stairs, kitchens, shall be provided as necessary to show details of the work.
 - 2. The elevation of the finished floor shall be indicated under the title for each floor level (all disciplines).
 - 3. All details shown on drawings shall be applicable to the project. Details shall be drawn to scale.
 - 4. Designation for sections, details, etc. shall denote detail and sheet number on which it is cut and sheet number on which it is detailed.
 - 5. Items shown on the drawings that are not a part of the contract shall be labeled as NIC (not in contract).
 - 6. Assign a number or name to all buildings, rooms, corridors, etc. for reference purposes. Ensure that they are identical for all drawings. Names are preferred if they do not cause drawing congestion.
 - 7. Clearly identify and define all work involved in alternate bids, removals, abandonment, or other activities associated with the project.
 - 8. A key plan in the lower right-hand corner of the drawing shall be used to locate a building, a portion of a building or portion of a site in relation to the larger unit.
 - 9. All work shown is assumed to be new unless stated otherwise. Do not use the word "Proposed" on contract drawings when referring to required work. Existing items pertinent to the project may be marked as "existing" to avoid confusion with new work. Future work shall be shown only where necessary to coordinate with current project and shall always be noted as "NIC".
 - 10. Show all known asbestos-containing material (ACM) locations where the contractors' activities could accidentally damage the ACM. Include a note stating that this material is known or assumed to contain asbestos and the workmen should exercise extreme caution to avoid damaging the material and that any accidental damage should be immediately reported to the A/E and coordinating contractor (when applicable), and/or the facilities asbestos designated person for proper cleanup and/or repairs.
- I. All drawings shall be labeled for the appropriate division of work as set forth in [Article 9](#).

Article 7 **PREPARATION OF Division 0 and 1 SECTIONS**

- 7.1 **Cover.** The project manual cover shall correspond to the sample cover in [Appendix 5](#). Professional seals and signatures shall comply with the current requirements of the various professional practice acts. Other notes or certifications required by authorities having jurisdiction shall also be shown. List CDB building numbers for buildings affected by the project.
- 7.2 **TOC Table of Contents.** See sample in [Appendix 5](#). The numbering of sections or schedules through division 1 is at variance with the latest CSI Master Format. CDB will continue to use the older numbers and titles for the present but may change them in future issues. For spec sections in divisions 2 through 16 the A/E is encouraged to use the latest CSI Master Format numbering.
- 7.3 **00030 Advertisement for Bids.** The A/E shall prepare the advertisement for bids and submit it to the project manager at least six weeks before the proposed bid opening date.
- 7.4 **Bid Forms.** Documents 00300 through 00307 collectively are known as the Bid Forms or the Bid Package.
- A. **Changes.** If one or more of the forms in the bid package require a change by addendum, the A/E shall reissue a complete set of the bid package with the addendum. Each page shall be marked: "Revised per Addendum No. X". The addendum will be prepared and issued as described in [Article 10.5](#).
- B. **00300 Bid Form.**
1. The bid forms shall clearly indicate the project number and the contract trade.
2. The bid form shall make it clear that unit price work shall be included in the base bid, unless specifically approved otherwise by CDB.
3. The A/E shall list on each trade bid form **all** the alternates for the projects. If the A/E is certain that the alternate does not affect a particular trade, the A/E shall insert "not applicable" in the space for the price of that alternate for that trade. The A/E shall refer to the A/E Note contained within the prototypical section 01030 or [Article 7.10](#) for the use and numbering of alternates.
4. The certifications and bidder agreements on the bid form are not to be added to, deleted in whole or in part, or modified in any manner.
- C. **00304 Bidder's Employee Utilization Form, DHR PC-2.** This is a **required** form. CDB will forward to the A/E the appropriate completed PC-2 forms for each trade to be bid. These forms must be included in the bid package.
- D. **00305 Contract Requirements for Minority/Female Business Participation.** This form is **required** with all bids. This form shall be completed as described in [Article 7.9 M](#) below.
- E. **00306 Bid Bond Form.** Bid bonds must be submitted on CDB's bid bond form. It is the A/E's responsibility to include these forms in the bid package. These forms are available from CDB.
- F. **00307 Product Substitution Form.** This form must be included in all bid packages for the bidder's use.

- 7.5 **00320 Soil Report.** When soil reports are provided as part of the A/E services they should be inserted into the manual as part of section 00320.
- 7.6 **00814 Federal Funding.** Where projects are wholly or partially funded by the Federal Government, Section 00814 shall be included in the project manual along with all applicable federal exhibits required. See the CDB project manager for specific exhibits necessary.
- 7.7 **00825 Prevailing Wage Rates.** Applicable wage rate information may be obtained from either the CDB project manager or the DOL Website (www.state.il.us/agency/idol). The rates for the specific county(s) where the project is located shall be inserted into the project manual in section 00825.
- 7.8 **00860 Drawings, Schedules, & Details Listing.** Section 00860 of the project manual shall contain a listing of all drawings, schedules, books and details issued separately or as part of the project manual. Note that all documents shall bear the same date of issuance as the project manual.
- 7.9 **01010 Project Summary**
- A. **General.** Section 01010 not only summarizes the work associated with the project but also establishes division of the work by construction contract, sets the time duration of the construction contracts, defines bidding requirements, and specifies any special general condition requirements of the project.
 - B. **Preparation.** Preparation of Section 01010 requires careful consideration of project needs and characteristics and should be completed in consultation with CDB's project manager and a representative of the using agency. No additions may be made to this section without the express permission of the Project Manager
 - C. **Relationship to Standard Documents for Construction.** Section 01010 augments and supplements the Standard Documents for Construction (SDC). Certain articles of the SDC require information to be in the project manual to be complete in their requirements. These are required paragraphs in Section 01010. Other articles may be modified in the project manual and are optional paragraphs in Section 01010. It is important that the A/E read and understand the Standard Documents for Construction before preparing this section.
 - D. **Listing of Required and Optional Paragraphs.** Below are the instructions for the required and optional paragraphs included in Section 01010. They are numbered in the order they appear in the prototypical Section 01010 in [Appendix 6](#). When optional paragraphs are not used, the paragraphs shall be renumbered consecutively.
 - E. **Paragraph 1. STANDARD DOCUMENTS FOR CONSTRUCTION.** This **required** paragraph specifies the edition of the Standard Documents that applies to the project. The current edition is dated **2002** and should be used unless replaced by a later edition or as directed by the project manager
 - F. **Paragraph 2. GENERAL PROJECT INFORMATION.** This paragraph is composed of three **required** subparagraphs.
 - 1. **Para 2.A DESCRIPTION.** This subparagraph shall briefly describe the work to be performed. The description should not duplicate the detailed description of systems or materials in the technical specification sections.
 - 2. **Para. 2.B EXISTING CONDITIONS.** This subparagraph shall briefly describe any existing conditions that may affect the work. This section would include any working hour restrictions, site or building access restrictions, scheduling any down time for mechanical systems, etc. This subparagraph is not for soil conditions or to place into

- the work any undisclosed conditions that might be encountered. If there are no existing conditions that require specifying, so state.
3. **Para. 2.C RELATED WORK.** This subparagraph shall include any work related to these contracts which affects the contractors' work. This would include utility agreements, other current or future projects at the site, etc. If there are no related work items, so state.
- G. **Paragraph 3 CONTRACT TIME.** This **required** paragraph establishes the contract time for the entire project and/or each contract individually. See [Article 3.4](#) regarding construction duration. Sufficient time for pre- and post-construction activities (e.g. contract award, processing of Final Acceptance) must be added to the construction duration to determine the contract time. Confer with your project manager for help in estimating these activities. There are three options for specifying the contract time:
1. The first (standard) option requires the work to be completed in a set number of consecutive calendar days from the notice of award.
 2. The second option requires the work to be completed by a certain date. This is to be used only when there are external constraints on the completion of the project, e.g. beginning of school semester, yearly closing of asphalt plants.
 3. The third option is for projects that must be fully completed by the August following the close of the fiscal year in order for payment to be made from that fiscal year's appropriation. Failure to complete work and request payment on time will require the contractor to seek payment in the Court of Claims.
- H. **Paragraph 4 CONTRACT(S).** This **required** paragraph specifies the division of the project work into contracts by trade. Division of the work shall comply with [Article 3.1](#).
- I. **Paragraph 5 PRE-BID CONFERENCE.** Provide time, date and location of pre-bid meeting. The pre-bid meeting may be made mandatory **only** with the written permission of the PM. A/E must request approval for a mandatory pre-bid conference in writing. Notification of all mandatory pre-bid conferences must also be included in the advertisement for bid (00030).
- J. **Paragraph 6 CONSTRUCTION ADMINISTRATION FEE.** This is a **required** paragraph. The A/E shall calculate the construction administration fee (CAF) for each trade contract listed in Paragraph 4 in accordance with [Article 4.5](#), and include the amount here and on the Bid Form.
- K. **Paragraph 7 BID SECURITY.** This is a **required** paragraph and shall be included in all project manuals as provided
- L. **Paragraph 8 BIDDER'S EMPLOYEE UTILIZATION FORM, DHR PC-2.** This is a **required** paragraph.
- M. **Paragraph 9 BUSINESS ENTERPRISE FOR MINORITIES, FEMALES AND PERSONS WITH DISABILITIES ACT.**
1. This a **required** paragraph. The A/E shall include one of the two options per the instructions of the project manager.
 2. The first option (1) is to be used when the project includes goals for the use of MBE/FBE subcontractors and/or suppliers. The goals are based on the geographical location of the project. Unless otherwise directed, the following goals shall be included in Section 01010 and inserted on the Contract Requirements for Minority/Female Business Participation (00305) form for each trade contract.

- a. REGION 1 (Cook, Lake, DuPage, & Will Counties)
 - 1.) General Work 18%
 - 2.) Mechanical/Electrical Work 13%
 - b. REGION 2 & 3 (Counties north of the northern boundaries of the following counties: Calhoun, Greene, Macoupin, Montgomery, Fayette, Effingham, Jasper, & Crawford; except Region 1)
 - 1.) General Work 6%
 - 2.) Mechanical/Electrical Work 4%
 - c. REGION 4 (St.Clair, Madison, & Monroe Counties)
 - 1.) General Work 8%
 - 2.) Mechanical/Electrical Work 6%
 - d. REGION 5 (Counties including and south of Calhoun, Greene, Macoupin, Montgomery, Fayette, Effingham, Jasper & Crawford; except Region 4)
 - 1.) General Work 4%
 - 2.) Mechanical/Electrical Work 4%
3. Option two (2) does not require MBE/FBE business participation although it is encouraged. The 00305 Contract Requirements for Minority/Female Business Participation form shall be included in the bid package but shall indicate a goal of zero (0) percent.

- N. **Paragraph 10 BUILDER'S RISK INSURANCE.** This is a **required** paragraph. The A/E shall designate the contractor who is to provide the builder's risk insurance for the project, usually the coordinating contractor. There is an option for no builder's risk insurance and is to be used **only** with the written approval of the project manager who shall consult with CDB's Legal section.
- O. **Paragraph 11 RESPONSE ACTION CONTRACTORS' INDEMNIFICATION ACT.** This is an optional paragraph. The A/E shall include this paragraph when indemnification of a response action (hazardous material) contractor is required. The A/E shall check with the project manager on whether any withholding will apply to the contract.
- P. **Paragraph 12 LIQUIDATED DAMAGES.** This is an optional paragraph and shall be used only with the written consent of the project manager. CDB discourages use of liquidated damages. Refer to Article 00815 of the Standard Documents for Construction.
- Q. **Paragraph 13 DURATION OF BIDS.** This is an optional paragraph. Para. 00308.10 of the SDC requires the bidders to hold the bids open for 60 calendar days. If, with the approval of the project manager, the bids must be held open for a longer period of time, complete and insert the optional paragraph.
- R. **Paragraph 14 SITE SECURITY.** This is an optional paragraph. The paragraph shall be included in Section 01010 when the work is to be performed at a secure facility (e.g. prison). The A/E shall review this requirement with the using agency and the project manager.
- S. **Paragraph 15 PROJECT IDENTIFICATION SIGN.** This is an optional paragraph. The A/E shall include when required. The A/E shall locate the sign on the drawings and have the wording approved by CDB prior to issuing to the contractor.

- T. **Paragraph 16 FIELD OFFICES.** This is an optional paragraph. The A/E shall include when required after consultation with the project manager. If the using agency has existing space for field offices, coordinate with the using agency and include in Section 01010.
- U. **Paragraph 17 VALUE MANAGEMENT.** This is an optional paragraph. Generally it should be included in all project manuals unless the Project Manager specifically directs otherwise.
- 7.10 **Section 01026 - Unit Prices.** The A/E shall include this section if unit prices are to be included in the bids. A prototypical section is included in [Appendix 6](#). Unit price work must be listed in the appropriate specification section as well as on the bid form and in Section 01026. Use of unit price work must be approved in writing by CDB.
- 7.11 **Section 01030 - Alternates.** The A/E shall include this section if alternate bids are to be included with the base bids. Prototypical section included in [Appendix 6](#).
 - A. Alternate bids shall be clearly and completely specified in this section. Alternate bids must also be noted in the relevant technical specification section(s) and on the drawings.
 - B. Alternate bids may not be included in the project without permission of the PM.
 - C. Each contract to be bid that has work in the same alternate shall have the same alternate designation number following the trade designation letter. For example, three alternates - the first involving the General and Electrical contractors, the second the Plumbing contractor only, and the third all three contractors - would be numbered G-1/E-1, P-2, and G-3/P-3/E-3.
- 7.12 **Section 01042 - Coordination, Supplemental to the SDC.** This is an optional section that supplements the basic requirement for coordination included in Article 01042 of the SDC. This section may be used to modify, add to, or delete the requirements of Article 01042, if that paragraph does not meet the project requirements.
- 7.13 **Section 01045 - Cutting & Patching, Supplemental to the SDC.** This is an optional section that supplements the basic requirement for cutting and patching included in Article 01045 of the SDC. This section may be used to modify, add to, or delete the requirements of Article 01045, if that paragraph does not meet the project requirements.
- 7.14 **Section 01051 - Grades, Lines & Levels.** This section is required in order to designate contractor responsibility for such grades, lines & levels needed for the work.
- 7.15 **Section 01060 - Regulatory Requirements.** This section is required for all project manuals. The A/E shall edit this section leaving only those regulatory requirements that pertain to the work. Any regulatory requirements not listed that pertain to the project shall be added when appropriate, e.g. local codes.
- 7.16 **Section 01120 - Remodeling Project Procedures.** This is an optional section for appropriate projects.
- 7.17 **Section 01310 - Construction Schedule, Supplemental CPM Option.** This an optional section that complements Article 01310 of the SDC and requires the use of a critical path method of scheduling the project instead of a horizontal bar chart. CPM is required on all multi-discipline projects. For other projects, the A/E should use only with the permission of the project manager.
- 7.18 **Section 01340 - Shop Drawings, Product Data, & Samples.** This is a required section if any submittals are required. If a large number of submittals is expected, a schedule of submittals is suggested instead of a list.
- 7.19 **Section 01380 - Construction Photographs.** This is an optional section for use when progress photos are deemed appropriate and required by CDB.

- 7.20 **Section 01410 - Testing Laboratory Services, Supplemental to the SDC.** Specify testing required.
- 7.21 **Section 01510 - Temporary Utilities.** This section is generally included in all projects; however, it must be carefully written so as to be applicable to the specific project conditions. A/E to be sure to assign temporary utilities to the correct trade. A/E may not specify temporary use of permanent systems without permission from PM.
- 7.22 **Section 01515 - Use of Existing Facilities.** This is an optional section intended for small projects. See prototypical section included herein.
- 7.23 **Section 01525 - Construction Aids.** This is an optional section and is to be used only with the express permission of CDB. The Standard Documents of Construction require that all contractors provide their own construction aids. If there is a need for one contractor to provide a common construction aid, request approval of such from the project manager. A prototypical Section 01525 is contained herein.
- 7.24 **Section 01530 - Barriers.** Specify construction barriers required appropriate to the project.
- 7.25 **Section 01540 - Security.** Specify responsibility for security and level required. Check with Using Agency for site specific requirements.
- 7.26 **Section 01550 - Access Roads, Parking Areas, & Traffic Control, Supplemental to the SDC.**
- 7.27 **Section 01561 - Construction Cleaning, Supplemental to the SDC.** Assign responsibility for cleaning and degree required.
- 7.28 **Section 01620 - Storage & Protection.** This is an optional section for use where there are restrictions on storage or where off site storage may be contemplated. Use when appropriate.
- 7.29 **Section 01710 - Final Cleaning.** This is a required section for the purpose of assigning responsibility for cleaning.
- 7.30 **Section 01720 - Project Record Documents.** This is a required section to ensure that CDB receives suitable documents for record purposes.
- 7.31 **Section 01730 - Operating & Maintenance Data.** This is a schedule of the O & M data required to be submitted and complements Article 01730 of the SDC. This is a required schedule if any O & M manuals are required.
- 7.32 **Section 01740 - Extended Warranties & Bonds.** This is a schedule of the extended warranties and bonds to be furnished by the contractors. This schedule complements Article 01740 of the SDC. This schedule is required only if warranties or bonds with a warranty period longer than one year are specified. See SDC section 00780.2 for required extended warranties.

Article 8 PREPARATION OF DIVISIONS 2 - 16

- 8.1 **Master Format.** The use of the Construction Specifications Institute's (CSI) Master Format for specification titles and numbers is preferred by CDB for developing sections in Divisions 2 through 16.
- 8.2 **CDB Format.** Please note that the first section of each specification section must follow CDB's format rather than the CSI format.
- 8.3 **Listing Sections.** Save space wherever possible. Do not list sections or sub-sections as "not applicable". Just leave them out.
- 8.4 **Sub-headings.** Do not use a lone sub-heading in the outline if only one sub-heading applies. Begin text immediately following the heading.
- 8.5 **Abbreviations.** Do not spell out "Capital Development Board", "Project Manager", or "Architect/Engineer". Once they are clearly identified, use "CDB", "PM", & "A/E".
- 8.6 **Outline,** Break down sub-paragraphs using the following outline definitions:

0.0

- A.
 - 1.
 - a.
 - 1.)
 - (a).
 - (1).

- 8.7 **Paragraph 1.1 Example.** Following is a recommended guide for use in preparing Paragraph 1.1 of a technical specification section. Options are flagged with an asterisk (*). A/E must insert appropriate data or information wherever there is an asterisk. Notes to the A/E are included where appropriate.

Section 1 General

I.1 WORK INCLUDES

- A. Base Bid: (* List each contractor who has work in this section)
- 1. (* _____) Contractor:
 - a. (A/E: briefly summarize work in this section)
 - 2. (*Continue for any other contractor who has work under this section)
- B. Alternate Bids: (*) (A/E: list all alternate work applicable to this section by contractor and alternate number)
- 1. (* _____) Contractor:
 - a. Alternate Bid (*letter)-(*1):
 - 1.) (A/E: briefly summarize work)
 - 2. (*Continue as appropriate)

C. Unit Prices: (*) (A/E: Describe unit price work applicable to this section)

1. (*_____) Contractor:

a. (A/E: briefly summarize work)

8.8 **Sample Technical Specification Format.** A sample technical specification is included in [Appendix 7](#). Please note that in this sample section, as well as in all sample sections in this manual, items noted with an asterisk must be edited by the A/E to suit the requirements of the current project.

Article 9 PREPARATION OF DRAWINGS

9.1 **Cover Sheet.** Cover sheet shall be prepared per [Appendix 8](#).

- A. In addition to the information shown on the example, include a list of symbols, abbreviations and applicable building codes. When appropriate for the project, include building square footage, occupancy classification, type of construction and fire resistance rating.
- B. List CDB Building Identification number(s) for each building affected by the project. CDB building numbers are available from the PM.
- C. Cover sheets, drawing index sheets, and information sheets shall be designated: G.

9.2 **Civil Drawings.** Civil drawings shall include the following, as applicable to the project.

- A. Site development work, storm sewers, and landscaping shall be included in the general work contract. Water service shall be included in the plumbing work contract. Sanitary sewer may be included in either the general or plumbing work contract. Electrical and telecommunications service shall be included in the electrical contract.
- B. New contours shall be labeled, and shall indicate adequate drainage and contrast with labeled existing contours. Each fifth contour should be shown as an index contour.
- C. Show all new topography, newly established levels and grades, existing structures, new structures, roadways, walks, location of nearest drainage/sewer connections, other identifiable features and areas to be seeded and landscaped. All structures and improvements which are to be removed under the construction contract shall be shown.
- D. Profiles and cross sections shall be provided for all new roadways. Cross sections shall be provided for each type of sidewalk and curb design. Expansion joints shall be shown in plan view and details shall be provided of each joint type used.
- E. Profiles shall be provided for all sewers. Show invert elevations of all sewers, manholes and catch basins. Show frame and grate elevations of all manholes and catch basins.
- F. Standard drawing designations for civil work include:
 - 1. Civil C
 - 2. Fencing F
 - 3. Well Drilling WD

9.3 **Architectural Drawings.** Architectural drawings shall include the following, as applicable to the project.

- A. Plan of each floor and roof.
- B. Elevations of each facade.
- C. Longitudinal and transverse sections through entire building.
- D. Schedule of finishes, doors, and accessories.
- E. Roof plan showing high and low elevations; show exact slopes.
- F. Wall sections at relative elevations, including flashing details.
- G. Miscellaneous details, sections, and enlarged plans as necessary to effectively communicate the design.
- H. Reflected ceiling plans showing all ceiling elements visible on the ceiling, such as lighting fixtures, exit signs, speakers, detectors, diffusers, sprinkler heads, and suspended ceiling grids.

- I. Standard drawing designations for architectural work include:
 - 1. Architectural A
 - 2. Carpet CPT
 - 3. Painting PNT
 - 4. Demolition D

9.4 **Structural Drawings.** Structural drawings shall be separated from architectural work. Drawings shall include the following as appropriate for the project.

- A. Include the following information in general notes:
 - 1. Governing structural codes with year of edition.
 - 2. Design live, wind and earthquake loads, or design coefficients used as a basis for structural design.
 - 3. Detailed breakdown of live and dead loads.
 - 4. Net allowable soil bearing capacity.
 - 5. Strength of all structural materials.
 - 6. Other information required as a basis for structural evaluation.
- B. Show overall dimensions, center lines, location of members and offsets.
- C. Show all columns on grids.
- D. Schedule (as required) footings, columns, beams, girders, slabs, lintels, and reinforcement.
- E. Detail all special connections, assemblies, and expansion joints.
- F. Show connection details or required design reaction loads for all structural steel framing connections.
- G. For new construction, unless otherwise approved by CDB, design roof drainage slope into the structural system.
- H. Show elevations for top of beams and slabs; top and bottom of columns; bottom of footings, etc.
- I. Drawings must be sealed by a Structural Engineer licensed in the State of Illinois.
- J. Standard drawing designations for structural work include:
 - 1. Structural S

9.5 **Plumbing Drawings.** Plumbing drawings shall include the following as applicable to the project.

- A. Show where the work of others (contractors, utilities, existing work, etc.) stops.
- B. Show underground plumbing work on a footing plan or foundation drawing.
- C. Show all connections to all equipment (electrical, etc.)
- D. Show piping over 12" to scale in double lines. Do not shade as this does not microfilm well.
- E. Detail major plumbing equipment such as pumps, water heaters, coils, and boilers showing valves, gauges, thermometers, unions, drains, etc.

- F. Show all work spaces (tube pull area, coil pull area, access space, etc.) for all equipment requiring same.
- G. Show all cleanouts on plumbing drawings.
- H. Show all valves, cocks, unions, strainers, gauges, etc., on plan or in typical details.
- I. Schedule plumbing fixtures including kitchen equipment, drinking fountains, electric water coolers, water heaters and water treatment equipment. Schedules on drawings are preferred.
- J. Provide waste and vent, hot and cold water riser diagrams; and isometrics for all plumbing fixtures or fixture groups. Number all fixture groups. Show air chambers on isometrics and shock absorbers where provided on multiple fixture groups in lieu of air chambers.
- K. Show and size all sprinkler mains and risers. Show all head locations. Specify code.
- L. Show all fire hose cabinets (provided by general contractor) on plumbing drawings or sprinkler system if a separate contract.
- M. Identify equipment provided by other contractors to be installed or connected by the plumbing contractor.
- N. Standard drawing designations for plumbing work include:

1. Plumbing	P
2. Pipe covering and insulation	INSL
3. Sprinkler	FP

9.6 Heating Drawings. Heating drawings shall include the following as applicable to the project.

- A. Show where the work of others (contractors, utilities, existing work, etc.) stops.
- B. Show all connections to all equipment (electrical, etc.)
- C. Show duct work or piping over 12" to scale in double lines.
- D. Schedule equipment such as coils, pumps, chillers, cooling towers, boilers, unit heaters, convectors, air separators, radiation traps, etc. Include technical information (capacity, power requirements, motor sizes, etc.) only. Indicate contractors' responsibilities where interface is required.
- E. Detail major heating equipment such as pumps, coils, boilers, and chillers showing valves, gauges, thermometers, unions, drains, etc.
- F. Show all work spaces (tube pull area, coil pull area, access space, etc.) for all equipment requiring same.
- G. Where rooftop equipment is used, provide a roof plan showing all equipment (units, exhaust fans, cowls, etc.).
- H. Standard drawing designations for heating work include:

1. Heating	H
2. Temperature Control/Building Automation TC	

9.7 **Ventilating Drawings.** Ventilating drawings shall include the following as applicable to the project.

- A. Show where the work of others (contractors, utilities, existing work, etc.) stops.
- B. Show all connections to all equipment (electrical, etc.)
- C. Show duct work or piping over 12" to scale in double lines.
- D. Schedule equipment such as air handling units, fans, coils, diffusers, registers, grilles, pumps, unit heaters, convectors, air separators, radiation traps, etc. Include technical information (capacity, power requirements, motor sizes, etc.) only. Schedules on drawings are preferred. Indicate contractors' responsibilities where interface is required.
- E. Detail major ventilating equipment such as pumps, coils, chillers and air handling units showing valves, gauges, thermometers, unions, drains, etc.
- F. Show all work spaces (tube pull area, coil pull area, access space, etc.) for all equipment requiring same.
- G. Where rooftop equipment is used, provide a roof plan showing all equipment (units, exhaust fans, cowls, etc.).
- H. Show all devices (balancing dampers, fire dampers, turning vanes, extractors, splitters, etc.) and access panels on drawings for contractor providing them.
- I. Standard drawing designations for ventilating work include:
 - 1. Ventilating V
 - 2. Test and Balance T&B

9.8 **Electrical Drawings**

- A. Single line diagram with all primary and secondary distribution equipment and loads, including feeder identification with conductor and raceway size and type.
- B. Primary distribution equipment and all other loads located in plan view, with initial spatial coordination done by the design professional.
- C. Service entrance arrangements with the serving utility, made, confirmed, and noted by the design professional.
- D. Branch circuiting with voltage drop considerations, for both power and lighting, including switching, dimming, special controls, and home run designations.
- E. Mechanical equipment power requirements and physical locations, including special information as to who mounts, connects, tests, etc.
- F. Control diagrams and schematics revealing interactive relationships as well as operating logic for all systems. Information should be adequate to understand and install appropriate wiring.
- G. Schedules of fixtures, panelboards, switchgear and other equipment, including sizes, types, styles, catalog numbers, and other pertinent characteristics.
- H. Provide the foot candle level and the watts per square foot for each room. Provide total wattage for building.

- I. Define equipment grounding system, including special requirements for telecommunications, interference shielding, isolated systems, filters, etc., when used. Verify compatibility with ground fault protection systems used.
- J. Schedule light fixtures and lamps. Include the type designation, the number, type, and size of lamps per fixture, and the accessories and methods necessary for mounting the type of fixture.
- K. Define lightning protection system, if applicable.
- L. Include electrical power, telecommunications and other electrical systems on the site drawings or combined site plans. Designate as the work of the electrical contractor.
- M. Completely circuit and define all work. Do not leave for contractor to design.
- N. Show a one-line diagram of power distribution, including emergency power distribution and ground fault protection. Use riser diagrams, if appropriate, to further define distribution.
- O. Show power distribution and special systems layouts separate from lighting layouts for clarity. Provide separate plans for multiple systems.
- P. Draw major items of electrical equipment such as switch gear, transformers, panels, lighting fixtures, etc., to scale, making sure that the largest of the three specified pieces of equipment will fit.
- Q. Schedule motor control, including auxiliaries, overload protection, interlocking, etc.
- R. Show a detailed schedule for each panel board, switchboard, motor control center, etc. Include breaker size, fusible switch size, or fuse size, frame size and trip setting, usage of circuit, spares, spaces, connected load for each circuit, etc. Preferably, show schedule on the drawing depicting wiring from that unit.
- S. Identify equipment provided by another contractor to be wired by the electrical contractor.
- T. Fire Alarm Systems
 - 1. For projects with sprinkler systems, kitchen hood fire extinguishing systems, or other special systems, include the devices and circuiting to actuate the system. Duct smoke detectors, fan shutdown and smoke evacuation devices shall be considered part of the fire alarm system. Duct smoke detectors which are not readily accessible should be provided with remote controls.
 - 2. When fire alarm systems are provided, include both audible and visual alarms in compliance with the Illinois Accessibility Code.
- U. Standard drawing designations for electrical work include:

1.	Electrical	E
2.	Fire Alarm	FA
3.	Security/Communications	COM

9.9 **Other Drawings.** Standard drawing designations for other work include:

A.	Equipment	EQP
B.	PCB Equipment Disposal	PCB
C.	UST Removal/Replacement	UST
D.	Asbestos Abatement	ASB

Article 10 BIDDING PHASE

- 10.1 **General.** Upon CDB acceptance of 100% design documents, the A/E shall sign, seal and date each sheet of the drawings and the project manual with the same date. CDB PM approval for release of bidding documents must be obtained by the A/E before printing and distributing documents to the public.
- 10.2 **Official Advertisement for Bids.** The Illinois Procurement Code 30 ILCS 500/1 requires that contracts shall be advertised at least 14 calendar days before the bid opening. The A/E shall provide the necessary information to the PM in a timely fashion.
- A. For small or single contract projects a single bid opening will be scheduled. For large projects, the bids for the coordinating contractor will usually be received one week following receipt of bids for the assigned contractors.
- B. The advertisement for bids shall include the pre-bid meeting information. Mandatory attendance at the pre-bid conference shall be noted in the advertisement.
- 10.3 **Document Distribution.**
- A. The reproduction and distribution of bidding documents is the responsibility of the A/E. If more bidding documents are distributed than the number of sets listed in Appendix A of the agreement, the additional sets are reimbursable to the A/E. The A/E shall maintain an accurate record of all vendor provided printing costs. "In-House" printing of bid sets is permitted. CDB will reimburse for in-house printing based on area costs for vendor provided printing. A/E shall provide at least two quotes from local vendors as backup with pay request.
- B. The A/E shall distribute bid documents to all interested bidders, subcontractors, suppliers, etc. Each prospective bidder shall be provided with one loose copy of the bid forms, one CDB bid envelope addressed to the appropriate bid receipt location, and the "Bidder Check List." The envelope and check list are available from CDB.
1. The PM can provide a list of potential bidders from the prequalification list maintained by CDB. Contractors not registered with CDB should be referred to CDB's Qualification Based Selection (QBS) section.
2. It is in the interest of the A/E to solicit competitive and multiple bids for each contract to avoid having to rebid or redesign the work.
- C. Plan holders shall make a reasonable plan deposit or be a member of a non-cash deposit program in accord with the advertisement for bids. The plan deposit may be cash or company check. Plan holders who return bidding documents in good condition within forty-five (45) calendar days of the bid opening shall have their deposit returned. The A/E will return the deposit within 10 days of receipt of bidding documents if the plans are in good reusable condition. The contractors awarded the work shall not be required to return their bidding documents but their deposits shall be returned to them. An accurate record of all deposits shall be kept by the A/E and submitted to the PM. All deposits not returned shall be credited to the A/E printing reimbursable account and reported with the A/E's regular pay requests.
- D. Plan holders shall not be charged handling and postage to obtain bidding documents. This is considered an overhead item in the A/E agreement. Postage for additional sets above the number listed in Appendix A shall be a reimbursable to the agreement. Postage to return documents shall be at the plan holder expense.

- E. The following individuals and offices shall receive the bidding documents, or portions of the bidding documents. These individuals and offices shall be listed on the plan holder lists.
1. Dodge Plan Rooms. The A/E shall send one complete set of bidding documents to the F.W. Dodge Corporation Plan Room in Springfield, IL. F.W. Dodge divides the state into a north and south region for advertising purposes. Projects located in the northern region shall also be filed at the Chicago office. Projects located in the southern region shall also be filed at the St. Louis Area office.
 2. Other Plan Rooms. The A/E shall send complete sets of the bidding documents to other plan rooms as prudent to solicit competitive bids and to make the bidding documents available to as many potential bidders, subcontractors, and suppliers as possible. PM may advise A/E of distribution. All participating plan rooms are listed in each CDB Bid Information Newsletter.
 3. CDB Offices. Bidding documents shall be distributed to CDB personnel and sections as listed below:
 - a. PM - one set of bidding documents plus detailed estimate.
 - b. FEP section - one project manual
 - c. Technician - one set of bid drawings on compact disk (CD) and one printed set.
 - 1.) When using AutoCad, version 14 or later, use "pack-n-go" or "e-transmit" utility to organize files in a single root directory.
 - 2.) Drawing files must be listed before the support files and must appear in the same order as the "Issued for Bid" drawing set.
 - 3.) Drawing files may be renamed to ensure they appear in the correct order, for instance by adding numerical prefixes to the drawing name, e.g. **001_G1.dwg**, **002_C1.dwg**, **003_A1.dwg**.
 - 4.) When using Microstation or other CAD program, convert the drawings and software support files to AutoCad and prepare a single project directory as above. Be sure that all drawings and support files convert fully.
 - 5.) Ensure that all drawings and support files on the CD are complete.
 - 6.) Ensure that the drawings and fonts are legible with a Volo View CAD reader. Volo View is a free downloadable viewer from Autodesk utilized by CDB to view electronic drawings.
 - 7.) The documents must also be readable in Windows Explorer.
 - 8.) Electronic Professional Seals (no signature) are required on the CD drawings.
 - d. Bid Receiving Office, depending on project location and as directed by PM;
 - 1.) Contract Administration Division in the Springfield office: detailed estimate and all addendaOR
 - 2.) Bid Officer in a Regional Office: project manual and detailed estimate plus all addenda.
 4. Using Agency. Two sets of bidding documents (or as specified in PSA) including all addenda.

10.4 **Plan Holder Lists.** Periodically, the A/E shall submit the list of plan holders, including address, telephone number, and contract(s) the plan holder intends to bid to the PM. A list of plan holders shall

be submitted to the PM for verification of contractors' pre-qualification no later than seven (7) calendar days prior to the bid opening date. A/E shall submit a final list of plan holders to the PM and CDB Bid Officer on each day bids are received.

10.5 **Addenda.** The A/E shall prepare all required addenda.

- A. No CAF may be changed by addenda.
- B. All addenda, including all revised drawings and sections, must be accepted by the PM prior to distribution to the plan holders. A/E shall allow sufficient time for CDB review to fulfill the adequate notice requirement.
- C. Distribution and Adequate Notice. All addenda shall be issued to all plan holders as required to ensure receipt no later than three (3) business days prior to the bid opening. The A/E shall use whatever delivery method is most prudent to ensure receipt. A/E shall verify receipt of the addenda with each plan holder. When addenda are not issued in a timely manner, the bids will be returned unopened and the bid opening date will be extended. Any additional costs incurred by the A/E for the extension of the bids shall be at A/E's expense.
- D. The A/E will consider written requests by prospective bidders to amend the bidding documents. Such requests must be received at least ten (10) calendar days prior to bid opening date and include complete description of the desired change including any technical data and references for the A/E's evaluation. If a request is approved, the A/E will revise the bid documents by addendum. When requested, the A/E will provide to CDB a listing of the requests that were not approved.
- E. The addenda shall be numbered sequentially and dated.
- F. All addenda shall be prepared according to the format in [Appendix 8](#). Addenda in any other format (e.g. on the firm's letterhead) will not be accepted.
 - 1. List all changes in order of specification sections and drawing numbers.
 - 2. The A/E shall not specify any sole or dual sourcing of an item in an addendum unless approved by CDB per [Article 3.2 E](#).
 - 3. If one or more of the bid forms require a change, the A/E shall issue a complete set of new bid forms with the following information located in the lower right hand corner of each page; REVISED, ADDENDUM #(), (addendum date).
 - 4. Changes shall be clearly noted and identified (A, B, C, etc.) on the drawings. Make a notation in the revision column of the drawing indicating the change letter, the date of the change, and a brief description of the change. All changes are to be incorporated into the original drawing whether that be tracings, software file, etc. Changes are not to be issued from marked up copies or additional drawings. Revised drawing page numbers shall be identified by addition of "R" to the number (e.g. A-3R).
 - 5. The A/E shall state the status of previously issued addenda.
- G. Pre-bid meeting minutes and bid tabulations are not to be issued as addenda. These are informational items and are to be distributed as such.

10.6 **Pre-Bid Meeting.**

- A. When a pre-bid meeting is scheduled, the A/E shall include the date, time, and location of the pre-bid meeting in the Advertisement for Bids (00030). The pre-bid meeting will be scheduled by the CDB PM and will be held no less than seven calendar days prior to the day the bids are to be opened. The CDB PM will chair the pre-bid meeting.
- B. With the consent of the PM, attendance at the pre-bid meeting may be mandatory for prospective bidders when specified in the project manual and in the advertisement for bids. The A/E shall submit the list of attendees to the PM. This list will be transmitted to CDB's Contract Administration Division. Bidders who do not attend a mandatory pre-bid meeting shall have their bids rejected.
- C. The A/E shall record the names, and the names and addresses of their respective firms, of all persons in attendance. The A/E shall also record the minutes of the pre-bid meeting, listing all questions and all responses to those questions.
- D. Minutes of the meeting shall be issued to all plan holders and all persons attending the pre-bid meeting, but are not to be included as part of any addendum.

10.7 **Final Estimate.** Prior to the bid opening, the A/E shall submit a final detailed estimate of probable construction costs of the contracts being bid based on the bidding documents and all addenda.

10.8 **Bid Openings.**

- A. The A/E shall attend all bid openings for the project unless specifically excused by the PM.
- B. The A/E shall have developed, in conjunction with the using agency and the PM, an order of priority to be used in awarding alternates. Unless an order of priority is publicly announced before the bid opening, alternates will be awarded in the order specified in the bidding documents.
- C. The A/E shall provide bid results to all parties who require the information. CDB will provide the A/E with one set of bid tabulations at the bid opening. In the event the PM excused the A/E from attending the bid opening, the PM will telefax the bid tabulations to the A/E within two hours of the bid opening.
- D. For projects which have a coordinating contractor, the A/E shall provide the assigned contractor bid tabulations to the coordinating contractor bidders within two business days. These bid tabulations are to be issued for informational purposes only and shall not be issued as an addendum.

Article 11 AWARDING OF CONSTRUCTION CONTRACTS

11.1 General.

- A. A/E shall comply with CDB policy that discussions with bidders, news media, etc. not include any presumption of award until the award is decided by CDB.
- B. CDB may award construction contracts within 60 days receipt of the bid(s) or any other period stated in Section 01010 of the Project Manual or CDB may request bidders to provide written consent to extend their bid beyond the 60 day period or as stated in Section 01010.

11.2 Bid Analysis. A/E shall provide assistance to CDB to identify the apparent successful bidder or bidders.

- A. Review all product substitutions submitted in accordance with procedures set forth in Standard Documents for Construction and provide CDB with a written recommendation to accept or reject the proposed substitution.
- B. Review all unit prices submitted and provide written explanation of acceptance or rejection.
- C. Review bids that fail to acknowledge all addenda issued. A/E will be requested to attest whether, in the A/E's opinion, the addendum not acknowledged is, or is not, work related for that contractor.
- D. Review bid forms that contain additional verbiage supplied by the bidder. A/E will be requested to attest whether, in the A/E's opinion, the additional verbiage does or does not constitute a qualifying statement applicable to the bid amount.
- E. When lowest bid received differs substantially from the other bids received, A/E shall contact the low bidder and review the requirements of the project as it pertains to the bid. Report findings to the CDB Project Manager in writing.
- F. When single bids are received, A/E shall provide the CDB Project Manager with a written explanation of all efforts used to obtain bidders and include an informed opinion addressing the reason(s) multiple bids were not received.

11.3 Award Notification. CDB will notify the successful bidder(s) and the A/E of the award(s) by copy of the Notice of Award letter (NOA).

Article 12 PRE-CONSTRUCTION MEETING

- 12.1 This meeting will be scheduled by the CDB PM, usually within 14 calendar days of the NOA. Attendance is mandatory for the A/E, coordinating contractor, all assigned contractors, and using agency representatives. Attendance by sub-contractors and A/E consultants is encouraged, but not mandatory unless requested by PM.
- 12.2 Agenda will consist of CDB discussion of construction procedures, pay request application procedures, and documentation to be supplied by contractors, sub-contractors and material suppliers in support thereof. **Contractor compliance with Fair Employment Practice, (FEP) goals and programs will also be discussed.**
- 12.3 A/E on-site observation/representation shall be discussed as it may pertain to the specific requirements of the project.
 - A. The contractors will be advised of the A/E's critical work list items so that they can notify the A/E to make arrangements for on-site representation.
 - B. Requirements for A/E attendance during all field tests specified to be performed by the contractor as well as during installation of critical systems shall be discussed.
- 12.4 A/E will explain requirements for submission of shop drawings, samples and product data.
- 12.5 The process for obtaining document interpretations and authority for same shall be delineated.
- 12.6 CDB and the using agency shall review requirements for logging site visits with the appropriate using agency authority at the facility.
- 12.7 Using agency may review facility access and specific safety/security procedures.

Article 13 MISCELLANEOUS CONSTRUCTION PHASE RESPONSIBILITIES

- 13.1 **Construction Documents.** The A/E shall issue documents stamped and dated "Issued for Construction" to the contractors. The contractors shall not commence work without the documents stamped and dated "Issued for Construction".
- A. Issued for Construction documents are bid sets (drawings and specs) that have been updated by the Architect to incorporate all addenda issued.
 - B. Each contractor will receive construction documents in the quantity determined by CDB up to a maximum of six sets. The contractor may purchase additional sets for a charge to cover reproduction and handling.
- 13.2 **Contractor and Tradesmen Licensing.** The contractors are responsible for any applicable licensing with the appropriate authority in accordance with the Contractor Licenses Section of the Standard Documents for Construction. The A/E shall receive and review all applicable licenses prior to that contractor or tradesman commencing any work. Evidence of proper licensure shall be forwarded to the CDB PM. The A/E shall not knowingly allow any activity to commence or accept any work installed by a non-licensed firm or tradesman where licensure is required.
- 13.3 **Contractor Submittals / Shop Drawings, Product Data, Samples.**
- A. A/E shall review and monitor all required submittals for timeliness and conformance with the contract documents and project schedule. A/E shall review and respond to submittals within 14 calendar days.
 - B. Each submittal shall be stamped, dated, and either initialed or signed by the reviewer. The reviewer shall provide clear instruction to the contractor of any corrective action to be taken.
 - C. The A/E shall only review those materials and equipment specified in the contract documents. **The A/E shall not make changes in the contract requirements through the review of submittals.**
 - D. **The contractor may not submit and gain approval of material substitutions through the shop drawing review process.** In this event, the A/E shall return the submittal without review and advise the contractor that he may request and initiate a material substitution change order in accordance with the substitution clause of the Standard Documents for Construction.
 - E. If in reviewing the submittal the A/E determines that contract changes are required, notify the CDB PM and request approval of the required changes prior to returning the submittal to the contractor. The submittal shall then be returned to the contractor with the note that a change order request is contemplated.
 - F. No activity requiring review of submittals may be started without A/E approval. The A/E shall notify the contractor to cease the activity until approval is obtained. The contractor shall be liable to replace any work that is not in compliance with the subsequently reviewed submittal.
- 13.4 **Interpretations.** When requested by CDB or a contractor, the A/E shall provide interpretation of the contract documents. A/E shall prepare and distribute supplementary drawings, specifications and instructions as necessary to communicate the interpretation. A/E shall expedite all interpretations in such a manner as to not adversely affect the project schedule or sequence of work and to avoid the potential for a claim by the contractor.

- 13.5 **Construction Testing.** A/E shall witness field tests, review and evaluate test reports and notify CDB of any deficiencies. A copy of all test results shall be provided to CDB. Field tests may be specified to be conducted by the contractor employing a testing firm to provide assistance and/or analysis, or conducted by the A/E employing a testing firm as a reimbursable expense to provide assistance and/or analysis.
- 13.6 **Contractor's Schedule of Values (CSV).**
- A. Each contractor is required to prepare the CDB CSV form and submit it to the A/E for review and approval prior to the first progress/pay meeting. This form is a detailed breakdown of the contract amount and is the basis for the CASS (Contractor's Affidavit and Sworn Statement) form of the progress payment requests.
 - B. The A/E shall review the CSV to ensure each item of work required for the contract is listed and all values are expressed in separate line item costs for material and labor. The A/E may request the contractor provide sub-contracts and relevant documentation to substantiate the values indicated.
 - C. The Standard Documents for Construction requires that a percentage of the work be performed by the contractor's own forces. The A/E shall reject any contractor's schedule of values which does not comply with this requirement.
 - D. The CSV must be approved by the architect/engineer and CDB PM prior to submission of the first pay request. The A/E and CDB PM must also approve all changes to the CSV during the course of the project.
- 13.7 **Contractors' Record Drawings.** The A/E shall review the contractors' record drawings monthly, prior to the pay meeting, (or more often, if required) and notify CDB of any apparent failure to maintain up-to-date records in accordance with the contract documents. Contractors' pay requests will be held until record drawings are up to date.
- 13.8 **Claims and Disputes.**
- A. A/E shall record any observed occurrence or work that might result in a claim for a change in contract time or amount. Any disputes or claims shall be referred directly to the CDB PM. A/E shall enter the claim or dispute into a claims log and provide a current copy of the log to CDB at each monthly progress/pay meeting.
 - B. A/E shall review each claim or dispute, including documentation of any time, money or other expenditure made in connection with it. A/E shall provide a written response, interpretation, and recommendation for resolution to the claimant and CDB. CDB shall make a final determination on all disputes unless removed to ADR and/or the Courts.
 - C. While work is in progress, A/E shall observe, measure and verify costs incurred that are related to the dispute. Immediately notify the CDB PM if additional on-site representation is required to monitor the disputed work.
- 13.9 **Construction Schedule.** The construction schedule is to be prepared by the coordinating contractor with the input and concurrence of all assigned contractors and submitted to the A/E prior to the first progress/pay meeting. The A/E shall review the schedule for conformance with the contract requirements. Schedules shall be in the format specified in the project manual and shall include submittals (shop drawings, product data and material samples), major equipment order and delivery dates, on-site construction activities, A/E's critical work list items, commissioning activities, User training, and any other activities deemed important by the project team.

Article 14 OBSERVATION OF THE WORK

14.1 Basic Service

- A. As a basic service of the agreement, the A/E shall make periodic site visits as set forth herein and as is reasonably necessary in accordance with the complexity of the contracted work and the scheduled construction activities. The A/E shall observe the construction operations and report on the progress and quality of the work being performed to determine, in general, that the work is proceeding in accordance with the approved construction schedule and that the materials, finishes and workmanship are in accordance with the contract documents.
- B. The A/E is required to conduct the periodic site visits when contractors are present on the site and installing their respective trade work. Site visits shall be made by appropriately experienced personnel with specific knowledge of the requirements of the project as designed and specified. Unless otherwise agreed, minimum site visits shall be as set forth below for each trade contract included in the project through substantial completion providing sufficient work is being performed. **When minimal work is being performed, the A/E may make one all-inclusive project site visit in addition to the services provided in [Article 14.1 C](#).**

<u>Fee Group</u>	<u>Combined General Work</u>	<u>Combined MEP Work</u>
1 ® or N)	2 visits/month	4 visits/month
2 ® or N)	2 visits/month	2/visits/month
3 ® or N)	1 visit/month	1/visit/month

- C. Attendance at Pay/Progress meetings is a basic service and is not compensable as a reimbursement expense under [Article 14.2](#) , but may be used to fulfill the requirements for periodic site visits providing:
1. Contractors are present on site and installing their respective trade work.
 2. Observation is provided by professionals experienced in the discipline of work they are observing with specific knowledge of the requirements of the project.
 3. Observation reports are filed in accordance with [Article 14.3](#) .
- D. CDB shall be notified immediately if, in the A/E's opinion, the materials, finishes and/or workmanship do not conform to the contract documents, require special inspection or testing (beyond the specified requirements), or have been disapproved or rejected by the A/E.
- E. The A/E and the contractor shall be liable for the replacement and/or any damages incurred as a result of knowingly permitting non-specified material, or otherwise non-conforming work, to be incorporated into the project.

- 14.2 **On-Site Representative.** When included in the agreement as a reimbursable service expense, the A/E may provide one or more representatives on-site to facilitate the progress of the project and report on special conditions and critical installations as delineated herein.

- A. The duties of the on-site representative are exclusive of [Article 14.1 A](#) and are limited to:
1. Observe installation of critical systems or components as set forth in [Article 15.1](#) .
 2. Observe and verify installed quantities of material specified in the project as an allowance.

3. Observe specified field tests and CDB approved special testing recommended by A/E as a result of observations provided in [Article 14.1 B](#).
 4. When specifically requested by CDB, or by a contractor with CDB concurrence, provide field clarification of document interpretations issued in accordance with [Article 13.4](#).
 5. Observe, measure and verify costs incurred by contractors related to any disputes or claims.
- B. Prior to commencing the construction phase, A/E shall submit the name, resume', and DWE for each proposed on-site representative to the CDB PM for approval. CDB shall provide written acceptance or rejection of each person proposed.

14.3 **Observation Reports.**

- A. A written report shall be submitted to the CDB PM for each site visit made under basic services and each on-site representative's visit. Reports shall be submitted in a timely manner as the construction activity dictates. In no case shall the submission interval exceed 7 days from the date of the site visit.
- B. CDB shall not provide any reimbursement for on-site representative visits without an observation report.
- C. CDB may withhold a portion of the construction phase fee if the A/E fails to provide observation reports as set forth herein.
- D. Each report shall include general and specific information regarding the project as follows:
 1. General Information
 - a. CDB Project Number
 - b. Project Name and Location
 - c. A/E Name and Phone Number
 - d. Report Preparers' Name
 - e. Coordinating Contractor's Name
 - f. Date of Site Visit
 - g. Date of Report
 - h. Report Number
 - i. Weather Conditions
 2. Specific Information
 - a. Purpose of Site Visit
 - b. Basic Services or On-Site Representative visit
 - c. Names of All Observers Present
 - d. Names of Contractors On-Site
 - e. Size of Each Contractor's Workforce
 - f. Nature and Location of Work Being Performed
 - g. Progress of the Work
 - h. Items Inspected
 - i. Problems Resolved
 - j. Verbal Interpretations Given to Contractor
 - k. Tests Witnessed/Performed
 - l. Site Visitors

- E. When directed by the CDB PM, the A/E shall provide copies of reports to the coordinating contractor, assigned contractors and using agency representative.

Article 15 COMMISSIONING ACTIVITIES

15.1 Critical Systems/Components.

- A. A/E shall advise the CDB PM and using agency regarding on-site representation for observing specific work critical to the success of the project based on the list of critical work submitted to CDB and using agency at the 100% completion stage of design.
- B. CDB, A/E and using agency will reach consensus regarding the submitted critical work list and advise the awarded contractors of the list at the Pre-Construction Meeting so that the A/E can be sufficiently notified and make arrangements for on-site representation.
- C. A/E shall provide observation reports per [Article 14.3](#) of critical activities within 48 hours of the site visit to CDB, the coordinating and installing contractors and the using agency.
- D. Failure of the A/E to comply with the provisions of this article will result in loss of on-site representation compensation effectively reducing the site visit to a fulfillment of the provisions of [Article 14.1 A](#).

15.2 Performance Testing And Start-up. A/E shall be responsible for attesting that each contractor, as required by the contract documents, performed a thorough and systematic performance test and start-up of their respective work.

- A. Each general, mechanical, electrical and fire suppression element and the total system shall be tested in the presence of the A/E, all appropriate consultants, and the using agency prior to substantial completion of the project.
- B. When requested, and if not previously provided in the contract documents, the A/E shall provide the contractor with all design criteria and system design/operation concepts to facilitate performance testing and start-up.
- C. The A/E shall provide a report to CDB and the using agency attesting that they have observed the performance testing and start-up process, and that each contractor has demonstrated that all systems comply with the requirements of the contract documents. The report shall include the test results and any changes and/or reconfiguration which may have occurred during the performance testing and start-up process.

15.3 Using Agency Training. The A/E shall attend the training sessions to observe and provide input regarding the operation and maintenance of the systems as designed.

Article 16 PROGRESS/PAY MEETINGS

- 16.1 Meeting dates are established by the CDB PM at the pre-construction meeting.
- 16.2 The meeting shall be attended by the CDB PM, any additional CDB staff as designated by the PM, the A/E project manager, the coordinating contractor, all assigned contractors, the using agency representative and, when requested by CDB, the on-site representative, design architect/engineer and consultants. The A/E representative attending the meeting must have signature authority.
- 16.3 Minimum agenda will consist of reviewing contractor's progress, noting projections for work to be completed in the next month and comparing this information to the current approved project construction and submittal schedule, discussing project problems and proposed contract changes (claims, RFI, and/or RFP logs), and reviewing and reconciling contractor's pay applications using CDB form CASS (Contractor's Affidavit and Sworn Statement).
- 16.4 Approximately ten business days prior to the progress/pay meeting, or as directed by the CDB project manager, the contractors will submit copies of the draft CASS and SML, if utilized, to the A/E, User, CDB PM and coordinating contractor.
- 16.5 CASS Form. The draft CASS and SML will be reviewed by the participants and corrected, as required. The corrected drafts will be signed by all participants. A copy of the CASS will be retained by each party as a record of any objections/approvals noted during the meeting.
- 16.6 Approximately one week before meeting, A/E will verify that contractors are keeping record drawings up-to-date.

Article 17 REVIEW OF CONTRACTOR PAY REQUESTS

17.1 **Contractor Pay Requests.** A/E shall review and certify contractor's applications for payment and maintain a record of payments and contract balances and all proposed and approved changes thereto. The A/E shall reconcile and maintain files for the CASS forms and contractor's and subcontractor's and/or supplier's waivers of lien.

17.2 **Contractor's Affidavit and Sworn Statement (CASS)**

- A. A/E will ensure that the CASS was completed by the contractor in accordance with the amounts on the draft CASS approved at the progress/pay meeting. This form must be dated, signed and notarized.

17.3 **Stored Material Log (SML), if applicable.**

- A. Definition. Stored materials are materials purchased by the contractor, which are ready to be installed and which are either stored on or off the site. This does not include materials to be installed within the next month.
- B. The SML form must be submitted to the architect/engineer for review. The A/E will inspect the stored materials and attest to their existence, security, and identification by initialing the items listed on the SML. This certification must be obtained by the contractor prior to the progress/pay meeting. The SML will be submitted each month until all stored materials are installed.
- C. Surety letter. A one-time letter endorsing payment for stored materials from the contractor's surety with power of Attorney and Jurat must be on file with CDB.
- D. The value of stored material approved for payment shall be incorporated into the CASS.
- E. Off site storage.
 - 1. CDB does not usually pay for materials stored out-of-state or at a manufacturer's facility.
 - 2. All material stored off the site must be clearly tagged and labeled with the CDB project name and number and is to be available for inspection by the architect/engineer, CDB and the using agency, upon reasonable notice.
 - 3. When material is stored off site, pay requests must be accompanied by a certificate of insurance for each off site storage location.
 - 4. If stored in a bonded warehouse, the contractor must provide the CDB project manager with a copy of the bond, along with the certificate of insurance.
 - 5. CDB will compensate the A/E up to 8 hours travel and review time to inspect off-site stored materials at the billable rate for on-site representation. A/E is not required to review material stored at a location which cannot be inspected within this 8 hour limit. A/E shall reject requests for compensation for stored material until such time the material is moved to a location within the 8 hour reimbursement limit.

17.4 Partial Waivers of Lien.

- A. All waivers must use the CDB Partial Waiver of Lien form and bear the signatures of the president or vice-president and secretary or assistant secretary. The corporate seal is not a required element.
- B. Contractor: A Partial Waiver of Lien for the full amount of the payment is required from the submitting contractor with each pay request.
- C. Subcontractors and suppliers: Waivers for subcontractors are not required with the first payment package, unless the contractor is requesting more than 50% of its total contract. Each subsequent payment package must include Partial Waivers of Lien from each subcontractor and supplier included in the immediately preceding payment package, in the amount of that prior payment.

17.5 Invoice-Voucher (Form C-13)

- A. If all above items have been submitted and are correct, A/E will review the invoice-voucher for agreement with the CASS form approved at the progress/pay meeting and sign where indicated.
- B. Signer must be a licensed architect or engineer.

Article 18 REVIEW OF REQUESTS FOR REDUCTION OF RETAINAGE

- 18.1 The contractor may request a reduction in retainage after 50% of the work has been completed and if the project is not delayed due to actions of the contractor. The request for reduction in retainage shall be submitted 1 month prior to the payment request on which retention is reduced.
- 18.2 Request for Reduction of Retainage form (RRR). The contractor completes the top of this form and attaches the Surety Letter of Consent with power of attorney and jurat. The percentage of work completed is based on the contractor's approved payment applications. Stored materials, bonds and insurance are not included in this percentage.
- 18.3 The completed RRR is reviewed by the A/E and, if the contractor's performance is considered satisfactory, the reduction in retention may be recommended by: the coordinating contractor, the Architect/engineer, the Using agency, and the Project manager. All parties must agree for the reduction to be approved.
- 18.4 For the pay request following approval of the RRR by CDB, the new retention percentage will be used to calculate the "total retained," automatically returning a portion of the previous retainage to the contractor in that payment request. All changes in retainage must be reflected on the CASS form.

Article 19 REVIEW OF REQUESTS FOR PROPOSAL AND CHANGE ORDER

- 19.1 A change order must be issued whenever it becomes necessary to modify any of the elements of a contract, which include time, scope and compensation.
- 19.2 Specific procedures and standard CDB forms required for preparing and processing construction contract changes have been developed by CDB and are included in Procedures and Forms - Construction Phase manual.
- 19.3 Requests for a change may be initiated either verbally or in writing. Subcontractors' requests shall be directed to their contractor, assigned contractors to the coordinating contractor, and coordinating contractor to the A/E who, in turn, will notify the CDB PM of the request. Requests by the using agency or A/E shall be made to the CDB PM.
- 19.4 Only the CDB PM can authorize the A/E to prepare a Request for Proposal/Change Order (RFP/CO).
- 19.5 The A/E shall prepare an RFP/CO for each contract affected by the proposed change including supplemental drawings and/or specifications to fully describe the change in the work.
 - A. Each RFP/CO package should be self-explanatory.
 - B. The architect/engineer completes the RFP/CO form through Section 5. Sufficient information must be provided in Sections 2, 3 and 4 on the front of the form to adequately describe the change and explain the reason for the change. Include attachments only as needed to adequately describe the change and its reason.
 - C. Sole and/or dual sourcing via change order is prohibited.
 - D. When requested by the CDB PM, the A/E shall submit a cover letter to the change order package explaining the need for the contract change.
 - E. The architect/engineer transmits two sets of the RFP/CO package for each contract to the coordinating contractor. One set is for the assigned contractor whose work is affected. One set is for the coordinating contractor.
- 19.6 Stringing of change orders (multiple change orders in small amounts addressing the same, or similar, problem), is prohibited.
- 19.7 Each assigned contractor submits one copy of their proposal package (including back-up for their own work as well as back-up for work performed by their subcontractors) to the coordinating contractor. When there is no assignment of contracts, the contractor submits one copy of its package to the architect/engineer.
- 19.8 The A/E shall review the contractor's proposal for completeness and conformance with the RFP/CO and contract documents. Where change orders require additional clarification or additional back-up, the A/E shall obtain such information from the contractors prior to forwarding the change order package to CDB. See Procedures and Forms - Construction Phase for detailed information on required forms and back-up. At a minimum, A/E shall review RFP/COs for:
 - A. Signatures of contractor, subcontractors and suppliers,
 - B. Contractor's proposal meets and matches approved RFP language

- C. CPBS form, summary computations form, labor wage breakdown sheet, and material back-up for contractor and subcontractors,
 - D. Correct labor and material quantities, prices, and math.
 - E. On a user requested change order, a letter of request on the user's letterhead, signed by the user.
- 19.9 When A/E has reviewed all back-up, quantities, prices and other data in the contractors' proposal and has found such to be reasonable and in conformance with the provisions of the Contract Documents, the A/E shall recommend issuance of a change order by completing Section 6 and signing the RFP/CO form.
- 19.10 The A/E shall be responsible for obtaining the signatures of the using agency representative prior to forwarding the change order package to CDB. When the work of a change order has been divided between more than one contractor, all RFPs relating to that change order constitute a package.
- 19.11 When requested by CDB, the A/E and any consultants shall be required to attend Board meetings to explain any change orders presented for Board approval.

Article 20 SUBSTANTIAL COMPLETION

- 20.1 Substantial Completion occurs when CDB accepts the certification of the architect/engineer that construction on the project or a designated portion thereof is sufficiently complete in accordance with the contract documents that it may be occupied or utilized for the use for which it is intended.
- 20.2 The contractor notifies the architect/engineer in writing that the work or a designated portion thereof is substantially complete and submits to the architect/engineer a list of incomplete items.
- 20.3 The architect/engineer will make a preliminary evaluation and, if in agreement with the contractor that the project is substantially complete, notify the CDB project manager to schedule a substantial completion inspection. The A/E should not recommend substantial completion if, based on the A/E's site visits and observer reports, the punch list would be excessive or critical elements of the project are not operational or incomplete.
- 20.4 The substantial inspection date will be scheduled by the architect/engineer and the CDB project manager after agreement that the project appears to be substantially complete. Notice for the inspection will be issued by the architect/engineer.
- 20.5 The architect/engineer will prepare a preliminary punch list prior to the scheduled inspection.
- 20.6 Attending the inspection will be:
 - A. The coordinating contractor
 - B. All assigned contractors
 - C. Architect/engineer
 - D. Architect/engineer's construction observer
 - E. Using agency representative
 - F. CDB project manager
- 20.7 The final punch list will be developed from the preliminary list submitted by the contractor and the A/E's list, with input from the using agency representative and the CDB project manager.
- 20.8 After the inspection, participants:
 - A. Discuss the punch list items and determine the final completion dates.
 - B. Discuss the date and time the using agency will take occupancy.
 - C. Review the using agency or contractor responsibilities for:
 - 1. Insurance.
 - 2. Utilities.
 - 3. Operation of mechanical, electrical and other systems.
 - 4. Maintenance and cleaning.
 - 5. Security.
 - D. A/E and contractor sign agreed upon punch list.
 - E. All participants complete and sign the Substantial Completion Form.
- 20.9 Each contractor will submit a Substantial Completion package which consists of the following:
 - A. Completed Guaranties, Warranties, Bonds form (GWB) and all warranties required by the specifications. Each contractor must also include its one-year warranty on labor and materials for all work in their contract.

- B. Certificate of Operating and Training Instruction.
- C. One complete set of approved shop drawings.
- D. Operating and maintenance manuals and part lists for equipment installed in the project in quantity specified.
- E. A signed receipt from the Using Agency for all materials turned-over to the using agency.
- F. A list of all suppliers and subcontractors with complete names, addresses and telephone numbers of persons to be contacted for service and/or replacement of materials and equipment.

20.10 The architect/engineer reviews the submittals for accuracy and compliance with the contract documents, attaches the Certificate of Substantial Completion and the punch list and forwards the package to the CDB project manager.

- A. Review guarantees, warranties and bonds for coverage, start date and duration in accordance with the contract documents
- B. Ensure that the contractors comply with the requirements of sections 01730 and 01740 of the Project Manual.
- C. Confirm that all extra material, salvaged material, and equipment specified in the contract documents which are the property of CDB are properly identified, delivered and stored. A/E shall obtain and transmit signed receipts of such deliveries by the contractor to the authorized agency or the using agency accepting the delivery. Proper identification shall include the CDB project number; project specification number; description of the item and its purpose for use; name, address and phone number of the contractor who provided the item.

Article 21 FINAL ACCEPTANCE

- 21.1 Final acceptance is a condition which occurs when CDB accepts the certification of the architect/engineer that the contractor has complied with all requirements of the contract, and that the contractor is authorized to receive final payment in full including all retainage.
- 21.2 Final acceptance is dependent only on an individual contractor's performance and is not related to the other contractors' performance on a project. Upon completion of contractual obligations, each contractor's contract will be closed out. Due to the coordinating contractor's contractual obligations to the assigned contractors, the coordinating contractor usually will not be closed out prior to the other contractors.
- 21.3 To initiate close-out, the contractor notifies the architect/engineer, in writing, that:
- A. All punch list items have been completed or corrected.
 - B. Contract documents have been reviewed and the project has been inspected for compliance with the contract.
 - C. Equipment and systems have been tested in the presence of the using agency representative and are operational.
 - D. The using agency's personnel have been instructed in the operation and maintenance of all equipment and systems.
 - E. The project is complete and ready for final inspection.
- 21.4 When the A/E considers the work is complete in accordance with contract requirements, the final acceptance and final payment submittal will be submitted and reviewed.
- 21.5 A formal final acceptance meeting may be held at the option of the CDB project manager. Verification of completion of the punch list will be made by the architect/engineer and the project manager. The final acceptance form will be signed at the meeting or forwarded by the A/E to the appropriate parties for signature.
- 21.6 The final close out package from each contractor to the architect/engineer consists of the following:
- A. The final payment package:
 - 1. Invoice Voucher.
 - 2. Revised CSV, if applicable. Marked as "FINAL"
 - 3. Contractors Affidavit and Sworn Statement (CASS).
 - 4. Contractors Final Declaration (CFD) with Power of Attorney.
 - 5. Final Waivers of Lien from each subcontractor and supplier for the full amount of their contract (as shown on the current CSV) on CDB forms only.
 - B. Testing and balancing reports.
 - C. Marked-up specifications and addenda.
 - D. Project record documents (marked up prints).
 - E. Architect/Engineer Performance Evaluation (A/E-PE). (May be sent directly to the PM)
 - F. Contractor Performance Evaluations (CPE) on other contractors.
 - G. Guarantees, Warranties and Bonds form and warranties for items on the punch list. GWB duration for all punch list items begins on the date of final acceptance.
 - H. Any items not submitted at Substantial Completion.
- 21.7 The architect/engineer reviews the submittal for completeness and accuracy and transmits to the CDB PM:

- A. FCP form with top part completed and signed by A/E.
- B. Certificate of Final Acceptance.
- C. The final payment package.
- D. Guarantees, Warranties and Bonds form and warranties for items on the Punch List.
- E. Copy of the transmittal letter to the using agency for O&M manuals, shop drawings, as-builts, etc.
- F. Certificate of Operating and Training Instruction.
- G. CPE's and A/E-PE's completed by contractor
- H. Contractor's Performance Evaluation form (by A/E)

21.8 The Contractor Performance Evaluation Form (CPE) may be initiated at any time; however, it is usually submitted during the final close-out.

Article 22 A/E CLOSEOUT

22.1 A/E Final Close-out Package (FCP)

- A. After all contractors are closed out, A/E may submit FCP and final pay request.
- B. FCP includes record documents, T & B reports, and hazardous material reports.

22.2 Record Construction Drawings. Prior to submitting A/E's final payment request, A/E shall submit to CDB revised contract documents labeled "Record Construction Drawings," which show all changes reported by the contractor(s), all changes made by change orders or addenda, and any clarifications made by the A/E during construction.

- A. All drawings shall be sealed in accordance with [Article 7.2](#).
- B. A/E shall provide a statement on the cover sheet certifying the following: "With this seal, we do hereby certify that no asbestos-containing materials were specified or approved for the construction identified within these documents."
- C. Documents shall be submitted in electronic format.
 - 1. When using AutoCad, version 14 or later, use "pack-n-go" or "e-transmit" utility to organize files in a single root directory.
 - 2. Drawing files must be listed before the support files and must appear in the same order as the "Issued for Construction" drawing set.
 - 3. Drawing files may be renamed to ensure they appear in the correct order, for instance by adding numerical prefixes to the drawing name, e.g. **001_G1.dwg**, **002_C1.dwg**, **003_A1.dwg**.
 - 4. When using Microstation or other CAD program, convert the drawings and software support files to AutoCad and prepare a single project directory as above. Be sure that all drawings and support files convert fully.
 - 5. Ensure that all drawings and support files on the CD are complete.
 - 6. Ensure that the drawings and fonts are legible with a [Volo View](#) CAD reader. [Volo View](#) is a free downloadable viewer from Autodesk utilized by CDB to view electronic drawings.
 - 7. The documents must also be readable in Windows Explorer.
 - 8. Electronic Professional Seals are required on the Record Drawings.
- D. The CD shall be accompanied by the Record Drawing transmittal form ([Appendix 9](#)). Each individual who seals the drawings must also sign and seal the transmittal form.
- E. CDB may reject the record drawings for any of the following reasons:
 - 1. There is no A/E seal on the documents. Note that each sheet of the drawings must bear a legible seal that can be reproduced.
 - 2. The drawing index is incomplete and/or has not been updated to list new or revised sheets.
 - 3. The "Revisions" section of the title block on each sheet does not note the words "Record Drawings" and/or the date of the submission.
 - 4. The reproduction quality is poor. If line work and/or lettering is too light or of poor quality or there is too much background the documents may be rejected.

5. The lettering does not meet CDB standard 1/8" minimum height requirement.
 6. The documents contain improper sheet numbers or are in improper numbering sequence.
 7. The documents submitted are incomplete.
- F. A/E will provide CDB PM with one set of record drawings on CD for CDB and one set of record drawings on CD or diskette for Using Agency central office; a black line print paper copy may also be required for the Using Agency. Verify requirements with the CDB PM.
- G. For asbestos abatement projects and projects that included asbestos abatement, the A/E shall complete an Asbestos Abatement Project Summary Report and forward it to the CDB PM on CD. The report format can be found in the Project Manual Workbook for Asbestos, Lead, UST and PCB. Reports not on CD will not be accepted.

22.3 **Final Payment.** In addition to the construction related requirements in this section, A/E's final payment is dependent upon final resolution of any fee adjustments required by the agreement. A/E is encouraged to resolve such issues early to expedite the final pay request.

- A. If a final modification is required to adjust basic fee or reimbursables (discuss with PM), A/E will cooperate with CDB, provide required backup, and sign and return modification promptly.
- B. If some reimbursable line items remain unused, and a modification is not required to close out those line items (see PM), A/E will provide CDB with a letter summarizing used and unused reimbursables and releasing any claim to the unused reimbursables.

Article 23 NINE MONTH INSPECTION

- 23.1 CDB shall notify the A/E who shall make arrangements with the Using Agency for an inspection of the contracted work nine months after substantial completion of the project. The A/E shall exercise care and judgement to determine corrective action to be taken under warranties or guarantees as opposed to abuse, misuse, normal wear and tear or lack of proper maintenance. The A/E shall provide a written report of the inspection to CDB and the using agency within seven calendar days. CDB will notify the contractor(s) of any required corrective action noted in the report.

APPENDICES

Appendix 1 A/E PRB

State of Illinois CAPITAL DEVELOPMENT BOARD

001-1296

A-E PRB

Architect-Engineer Payment Request Breakdown

Project No.:
Request No.:
Date:
Payment Period _____ 20 ____ to _____ 20 ____

FOR CDB USE ONLY

Name: _____
Project No: _____
Contract No.: _____
C.F. Locale: A/E #5

Architect-Engineer: (Name, Address)

PROJECT: (Name, Location, Using Agency)

FEIN:

Contract No.:

TOTAL CONTRACT OBLIGATION	Original Contract	E Total Contract To Date	I Previous Payments	J This Request	K Balance to Become Due
Basic Services				_____	
Additional Services				_____	
Construction Administration Fee (CAF)				_____	
On-Site Representation (Attach Summary Form)				_____	
Reimbursables				_____	
Other				_____	
TOTAL					

TOTAL BASIC SERVICES BREAKDOWN (Less CAF)

Phases of Work	% of Basic Services	Dollar Value Per Phase	Previous Payments	This Request %	This Request \$ Value	Balance to Become Due
Program Analysis	_____					
Preliminary Design	_____					
Bidding Documents	_____					
Bidding	_____					
Construction	_____					
Project Turn Over and Close Out						
SUBTOTALS	100					

ITEMIZATION OF REQUEST FOR PAYMENT for Reimbursable Expenses & Other:

All requests for reimbursement of expenses must be accompanied by the invoices of such expenses.

	Original Contract	Total Contract To Date	Previous Payments	This Request	Balance Of Allowances
1. Sub-Soil Investigation					
2. Design Phase Material Testing					
3. Construction Phase Material Testing					
4. Printing Bid Documents					
5.					
6.					
7.					
8.					
SUBTOTALS					

SEE REVERSE FOR CONSULTANTS PAYMENT REQUEST BREAKDOWN

CONSULTANTS PAYMENT REQUEST BREAKDOWN
(MUST BE SUBMITTED WITH A-E PRB AND INVOICE VOUCHER)

CONSULTANTS NAME AND DISCIPLINE		TOTAL CONSUL- TANTS CONTRACT	PREVIOUS PAYMENTS	THIS REQUEST	BALANCE TO BECOME DUE
	DESIGN				
	CONST.				
	TOTAL				
	DESIGN				
	CONST.				
	TOTAL				
	DESIGN				
	CONST.				
	TOTAL				
	DESIGN				
	CONST.				
	TOTAL				

State of Illinois
CAPITAL DEVELOPMENT BOARD

002-0902

ON-SITE REPRESENTATIVE SUMMARY
(Must be submitted with A/E PRB & Invoice Voucher)

FOR CDB USE ONLY	
Name:	_____
Project No:	_____
Contract No.:	_____
C.F. Locale:	<u>A/E #5</u>

Project: _____
A/E: _____

CDB Project No: _____
Contract No.: _____
Period: _____ to _____

Mo.		Yr.	Observer No. 1		Observer No. 2		Observer No. 3		Observer No. 4	
Date	Day of Week	Base or On-site rep	()	()	()	()	()	()	()	()
			on-site / travel	on-site / travel	on-site / travel	on-site / travel	on-site / travel	on-site / travel	on-site / travel	on-site / travel
1										
2										
3										
4										
5										
6										
7										
8										
9										
10										
11										
12										
13										
14										
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16										
17										
18										
19										
20										
21										
22										
23										
24										
25										
26										
27										
28										
29										
30										
31										
Total On-site Rep Hours										
DWE										
Overhead/Profit Multiplier										
Total for Period										
Total										

Appendix 2 STATUTORY REQUIREMENTS

1. **Life Cycle Cost Analysis.** Public Act 80-430 amended the Capital Development Board Act and requires CDB "To prepare, or cause to be prepared, general plans, drawings and estimates, including the life-cycle cost estimate of energy systems, for public buildings and improvement to be erected for any State agency." A/Es are required to prepare life cycle cost estimates for the energy consuming systems proposed to be improved or constructed new.

1.1 CDB shall establish the parameters for all life cycle cost estimates to be prepared. These include the life of the study, the "discount rate or cost of capital", escalation rates by category, bond financing repayment schedule, etc. The life cycle cost estimates shall be prepared in accordance with CDB's latest revision of its Life Cycle Cost Analysis Manual unless another computation model is approved by CDB.

1.2 The preparation of life cycle cost estimates is considered part of the basic services of the agreement.

2. **Farmland Preservation Act.** The Farmland Preservation Act, 505 ILCS /1 et seq., seeks to "minimize the conversion of prime farmland that results from the direct or indirect effects of State programs..." In compliance with that act, CDB has adopted a Agricultural Land Preservation Policy and a working agreement with the Department of Agriculture.

2.1 No State funds may be committed for land acquisition or construction unless it is provided for in an exception in CDB's working agreement with the Department of Agriculture or until a study of the agricultural impact has been completed by the Department of Agriculture.

2.2 If required, CDB shall notify the Dept. of Agriculture if the proposed project will lead to conversion of farmland to nonagricultural purposes. The A/E may be directed to mitigate the conversion to greatest extent possible. This policy does not affect the agreement and any effort involved is considered part of the basic services.

3. **Endangered Species Act.** The Illinois Endangered Species Protection Act, 520 ILCS 10/1 et seq., provides protection for the State's threatened or endangered flora and fauna. It is the public policy that all agencies, through a consultation process with the Department of Natural Resources, determine whether any action funded by CDB is "likely to jeopardize the continued existence of Illinois listed endangered and threatened species or are likely to result in the destruction or adverse modification of the designated essential habitat of such species.....". CDB may request the A/E to prepare or cause to be prepared a determination of the project impact on any endangered flora and fauna at the site. This study would be an additional service under the agreement.

4. **Wetlands Policy Act.** The Interagency Wetlands Policy Act of 1989, 20 ILCS 830 /1et seq., requires State agencies to avoid impacting wetlands. If impacts are unavoidable, compensation is required. This Act is administered by the Department of Natural Resources through administrative rules that the department has and may promulgate.

4.1 Any CDB project having an adverse impact to a wetland is subject to compliance with this act and the associated administrative rules. No project impacting a wetland shall commence without review and approval of the compensation plan by the Department of Natural Resources.

4.2 The A/E shall prepare, or cause to be prepared, a wetland impact determination according

to the administrative rules. In addition to the project identifying information, the A/E shall provide the alternative actions considered and the justification for the selected alternative that may or is likely to adversely impact a wetland.

- 4.3 The A/E may be requested to prepare a wetlands compensation plan when the wetland determination which adversely impacts a wetland is approved. This plan must be developed in cooperation with the using agency and CDB.
- 4.4 If the project impacts a wetland, both the determination and the compensation plans must be approved by the Department of Natural Resources prior to commencement of the design.
- 4.5 The preparation of a wetland determination and compensation plan is an additional service to the agreement.

5. **Historic Preservation Act.** The Historic Preservation Act, 20 ILCS 3410/9, states that "Public funds administered by State agencies shall not be used in projects which will have an adverse economic or environmental impact on a Registered Illinois Historic Place unless in the opinion of the Director (Historic Preservation Agency):

- A. the project is necessary to provide an important public service or benefit
- B. the project cannot be carried out practically so as to avoid the adverse effect and
- C. the adverse effect is minimized to the maximum extent feasible."

- 5.1 A historic place includes real property where any significant improvements are at least 50 years old or any aboriginal mound, fort earthwork, village, location, burial ground, historic or prehistoric ruin, mine case or other location which is or may be the source of important archeological data. A Registered Illinois Historic Place means any historic place placed on the registry.
- 5.2 CDB may request the A/E to prepare or cause to be prepared an impact statement of the project on a Historic Place. This would be an additional service to the agreement.
- 5.3 Any project that is subject to the provisions of this act may require review for adverse impact by the Illinois Historical Preservation agency (IHPA), early in the design process. The CDB PM shall provide the A/E with a copy of the IHPA Architectural/Engineering Review handout when applicable.

6. **Archaeological and Paleontological Resources Protection Act.** The Archaeological and Paleontological Resources Protection Act, 20 ILCS 3435, regulates the exploring, excavating, and surveying of all such resources on public land through the Historic Preservation Agency (HPA). Resources are defined as any significant material remains or localities of past human life or activities. A permit from the HPA is required before disturbance, exploration, excavation or collection of any resources protected by this act is commenced.

- 6.1 CDB may request the A/E to prepare, or cause to be prepared, an application for a permit from HPA when CDB believes that significant archaeological or paleontological resources exist on a project site. CDB may also request the A/E or its consultant to explore, survey, and collect information on the resources on the site. This would be an additional service to the agreement.

- 6.2 If during the life of the project, archaeological or paleontological resources are unexpectedly discovered on the project site, the A/E shall issue directives to protect the resources and advise CDB immediately of the findings.

7. Steel Products Procurement Act.

- 7.1 The Steel Products Procurement Act, 30 ILCS 565, requires that all contracts for the construction, reconstruction, or improvement of public works contain a provision that steel products used or supplied by the contract or a subcontract thereto, shall be manufactured or produced in the United States. Steel products means “products rolled, formed, shaped, drawn, extruded, forged, cast, fabricated, or otherwise similarly processed or process by a combination of two or more such operations, from steel made in the United States by open hearth, basic oxygen, electric furnaces.”
- 7.2 The exceptions to the Act are:
- A. Where the expenditure is less than \$500.
 - B. Where the Executive Director of CDB certifies in writing that:
 - 1. The specified product can not be manufactured or produced in sufficient quantity to meet the project needs.
 - 2. The specified product can not be manufactured or produced in necessary time to meet the project needs.
 - 3. Obtaining the product would increase the cost of the contract by more than 10 percent.
 - C. When the application of the Act is not within the public interest.
- 7.3 The A/E shall select products for inclusion in the project specifications that meet the requirements of the Act.
- 7.4 The Act provides that CDB may not authorize payment to any contractor in violation of the Act.

8. Clean Water Act

- 8.1 All discharges of pollutants into waters of the United States are illegal unless they comply with a permit or with approved standards. ‘Pollutants’ includes any dirt or waste. ‘Waters of the United States’ includes any body of water that eventually reaches a navigable body of water by an overland route, including streams and ditches that may be dry for most of the year.
- 8.2 The Clean Water Act calls for two types of permits: NPDES (National Pollutant Discharge Elimination System) under Section 402 or dredge and fill permits under Section 404.
- 8.3 NPDES permits are required on construction sites when storm waters may carry soil or other pollutants into waters of the United States. NPDES permits are issued in Illinois by the Illinois Environmental Protection Agency (ILR 10).
- 8.4 For further information contact the IEPA, 217/782-0610.

Appendix 3 PROPOSED PROJECT COST BUDGET FORM

State of Illinois
CAPITAL DEVELOPMENT BOARD**FOR CDB USE ONLY**027-0902
PROPOSED PROJECT
COST BUDGETName: _____
Project _____
Contract _____
C.F. Design PhaseCDB PROJECT _____
BLDG. _____
PROJECT: _____
LOCATION: _____
A/E _____
CDB PROJECT _____DATE _____
PROJECT _____
GSF _____ NASF _____ NASF/GSF _____
SITE _____
PREPARED _____

1	LAND ACQUISITION COST	\$	_____
2	MOVABLE EQUIPMENT	\$	_____
3	ART-IN-ARCHITECTURE	\$	_____
4	OTHER	\$	_____
5	A/E Basic Service Fee	\$	_____
6	Additional Services	\$	_____
7	Construction Adm. Fee	\$	_____
8	On-Site Representative	\$	_____
9	Subtotal (1 thru 8)	\$	_____
1	A/E REIMBURSABLES		
a.	Subsoil Investigation	\$	_____
b.	Design Ph. Material Testing	\$	_____
c.	Construction Ph. Material	\$	_____
d.	Printing	\$	_____
e.	_____	\$	_____
f.	_____	\$	_____
g.	_____	\$	_____
h.	_____	\$	_____
i.	_____	\$	_____

1	Subtotal (10a thru 10i)	\$	_____
1	TOTAL (9 PLUS 11)	\$	=====

RECAP OF CONSTRUCTION COSTS (Base Bid) (From Page 2 Worksheet)**TRADE ESTIMATES (Column H)**

General	\$	_____
Plumbing	\$	_____
Heating	\$	_____
Ventilating	\$	_____
Electrical	\$	_____
Asbestos	\$	_____
Sprinkler	\$	_____
_____	\$	_____
_____	\$	_____
_____	\$	_____
Contingency (Column D	\$	_____
TOTAL BASE BID		_____
BUDGET (Trade estimates \$		_____
+ contingency)		_____

TOTAL BUDGET (12 plus	\$	_____
Total Project Funds	\$	_____
(From Project Scope)		_____
Available Funds for	\$	_____
Construction		_____
(15 minus 12)		_____
Alternates (Total from	\$	_____
Base Bid plus Alternates	\$	_____
(13 plus 17)		_____

Worksheets

Trade	A Building (Base Bid Estimate)	B Site Work (Base Bid Estimate)	C Subtotal (A + B)	D Contingency (C x 10%)	E Alternates	F Subtotal (C + E)	G CAF (F x 1.5%) Round up to next \$100	H Subtotal (C + G)	I Total (D + F + G)	J I/GSF
General	E Alternates									
Plumbing										
Heating										
Ventilating										
Electrical										
Asbestos Abatement										
Sprinkler										
Column Totals										

List alternate bid packages here ? Use additional sheets to list alternates in excess of three	Trade	Alternate #1	Alternate #2	Alternate #3	Totals
	General				
	Plumbing				
	Heating				
	Ventilating				
	Electrical				
	Asbestos Abatement				
	Sprinkler				
	Total				

- RECOMMENDATION -**CDB REVIEW CHECKLIST**

Program Analysis (PA) Phase submittal

Design Development (DD) Phase submittal

01-01-2002

Date _____

Project Number _____

Project Manager _____

Design Rep. _____

Contract _____

Exec. _____

*These checklists have been prepared to provide clarity and instruction to A/E's in the preparation of the PA/DD submittal(s). They are intended to clarify the requirements stipulated in CDB's Design and Construction Manual (DCM), and **neither alter nor eliminate** the requirements set forth in the DCM or in the Professional Services Agreement. CDB recognizes that unique challenges and solutions are inherent in each project. Therefore these requirements should be addressed by the A/E only **as applicable** to each project and scope of work. Submittals which combine the PA and DD phases should include all applicable requirements for each phase.*

PA submittal

q:\techteam\reqs\papd

- ? Narrative indicating the scope of work and a complete basis for the project design
- ? Diagrams (i.e., floor plans, site plans, flow diagrams, etc.) to graphically supplement the narrative
- ? Code analysis
- ? Proposed Project Cost Budget form
 - ? Cost estimate for each trade
- ? Estimated construction schedule

New buildings, additions

- ? Space itemization analysis.
 - ? Function and size of space
 - ? Number and classification of occupants
 - ? Type and quantity of equipment
 - ? Required utilities
 - ? Special environmental and/or system req's.
- ? Total area of program spaces

Remodeling projects

- ? Statement of the status of asbestos and other hazardous materials
- ? If required, involvement of the Illinois Historic Preservation Agency has been acknowledged
- ? Required general phasing of work has been identified

DD submittal**Budget**

- ? Proposed Project Cost Budget form
- ? Cost estimate for each trade and major work item

Project Manual

- ? Project Summary section 01010 is complete
- ? Outline specification for each major project component.
Provide an outline of the specification section pertaining to each major work item. A Table of Contents list is not acceptable.

Drawings

- ? Site Plan
 - ? Each building located
 - ? Existing CDB Building Numbers are indicated
 - ? Existing and finished contours
 - ? Ground floor elevations
 - ? Roads, walks, parking areas
 - ? Utilities
 - ? Other site construction
 - ? Limits of the contract
- ? Floor Plans
 - ? All exterior elevations
 - ? Vertical building sections
 - ? Location and type of primary structural members
 - ? Fixed Equipment, including utility service req's.
 - ? Plumbing fixtures
 - ? Heating
 - ? Ventilating
 - ? Electrical
- ? Areas requiring acoustical treatment are identified

Other Requirements

- ? Current project schedule (not necessarily *contractual* schedule)
- ? Life cycle cost analysis for each alternative energy system considered
- ? Model or rendering (if required)
- ? Area analysis tabulation (PA comparison)
- ? Illumination levels
- ? Other negotiated requirements _____

CDB REVIEW CHECKLIST

50% Design Submittal

05-16-2002

Date _____
Project Number _____
CDB PM *initials* _____
Design Rep. _____
Contract Exec. _____

*This checklist has been prepared to provide clarity and instruction to A/E's in the preparation of the 50% design submittal. It indicates information that is generally expected by CDB at the 50% phase, and **neither alters nor eliminates** the requirements set forth in the Design and Construction Manual or in the Professional Services Agreement. CDB recognizes that unique challenges and solutions are inherent in each project. Therefore, these requirements should be addressed by the A/E only as **applicable** to each project and scope of work.*

Cost Estimate

- ? "Proposed Project Cost Budget" form including all applicable trades and the Construction Administration Fee (CAF) for each trade.
- ? Cost estimate
Costs are identified for each trade and a breakdown of work items within each trade. Major budgetary decisions are established, including construction cost, base bid and alternates.

Project Manual

- ? Divisions 0 and 1 are 95% complete
 - ? Table of Contents is completeThe following sections are complete and coordinated with the technical specifications sections:
 - ? 01340
 - ? 01410
 - ? 01730
 - ? 01740
- ? Hazardous materials are identified
- ? Alternate bids are established
- ? Each technical specification section is partially complete in standard CDB format (as per CDB's Design and Construction Manual). A list of products and execution processes is required.
- ? All technical specification sections are in correct Base Bid / Alternate format (as per CDB's Design and Construction Manual), assigning work to the correct trade/contractor(s).
- ? Single- and dual-source products have been identified
 - ? Letters of request from the A/E and the Using Agency have been submitted to CDB.
- ? Roofing sections are complete
As per CDB's Membrane Roofing Program Handbook
- ? Roofing sections have been submitted to the specified roofing system manufacturers for the signing and returning of the Roofing System Manufacturer's Certificate.

Drawings

General information

- ? Cover Sheet G-1 is complete
 - ? Standard CDB title block
 - ? State Building Inventory numbers and names
 - ? Maps
 - ? Index of Drawings
- ? Key to symbols, abbreviations and material indications is provided

Civil Drawings

- ? Site Plan includes utility locations, topographic drawings, site drainage, parking areas, roads, sidewalks, survey control points, grades and radii
- ? Details are partially complete
- ? Cross sections are established
- ? Soil investigations, including septic analysis

Architectural

- ? Floor Plans are complete
Includes dimensions, room names, room numbers, door numbers, large equipment items, section symbols, detail symbols and interior elevation symbols
- ? Reflected ceiling plans are complete
Includes heights, materials finishes, light fixtures and grills
- ? Roof Plan is complete
As per CDB's Membrane Roofing Program Handbook
 - ? Roof Plan has been submitted to the specified roofing system manufacturers for validation of their warranty
- ? Building elevations are complete
- ? Building sections are complete
- ? Wall sections are complete
Includes a section at each significant wall configuration
- ? Details
 - ? All connections of new work to existing structures
 - ? All enlarged details of wall sections
 - ? Roofing and flashing details
- ? Complicated interior elevations are complete
- ? Door Schedule is partially complete
Door numbers, locations, types and sizes are indicated
- ? Room Finish Schedule is partially complete
Room names, room numbers, finishes and ceiling heights are indicated

50% checklist

Drawings, *continued*

Structural

- ? Structural Notes include information pertaining to applicable building codes, strengths of materials, live loads, dead loads, lateral loads, seismic provisions and other general notes.
- ? Foundation Plan is established
 - ? Footing schedules are partially complete
- ? Framing plans are complete
 - ? Framing systems and preliminary sizes of members are indicated
- ? Frame elevation sheets are partially complete
- ? Column schedules are partially complete

Plumbing

- ? Plumbing plans indicate fixture locations, equipment locations, gas, water, interior storm, sanitary waste and vent pipe routing.
- ? Plumbing equipment schedules are partially complete.
 - Indicates capacities of major equipment*
- ? Basic installation details of major equipment
- ? Source of utilities
 - May be located on Site Plan or Site Utility Plan*

Fire Protection

- ? Plans indicate sprinkler riser, standpipe riser, fire department (Siamese) connection and areas to be protected by sprinkler system or other automatic extinguishing system
- ? Source of water / connection to existing system

Heating

- ? Heating plans indicate major equipment, heating water and chilled water piping
- ? Equipment schedules are partially complete.
 - Indicates capacities of major equipment*
- ? Basic installation details of major heating equipment

Ventilating

- ? Ventilating plans indicate major equipment, duct routing and location of required fire or smoke dampers
- ? Equipment schedules are partially complete.
 - Indicates capacities of major equipment*
- ? Basic installation details of major ventilating equipment
- ? Provision for oversized or backup equipment
 - In consideration of future capacity*

Temperature Controls

- ? Sequence of operations for major equipment
- ? Preliminary points list
- ? Temperature control / building automation system connection to existing system

Electrical

- ? Electrical plans indicate fixtures, devices, symbols, mechanical equipment and special systems, including fire detection/alarms
- ? Ratings are partially determined
 - Service entrance equipment, switchgear, panelboards, motor services and other equipment*
- ? All feeders 100A and larger that are shown should show conduit routing
 - Home run symbols are not acceptable*
- ? Code-required clearances are established
- ? Equipment schedules are partially complete, identifying all equipment
- ? Power one-line diagrams are partially complete
 - Indicates all panels, transformers, voltages, main overcurrent devices and amp ratings*
- ? Panel schedules are partially complete
 - Indicates the load requirements per circuit, the total panel connected loads and any de-rated load calculations*
- ? Special systems one-line diagrams show all major equipment
- ? Grounding electrode system and connections are shown
- ? Illumination levels are indicated, and light sources are identified

PROJECT MANUAL

C D B - PROJECT NUMBER -- _____

NEW MULTI-PURPOSE BUILDING (XX999)
JOLIET ILLINOIS YOUTH CENTER
JOLIET, WILL COUNTY, ILLINOIS

CONTRACTS: GENERAL
 PLUMBING
 HEATING
 VENTILATION
 ELECTRICAL

STATE OF ILLINOIS

CAPITAL DEVELOPMENT BOARD

SPRINGFIELD, ILLINOIS

USING AGENCY: DEPARTMENT OF CORRECTIONS

BY:
DRAWEM & SPECKEM ASSOCIATES
3508 TOWER 80 BUILDING
SPRINGFIELD, ILLINOIS 62706
217-593-4163
DPR Design firm Registration No. (if required)

DATE:
(NOTE: Date the same as TOC,
00300 and Drawings)



Professional Seals

License expiration date

Signature

Date signed

TOC - Table of Contents

PROJECT MANUAL - TABLE OF CONTENTS

State of Illinois
CAPITAL DEVELOPMENT BOARD

(*PROJECT ARCHITECT/ENGINEER, FIRM NAME, ADDRESS, PHONE, ZIP & AREA CODES.)

PROJECT MANUAL FOR

CDB-(*PROJECT NUMBER)

(*PROJECT TITLE, LOCATION, COUNTY, STATE.)

DATE: (*USE SAME DATE ON ALL DRAWINGS, PROJECT MANUAL COVER, AND TOC-1)

<u>DIVISION</u>	<u>DOCUMENT</u>	<u>TITLE</u>	<u>PAGES</u> (*)
0	00030	Table of Contents Advertisement for Bids	TOC-1-(*) 00030-1-(*)
		<u>(BID FORMS</u> A/E: Bind one set for each contract into the Project Manual. Include two separate loose sets for bidders' use.)	
	00300	Bid Form (*) General (*Continue as required)	00300-1-(*)
	00304	Minority/Female Workforce Projections (*per CDB direction)DHR PC-2 for GOALS/NO GOALS (2 pages)(*A/E: one projection per contractor)	
	00305	Minority/Female Subcontractor & Supplier Utilization Form (*A/E: one form per contractor)	
	00306	Bid Bond Form	
	00307	Product Substitution Form	
		<u>INFORMATION AVAILABLE TO BIDDERS</u>	
	00320	Geotechnical Data. (*If applicable, includes geotechnical reports and soil boring data)	
		<u>SUPPLEMENTARY CONDITIONS</u>	
	00814	Federally Funded Projects.	00814-1-(*)
	00825	Prevailing Rate of Wages. (*obtain from CDB PM or CDB website)	00825-1-(*)
	00860	Drawings, Schedules, & Details	00860-1-(*)
1		<u>GENERAL REQUIREMENTS</u>	
	01010	Project Summary	01010-1-(*)
	01026	Unit Prices, (*if applicable)	01026-1-(*)
	01030	Alternate Bids, (*if applicable)	01030-1-(*)
	01042	Coordination, (*if applicable)	01042-1-(*)
	01045	Cutting and Patching, (*if applicable)	01045-1-(*)
	01051	Grades, Lines & Levels	01051-1-(*)
	01060	Regulatory Requirements	01060-1-6
	01120	Remodeling Project Procedures	01120-1-(*4)
	01310	Construction Schedule	01310-1-(*)

01340	Shop Drawings, Product Data Schedule	01340-1-(*)5)
01380	Construction Photographs,(*if applicable)	01380-1-(*)
01410	Construction Tests (*if applicable)	01410-1-(*)3)
01510	Temporary Utilities, (*if applicable)	01510-1-(*)9)
01515	Use of Existing Facilities, (*if applicable)	01515-1-(*)
01525	Construction Aids, (*if applicable)	01525-1-(*)
01530	Barriers & Enclosures, (*if applicable)	01530-1-(*)2)
01540	Security (*if applicable)	01540-1-(*)
01550	Access Roads and Parking,(*if applicable)	01550-1-(*)
01561	Construction Cleaning,(*if applicable)	01561-1-(*)
01620	Storage & Protection, (*if applicable)	01620-1-(*)
01710	Final Cleaning	01710-1-(*)
01720	Project Record Documents	01720-1-(*)
01730	Operating & Maintenance Data Schedule	01730-1-(*)8)
01740	Warranties & Bonds Schedule	01740-1-(*)3)

2 (*Continue listing specification sections by division)

(*A/E Note: The A/E should review the project requirements to verify the additional Project Manual Sections required.)

SPECIFIER(*S): General:
 Mechanical
 Electrical
 (*Insert names(s) of person(s) designated by A/E to respond to inquiries and to issue
 addenda. Indicate for all disciplines. Include telephone and fax numbers with area code and
 e-mail addresses.)

END TOC.

BIDDING & CONTRACT REQUIREMENTS
Document 00030 - Advertisement for Bids

The State of Illinois, Capital Development Board (CDB) will receive sealed bids for:

CDB PROJECT #: (*)
TITLE: (*)
LOCATION: (*)
USER AGENCY:(*)
COUNTY: (*)

PROJECT DESCRIPTION: (*A/E: Provide a brief project description to give potential bidders information to help them decide if they wish to request plans; 40 words maximum. Remember that trades and cost ranges below will provide some information.)

<u>TRADE</u>	<u>COST RANGE</u> (*see below)	<u>BID DATE/TIME</u>
GENERAL	under \$ _____ (*MO/DAY/YR)(*am/pm)	
PLUMBING	under \$ _____ (*MO/DAY/YR)(*am/pm)	
HEATING	under \$ _____ (*MO/DAY/YR)(*am/pm)	
VENTILATION	under \$ _____ (*MO/DAY/YR)(*am/pm)	
ELECTRICAL	under \$ _____ (*MO/DAY/YR)(*am/pm)	
ASBESTOS ABATEMENT	under \$ _____ (*MO/DAY/YR)(*am/pm)	
(*OTHER)	under \$ _____ (*MO/DAY/YR)(*am/pm)	

BID LOCATION: (A/E* See Bid Location Map in CDB "Bid Information Newsletter".)

(*SPRINGFIELD PROJECTS)
ILLINOIS CAPITAL DEVELOPMENT BOARD
401 SOUTH SPRING STREET
THIRD FLOOR, WILLIAM G. STRATTON
BUILDING
SPRINGFIELD, IL 62706

(*CHICAGO PROJECTS)
ILLINOIS CAPITAL DEVELOPMENT
BOARD
100 WEST RANDOLPH STREET
SUITE 14-600, 14TH FLOOR
JAMES R. THOMPSON CENTER
CHICAGO, IL 60601

(*PERU AREA PROJECTS)
ILLINOIS CAPITAL DEVELOPMENT BOARD
1222 SHOOTING PARK ROAD, SUITE
106
PERU, IL 61354

(*CARBONDALE PROJECTS)
ILLINOIS CAPITAL DEVELOPMENT
BOARD
SMALL BUSINESS INCUBATOR
150 PLEASANT HILL ROAD, BOX 43
CARBONDALE, IL 62903

Minority & Female Business Subcontractor/Supplier Participation is (*Required)(*Voluntary)

Obtain Plans From: (*A/E FIRM NAME, ADDRESS, PHONE)

Refundable Plan Deposit:(*\$)

Pre-Bid Meeting: (*date, time, location)

INFORMATION TO BIDDERS:

CDB-00030 SEPTEMBER 2002
CDB (*Project Number)

(*Specify as appropriate)

1. Bidders must be prequalified with CDB; allow 45 days for application processing. For an application and a copy of CDB's Standard Documents for Construction (applicable to this project), phone 217/782-6152 (TDD 217/524-4449).
2. All contractors and subcontractors are required to pay prevailing wages as determined by the Illinois Department of Labor.
3. Progress payments will normally be issued by the Illinois Comptroller within 30 business days after CDB receives and approves an Invoice-Voucher.
4. Contact the A/E for the location of plan rooms where documents are on file.

CAPITAL DEVELOPMENT BOARD

Kim Robinson
Executive Director

(*Name)
Project Manager
(*Area Code & Phone Number)

* Suggested cost ranges for table on front are:

Under \$ 12,500	Under \$ 1,000,000
Under \$ 25,000	Under \$ 1,500,000
Under \$ 50,000	Under \$ 2,000,000
Under \$100,000	Under \$ 2,500,000
Under \$150,000	Under \$ 3,000,000
Under \$200,000	Under \$ 3,500,000
Under \$250,000	Under \$ 4,000,000
Under \$300,000	Under \$ 4,500,000
Under \$400,000	Under \$ 5,000,000
Under \$500,000	Under \$ 6,000,000
Under \$600,000	Under \$ 7,000,000
Under \$700,000	Under \$ 8,000,000
Under \$800,000	Under \$ 9,000,000
Under \$900,000	Under \$10,000,000

BIDDING & CONTRACT REQUIREMENTS
Document 00300 - Bid Form

NAME OF FIRM _____

FOR (* TRADE) WORK

BID FOR: CDB PROJECT NUMBER: (*____-____-____)

PROJECT TITLE: (*_____)

BID TO: State of Illinois, Capital Development Board

THE BIDDER ACKNOWLEDGES THE FOLLOWING ADDENDA: (Failure to acknowledge may cause bid rejection.)

NO.____, DATED _____ NO.____, DATED _____ NO.____, DATED _____

NO.____, DATED _____ NO.____, DATED _____ NO.____, DATED _____

EACH BID SHALL INCLUDE:

- A. THE BID FORMS, INCLUDING THE PC-2 FORM (*, AND THE MBE/FBE FORM).
- B. BID SECURITY
- C. PRODUCT SUBSTITUTION FORM (at Bidder's option)

(*UNIT PRICES:)

ITEM	DESCRIPTION	UNIT	ESTIMATED QUANTITY	UNIT PRICE BID	COST EXTENSION
1. (*) (*)			x \$	= \$	
2. (*CONTINUE AS APPROPRIATE)			x \$	= \$	

**SUM OF ALL UNIT PRICE COST EXTENSIONS
(TO BE INCLUDED IN THE BASE BID PRICE)** = \$ _____

BASE BID: THE BIDDER AGREES TO PERFORM ALL WORK FOR THE ABOVE TRADE,
EXCLUSIVE OF ALTERNATE BIDS, FOR THE SUM OF:

\$ _____ DOLLARS (\$ _____)

(*ALTERNATE BID NO.): (*ADD TO)(*DEDUCT FROM) THE BASE BID THE SUM OF:

\$ _____ DOLLARS (\$ _____)

(*INFORMATIONAL BID ITEM:)

(*FOR INDEMNIFIED PORTION OF WORK, UTILIZE WITH ASBESTOS, LEAD PAINT, UST'S, PCB'S OR
OTHER HAZARDOUS OR SPECIAL WASTES. AUTHORIZATION FOR USE BY CDB PROJECT MANAGER
REQUIRED)

Bidder has included in the Base Bid, the following amount for the (*lead paint) (*asbestos) (*UST's) (*PCB's)
(*OTHER hazardous or special wastes) portion of the work.

\$ _____ DOLLARS (\$ _____)

Note: Any qualifying or conditional statements included on the bid form or attached to the bid form may result in rejection of the bid unless rescinded by the bidder.

PRODUCT SUBSTITUTION FORM ATTACHED: ?

SEPTEMBER 2002

CDB- (*Project Number)

BIDDING & CONTRACT REQUIREMENTS
Document 00300 - Bid Form

THE BIDDER AGREES TO:

1. Hold this bid open for 60 calendar days after bid opening date or as required in the project manual.
2. Enter into and execute a contract with CDB if awarded on the basis of this bid.
3. Comply with the Contract Documents with respect to all bonds, insurance, work requirements and schedule.
4. Conform to the goals established for the utilization of minority and female workers and subcontractors/suppliers as included in the Contract Documents.
5. Pay CDB a Construction Administration Fee, as specified in Project Manual Section 01010, which is included in the Base Bid price.
6. Comply with the provisions in Article 00715, Alternative Dispute Resolution of the SDC.
7. Complete the work in accordance with the contract time as specified in Project Manual Section 01010.
8. **IF APPLICABLE**, comply with the requirements of Project Manual or portion thereof as pursuant to the Response Action Contractor's Indemnification Act.

THE BIDDER MAKES THE FOLLOWING REPRESENTATIONS AND CERTIFICATIONS:

- A. A surety company has agreed to issue Bonds required by the Bid Documents for this work if this bid is accepted by CDB.
- B. The Bidder is not barred from contracting with any unit of state or local government as a result of violating the bid rigging or bid rotating provisions contained in 720 ILCS 5/33E-3 and 720 ILCS 5/33E-4.
- C. The Bidder is not barred from contracting with the State of Illinois as a result of a bribery conviction per 30 ILCS 505/10.2.

CONTRACTOR:

Firm Name:

Address:

FEIN:

Telephone:

FAX:

Date:

SIGNATURE:

TITLE:

For Corporations only, Attested By:

Corporate Secretary

CONTRACT REQUIREMENTS FOR MINORITY/FEMALE BUSINESS PARTICIPATION

GOALS: The MBE/FBE goal for *this(INSERT TRADE HERE)contract is(INSERT PERCENT HERE)* percent of the amount of the contract awarded by CDB.

INSTRUCTIONS: When Goals are established, the Bidder shall include below, the names of certified minority/female owned business enterprises which will perform at least the percentage of the work specified in the Goals statement (see above). Or,

Bidder may check the Request for Assistance Box (see below) if requesting assistance with the MBE/FBE requirements in accordance with the Standard Documents for Construction.

MBE/FBE SUBCONTRACTOR/SUPPLIER FIRMS, INCLUDING ADDRESS AND TELEPHONE NUMBER, TO BE UTILIZED IN REGARD TO THIS CONTRACT:

(Attach additional sheet if needed)

Name of MBE/FBE Firm Address City, State and Zip	Telephone Number	MBE/FBE Denotation and Certifying Agency
		? MBE ? FBE ? Certified by IDOT ? Certified by CMS
		? MBE ? FBE ? Certified by IDOT ? Certified by CMS
		? MBE ? FBE ? Certified by IDOT ? Certified by CMS

? Request for Assistance

The Bidder represents to CDB that, to the best of its knowledge and belief:

- .1 Each of the subcontractors and suppliers listed qualifies under the provisions and definitions of the Minority/Female Business Enterprise Program Act as either a minority or female owned business.
- .2 The subcontract(s) which will be executed by the Bidder for the first level subcontractors and suppliers if the Bidder is awarded this contract by CDB will meet or exceed the specified MBE/FBE goals, and will comply with all provisions of the Minority/Female Business Enterprise Program Act.

Bidder agrees to the contractual requirements specified in CDB's Standard Documents for Construction in regard to the Minority/Female Business Enterprise Program Act.

Signature, Title

Date

SIGNATURE IS REQUIRED

State of Illinois
CAPITAL DEVELOPMENT BOARD

as Principal, and

a corporation of the State of

as Surety, are held and firmly bound unto the State of Illinois, acting by and through the Capital Development Board, as Oblige, in the amount of ten percent (10%) of the amount of the base bid for the payment of which Principal and Surety bind themselves, their heirs, executors, administrators, successors and assigns, jointly and severally, to this agreement.

Principal has submitted to Oblige a bid to enter into a written contract, for

CDB Project Number: _____

Division of Work: _____

in accordance with bidding documents for the project, which contract is by reference made a part hereof and is hereinafter referred to as "the Contract".

THE CONDITION OF THIS OBLIGATION is that if Principal, upon acceptance by Oblige of its bid within the period of time specified for acceptance, shall comply with all post award requirements as required by the terms of the bid within the time specified after date of the Notice of Award, or in the event of the failure to comply with all post award requirements, if Principal shall pay Oblige (1) for all costs of procuring the work which exceeds the amount of its bid, or (2) shall pay Oblige the amount of this bond as liquidated damages in the event Principal is a sole bidder and after an attempt to secure other bids by readvertising none can be obtained, then this obligation shall be null and void; otherwise it shall remain in full force and effect.

Surety hereby agrees that its obligation shall not be impaired by any extensions of time for Oblige's acceptance or compliance with post award requirements. Surety hereby waives notice of such extensions.

Signed and sealed this _____ day of _____, 20____

CONTRACTOR

SURETY

BY
SIGNATURE

BY
OFFICER OF THE SURETY

Title
ATTEST:

Title

CORPORATE SECRETARY (Corporations only)

JURAT (Notary's Statement Authenticating Signature)

STATE OF

COUNTY OF

I, _____, a Notary Public in and for said county, do hereby certify that

(Insert Name of Attorney-In-Fact for SURETY)

who is personally known to me to be the same person whose name is subscribed to the foregoing instrument on behalf of SURETY, appeared before me this day in person and acknowledged respectively, that he/she signed, sealed, and delivered said instrument as his/her free and voluntary act for the uses and purposes therein set forth.

Given under my hand and notarial seal this _____ DAY OF _____ A.D. 20____.
My commission expires

Notary Signature

BIDDING & CONTRACT
Document 00307- Product Substitution Form

The Bidder should include this form with the Bid Forms if a material substitution is offered at that time. See Article 00307 of the Standard Documents for Construction.

The Base Bid and Alternate Bids include only those products specified in the bidding documents. Following is a list of substitute products which bidder proposes to furnish on this project, with the difference in price being deducted from the Base Bid or Alternate Bids.

NOTE: CDB WILL NOT ACCEPT SUBSTITUTIONS FOR SPECIFIED MEMBRANE ROOF SYSTEM(S).

Bidder understands that acceptance of any proposed substitution is at CDB's option. Approval or rejection of any substitutions listed below will be indicated prior to executing the Contract.

MANUFACTURER'S NAME AND PRODUCT DEDUCT

EVALUATION. Contract award will be made in accord with the Standard Documents for Construction. Only the lowest responsible bidder's Proposed Product Substitution Form will be evaluated.

BIDDER'S NAME: _____

TRADE: _____

BIDDING & CONTRACT REQUIREMENTS
Document 00320 - Geotechnical Data

.3 GENERAL

A.REQUIREMENTS INCLUDE

1.(*General) Contractor:

- a.Verify data and existing conditions.
- b.At Contractor's option, perform additional subsurface investigation at own expense.

B.RELATED REQUIREMENTS

1.Specified elsewhere: (*)

- 1.01010 - Project Summary
- 2.01026 - Unit Prices.
- 3.01030 - Alternate Bids.
- 4.01410 - Construction Tests
- 5.(*)- Continue as appropriate

2.By others: (*Architect/Engineer) (*Using Agency) (*CDB) has caused borings to be made at the site by (*Name, address, zip code, area code/phone number) on (*date).

a.Soil boring location diagram and log are included in this Section.

- b.Soil boring data is included for information only. CDB, the Using Agency and the Architect/Engineer do not guarantee the accuracy or validity of the data, nor do they assume any responsibility for the Contractor's interpretation of the data.

c.Other information is available from: (*)

C.SOIL BORING DATA (*)

(*END 00320. A/E Note: Move this statement to last page of data)

BIDDING & CONTRACT REQUIREMENTS
Section 00814 - Federally Funded Project

1.FEDERALLY FUNDED PROJECT

2. **APPLICABLE LAWS.** The Contract is wholly or partially funded by the Federal Government and is subject to all Federal laws and regulations pertaining to Federally assisted construction projects. In the event of a conflict caused by the provisions of this document, the more restrictive requirements will govern.

1.2**INSPECTION AND AUDIT.** The authorized representatives of the Federal Government and the State of Illinois shall be permitted to inspect all work, materials, payrolls, personnel records, invoices for materials and other data and records relevant to the Contract.

1.3**PREVAILING RATE OF WAGES.** In accordance with the Davis-Bacon Act, the Federal Prevailing Wage Rates shall be paid to all workers employed on the contract. Accurate payroll records shall be kept by the contractor and each subcontractor, and shall be submitted to the Capital Development Board with each Pay Request.

1.4**FEDERAL EXHIBITS.** All specified Federal exhibits now or hereinafter amended are expressly incorporated by reference into the Contract and all rights, duties and liabilities set forth therein shall be deemed to specifically apply to the Contractor and his employees. Specified exhibits are:

A.(*) (Listing of Federal Prevailing Wages)

B.(*)

(*END 00814)(*A/E: move this statement to the last page of Federal Exhibits)

BIDDING & CONTRACT REQUIREMENTS
Section 00825- Prevailing Wage Act

1.PREVAILING WAGE ACT

2. Pursuant to Illinois Compiled Statutes 820 ILCS 130/0.01 et seq., these specifications list on the following pages, the Illinois Department of Labor prevailing rate of wages for the county where the contract is being performed and for each craft or type of worker needed to execute the contract.

(A/E Note: Wage rate information may be obtained from the IDOL website: www.state.il.us/agency/idol. Add that data immediately following this page.)

END 00825.

A/E Note:

1. List all drawings, whether inserted in manual or provided separately, by sheet number and title.
2. If there are no drawings, only specifications, this section may be omitted.
3. When a separate book of standard drawings or details is to be part of the project, list its table of contents here.
4. Date all drawings, books or details with the same date as that shown on the project manual.

All Drawings dated: *

END 00860.

Appendix 6 PROTOTYPE DIVISION 1 SPECIFICATION SECTIONS

Section 01010 - Project Summary

DIVISION 1 - GENERAL REQUIREMENTS

1. GENERAL

- A. **STANDARD DOCUMENTS FOR CONSTRUCTION:** CDB's (*2002) edition of the Standard Documents for Construction shall apply to this project.

2. GENERAL PROJECT INFORMATION:

A. **DESCRIPTION:**

B. **EXISTING CONDITIONS:**

C. **RELATED WORK**

1. **WORK BY OTHERS:**

2. **FUTURE WORK:**

3. **CONTRACT TIME:** Refer to Article 01310 of the Standard Documents for Construction.

The contractor shall complete all the work in accord with the contract within (*)_____ consecutive calendar days from the date of the notice of award.

***** OR *****

SPECIAL NOTICE - DEADLINE FOR COMPLETION. Contractor shall commence work immediately upon receipt of notice to proceed and shall complete all work in accord with the contract no later than (*), 20 (*).

***** OR *****

SPECIAL NOTICE - DEADLINE FOR COMPLETION (LAPSING FUNDS). Project funds lapse at end of current fiscal year. Contractor shall commence work immediately upon receipt of notice to proceed. All work shall be completed in accord with the contract and ready for final acceptance and payment no later than August 15, 20 (*). Claims for payment for work performed made after that date shall be submitted to the Court of Claims.

4. CONTRACT(S):

Construct project under single (*) contract. All work shown on the bidding documents is the responsibility of the contractor, regardless of the trade or specialty involved.

***** OR *****

Construct project under separate work contracts, under the terms of which CDB will assign the other contracts to the coordinating contractor, identified as the (*) contractor. Refer to the A/E Manual and Article 00812 of the Standard Documents for Construction:

- | | |
|--------------|-------------------------------|
| A. General. | D. Ventilation. |
| B. Plumbing. | E. Electrical. |
| C. Heating. | F. (*Continue as applicable). |

*** * * OR * * ***

Construct project under separate work contracts:

1. General.
2. Plumbing.
3. Heating.
4. Ventilation.
5. Electrical.
6. (*Continue as applicable).

5. **PRE-BID CONFERENCE.** The pre-bid meeting will be held Month 99, 200X at X:XX am/pm in _____. Bidders are strongly urged to attend this meeting. See SDC 00130 and 00131.

*** * * OR (only with written permission from PM) * * ***

Attendance at the pre-bid conference to be held *..... is mandatory. Bidders/contractors not in attendance at the mandatory pre-bid conference shall have their bids rejected.

6. **CONSTRUCTION ADMINISTRATION FEE:** A construction administration fee is applicable to the following contracts in accordance with Article 00104 of the Standard Documents for Construction:

1. General (\$*****)
2. Plumbing (\$*****)
3. (* continue as appropriate)

7. **BID SECURITY:** Bid security must be submitted with each bid equal to 10% of the base bid and must be in the form of a CDB bid bond, certified check, cashier's check or bank draft. Refer to Article 00306 of the Standard Documents for Construction.

8. BIDDER'S EMPLOYEE UTILIZATION FORM, DHR PC-2

- A. **Requirement.** All bidders shall complete Table A of the DHR Form PC-2. The bidder shall complete the appropriate DHR Form PC-2 per Para. 00304.1 of the SDC and as identified by trade category. Failure to complete may result in rejection of the bid per Para. 00304.1 of the SDC.
- B. **Projections.** Workforce projections, as identified by completing Table A, shall be those for the specific project being bid. Workforce projections shall include the bidder's subcontractor'(s') workforce. The bidder, if awarded a contract, shall be responsible for ensuring the subcontractor(s) meet minority/female workforce goals.
- C. **No Goal Contracts.** For those trade categories designated as "no goals", the bidder shall complete the DHR Form PC-2 as indicated in Paragraph A above. CDB encourages the bidder to utilize minority/female tradespersons on "no goals" designated contracts.

9. BUSINESS ENTERPRISE FOR MINORITIES, FEMALES AND PERSONS WITH DISABILITIES ACT:

- A. (*Option 1) This project has goals for participation by minority and female owned businesses as first level subcontractors or suppliers in accord with the Business Enterprise for Minorities, Females, and Persons with Disabilities Act. MBE/FBE firms certified with the Illinois Department of Central Management Services or the Illinois Department of Transportation are acceptable. NOTE: MBE/FBE goals are in addition to those specified for workforce projections (DHR Form PC-2 Form).

MBE/FBE GOALS FOR THIS PROJECT. Each bidder name, on the Bid Form provided, the MBE/FBE owned subcontractors and suppliers it intends to use to meet the specified goals:

- a. General Contract (* %).
- b. All Other Contracts (* %).

DIVISION 1 - GENERAL REQUIREMENTS

Section 01010 - Project Summary

*** * * OR * * ***

(*Option 2) No MBE/FBE goals have been established for this project. However, bidders are encouraged to use MBE/FBE subcontractors and suppliers in performing the work. Please complete the applicable page of the bid package.

- B. Bidders may request assistance in locating MBE/FBE businesses from the Capital Development Board, Fair Employment Practices section.

- 10. BUILDERS RISK INSURANCE, DESIGNATED PURCHASER.** (*) (*Coordinating) (*Each) contractor shall purchase and maintain builder's risk insurance in accord with Article 00655 of the Standard Documents for Construction.

*** * * OR * * ***

No Builder's Risk insurance will be required for this project.

- 11. RESPONSE ACTION CONTRACTORS' INDEMNIFICATION ACT: (*OPTIONAL PARAGRAPH)**

- A. This project includes work covered by the Response Action Contractors' Indemnification Act. Pollution Exclusions will be allowed in the Contractor's Insurance Policies for the work covered by the Act. See Article 00656 of the Standard Documents for Construction.

AND

- B. **OPTION 1** For the following work, CDB will not withhold payments for deposit into the Indemnification Fund.

***** OR *****

- B. **OPTION 2** For the following work, CDB will withhold 5% of each payment for the duration of the project, applied to the contract amount for this portion of the work, for deposit into the Indemnification Fund. The bidder/contractor agrees to such withholding:

1. Asbestos Abatement (*)
2. PCB Removal (*) Electrical (*)
3. Hazardous Waste Removal (*) General (*)
4. Leaking Underground Storage Tank Removal (*)
5. Lead or lead paint removal (*)
6. (*)

- C. The entire project falls under the Act. CDB will withhold 5% of each payment for the duration of the project, applied to the entire contract amount, for the following contracts:

1. Asbestos Abatement(*)
2. PCB Removal(*) Electrical(*)
3. Hazardous Waste Removal (*) General (*)
4. Leaking Underground Storage Tank Removal (*)
5. Lead or lead paint removal (*)
6. (*)

*** * * OR * * ***

- C. The Act applies only to the abatement of the hazardous materials by the (*) contractor as described in Section (*) (*Alternate No. *-*) of the Project Manual for (*Asbestos Abatement) (*PCB Removal) (*Hazardous Waste Removal) (*Leaking Underground Storage Tank Removal) (*Lead Removal) (*Lead Paint Removal) (*)

Based on the A/E's estimate for this work, the withholding will be fixed at \$(*) for the (*) contractor. CDB will withhold 5% of each payment to the (*) contractor until that amount is withheld.

12. **LIQUIDATED DAMAGES:** (*OPTIONAL PARAGRAPH) Per Article 00815 of the Standard Documents for Construction, liquidated damages in the amount of (*\$ amount) per working day per contract beyond the scheduled completion date may be assessed by CDB.
13. **DURATION OF BIDS.** (*OPTIONAL PARAGRAPH) The bidders shall hold their bids open for (*) calendar days after the bid opening in lieu of the sixty (60) calendar days required by Para. 00308.10 of the Standard Documents for Construction.
14. **SITE SECURITY.** (*OPTIONAL PARAGRAPH) The work will be performed in a secured institution. Article 01542 of the Standard Document for Construction applies.
15. **PROJECT IDENTIFICATION SIGN:** (*OPTIONAL PARAGRAPH) The (*coordinating or designated) contractor shall provide and maintain the project identification sign in accordance with Article 01580 of the Standard Documents for Construction.
16. **FIELD OFFICES:** (*OPTIONAL PARAGRAPH)
 1. Requirements:
 - a. Coordinating contractor provide and maintain a field office in accordance with Article 01590 of the Standard Documents for Construction.
 2. See Related Requirements:
 - a. Section 01515- Use of Existing Facilities
 - b. Section 01510- Temporary Utilities
17. **VALUE MANAGEMENT** The value management program is applicable to this project.
18. **EXCESS FACILITY CHARGES. (Optional Paragraph)** Charges by a municipality or utility company to provide permanent services to the project service point will be subject to a utility agreement between that party and CDB. The contractor shall not include these excess facility charges in their bid.

Charges by a municipality or utility company to provide temporary services to the project will be the sole responsibility of the designated contractor, noting that temporary services shall be limited to those necessary for construction purposes only, not including those necessary to test or operate permanent systems, unless specifically stated otherwise.

END 01010

DIVISION 1 - GENERAL REQUIREMENTS
Section 01026 - Unit Prices

(A/E NOTE: Unit prices may be used only with the prior written authorization of CDB. Use unit prices only when it is impossible to determine quantities for a specific unit of work. When used, write specifications for all unit price items in a manner to clearly define the criteria for the bid, and the quantity to or from which the unit price may be added or deducted. Provide unit price definition in Part 1 General of each technical section associated with unit price work. Give guidance on how the unit of work shall be measured, and applied to the project. Other associated work included with the unit price shall also be listed or described. Unit prices may be a component of an alternate bid. Ensure that section 00300 bid form is modified to reflect unit prices in both base and alternate bids.)

1. GENERAL

Each contractor make reference to Article 00303 UNIT PRICE in the CDB Standard Documents for Construction, dated September, 2002 for the use of unit prices. Unit prices may be a separate component outside the base bid. For unit prices inside the base bid or inside an alternate bid; follow these procedures: On the bid form provide the unit price for that work in the UNIT PRICE BID line. Multiply the unit price bid by the ESTIMATED QUANTITY and enter that cost in the COST EXTENSION. Sum those cost extensions and enter that cost in the SUM OF COST EXTENSIONS ARE INCLUDED IN THE BASE BID line provided. Add that cost to your base bid.

For unit prices in an Alternate Bid use the same procedures as above, but add the cost in the SUM OF COST EXTENSIONS ARE INCLUDED IN THE ALTERNATE BID line to the alternate bid.

For unit prices as a separate component outside the base bid (Separate Unit Prices); Reference Article 00303 of the Standard Documents for Construction, dated September, 2002, the bid form, and this section.

1.1 REQUIREMENTS INCLUDE- Designated Contractor(*s): Provide unit prices on Bid Form for specified items.

1.2 RELATED REQUIREMENTS SPECIFIED ELSEWHERE:

- A. Standard Documents for Construction Article 00303
- B. Bid Forms Document 00300

1.3 DEFINITIONS

- A. Unit Price means a fixed price, including all overhead, profit and all other costs of whatever nature and character, for a specified unit of work. Unit prices in the Bid Form, when accepted by CDB and incorporated into the Contract, shall be the same for additional, deducted or omitted units of work.

2. UNIT PRICE ITEM SCHEDULE

2.1 (*GENERAL) Contract:

- A. (*Describe clearly in a brief paragraph each unit price item. Describe also the intent of the unit prices.)

1. Pertinent work specified elsewhere: (*)

- a. (*Section number and title.)
- b. (*Continue as appropriate.)

2.2 (*) Contract:

- A. (*Continue as appropriate)

END 01026

DIVISION 1 - GENERAL REQUIREMENTS
Section 01030 - Alternate Bids

(A/E NOTE: NUMBER ALTERNATE BIDS SO THAT WHERE THERE IS AN INTERFACE BETWEEN CONTRACTORS ON A WORK ITEM, ALL ALTERNATE BIDS HAVE THE SAME NUMBER. (e.g., If Alternate Number 3 included General, Plumbing and Electrical Work, the Bid Forms for these contracts would identify the alternate bid as G-3, P-3, and E-3, respectively.)

1. GENERAL

1.1 REQUIREMENTS INCLUDE:

- A. Designated Contractor(*s): Provide Alternate Bid prices in Bid Form for specified alternate work.
- B. Each Contractor coordinate all related and required work necessary to perform work specified in alternate bids, when accepted and awarded.

1.2 RELATED REQUIREMENTS SPECIFIED ELSEWHERE

- A. Standard Documents for Construction, Article 00302
- B. Bid Forms Document 00300
- C. (*Specified specification sections.)

2. DESCRIPTION OF ALTERNATE BIDS

2.1 (*General) Contract

A. Alternate Bid No. (*G)-1: (*Describe in detail).

1. Pertinent work specified elsewhere

- a. (*Section number and title)
- b. (*Continue as appropriate).

2. Alternate Bid No. (*G)-2:

B. (*Continue as appropriate) Contract:

END 01030

DIVISION 1 - GENERAL REQUIREMENTS
Section 01042 - Coordination

(A/E: This section is for the purpose of specifying requirements over and above those stated in Article 01042 of the Standard Documents. The following paragraphs are possible suggestions.)

- 0.1 The basic requirements for coordination are specified in Article 01042 of the Standard Documents for Construction.
- 0.2 The coordinating contractor shall be responsible for general coordination of assigned contractors work. Assigned contractors shall be responsible for the coordination of work effort of their own forces.
- 0.3 At all equipment where electrical power is required, the electrical contractor shall provide conduit and wire required from the power source to the input terminals of the equipment. When specified the electrical contractor shall provide the electrical disconnect to the equipment.
- 0.4 At all equipment where control wiring is required to interconnect various items, such wire and conduit shall be the responsibility of the contractor providing the equipment.
- 0.5 All wiring, including conduit, boxes & fittings, for control systems shall be the responsibility of the contractor providing the system.
- 0.6 All wiring for low voltage data and communication systems shall be the responsibility of the contractor providing the system.
- 0.7 All openings in floor, wall or ceiling shall be coordinated with the coordinating contractor. All openings shall be appropriately sealed by (*) contractor to maintain fire ratings.
- 0.8 Operation of equipment or systems shall be the responsibility of the installing contractor until acceptance by CDB.

END 01042

DIVISION 1 - GENERAL REQUIREMENTS
Section 01045 - Cutting & Patching

1. GENERAL

1.1 REQUIREMENTS INCLUDE

A. (*Each) (*General) (*) Contractor:

1. Execute cutting (including excavating), filling or patching of work to:
 - a. Install specified work.
 - b. Remove samples of installed work specified for testing.
 - c. Remove and replace defective work.
2. In addition, upon written instructions of Architect/Engineer or CDB:
 - a. Uncover work to provide for observation of covered work.
 - b. Remove samples of installed materials for testing.
 - c. Remove work to provide for alteration of existing work.
3. Do not cut or alter work of another contractor without written consent of Architect/Engineer.

1.2 RELATED REQUIREMENTS

A. Specified elsewhere: (*)

1.3 SUBMITTALS

- A. Prior to cutting which affects structural members or work of another contractor, submit written notice to Architect/Engineer requesting consent to proceed with cutting, including:
1. Project identification.
 2. Description of affected work.
 3. Necessity for cutting.
 4. Effect on other work, on structural integrity of project.
 5. Description of proposed work. Designate:
 - a. Scope of cutting and patching.
 - b. (*Contractor and) Crafts to execute the work.
 - c. Products proposed to be used.
 - d. Extent of refinishing.
 6. Alternatives to cutting and patching.
 7. Designation of party responsible for cost of cutting and patching.
- B. Prior to cutting and patching done on instruction of Architect/ Engineer, submit cost estimate.
- C. When conditions of work, or schedule, indicate change of materials or methods, submit recommendation to Architect/Engineer, including:
1. Condition indicating change.
 2. Recommendation for alternative materials or methods.
 3. Submittals specified for substitutions.

- D. Submit written notice to Architect/Engineer, designating time work will be uncovered, to provide for observation.

1.4 PAYMENT FOR COSTS

- A. Costs caused by ill-timed or defective work, or work not conforming to contract documents, including costs for additional services of Architect/Engineer: Party responsible for ill-timed, rejected or non-conforming work.
- B. Work done on instructions of Architect/Engineer (by change order), other than defective or non-conforming work: CDB.

2. PRODUCTS

- 2.1 MATERIALS. For replacement of work removed: Comply with specifications for type of work to be performed.

3. EXECUTION

3.1 INSPECTION

- A. Inspect existing conditions of work, including elements subject to movement or damage during: (*)
 - 1. Cutting and patching.
 - 2. Excavating and backfilling.
 - 3. (*Continue as appropriate.)
- B. After uncovering work, inspect conditions affecting installation of new products.

3.2 PREPARATION

- A. Prior to cutting:
 - 1. (*) Provide shoring, bracing and support to maintain structural integrity of project.
 - 2. Provide protection for other portions of the project.
 - 3. Provide protection from elements.

3.3 PERFORMANCE

- A. Execute fitting and adjustment of products to provide finished installation to comply with specified tolerances, finishes.
- B. Execute cutting and demolition by methods which will prevent damage to other work, and will provide proper surfaces to receive installation of repairs and new work.
- C. Restore work which has been cut or removed; install new products to provide completed work in accord with contract documents.
- D. Refinish entire surfaces to provide an even finish.
 - 1. Continuous surfaces: To nearest intersection(s).
 - 2. Assembly: Entire refinishing.

END 01045.

DIVISION 1 - GENERAL REQUIREMENTS
Section 01051 - Grades, Lines, & Levels

1. GENERAL

1.1 REQUIREMENTS INCLUDE:

A. (*Each) Contractor lay out the work under their contract.

*** OR ***

A. (*Coordinating) (*) Contractor lay out the work for all contractors.

1.2 RELATED REQUIREMENTS

A. Specified Elsewhere: (*)

1. 00320 - Geotechnical Data.
2. 01010 - General Requirements.
3. (*Respective Specification Sections.)

B. By Others:

1. Architect/Engineer will (*Furnish) (*Provide): (*)
 - a. A certified metes and bounds description and topographic survey of the site, giving all grades and lines of streets, alleys, pavements, and adjoining properties, rights-of-way, encroachments, boundaries, and contours of the building site.
 - b. Locations, dimensions and data pertaining to the existing: (*)
 - 1.) Buildings.
 - 2.) Underground Obstructions.
 - 3.) Trees and Landscaping.
 - 4.) Utilities.
 - 5.) Pavements.
 - 6.) Other Improvements. (*)
 - c. Title information regarding: (*)
 - 1.) Easements.
 - 2.) Zoning.
 - 3.) Deed Restrictions.
 - 4.) Other Restrictions or Information. (*)
 - d. Information regarding available public and private service and utility lines.
 - e. Setting of survey baseline control points for horizontal and vertical control.
 - f. Benchmark and temporary benchmark location, reference, and elevation of each.
2. (*) Construction Manager will (*furnish) (*provide): (*)
 - a. (*Observation)

1.3 QUALITY ASSURANCE: (*)

A. Qualifications of Surveyor (*Person Responsible): (*)

A/E NOTE: List the important qualifications applicable to the project. List aspects of this project that would be relevant to layouts of similar or more difficult complexities.

1. (*Five) years of experience in layout of similar or more difficult complexity.
2. Licensed by the State of Illinois. (*Delete unless the project is complex).
3. (*Continue as appropriate).

1.4 SUBMITTALS: (*)

- A. Submit resume of surveyor (*person responsible) for documentation purposes only.
- B. CDB or the A/E may at (*) any time require written verification of grades, lines, and levels by a licensed surveyor as work progresses. The surveyor may be paid by the A/E or by the Coordinating Contractor.
- C. (*Continue as appropriate).

END 01051.

DIVISION 1 - GENERAL REQUIREMENTS
Section 01060 - Regulatory Requirements

(A/E Note: This section is required for all projects. Edit this section carefully. Specify only those requirements pertaining to this project. Add additional requirements that are known.)

1. GENERAL

1.1 REQUIREMENTS INCLUDE

A. (*Each) Contractor comply with all laws, rules and regulations governing the work.

1. When Contractor observes that contract documents are at variance with specified codes, notify Architect/Engineer in writing immediately. Architect/Engineer will process changes in accord with General Conditions.
2. When Contractor performs any work knowing or having reason to know that the work is contrary to such laws, rules and regulations and fails to so notify the Architect/Engineer, Contractor shall pay all costs arising therefrom. However, it will not be the Contractor's primary responsibility to make certain that the contract documents are in accord with such laws, rules and regulations.

1.2 DEFINITIONS & ABBREVIATIONS

A. Definitions:

1. Dates: Reference Codes, Regulations and Standards are the issue current at date of bidding documents unless otherwise specified.
2. Codes: Codes are rules, regulations or statutory requirements of government agencies.
3. Standards: Standards are requirements set by authorities, custom or general consent and established as accepted criteria.

B. Abbreviations: (*)

- | | |
|-----------|--|
| 1. ACA | American Correctional Association. |
| 2. ADA | Americans with Disabilities Act. |
| 3. AGCI | Associated General Contractors in Illinois. |
| 4. ANSI | American National Standards Institute. |
| 5. ASHRAE | American Society of Heating, Refrigeration and Air-Conditioning Engineers. |
| 6. ASTM | American Society for Testing and Materials. |
| 7. AWWA | American Waterworks Association. |
| 8. BOCA | Building Officials & Code Administrators |
| 9. CDB | Capital Development Board. |
| 10. CPSC | Consumer Product Safety Commission (Federal). |
| 11. CSA | Canadian Standards Association. |
| 12. DCFS | Department of Children & Family Services (Illinois). |
| 13. DHEW | Department of Health, Education & Welfare (Federal). |
| 14. FED | Federal Agencies. |
| 15. FM | Factory Mutual Engineering Corp. |
| 16. IAGO | Illinois Attorney General's Office |
| 17. IBOG | Illinois Board of Governors |
| 18. IBHE | Illinois Board of Higher Education. |
| 19. ICBO | Int'l Conference of Building Officials |
| 20. ICCB | Illinois Community College Board. |
| 21. IDHS | Illinois Department of Human Services. |
| 22. IDOC | Illinois Department of Corrections. |
| 23. IDOL | Illinois Department of Labor. |

24. IDOT	Illinois Department of Transportation.
25. IDPH	Illinois Department of Public Health.
26. IEPA	Illinois Environmental Protection Agency.
27. IDPR	Illinois Department of Professional Regulation.
28. ISBE	Illinois State Board of Education.
29. ISPE	Illinois Society of Professional Engineers.
30. NFPA	National Fire Protection Association.
31. OSFM	Office of State Fire Marshal.
32. SOS	Secretary of State.
33. UBC	Uniform Building Code
34. UI	University of Illinois.
35. UL	Underwriters Laboratories, Inc.

1.3 QUALITY ASSURANCE

- A. Architect/Engineer has designed the project with full knowledge of code requirements and has copies of all specified codes available for Contractor's inspection.
- B. Contractor:
 - 1. Ensure that copies of specified codes and standards are readily available to Contractor's personnel. Copies are available at Contractor's expense from source or publisher.
 - 2. Ensure that Contractor's personnel are familiar with workmanship and installation requirements of specified codes and standards.

1.4 REGULATORY REQUIREMENTS

- A. Source and requirements: (*NOTE: Include only those appropriate to project. Include date of issuance for each item. Date should be most current at time of bid, unless local governing authority or Using Agency requires otherwise.)
 - 1. ACA:
 - a. Standards for Adult Correctional Institutions.
 - b. Standards for Adult Community Residential Services.
 - c. Standards for Juvenile Training Schools.
 - d. Standards for Adult Local Detention Facilities (Jails).
 - e. Standards for Juvenile Detention Facilities.
 - 2. CDB:
 - a. Illinois Accessibility Code
 - 3. DCFS:
 - a. Standards for Licensed Child Caring Institutions and Maternity Centers. Reg. 5.11.
 - b. Standards for Licensed Day Care Centers and Nighttime Centers.
 - 4. FED:
 - a. CPSC: Architectural Glazing Materials, as amended 1981. (*Partially pre-empts Illinois Safety Materials Glazing Act.)

- b. DHEW:
 - 1.) Title V: Handicapped Accessibility.
 - 2.) Title IX: Regulations Prohibiting Sex Discrimination in Education.
- c. ADA 1990
- 5. State of Illinois:
 - a. Illinois Steel Products Procurement Act, as amended (30 ILCS 565/1 et seq.).
 - b. Illinois Purchasing Act, as amended (30 ILCS 505/1 et. seq.)
- 6. IDOC: Illinois Department of Corrections Construction Standards
- 7. IDOL: Safety Glazing Materials Act, as amended, with interpretive statement (430 ILCS 60/1 et seq.).
- 8. IDOT:
 - a. Bridge Manual, including all supplements, current at date of bidding documents, unless otherwise specified.
 - b. Design and Environment Manual, including all supplements, current at date of bidding documents, unless otherwise specified.
 - c. Road and Bridge Laws, including all supplements.
 - d. Standard Specifications for Road and Bridge Construction, including all supplements, Jan 1, 2002, except where otherwise specified.
 - 1.) Change all references to "Engineer" to "Architect/Engineer".
 - 2.) References to "Method of Measurement" and "Basis of Payment" do not apply.
 - e. National Manual on Uniform Traffic Control Devices, including the Illinois supplement.
 - f. Policy for Permits for Access Driveways to State Highways.
- 9. IDPH: (*)
 - a. Illinois State Plumbing Code.
 - b. Food Service Sanitation Code.
 - c. Minimum Sanitary Requirements for Design and Operation of Swimming Pools & Bathing Beaches.
 - d. Illinois Water Well Pump Installation Code.
 - e. Illinois Water Well Construction Code.
 - f. Illinois Water Well Construction Code Law.
 - g. Private Sewage Disposal Licensing Act and Code.
 - h. Requirements for the Design of Wisconsin Mounds in Illinois.
 - i. Lead Poisoning Prevention Act (Dwelling Units Only).
 - j. Mobile Home Standards.
 - k. Rules and Regulations for Recreation Areas.
 - l. Rules and Regulations for Youth Camps.
 - m. Hospital Licensing Act and Requirements.
 - n. Long-term Care Facilities, Minimum Standards, Rules and Regulations, as amended.
 - 1.) Intermediate Care Facilities.
 - 2.) Skilled Nursing Care Facilities.
 - 3.) Sheltered Care Facilities.
 - o. Intermediate Care Facilities for the Developmentally Disabled, Minimum Standards, Rules and Regulations for Classification and Licensure.

- p. Ambulatory Surgical Treatment Centers, Revised Rules, Regulations and Standards.
 - q. Clinical Laboratories and Blood Banks, Rules and regulations.
 - r. Community Living Facilities for Mildly and Moderately Mentally Retarded Ambulatory Adults, Minimum Standards, Rules and Regulations.
 - s. Illinois Asbestos Abatement Act (105 ILCS 105/1 et. seq.).
 - t. Rules and Regulations for the Asbestos Abatement Act - Title 77, ch. I, subch. p. Part 855.
 - u. Structural Pest Control Act and Code.
10. IDPR: Illinois Roofing Industry Licensing Act, as amended (225 ILCS 335/1 et. seq.).
11. IEPA (Current editions at date of bidding documents.)
- a. Air Pollution Standards.
 - b. Noise Pollution Standards.
 - c. Water Pollution Standards.
 - d. Public Water Supplies.
 - e. Solid Waste Standards.
 - f. Illinois Recommended Standards for Sewage Work.
 - g. Hazardous Waste Crane and Hoisting Equipment Operators Licensing Act, 225 ILCS 220/1 et. seq.
 - h. Hazardous Waste Laborers Licensing Act, 225 ILCS 221/1 et. seq.
Toxic Substance Control Act.
12. OSFM:
- a. Liquefied Petroleum Gas Regulating Act (430 ILCS, refer to NFPA 58-2001)
 - b. Liquefied Petroleum Gas Container Act (430 ILCS, refer to NFPA 58-2001)
 - c. Boiler and Pressure Vessel Safety Act (430 ILCS 75/1 et seq.)
 - d. Tactile identification on Certain Elevators (410 ILCS 30/1 et seq.)
 - e. Installation of Elevators (430 ILCS 80/1 et seq.)
 - f. Illinois Rules and Regulations for Fire Prevention and Safety, NFPA 101-2000 (new construction), NFPA 101-2000 (existing construction) Except Illinois State Board of Education.
13. SOS:
- a. Ramp on All New or Reconstructed Curbs for Persons Using Wheelchairs, (65 ILCS 5/11-80-11)
 - b. Lead Poisoning Prevention Act, as amended (410 ILCS 45/1 et seq.). (*For dwellings or dwelling units, as defined).
14. STANDARDS: (*Accepted by Using Agencies and complementary to specified statutorily mandated codes and standards.)
- a. AGCI/ISPE: Standard Specifications for Water and Sewer Main Construction in Illinois, Revised.
 - b. ANSI No. A.17.1, American Standard Safety Code for Elevators, Dumbwaiters, Escalators and Moving Walks.
 - c. ANSI No. C-2, National Electrical Safety Code,
 - d. ASHRAE No. 62, Standard for Natural and Mechanical Ventilation (*Except IDMH and ISBE.).
 - e. ASHRAE No. 90.1-1999, Energy Conservation in New Building Design.
 - f. ASHRAE No. 15, Safety Code for Mechanical Refrigeration.
 - g. AWWA: Water and Sewer Main Construction.

- h. NFPA: National Fire Codes (*16 volume set. Specify as appropriate to the project.) (*Except ISBE.)

- 1.) No. 70-96, National Electrical Code.

* * * * *

*** (ISBE Projects - School Code and CAP - Elementary, Secondary, Vocational-Technical, Preschool, Kindergarten, Special Education) ***

15. ISBE:

- a. Building Officials and Code Administrators (BOCA)
- b. 2000 International Building Code (IBC)

* * * * *

(*A/E NOTE: By CDB Board Resolution 84-16. CDB's Policy is to design State Facilities in substantial conformance with applicable building codes formally adopted by the unit of local government in which the Facility is located. By such Policy and the Resolution, CDB does not waive in any manner its exemption as a State Agency from local laws or rules pertaining to the procurement of building permits. A/E is responsible for investigating and determining which codes are in force at the project site, and for designing and specifying accordingly. A/E may submit written requests to CDB, with full documentation, requesting deviations from the local codes, or the substitutions of more stringent codes.)

16. (*Architect/Engineer should list building codes and any references to local authorities not listed above.)

- a. National Building Code, current edition, BOCA
- b. 2000 International Building Code (IBC)
- c. Chicago building code, current edition

B. The Architect/Engineer or CDB may reference other codes or standards throughout the Project Manual when deemed appropriate for proper compliance with regulatory requirements.

END 01060.

DIVISION 1 - GENERAL REQUIREMENTS
Section 01120 - Remodeling Project Procedures

1. GENERAL

1.1 REQUIREMENTS INCLUDE (*)

A. (*Each) Contractor:

1. Coordinate work of employees and subcontractors.
2. Schedule elements of remodeling and renovation work to expedite completion.
3. Schedule noisy or hazardous work to avoid problems with Using Agency's operations.
4. In addition to demolition, cut, move or remove existing construction to provide access or to allow remodeling and new work to proceed. Include: (*)
 - a. Repair or remove hazardous or unsanitary conditions.
 - b. Remove abandoned piping, conduit and wiring.
 - c. Remove unsuitable or extraneous materials not marked for salvage, such as abandoned furnishings and equipment, and debris such as rotted wood, rusted metals and deteriorated concrete.
 - d. Clean surfaces. Remove surface finishes to install new work and finishes.
5. Patch, repair and refinish existing items to remain, to the specified condition for each material, with a neat transition to adjacent new construction.
6. Note or record existing project conditions before beginning work to minimize later disputes.

1.2 RELATED REQUIREMENTS

A. Specified elsewhere: (*)

1. 01045 - Cutting & Patching.
2. 01310 - Construction Schedules.
3. 01510 - Temporary Utilities.
4. 01525 - Construction Aids
5. 01540 - Security.
6. 01561 - Construction Cleaning
7. 01710 - Final Cleaning.
8. (*Continue as appropriate).

1.3 SEQUENCE AND SCHEDULES

A. Submit separate detailed subschedule for alterations work, coordinated with Construction Schedule. Show:

1. Each stage of work; occupancy dates of areas.
2. Date of Substantial Completion for each area of alteration work.
3. Crafts and subcontractors employed in each stage.

1.4 ALTERATIONS, CUTTING AND PROTECTION

- A. Cut finish surfaces such as masonry, tile, plaster or metals, by methods to terminate surfaces in a straight line at a natural point of division.
- B. Protect existing and new work from weather and temperature extremes.

1. Maintain existing interior work above (*60) degrees F.
 2. Provide weather protection, waterproofing, heat and humidity control to prevent damage to remaining existing work and to new work.
- C. Provide temporary enclosures specified in 01525, to separate work areas from existing building and from areas occupied by Using Agency, and to provide weather protection.
- D. (*When indicated by historic nature of existing building) Items of construction, furnishings and articles having a historic or private value discovered during progress of the work shall remain in the Using Agencies possession and ownership.
1. Promptly notify Architect/Engineer.
 2. Protect items from damage from weather and work.
 3. Architect/Engineer will promptly transmit CDB's decision for disposition of discovery.
 4. Store items to be retained by owner in a safe, dry place on site. Dispose of items which CDB releases.

2. PRODUCTS

2.1 SALVAGED MATERIALS (*)

- A. Salvage sufficient quantities of cut or removed materials to replace damaged work, when material is not readily obtainable on current market.
1. Use particular care in removal and salvage of:
 - a. Limestone.
 - b. Marble.
 - c. Ceramic tile.
 - d. (*Continue as appropriate).
 2. Store salvaged items in a dry, secure place on site.
 3. Items not specified for use in repair work remain (*Using Agency's) (*CDB's) property.
 4. Do not use salvaged or used material in new construction except with prior written authorization from Architect/Engineer.

2.2 MATERIALS FOR PATCHING, EXTENDING AND MATCHING (*)

- A. Ensure that work is complete:
1. Provide same materials or types of construction as that in existing structure, to patch, extend or match existing work.

3. EXECUTION

3.1 REMOVE EXISTING CONSTRUCTION (*)

- A. Temporary Removals: (*)
1. Remove.(*)
 2. Store.(*)
 3. Recondition.(*)
 4. Reinstall in original location.(*)
- B. Remove and relocate: (*)

- C. Remove and dispose of: (*)
- 3.2 PERFORMANCE. Patch and extend existing work using skilled craftsmen capable of matching existing quality of workmanship. For patched or extended work, provide quality equal to that specified for new work.
- 3.3 ADJUSTMENTS
- A. Where partitions are removed, patch floors, walls and ceilings with finish materials to match existing as closely as possible.
1. Where removal of partitions results in adjacent spaces becoming one, rework floors and ceilings to provide smooth planes without breaks, steps or bulkheads.
 2. Where extreme change of plane of (*two inches) or more occurs, request instructions from Architect/Engineer.
- B. Trim and refinish existing doors to clear new floors.
- 3.4 DAMAGED SURFACES
- A. Patch and replace all portions of existing finished surfaces found to be damaged, lifted, discolored or showing other imperfections, with matching material.
1. Provide adequate support prior to patching the finish.
 2. Refinish patched portions of painted or coated surfaces in a manner to produce uniform color and texture over entire surface.
 3. When existing surface cannot be matched, refinish entire surface to (*nearest intersections) (*)
- 3.5 TRANSITION FROM EXISTING TO NEW WORK
- A. When new work abuts or finishes flush with existing work, make a smooth transition. Patched work shall match existing adjacent work in texture and appearance (*as closely as possible) (*may want to be more strict in certain projects).
1. When finished surfaces are cut in such a way that a smooth transition with new work is not possible, terminate existing surface in a neat manner along a straight line at a natural line of division, and provide trim appropriate to finished surface.
- 3.6 CLEANING (*A/E NOTE: Include in all Projects)
- A. Perform construction cleaning as specified in 01561. (*)
1. Clean User occupied areas daily.
 2. Clean all spillage, overspray or heavy dust collections in User occupied areas immediately.
- B. At completion of work of each craft, clean area and make surfaces ready for work of successive crafts.
- C. At completion of alterations work in each area, provide final cleaning in accord with 01710 and return space to a condition suitable for use of User.

END 01120.

1. General

1.1 REQUIREMENTS INCLUDE:

- A. Coordinating contractor shall prepare and maintain a detailed project schedule as described below. The project schedule includes logic diagrams, tables or computer printouts, and management reports. Coordinating contractor to provide schedule information for his own work.
- B. Assigned contractors shall provide schedule and work progress information to the coordinating contractor for inclusion in the project schedule. Assigned contractors shall approve the project schedule prior to submission to the A/E and CDB.
- C. All contractors will attend a scheduling meeting chaired by the coordinating contractor within 7 days of the pre-construction meeting.
- D. The project schedule shall be the contractors' working schedule and used to execute the work, record and report actual progress. It shall show how the contractors plan to complete the work within the contract time and meet any contractually specified intermediate milestone dates.

1.2 RELATED REQUIREMENTS

- A. Specified Elsewhere:
 - 1. 00765 - Payment
 - 2. 00812 - Assignment
 - 3. 00815 - Liquidated Damages
 - 4. 01010 - Project Summary
 - 5. 01200 - Project Meetings
 - 6. 01340 - Shop Drawings, Product Data and Samples
 - 7. 01370 - Schedule of Values

1.3 FORM OF SCHEDULE

- A. The project schedule shall be in the form of an activity oriented network diagram (Critical Path Method). Precedence format is not acceptable. The schedule shall be mathematically analyzed initially and at every update or revision and a tabulation for each activity shall include:
 - 1. Preceding and following events by number.
 - 2. Activity description and duration.
 - 3. Earliest start and finish calendar dates for each activity.
 - 4. Latest start and finish calendar dates.
 - 5. Actual start and finish calendar dates
 - 6. Total float in work days.
- B. The schedule shall provide sufficient detail and clarity so that the contractors can plan and control the work and CDB and the A/E can readily monitor and follow the progress of all portions of the work. The critical activities must be clearly shown. The degree of detail must be satisfactory to the A/E and CDB.

1.4 CONTENTS OF SCHEDULE

- A. The schedule must be inclusive of all installation tasks of the work.
- B. Submittal and approval of shop drawings and material samples as well as delivery dates of major equipment shall be included in the project schedule.
- C. Activity duration shall be in whole working days and may not exceed fifteen (15) working days, except for non-construction activities such as procurement and delivery of materials and equipment.
- D. There should be at least one activity for each specification section.

1.5 UPDATING

- A. The project schedule shall be updated monthly. All contractors, subcontractors, and major suppliers with work remaining shall attend the update meetings.
- B. Actual activity completion dates shall be reported and recorded on the schedule.
- C. Progress on uncompleted activities shall be reported.
- D. Projected completion dates and activities shall be reviewed and revised if necessary.

1.6 REPORTS AND SUBMITTALS

- A. Within 30 days of the Authorization to Proceed, the coordinating contractor shall submit the project schedule to the A/E and CDB.
- B. Five (5) days prior to the pay/progress meeting, the coordinating contractor shall submit the current updated schedule to the A/E and CDB.
- C. The logic diagram shall be on 30" by 42" sheets unless approved otherwise by CDB. Each sheet shall be clearly titled and include an approval block for the assigned contractors. Intermediate milestones shall be clearly indicated. Information on the logic diagram must match information on reports specified below.
- D. Each submittal shall include listing of activities by preceding event number and show all the information computed by the mathematical analysis required above.
- E. A management narrative report indicating the progress of the work, any revisions since last reporting period, any lost time required to be made up and the contractors' plan to maintain the schedule and meet the milestone dates and contract completion. The report will identify any potential delays and problem areas and their impact on the critical path and the project completion.

1.7 REVIEWS

- A. The A/E and CDB shall review and may comment on the schedule at the pay/progress meeting. They may also attend the update meetings. The contractor(s) shall revise the schedule as directed by the A/E for compliance with the requirements herein.
- B. Payment and reduction of retainage may be denied by CDB for failure to submit a proper schedule and maintaining work progress according to the project schedule.

- C. Neither the A/E's nor CDB's review and/or comments shall indicate approval/disapproval of the schedule. Since the schedule is dependent on the contractors' proprietary information and commitments, the A/E and CDB can not and will not warrant the schedule to be correct and sufficient to meet the required contract dates.

END 01310.

DIVISION 1 - GENERAL REQUIREMENTS
Section 01340 - Shop Drawings, Product Data & Samples

1. GENERAL

1.1 REQUIREMENTS INCLUDE

- A. (*Each) Contractor make submittals to (*Architect/Engineer) (*Coordinating Contractor). (*Architect/Engineer) (*Coordinating Contractor) shall maintain a master list of submittals.

1.2 Coordinating Contractor:

- A. Review Assigned Contractors' submittals within 5 business days.
1. Verify field dimensions.
 2. Verify compliance with Contract requirements.
- B. Certify review.
- C. Transmit reviewed submittals to Architect/Engineer.

1.3 RELATED REQUIREMENTS

- A. Specified elsewhere: (*)
1. (*)

1.4 DEFINITIONS

- A. Shop drawings: Shop drawings are original drawings prepared by Contractor, subcontractor, sub-subcontractor, supplier or distributor, which illustrate some portion of the work, showing fabrication, layout, setting or erection details.
1. Prepared by qualified detailer.
 2. Identify details by reference to sheet and detail numbers shown on contract drawings.
 3. Maximum sheet size: (*36" x *24".)
 4. Reproductions for submittals: Reproducible transparency, full size reproducible transparencies which do not require any special equipment for reproduction and copying are to specified in lieu of reproducible transparency, with one (*opaque diazo) (*blueprint).
 5. Submit (*) copies.
- B. Product data:
1. Manufacturer's standard schematic drawings, edited to fit this project.
 2. Manufacturer's catalog sheets, brochures, diagrams, schedules, performance charts, illustrations and other standard descriptive data.
 - a. Clearly mark each copy to identify pertinent materials, products or models.
 - b. Show dimensions and clearances.
 - c. Show wiring diagrams and controls.
- C. Samples: Physical samples to illustrate materials, equipment or workmanship. Approved samples establish standards by which complete work is judged. Maintain at site as directed. Protect until no longer needed.

1. Office samples: Of sufficient size to clearly illustrate:
 - a. Functional characteristics of product or material.
 - b. Full range of color samples.
 - c. After review, samples may be used on construction of project.
2. Field samples and mock-ups:
 - a. Erect at project site at location approved by (*Architect/ Engineer) (*General Contractor) (*CDB).
 - b. Construct each sample or mock-up complete, including work of all crafts required in finished work.
 - c. Remove as directed.

1.5 SCHEDULE SUBMITTAL

- A. Submit schedule of all exhibits to Architect/Engineer within (*) business days after preconstruction meeting. (A/E - insure submittal schedule is commensurate with project schedule)

1. Prepare schedule in bar chart format. Include:
 - a. Exhibit identification.
 - b. Specification section and page number.
 - c. Date of submittal to (*Architect/Engineer) (*General Contractor).
 - d. Latest date for final approval.
 - e. Fabrication time.
 - f. Date of installation.
2. Architect/Engineer will review and comment on exhibit schedule and will advise the contractor as to which submittals require longer review durations.

Submit number of copies of shop drawings, product data and samples which contractor requires for distribution plus (*) copies which will be retained by Architect/Engineer.

- B. Accompany submittals with transmittal letter, in duplicate, containing:

1. Date.
2. Project title and number.
3. Contractor's name and address.
4. The number of shop drawings, product data and samples submitted.
5. Notification of deviations from Contract.
6. Other pertinent data.

- C. Submittals shall include:

1. Date and revision dates.
2. Project title and number.
3. Names of: (*)
 - a. Architect/Engineer.
 - b. Architect/Engineer's consultant(*s).
 - c. Subcontractor.
 - d. Sub-subcontractor.
 - e. Supplier.
 - f. Manufacturer.
 - g. Separate detailer when pertinent.

4. Identification of product or material.
5. Relation to adjacent structure or material.
6. Field dimensions, clearly identified as such.
7. Specification section and page number.
8. Specified standards, such as ASTM number or ANSI.
9. A blank space, (* " x * "), for Architect/Engineer's stamp.
10. Identification of previously approved deviation(s) from contract documents.
11. Contractor's stamp, initialed or signed, certifying to review of submittal, verification of field measurements and compliance with Contract.
12. (*)Space for Contractor's approval stamp.

1.6 RESUBMISSION REQUIREMENTS

- A. Resubmit all shop drawings, product data, and samples as requested by the contractor and/or A/E.

1.7 RESPONSIBILITIES

- A. Review shop drawings, product data and samples prior to submission to the next level of authority.
- B. Verify:
 1. Field dimensions.
 2. Field construction criteria.
 3. Catalog numbers and similar data.
- C. Coordinate each submittal with requirements of:
 1. The work.
 2. The contract documents.
 3. (*)The work of other contractors.
- D. Contractor's responsibility for errors, omissions or deviation from contract documents in submittals is not relieved by Architect/Engineer's review of submittals.
- E. Prior to submission, notify Architect/Engineer and CDB in writing of all proposed deviations in submittals from contract requirements. Substitution of materials or equipment may only be approved by change order.
- F. Do not begin any work which requires submittals without Architect/Engineer's approval.
- G. After Architect/Engineer's review, make response required by Architect/Engineer's stamp and distribute copies. Indicate by transmittal that copy of approved data has been delivered to installer.
- H. (*)When the other contracts are assigned to the Coordinating Contractor:
 1. Assigned contractors send their submittals to Coordinating Contractor.
 2. Coordinating Contractor reviews and initials assigned contractors' submittals for compliance with scope, coordination and integration with the work of all other contractors.
 3. Coordinating Contractor transmits his reviewed copies of assigned contractors' submittals to Architect/Engineer.

4. Coordinating Contractor retains copy of submittals after review by Architect/Engineer and distributes copies to submitting contractor and to other contractors for coordination and integration.
5. Coordinating Contractor: Enforce resubmission requirements.

1.8 ARCHITECT/ENGINEER'S DUTIES

- A. Review submittals within 10 business days .
- B. Review for:
 1. Design concept of project.
 2. Compliance with contract documents.
- C. Review all requests for proposed deviations. Obtain CDB's concurrence and respond to Contractor's request.
- D. Affix stamp, date and initials or signature certifying to review of submittal, and with instructions for contractor response.
- E. Return submittals to sender for response or distribution.

1.9 Schedule 01340:

- A. (* Provide a summary schedule of submittals in spec section order required of each contractor. Completely specify all submittals in each technical Project Manual section.)

END 01340

DIVISION 1 - GENERAL REQUIREMENTS
Section 01380 - Construction Photographs

1. GENERAL

1.1 REQUIREMENTS INCLUDE

- A. Construction photographs will be taken by a commercial photographer, employed and paid by the A/E.
- B. Each Contractor provide casual labor and access for photographer when requested by A/E.
- C. Construction photographs will be taken on first working day of each month, unless otherwise scheduled in writing by the A/E.

END 01380.

DIVISION 1 - GENERAL REQUIREMENTS
Section 01410 - Testing Laboratory Services

1. GENERAL

1.1 REQUIREMENTS INCLUDE

* * * * *

- A. Architect/Engineer will employ and pay for an independent testing laboratory to perform specified services. (This option is covered by the Standard Documents for Construction.)

* * * OR * * *

- A. Using agency will employ and pay for an independent testing laboratory to perform specified services. (*On some projects for Departments of Natural Resources and Transportation. Verify with CDB Project Manager.)

* * * OR * * *

- A. (*General) Contractor employ and pay for an independent testing laboratory to perform specified services. (*Primarily for CDB In-House designed projects.)

* * * * *

1.2 RELATED REQUIREMENTS

- A. Specified elsewhere:

1. (*Specify sections where testing by A/E is required).
2. (*Specify sections where testing by contractor is required).

1.3 QUALIFICATION OF LABORATORY (*Use when laboratory is employed by (*Coordinating) Contractor.)

- A. Meet "Recommended Requirements for Independent Laboratory Qualification", latest edition, published by American Council of Independent Laboratories.
- B. Meet basic requirements of ASTM E329-(*), "Standards of Recommended Practice for Inspection and Testing Agencies for Concrete and Steel Used in Construction".

1.4 LABORATORY DUTIES - LIMITS OF AUTHORITY

- A. Cooperate with Architect/Engineer and Contractor; provide qualified personnel promptly on notice.
- B. Acquaint Architect/Engineer's personnel with testing procedures and with all special conditions encountered at the site.
- C. Perform specified inspections, sampling and testing of materials and construction methods:
1. Comply with specified standards, ASTM, other recognized authorities.
 2. Ascertain compliance with contract requirements.
 3. Obtain written acknowledgement of each inspection, sampling and test made from contractor whose work is being tested or from his superintendent.

- D. Promptly notify Architect/Engineer and contractor, of irregularities or deficiencies of work which are observed during performance of services.
 - E. Promptly submit (*) copies of reports of inspections and tests to Architect/Engineer including:
 - 1. Date issued.
 - 2. Project title and number.
 - 3. Testing laboratory name and address.
 - 4. Name and signature of inspector.
 - 5. Date of inspection and sampling.
 - 6. Record of temperature and weather.
 - 7. Date of test.
 - 8. Identification of product and specification section.
 - 9. Location of project.
 - 10. Type of inspection or test.
 - 11. Observations regarding compliance with contract documents.
 - F. Perform additional services ordered by Architect/Engineer.
 - G. Laboratory is not authorized to:
 - 1. Release, revoke, alter or enlarge on, contract requirements.
 - 2. Approve or accept any portion of work.
 - 3. Perform any duties of the Contractor.
- (*Continue as appropriate)

END 01410.

DIVISION 1 - GENERAL REQUIREMENTS
Section 01510 - Temporary Utilities

1. GENERAL

1.1 REQUIREMENTS INCLUDE. Designated contractor provide and maintain specified temporary utilities during construction period.

A. (*_____) Contractor Provide: (*)

1. Utilities for CDB and/or A/E field offices, except those specifically identified as the responsibility of other Contractors.
2. Temporary heat.
3. Toilets.
4. Telephone Service and Telephones.
5. Payment of all utility, telephone, and fuel bills, except charges specifically identified as the responsibility of other Contractors.
6. Temporary Ventilation.
7. (*Continue as appropriate.)

B. (*Plumbing) Contractor Provide: (*)

1. Temporary water service, including initial hookup or connection charges.
2. Water for CDB/A/E office (trailer).
3. (*Continue as appropriate.)

C. (*Electrical) Contractor Provide: (*)

1. Temporary power, including service hookup and connection charges.
2. Temporary lighting (*Work, security, safety and lamps).
3. Electrical power to CDB/A/E office (trailer).
4. (*Continue as appropriate.)

D. (*) Contractor: (*)

E. Each Contractor:

1. All utilities required in excess of those specified, or exceed capacity of existing or permanent system(s).
2. Hoses and fittings from temporary standpipes or water service connection.
3. Drinking water for own forces.
4. All utilities to own field office.

1.2 RELATED REQUIREMENTS

A. Specified elsewhere: (*)

1. 01010 - Project Summary. (*A/E Note: Include reference in Division 15 Mechanical and 16 Electrical, to direct attention to temporary utilities requirements.)

B. Furnished by others: (*)

1. Using Agency will authorize use of existing facilities or services for temporary use.
 - a. Heating.
 - b. Ventilating.

- c. Electrical power service.
 - d. (*Work, security, safety) lighting.
 - e. Telephone for toll-free calls only. (Toll calls paid for by caller, credit card only.)
 - f. Water service.
 - g. Toilets.
2. Using Agency will pay all costs of consumables (except toll calls) used for construction purposes for utilities it furnishes.
 3. Contractor requiring Using Agency furnished services provide and pay for extension or modification of services to perform the work, and for restoration of services at completion of work.

1.3 DEFINITIONS

- A. Temporary Heat: Provision, operation and maintenance of approved portable heating devices, including costs of fuel, from start of construction until the permanent enclosure has been certified by the A/E as substantially complete and the permanent heating system, including permanent metered fuel line (except electric) is, in the A/E's and installing contractor's opinion, sufficiently complete to allow safe operation, and CDB gives written authorization for its use.
- B. Temporary Ventilation: Provision, operation and maintenance of approved portable fans, louvers, ductwork, dampers necessary from start of construction until the permanent enclosure has been certified as substantially complete, and the permanent ventilating system is in the A/E's and installing contractor's opinion, sufficiently complete to allow safe operation, and CDB gives written authorization for its use.
- C. Temporary Enclosure: Sufficient enclosure of an area, structure or building to prevent entrance or infiltration of rainwater, wind or other natural elements, and which will prevent undue heat loss from within enclosed areas.
- D. Permanent Enclosure: Stage of construction at which all moisture and weather protection elements of construction have been installed in accord with the contract for the building or part thereof. The A/E may certify in writing that the building or defined portion thereof is substantially permanently enclosed when walls, windows, and roof are complete and openings left for construction access are adequately closed with movable material having an "R" value equivalent to the finished opening.

1.4 DESCRIPTION OF TEMPORARY UTILITY SYSTEMS (*A/E Note: Delete all, or appropriate portions when existing system is adequate and will be authorized for use.)

A. Heating System:

1. Provide specified temporary heating in enclosed areas throughout construction period in order to:
 - a. Facilitate progress of work by all contractors.
 - b. Protect work and products against dampness and cold.
 - c. Prevent moisture condensation on surfaces.
 - d. Provide specified ambient temperatures for installation and curing of finish materials.
 (*A/E Note: Conditions of condensation on metal roof decks and moisture penetration into roof insulation may require additional provisions.)
2. Heat field offices for CDB's representative and A/E.

3. Minimum heating temperatures: (*A/E Note: Coordinate environmental requirements specified in various product sections.)
 - a. Minimum temperatures shall be at least that specified in specific specification sections.
 - b. Unless otherwise specified, areas in temporary enclosures shall be maintained at temperatures of at least 45 degrees F (7.22 degrees C), 24 hours per day, seven days per week.
 - c. Unless otherwise specified, areas in permanent enclosures or during placement of interior finishes (woodwork, flooring, painting, drywall, etc) shall be maintained at temperatures of at least 65 degrees F (18.3 degrees C), 24 hours per day, seven days per week.

B. Ventilating System:

1. Provide specified temporary ventilation in enclosed areas throughout construction period to:
(*A/E Note: Conditions of condensation on metal roof decks and moisture penetration into roof insulation may require additional provisions.)
 - a. Facilitate progress of work.
 - b. Protect work and products against dampness and heat.
 - c. Prevent moisture condensation on surfaces.
 - d. Provide suitable ventilation for installation and curing of finish materials.
 - e. Provide adequate ventilating to meet health regulations for safe working environment.
 - f. Prevent hazardous accumulations of dusts, fumes, mists, vapors or gases in areas occupied during construction.
2. Duration of ventilating operations:
 - a. At all times personnel occupy an area, when subject to hazardous accumulations of harmful elements.
 - b. Continue operation of ventilating system after cessation of work to assure removal of harmful elements.
 - c. Continue until final air clearance (for asbestos abatement projects).

C. Electrical system:

1. Provide and maintain specified temporary primary electric power system throughout construction period.
 - a. Provide main distribution panel, complete with meter:
 - 1.) Capacity of:
 - a.) (*) volts, (*) amperes, (*) phase, (*) hertz.
 - 2.) Circuit protected feeders for: (*)
 - a.) Field office of CDB, Architect/Engineer.
 - b.) Operation and testing of heating system (except electric heating).
 - c.) Operation and testing of ventilation system (except electric chillers).
 - d.) Pumping, dewatering.
 - e.) Specified secondary power centers.
 - f.) Temporary lighting.
 - g.) Elevators (*A/E specify number, i.e., one only).

- 3.) All other connections are to be made at secondary power centers.
2. Provide secondary power centers for miscellaneous hand tools and equipment used in construction work.
 - a. Provide (* or one) on each floor.
 - b. Provide weatherproof distribution box with grounded outlets: (*)
 - 1.) (*Quantity), (*) volt, (*) amperes, (*) phase, (*) hertz.
 - c. Provide circuit protection for each circuit.
 - d. Provide ground fault protection for each circuit.
 - e. Each contractor and each subcontractor using the secondary power centers shall provide their own grounded, UL listed extension cords and other accessories from secondary power centers to the point of operation.
3. Contractors who require primary power, secondary power centers or service connections in excess of that specified may, at their option:
 - a. Make arrangements with (*Electrical) Contractor for excess service and pay all associated costs, including consumables, or
 - b. Make arrangements with Power Company for separate service and pay all costs thereof, including consumables.
4. Power source:
 - a. Utility company: (*_____).
 - b. Prior to availability of utility company service, provide specified power by means of portable power plants.

D. Lighting:

1. Provide temporary lighting for: (*)
 - a. Construction needs. (*A/E - specify minimum 'fc' levels.)
 - b. Safety lighting.
 - c. Security lighting.
2. Security lighting: (*)
 - a. Within the buildings, illuminate all stairways, corridors and entrances on a 24 hour per day basis.
 - b. Outside the building(s) provide: (*)
 - 1.) An illuminated route from site entrance to project area for security guard or emergency access.
 - 2.) Site lighting controlled by photoelectric cell.
 - 3.) Illumination of all main electrical switching equipment, other equipment for which emergency access is specified.
3. Safety lighting: (*)
 - a. Provide (*) watts over barriers and other obstacles which are not apparent as safety hazards.
 - b. (*Continue as appropriate.)

4. Basic requirements, all lighting:
 - a. Lamps:
 - 1.) Covered with safety guard or deeply recessed in reflector.
 - 2.) Not suspended by their electric cords unless cord and fixture designed for that purpose.
5. Contractors or subcontractors who require lighting in excess of that specified: Make arrangements with (*Electrical Contractor) and pay all costs thereof.

E. Telephone service:

1. Provide telephone service for construction needs throughout construction period. (*)
 - a. One direct line instrument in (* Contractor's) (* Coordinating Contractor's) field office.
- (*)2. One direct line instrument in Architect/Engineer's field office. A/E Note: If project warrants, and CDB Project Manager concurs, add requirement of providing an additional line for fax machine.
- (*)3. At least one coin operated instrument in a weatherproof enclosure for use of all workmen.
4. Other contractors and subcontractors may provide at their own expense separate additional telephone service that they may require.
5. Telephone company: (* .)

F. Water service:

1. Provide and maintain temporary water service throughout construction period.
 - a. For construction purposes: (*)
 - 1.) Provide service standpipe.
 - 2.) Provide a (*specify quantity) (*) inch water service connection on each floor or where shown on drawings.
 - 3.) Minimum discharge at water service connection not required for fire protection: (*) psi. (*Fire protection needs may require greater pressure.)
 - 4.) Provide backflow protection.
 - 5.) Each contractor and subcontractor shall provide their own water hoses from hose bibbs to point of his operations.
- (*)2. For other purposes:
 - a. Field office(s).
 - b. Temporary fire protection. (*A/E specify requirements.)
 - c. Cleaning.
 - d. Nonpotable water:
 - 1.) Use only where permitted. (*A/E specify, i.e., fire protection, dust control, etc.)
 - 2.) Identify outlets for nonpotable water with signs to indicate clearly that water is unsafe. Do not use for drinking, washing or cooking purposes.

3. Water Source:

- a. Supplier: (*Utility company) (*Using Agency).

* * * OR * * *

- a. Prior to availability of regular source of supply, provide and pay for trucked-in service.
- b. Provide temporary elevated storage tanks on site.

G. Toilets:

- 1. Provide temporary toilet facilities for use of all workmen and authorized parties throughout construction period.
- 2. Provide a minimum number of enclosed combination toilet and urinal units for construction personnel:
 - a. One for every 20 employees, or fraction thereof.

1.5 REQUIREMENTS OF REGULATORY AGENCIES

A. Only on CDB's prior written authorization, obtain:

- 1. Permits and inspections required by (*governing authorities - identify).
- 2. Temporary easements required across property other than that of CDB or Using Agency. (At Contractor's expense.)

1.6 USE OF PERMANENT SYSTEMS FOR CONSTRUCTION PURPOSES (*A/E Note: Use for New Systems ONLY)

A. Obtain CDB's prior written authorization for system to be used. Request for authorization shall indicate:

- 1. Reason for use.
- 2. Conditions of use.
- 3. Parts of system to be used.
- 4. Modifications necessary.
- 5. Isolation of elements not authorized for use.
- 6. Approval of installing contractor; (and equipment manufacturer where extended warranties are involved.)

B. Modifications necessary shall be at contractor's expense, since use of permanent systems is for contractor's benefit.

C. Upon completion of need to use permanent system, or when directed by A/E restore permanent system to specified condition prior to substantial completion.

- 1. Provide all new filters in heating and ventilating systems.
- 2. Replace all burned out or defective lamps.
- 3. Repair or restore all damaged parts or components.
- 4. Clean all ducts and coils.
- 5. Rebalance the heating/ventilating systems as required by A/E.

D. CDB's authorization for use of permanent systems will not relieve Contractors' responsibility for warranties in accordance with the General Conditions.

E. NOTE: The above does not prohibit installing contractor from normal test and check out of system.

- 1.7 USE OF USING AGENCY'S EXISTING SYSTEMS (*A/E Note: For remodeling and renovation projects. Designate which systems, or parts thereof, which may be used. Designate all limitations on use during construction period.)
- A. Make written arrangements with Using Agency's representative.
 - B. Modify, supplement and extend system to meet temporary utility requirements for project, subject to approval of Architect/Engineer and Using Agency. (*A/E Note: Define Contractor responsible.)
 - C. Limitations:
 - 1. Do not overload systems. When project requirements exceed system capacity, provide separate system to meet needs.
 - 2. Prevent interference with Using Agency's normal use of system.
 - D. Maintain strict supervision of use of temporary facilities.
 - 1. Enforce conformance with Using Agency's regulations.
 - 2. Use only designated facilities, systems or portions thereof.
 - E. Upon completion of need to use existing systems, or when directed by Architect/Engineer, restore existing systems to specified permanent condition.

2. PRODUCTS

- 2.1 MATERIALS. May be new or used, but shall be adequate for purposes used, shall not create unsafe or unsanitary conditions, nor violate applicable codes.

3. EXECUTION

3.1 INSTALLATION

- A. Heating and Ventilating: Locate units to meet project progress, and as approved by Architect/Engineer. Avoid interference with:
 - 1. Work or traffic areas.
 - 2. Materials handling or storage areas.
 - 3. Stairwells, access ramps and ladders.
- B. Electrical:
 - 1. Do not run branch circuits on floor or on ground.
 - 2. Verify proper operation of all safety devices.
- C. Water service:
 - 1. Do not run piping on floor or on ground.
 - 2. Provide drip pan under each water service connection located within building.
 - 3. Provide insulation, or other means, to prevent pipes from freezing.
 - 4. When necessary to maintain pressure, provide temporary pumps, tanks and compressors.
- D. Toilets:
 - 1. Service regularly.

3.2 REMOVAL

- A. Upon CDB's prior written authorization, completely remove temporary materials and equipment.
- B. Repair all damage caused by temporary utilities' installation. Restore to (*specified) (*original) conditions.

3.3 MAINTENANCE

- A. Maintenance of permanent system when used for construction purposes:
 - 1. Permanent systems shall be maintained by installing contractor so as to prevent any damage thereto.

END 01510.

DIVISION 1 - GENERAL REQUIREMENTS
Section 01515 - Use of Existing Facilities

(*A/E: This section is designed for use on projects at existing facilities. It only applies to the Contractor's use of existing facilities. Prepare this section in consultation with the Using Agency Representative. Edit carefully.)

1. GENERAL

- 1.1 The project will be constructed at an occupied facility. These requirements supplement the Standard Documents for Construction and other sections of the Project Manual.
- 1.2 The Using Agency will occupy area(s) for purpose of (*).
- 1.3 REQUIREMENTS INCLUDE (*Each) Contractor provide:
 - A. Scheduling
 - B. Security and site regulations
 - C. Entrances
 - D. Construction aids
 - E. Temporary enclosures and barriers
 - F. Fences
 - G. Temporary utilities
 - H. Access roads & parking areas
 - I. Traffic regulation
 - J. Construction Cleaning
 - K. Field Offices
 - L. Storage
 - M. Close-out
- 1.4 RELATED REQUIREMENTS
 - A. Specified elsewhere: (*)

2. EXECUTION

- 2.1 SCHEDULING
 - A. Schedule the work to allow the User Agency to (*). Submit separate detailed subschedule showing:
 - 1. Each stage of work; occupancy dates of areas.
 - 2. Date of Substantial Completion for each area of work.
 - B. Schedule early completion of designated area(s) for Using Agency's usage prior to substantial completion of entire project: (*List areas designated, all mandatory dates.)
 - C. Schedule noisy or hazardous work to avoid problems with Using Agency's operations.
- 2.2 SECURITY AND SITE REGULATIONS (*A/E coordinate with Using Agency's security programs. Using Agency may prefer to expand existing programs and facilities to cover construction operations, in which case inform Contractor(s) of those requirements and of each entity's responsibilities thereunder.)
 - A. Confer with the Using Agency's representative and obtain full knowledge of all site rules and regulations affecting work.

- B. Provide control of all persons and vehicles entering and leaving project site. (*Reasonable proof of identification and signature to the visitor's log shall be required of the visitors by the contractor's site superintendent.)
 - C. Do not take photographs of any kind except with prior written authorization from CDB and Using Agency.
- 2.3 ENTRANCES (*A/E specify any entrances to the site or buildings that may be restricted for construction use.)
- 2.4 CONSTRUCTION AIDS Except as noted, (*) Contractor provide and maintain construction aids and equipment for common use and to facilitate execution of the work.
- A. (*Designated) stairs in existing building may be used by construction personnel:
 - 1. (*)
 - * * * OR * * *
 - A. Do not use stairs in existing building.
 - B. (*Designated) elevators in existing building may be used for construction purposes:
 - 1. (*)
 - * * * OR * * *
 - B. Do not use elevators in existing building.
- 2.5 TEMPORARY ENCLOSURES AND BARRIERS (*) Contractor:
- A. Provide temporary enclosures to separate work areas from existing building and from areas occupied by Using Agency.
 - B. Provide and maintain suitable barriers to prevent unauthorized entry, and to protect the work.
- 2.6 TEMPORARY UTILITIES (*A/E Note: Designate systems, or parts thereof, which may or may not be used. Designate any limitations.)
- A. Using Agency will authorize use of existing facilities or services:
 - 1. Heating.
 - 2. Ventilating.
 - 3. Electrical power service.
 - 4. (*Work, security, safety) lighting.
 - 5. Telephone for toll-free calls only. (Toll calls paid for by caller, credit card only.)
 - 6. Water service.
 - 7. Toilets.
 - B. Make written arrangements with Using Agency's representative.
 - C. Prevent interference with Using Agency's normal use of system.

- D. Modify, supplement and extend systems to meet temporary utility requirements for project, subject to approval of Architect/Engineer and Using Agency. Modifications shall be at contractor's expense. (*A/E Note: Define Contractor responsible.)
- E. Using Agency will pay all costs of consumables (except toll calls) used for construction purposes for utilities it furnishes.
- F. Contractor requiring facilities or services beyond those available from the User shall provide and pay for extension or modification of services to perform the work, and for restoration of services at completion of work.

2.7 ACCESS ROADS & PARKING AREAS

- A. (*Designated) existing on-site streets and driveways may be used for construction traffic. Maintain existing condition.

* * * OR * * *

- A. The use of existing on-site streets, driveways or walks for construction traffic, or by construction personnel, will not be permitted.
- B. (*Designated areas of) existing parking facilities may be used for parking of construction personnel's private vehicles and of contractor's lightweight (not exceeding a B plate) vehicles.

* * * OR * * *

- B. Use of existing parking facilities for construction personnel or for contractor's vehicles or equipment will not be permitted.
- C. Maintain roads, walks and parking areas in a sound, clean condition. Restore to original condition upon work completion prior to Final Acceptance.
- D. Control vehicular parking to preclude interference with public traffic or parking, access by emergency vehicles, Using Agency's operations or construction operations.

2.8 TRAFFIC REGULATION (*) Contractor provide traffic control and directional signs, mounted on barricades or standard posts:

- A. At each change of direction of a roadway and at parking areas.
- B. Provide qualified and suitably equipped flaggers when construction operations encroach on traffic lanes, as required for traffic regulation.

2.9 CONSTRUCTION CLEANING

- A. (*Each) Contractor provide cleaning and disposal of waste materials, debris and rubbish during construction.
- B. (*Include when other contracts are assigned.) Coordinating Contractor supervise and coordinate cleaning operations of all Assigned Contractors.
- C. (*Each) Contractor provide covered containers for deposit of waste materials, debris and rubbish.

* * * OR * * *

- C. Using Agency will provide covered containers for deposit of waste materials, debris and rubbish.
- D. Clean User occupied areas daily.

2.10 FIELD OFFICES

- A. The Using Agency will authorize use of existing space for temporary office. Make arrangements with Using Agency's Representative.
- B. Provide space for project meetings and furnishings, including Portable folding conference table and chairs for at least (*) persons.

* * * OR * * *

- B. Make arrangements with User Agency Representative for use of Conference Room for project meetings.

2.11 STORAGE Make arrangements with Using Agency's Representative for any on-site storage of materials and equipment to be installed in project. Protection and security for stored materials and equipment is solely contractor's responsibility.

2.12 CLOSEOUT

- A. Upon completion of need to use existing user-provided facilities, or when directed by Architect/Engineer, restore each to original or specified condition.
- B. At completion of work in each area, provide final cleaning and return space to a condition suitable for use of User.

END 01515

DIVISION 1 - GENERAL REQUIREMENTS
Section 01525 - Construction Aids

1. GENERAL

1.1 REQUIREMENTS INCLUDE

- A. (*Coordinating) Contractor: Provide and maintain construction aids and equipment for common use and to facilitate execution of the work: (*)
1. Chutes.
 2. Cranes.
 3. Hoists.
 4. Platforms.
 5. Railings.
 6. Ramps.
 7. Runways.
 8. Stairs.
 9. Temporary enclosures.
 10. (*Continue as appropriate.)
- B. (*Each) Contractor: Provide and maintain for his own forces all other construction aids required to complete his work.

1.2 RELATED REQUIREMENTS

- A. Specified elsewhere:
1. 01530 - Barriers.
 2. (*Continue as appropriate.)

2. PRODUCTS

2.1 MATERIALS. Materials may be new or used. Comply with specified codes and standards.

2.2 CONSTRUCTION AIDS (*)

A. (*Designated) stairs in existing building may be used by construction personnel:

1. (*)

* * * OR * * *

A. Do not use stairs in existing building.

* * * * *

B. When permanent stair framing is in place, provide temporary treads, platforms and railings for use by construction personnel.

C. (*Designated) elevators in existing building may be used for construction purposes:

1. (*)

* * * OR * * *

- C. Do not use elevators in existing building.

* * * * *

2.3 TEMPORARY ENCLOSURES (*)

- A. Provide temporary weather-tight enclosure of exterior walls for successive areas of building as work progresses, to provide acceptable working conditions, provide weather protection for materials, allow for effective construction heating, and to prevent entry of unauthorized persons.
 - 1. Provide temporary exterior doors with self-closing hardware and padlocks.
 - 2. Provide other enclosures, removable, for work and handling of materials.
- B. Provide temporary enclosures to separate work areas from existing areas occupied by Using Agency.
 - 1. Temporary partition and ceiling enclosures.
 - a. Close joints between sheet materials and seal edges and intersections with existing surfaces to prevent penetration of dust, fumes or moisture.
 - b. In locations where fire protection is required, paint both sides of partitions with noncombustible paint.

3. EXECUTION

- 3.1 PREPARATION. Consult with Architect/Engineer, review site conditions and factors which affect construction procedures and construction aids, including adjacent properties and public facilities which may be affected by execution of the work.
- 3.2 REMOVAL
 - A. Remove temporary materials, equipment and services.
 - 1. When construction needs can be met by authorized use of permanent construction or when authorized by the A/E.
 - B. Clean and repair damage caused by installation or use of temporary facilities.
 - C. Restore facilities used for temporary purposes to (*Specified) (*original) condition.

END 01525.

DIVISION 1 - GENERAL REQUIREMENTS
Section 01530 - Barriers

1. GENERAL

1.1 Work Includes:

A. Base Bid:

1. (*) Contractor provide fencing

a. Open mesh fence. (A/E: specify materials).

* * * * OR * * * *

a. Solid Fence:

1.) Plywood: Exterior type CC face plies, thickness appropriate to framing requirements.

2.) Framing: 2 in. x 4 in. rails; 4 in x 4 in. (nominal dimensions) treated wood posts.

3.) (*) Paint: One coat exterior wood primer, one coat exterior wood finish, specified in (*).

* * * * OR * * * *

a. (*Specify other)

2. Maintain fences and barriers during entire construction period. Relocate as construction progresses.

End 01530

DIVISION 1 - GENERAL REQUIREMENTS
Section 01540 - Security

(*A/E: The minimum standard is specified in Article 01540 of the Standard Documents for Construction. Use this guide specification section to customize any other security program required for the project. Avoid duplication. Coordinate with Using Agency's security programs. The Using Agency may prefer to expand existing programs and facilities to cover construction operations, in which case inform Contractor(s) of those requirements and of each entity's responsibilities thereunder.)

1. GENERAL

- 1.1 REQUIREMENTS INCLUDE (*) Contractor: (*)
 - A. Comply with site security program specified in Article 01540 of the Standard Documents for Construction.
 - B. (*Comply with the security program for secured institutions specified in Article 01540 of the Standard Documents for Construction.)
 - C. Comply with the supplemental security program specified in this section.
- 1.2 RELATED REQUIREMENTS SPECIFIED ELSEWHERE:
 - A. (*)
- 1.3 PERSONNEL IDENTIFICATION: (*)
 - A. Provide identification to each person authorized to enter project premises, showing:
 - 1. Personal photograph.
 - 2. Name of individual and assigned number.
 - 3. Employer's name.
 - 4. Maintain a current list of accredited persons; submit copy of list to CDB or Using Agency on request.
 - 5. Require that identification be displayed by all persons entering, leaving or on premises.
 - B. Exclude improperly identified persons from site.
- 1.4 ENTRANCE CONTROL:
 - A. Provide control of all persons and vehicles entering and leaving project site.
 - 1. Require display of proper identification by each person.
 - 2. Allow no visitors except with issuance of temporary identification.
 - 3. Maintain log of all visitors.
 - B. Using Agency will control deliveries and vehicles related to its own operations.

1.5 PATROL/GUARD SERVICE: (*)

Employ a patrol/guard service which shall be in effect: (*)

A. At all times when construction work is not in progress.

* * * OR * * *

A. Twenty four hours a day, seven days a week.

1.6 MISCELLANEOUS RESTRICTIONS: (*)

(*) Do not take photographs of any kind except with prior written authorization from CDB. See section 01380.

END 01540.

DIVISION 1 - GENERAL REQUIREMENTS

Section 01550 - Access Roads, Parking Areas & Parking Control

(A/E Note: Use this supplemental section to modify article 01550 of the Standard Documents for Construction when required. Design and specify all required access roads to the site. Ensure site access including roads & ways show starts and ends. Do not show accesses not in the project. Specify the coordinating contractor as responsible for maintenance and upkeep of all specified site access including parking areas. The following is a generic section for site access. Edit as necessary for a specific project.)

1. GENERAL

1.1 REQUIREMENTS MODIFY ARTICLE 01550 OF THE STANDARD DOCUMENTS FOR CONSTRUCTION.

A. (*Coordinating) Contractor:

1. (*Provide and) maintain vehicular access to site and within site.
2. Remove temporary equipment and facilities when no longer required.
3. Restore grounds to (*original) (*specified) conditions.

1.2 ROADS AND PARKING AREAS (*)

A. Construct and maintain roads, drives, walks and parking facilities to provide uninterrupted access to construction offices, mobilization, work, storage areas and other areas indicated on the drawings for execution of the Contract.

1. Location: Where shown on drawings.
2. Size of parking facilities: Adequate to provide for personnel needs of all contractors.

B. Provide access for emergency vehicles. Maintain driveways a minimum of 15 feet wide between and around combustible materials in storage and mobilization areas.

C. Keep fire hydrants and water control valves free from obstruction or damage and accessible for use.

D. Additional access roads other than provided herein, requested by any Contractor shall be at the requesting Contractor's expense and approved by the A/E. Removal and restoration of the area to (*specified) (* original) condition shall also be at that contractor's expense.

1.3 TRAFFIC CONTROL (*)

A. Provide and operate traffic control and directional signals in all areas under Coordinating Contractor's control.

B. Provide traffic control in accord with appropriate articles in the IDOT Standard Specifications for Road and Bridge Construction, Section 700, and National Manual on Uniform Traffic Control Devices including the Illinois Supplement.

C. Construction Parking Control (*). Control vehicular parking to preclude interference with public traffic or parking, access by emergency vehicles, using agency's operations or other construction operations.

2. PRODUCTS

2.1 BASE COURSE & SURFACE MATERIALS (*)

3. EXECUTION

3.1 PREPARATION (*)

3.2 CONSTRUCTION (*)

- A. Construction methods at Contractor's option for temporary facilities which will be removed when no longer needed; adequate to provide specified results.
- B. Comply with respective specification sections for preparation and construction for work which will become part of permanent construction.

3.3 MAINTENANCE (*)

- A. Maintain roads, walks and parking areas in a sound, clean condition. Maintenance shall consist of replacing (* base) materials and reshaping of the roadbed. Provide adequate drainage for an uninterrupted access to the construction site to the satisfaction of the A/E. Repair or replace all damages during progress of construction work.

3.4 REMOVAL (*)

- A. Completely remove temporary materials or construction when access needs can be met by use of permanent construction or when directed by Architect/Engineer.
- B. Restore areas to (*original) (*specified) conditions at completion of work as directed by A/E.

END 01550.

DIVISION 1 - GENERAL REQUIREMENTS
Section 01561 - Construction Cleaning

1. GENERAL

1.1 REQUIREMENTS INCLUDE

(* A/E: Include only when other contracts are assigned. Coordinate with Article 01561 of the Standard Documents for Construction)

A. Coordinating Contractor: Supervise and coordinate cleaning operations of all assigned Contractors.

1.2 RELATED REQUIREMENTS

A. Specified elsewhere: (*)

1. 01120 - Remodeling Project Procedures: cleaning Using Agency occupied spaces.

2. Individual Specification Sections: specific cleaning for product or work.

2. PRODUCTS

2.1 EQUIPMENT*

A. (A/E: Note any special equipment requirements.)

3. EXECUTION

3.1 CLEANING*

A. (A/E: Note any special cleaning requirement for project.)

3.2 DISPOSAL

(*Use option to specify non-standard off-site disposal. For example, designate disposal area on drawings. Specify Using Agency's requirements for burial or burning. Special disposal of hazardous waste material from demolition or used on construction of new work.)

END 01561.

DIVISION 1 - GENERAL REQUIREMENTS
Section 01620 - Storage & Protection

1. GENERAL

1.1 REQUIREMENTS INCLUDE

* * * * *

- A. (* Coordinating Contractor) make arrangements with Using Agency's Representative for storage of materials and equipment to be installed in project. Protection and security for stored materials and equipment, on and off site is solely contractor's responsibility. (*Special restrictions may apply at Security Facilities)

* * * OR * * *

- A. Work includes: (*Each) Contractor provide and maintain:

1. Storage for materials and equipment to be installed in Project.
2. Protection and security for stored materials and equipment, on and off site.

* * * * *

- 1.2 OFF-SITE AUTHORIZATION. Payment for materials/equipment stored off-site will be permitted only on CDB's prior written authorization, per Standard Document for Construction.

- 1.3 SUBMITTALS. (*May be deleted for a simple project, or one with unlimited site area, or where drawings show the information.)

- A. In accordance with 01340, submit:

1. Request for allocation of storage space.
2. List of materials and equipment to be stored.
3. Proposed location for storage.
4. Special storage requirements.
5. Schedule of anticipated storage dates.

2. PRODUCTS

2.1 STORAGE SHEDS

- A. (*)

2.2 PROTECTIVE MATERIALS

- A. For duration of storage period, provide materials which will provide proper protection against the elements or other harmful environmental conditions.

3. EXECUTION

3.1 LOCATION.

- A. Where shown on drawings, or where authorized by (*Architect/Engineer) (*Coordinating Contractor) (*CDB) (*Using Agency).

- B. (*Architect/Engineer) (*Coordinating Contractor) will resolve conflicts in storage requirements of all contractors.

3.2 PREPARATION. Fill and grade sites for temporary storage sheds to provide drainage.

3.3 INSTALLATION

- A. Construct storage sheds on adequate foundations, with connections for utilities.

- 1. Raise portable buildings, when used.
 - 2. Provide steps, landings or ramps at entrances.

- B. Mount fire extinguishers in prominent locations with clear access to use.

- C. Mount identifying signs adjacent to entrance doors, in conspicuous locations.

3.4 PROTECTION

- A. (*)

3.5 MAINTENANCE AND CLEANING

- A. Provide continuous maintenance for all temporary structures.

3.6 REMOVAL

- A. Remove all temporary storage sheds, contents and utilities, at completion of construction activities, or as directed by the Architect/Engineer.

* * * OR * * *

- A. When project is substantially closed in, with utilities and services suitable for use, and upon CDB's prior written authorization, move stored materials or equipment into designated areas of building(s). Remove temporary structures. (*Verify that spaces are designated on drawings, or specify spaces which may be so used. Coordinate with 01010.)

* * * * *

- B. Remove foundations, debris; grade to indicated elevations and clean area. (*Coordinate with 01710.)

END 01620.

DIVISION 1 - GENERAL REQUIREMENTS
Section 01710 - Final Cleaning

1. GENERAL

1.1 REQUIREMENTS INCLUDE

A. (*Each) Contractor: Provide final cleaning:

1. At completion of work, or at such other times as directed by the (*Coordinating Contractor) (*Architect/Engineer) (*CDB), remove all waste, debris, rubbish, tools, equipment, machinery and surplus materials. Clean all sight exposed surfaces; leave work clean and ready for occupancy.

B. (*)Coordinating Contractor:

1. Supervise and coordinate the cleaning operations of all Assigned Contractors.
2. At project completion, leave project clean, ready for occupancy.

1.2 RELATED REQUIREMENTS

A. Specified elsewhere: (*)

1. 01561 - Construction Cleaning.
2. (*Specified specification sections - cleaning for specific products or work).

B. By others: (*)

1. Using Agency: (*)

1.3 SAFETY REQUIREMENTS

A. (*)

2. PRODUCTS

2.1 (*)

3. EXECUTION

3.1 FINAL CLEANING (*Using Agency may wish to perform final dusting, vacuuming and polishing.)

A. Employ (*experienced workmen) (*professional cleaners) for final cleaning.

B. Remove grease, dust, dirt, stains, labels, fingerprints, protection and other foreign materials from sight-exposed (*interior) and (*exterior) finished surfaces; polish surfaces so designated to specified finish.

1. In preparation for substantial completion or occupancy, conduct final inspection of sight-exposed (*interior) and (*exterior) surfaces, and of concealed spaces to ensure performance.

C. Repair, patch and touch up marred surfaces to specified finish, to match adjacent surfaces.

- D. (*) Contractor soft broom clean all exposed concrete surfaces clean; other paved areas with soft or stiff broom as directed. Rake clean other surfaces on grounds.
- E. (*) Contractor sweep and mop clean all (*resilient) (*ceramic) (Terrazzo) flooring.
- F. (*) Contractor vacuum clean all carpet.
- G. (*) Contractor vacuum clean and mop all surfaces of pedestal floors and supports, including entire area beneath pedestal floors.
- H. (*) Contractor remove snow and ice from access to building(s).
- I. (*Ventilating) Contractor replace air handling (conditioning) filters if units were operated during construction.
- J. (*Ventilating) Contractor vacuum clean ducts, blowers and coils, when directed by A/E.
- K. (*Each contractor) maintain finally cleaned areas until project, or designated portion thereof, is accepted by CDB.

END 01710.

1. GENERAL

1.1 REQUIREMENTS INCLUDE

A. (*Each) Contractor:

1. At project site, maintain one record copy of: (*)
 - a. Contract drawings, including separate volume(s) of details.
 - b. Project Manual.
 - c. Interpretations and supplemental instructions.
 - d. Addenda.
 - e. Reviewed, approved shop drawings and product data.
 - f. Other modifications to contract.
 - g. Field test records.
 - h. All schedules.
 - i. Correspondence file.
2. Store documents in (*temporary field office) (*other - specify), apart from documents used for field construction.
3. Provide files and racks for document storage.
4. File documents in format in accord with Project Manual Table of Contents.
5. Maintain documents in clean, dry, legible condition.
6. Do not use record documents for field construction purposes.
7. Make documents available at all times for inspection by Architect/Engineer and CDB.

1.2 RELATED REQUIREMENTS

A. Specified elsewhere: (*)

1. 01340 - Shop Drawings, Product Data & Samples.
2. 01730 - Operating & Maintenance Data.
3. 01740 - Warranties & Bonds.
4. (*Continue as appropriate.)

1.3 RECORDING

- A. Label each document "PROJECT RECORD DOCUMENTS" in 2" high printed letters.
- B. Keep record documents current.
- C. Do not permanently conceal any work until specified information has been recorded.
- D. Contract drawings: Legibly mark to record actual construction: (*)
 1. Depths of various elements of foundation in relation to (*first floor level) (*basement level) (*survey data) (*other data).
 2. Horizontal and vertical location of underground utilities and appurtenances referenced to permanent surface improvements.
 3. Location of internal utilities and appurtenances concealed in construction referenced to visible and accessible features of structure.
 4. Field changes of dimension and detail.
 5. Changes made by change order.
 6. Details not on original contract drawings.

- E. Specifications and addenda: Legibly mark up each section to record:
 - 1. Manufacturer, trade name, catalog number, and supplier of each product and item of equipment actually installed.
 - 2. Changes made by change order or field order.
 - 3. Other matters not originally specified.
- F. Shop drawings: Maintain as record documents; legibly annotate drawings to record changes made after review.
- G. A/E will periodically review documents to confirm they are up-to-date. Contractor payment may be withheld or reduced if record documents are not current.

1.4 SUBMITTAL

- A. At completion of project, deliver record documents to A/E.
- B. Accompany submittal with transmittal letter, in duplicate, containing:
 - 1. Date.
 - 2. Project title and number.
 - 3. Contractor's name and address.
 - 4. Title and number of each record document.
 - 5. Certification that each document submitted is complete and accurate.
 - 6. Signature of contractor, or his authorized representative.

END 01720.

DIVISION 1 - GENERAL REQUIREMENTS
Section 01730 - Operating & Maintenance Data

(*A/E Note: Section 01730 should provide the Contractor with a complete summary list of O&M submittals which you expect for review prior to contract completion. Completely specify each submittal in its respective technical Project Manual section. This sample format and the check list is provided for illustration. Other formats which are acceptable for your tracking of submittals will be acceptable. Note that Article 01730 of The Standard Documents for Construction contains minimum submittal requirements. You do not need to duplicate each here.)

1. GENERAL

1.1 REQUIREMENTS INCLUDE

- A. Each Contractor provide Operating and Maintenance Data in accordance with Article 01730 of the Standard Documents for Construction and the Project Manual.

2. (*) NUMBER OF REQUIRED SUBMITTALS

(*A/E- If the User Agency requires more copies of any O&M manual other than the 2 copies specified in the Standard Documents for Construction, specify here.)

3. (*) SPECIAL REQUIREMENTS

(*A/E- If the User Agency requires special requirements such as video-taped training sessions or video O&M manuals, specify here.)

4. REQUIRED SUBMITTALS

4.1 (*) Contractor

A. Section (*), (*item)

1. (*Product data)
2. (*Operating characteristics, limiting condition)
3. (*Performance curves, engineering data)
4. (*As-installed control diagrams)
5. (*As-installed color coding charts and diagrams)
6. (*Valve Tag chart and numbers)
7. (*Parts nomenclature and numbers)
8. (*Operating procedures, start-up procedures)
9. (*Manufacturer's instructions for maintenance, and service and care)
10. (*Service manual)
11. (*Shop drawings)
12. (*Spare parts)
13. (*Warranties & bonds)
14. (*Troubleshooting procedures)
15. (*Safety requirements, operating cautions)
16. (*Overall system diagrams for use by operations and maintenance personnel)

B. (*Continue for next Section or item)

4.2 (*Continue for next Contractor)

END 01730.

DIVISION 1 - GENERAL REQUIREMENTS
Section 01740 - Extended Warranties & Bonds

(*A/E Note: Section 01740 should include a summary of required extended Warranties and Bonds (longer than one year). Completely specify each extended warranty in its respective technical Project Manual section. Verify that the extended warranty is available from each specified vendor.)

1. GENERAL

1.1 REQUIREMENTS INCLUDE

- A. Each Contractor shall warrant their work in accordance with the Standard Documents for Construction. In addition, the following extended Warranties and Bonds shall be provided as specified.

2. EXTENDED WARRANTIES AND BONDS (*A/E list all extended warranties for each item in each section.)

2.1 (*) Contractor

- A. Section (*), (*item), (*warranty period)
- B. (*Continue for next Section or item)

2.2 (*Continue for next Contractor)

END 01740.

Appendix 7 TECHNICAL SPECIFICATION FORMAT

DIVISION - (*DIVISION NUMBER & TITLE)
Section - (*Section Number & Title)
(*Header at the top of the first page of each section)

1. GENERAL

1.1 WORK INCLUDES

A. Base Bid: (A/E: List each contractor who has work in this section)

1. (*_____) Contractor:

a. (A/E: briefly summarize work in this section)

2. (*Continue for any other contractor who has work under this section)

B. Alternate Bids: (*) (A/E: list all alternate work applicable to this section by contractor and alternate number)

1. (*_____) Contractor:

a. Alternate Bid (*letter)-(*1):

1.) (A/E: briefly summarize work)

2. (*Continue as appropriate)

C. Unit Prices: (*) (A/E: Describe unit price work applicable to this section)

1. (*_____) Contractor:

a. (A/E: briefly summarize work)

1.2 RELATED WORK (*) (A/E Note: The following sub-sections should be closely coordinated with sub-section 1.1.)

A. Specified elsewhere: (A/E: List Sections that require direct coordination with this section. Do not include any General Condition or Division 0 & 1 Sections.)

B. Installed but furnished by others: (A/E: Specify who furnishes and who installs.)

1.3 Furnished, but installed by others: (A/E: Specify who furnishes and who installs.)

1.4 SYSTEM DESCRIPTION (*) (A/E: Use this to describe any special or complex building systems. Include definitions.)

1.5 QUALITY ASSURANCE (*) (A/E: Include any special qualifications for manufacturer, installer, supplier, etc., particularly where a performance specification is used for the product or its installation.)

- 1.6 REGULATORY REQUIREMENTS (*) (A/E: List special codes, national standards, etc. that apply to section. For individual product requirements, this information should be located in sub-section 2.)
- 1.7 ABBREVIATIONS (*) (A/E: List those unique to this section.)
- 1.8 SUBMITTALS (*) (A/E: Cross reference and include on Schedule 01340.)
 - A. Shop drawings: (*)
 - B. Samples: (*)
 - C. Product data: (*)
 1. Manufacturer's catalogs: (*)
 2. Test reports: (*Source quality control)
 3. Certifications: (*ANSI, UL, FM, etc.)
 - D. Mock-up: (*)
 - E. Operating and maintenance data required. (*) (A/E: Coordinate with and include on Schedule 01730.)

2. PRODUCTS

- 2.1 (*Item 1 - Title of material, product, equipment, etc.)

- A. (*) (A/E: Describe as appropriate.)

1. Size
2. Color
3. Finish
4. Utility Requirements
5. Features
6. (*)

(A/E: Utilize one of the three following formats for specifying products, equipment, etc. Utilize the performance specification option only when necessary.)

- B. Acceptable Products: (A/E: Minimum of 3 required without written approval from CDB. Matrix format preferred. List manufacturer's address and city only when not well known.)

	Manufacturer (*Address, City)	Model, Product, Catalog No.
1.	_____	_____
	_____	_____
2.	_____	_____
	_____	_____
3.	_____	_____
	_____	_____

* * * OR * * *

- B. (A/E: Provide competitive performance specification. Include form, fit and function characteristics. Specify post-award review requirements.)

* * * OR * * *

- B. (A/E: Specify national standard (ANSI, ASTM, etc.) to which product must comply.)
 - C. (A/E: Specify special requirements for fabrication, tolerances, etc.)
 - D. Special Warranty. In addition to that required by the Standard Documents for Construction: (A/E: Use this only for warranties beyond the Contractor's one-year guarantee.)
 - 1. (*_____) Manufacturer (*)
 - 2. (*_____) Contractor (*)
- 2.2 (*Item 2) (A/E: Continue for each material, product, equipment, etc.)
- 2.3 SCHEDULES (A/E do not duplicate schedules on Drawings and Specs.)
- A. Hardware.
 - B. Paint.
 - C. Color.
 - D. Equipment.
 - E. Lighting Fixture.
 - F. (*)

3. EXECUTION

- 3.1 ENVIRONMENTAL CONDITIONS (A/E: Specify any special weather, temperature, ventilation, etc. conditions that must be considered for the performance of the work.)
- 3.2 SEQUENCING/SCHEDULING (A/E: Specify any special scheduling requirements of user, delivery, early occupancy, etc.)
- 3.3 REMOVAL OF EXISTING CONSTRUCTION (*)
- A. Temporary removals: (*Remove, store, protect, recondition, replace in original location.)
 - B. Remove and relocate existing construction: (*)
 - C. Remove and dispose: (*)
- 3.4 PREPARATION (A/E: Be specific to avoid disputes.)
- A. Site clearing: (*)
 - B. Fine grading: (*)
 - C. Sanding: (*)
 - D. Priming: (*)
- 3.5 (*INSTALLATION) (*APPLICATION) (*PERFORMANCE) (*ERECTION) (*)
- A. Methods (A/E: Do not tell the contractor how to do basic work. Where possible, reference national standard or trade association installation standards.)
 - B. Tolerances: (*)
- 3.6 FIELD QUALITY CONTROL (A/E: Specify who will take tests, when, and routing of results. Coordinate test requirements with applicable codes and A/E Manual.)

- A. Soils
 - B. Piles
 - C. Concrete
 - D. Piping Systems
 - E. Electrical Systems
 - F. High Voltage Cable
 - G. Special Inspections
 - H. (*Continue as appropriate.)
- 3.7 PROTECTION (A/E: Describe any special protection required; carpet, mechanical equipment, etc.)
- 3.8 CLEAN UP (A/E: Describe any special clean up requirements only)
- 3.9 CLOSEOUT (A/E: Specify if building or system commissioning is applicable to this section.)
- 3.10 EXTRA STOCK/SPARE PARTS (A/E NOTE: When financed by Bonds all extra stock or spare parts must meet Bondability Guidelines. The CDB restricts this to the following):
- A. Keys: (*All locksets. Specify type and quantity in accord with User Agency needs. Include master and submaster.)
 - B. Suction Cup Lifter: (*Access floor panels. One or two per facility depending on quantity of flooring.)
 - C. Swimming Pool Accessories: (*First aid kit, life buoy, life pole, rope, water test kit. In accord with Illinois Department of Public Health requirements.)
 - D. Sprinkler System Accessories: (*Sprinkler heads, special wrench in cabinet. Quantity as required by Code, NFPA 13.)
 - E. Fuses, Electrical: (*Fused Equipment. Maximum of three of each size and type.)
 - F. Circuit Breakers: (*Panel boards. Maximum of 10% of panel circuit capacity.)
 - G. Hydrometer, Thermometer: (*Large storage battery rooms. May be augmented by special battery maintenance tools.)

END (*)

Appendix 8 DRAWING COVER SHEET

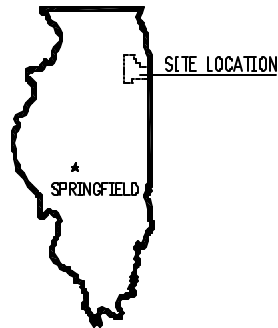
CDB - PROJECT NUMBER ____-____-____

(PROJECT NAME)

(INSTITUTION NAME)

(CITY, COUNTY ILLINOIS)

CDB BUILDING INVENTORY NO. - (LIST AS REQUIRED)



STATE LOCATION PLAN

INDEX OF DRAWINGS

G-1 TITLE SHEET AND LOCATION PLANS

(REMAINING DRAWINGS—LIST IN ORDER)

FOR:

STATE OF ILLINOIS

CAPITAL DEVELOPMENT BOARD

SAMPLE COVER SHEET WITH STANDARD TITLE BLOCK

USING AGENCY:

(NAME OF AGENCY)

BY:

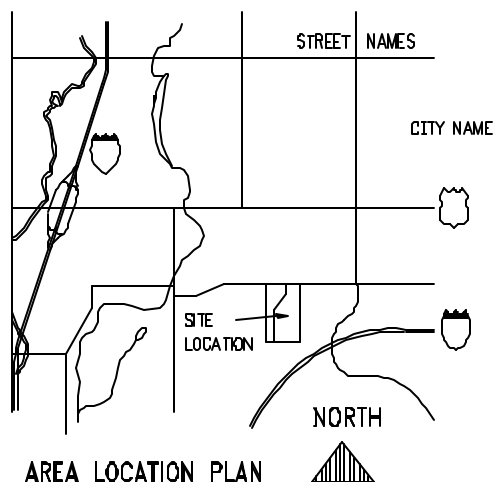
(A/E NAME)

(ADDRESS)

(CITY, ZIP)

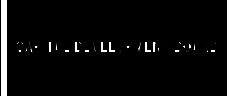
(PHONE)

(LIST CONSULTANTS, ADDRESSES, PHONE NO'S)



AREA LOCATION PLAN

NOTE: CONTRACTOR SHALL OBTAIN AND VERIFY ALL DIMENSIONS AND CONDITIONS AT JOB SITE AND BE FULLY RESPONSIBLE FOR SAME.

REVISIONS			<table border="1"> <tr> <td>DATE</td> <td>REVISIONS</td> </tr> <tr> <td> </td> <td> </td> </tr> <tr> <td> </td> <td> </td> </tr> <tr> <td> </td> <td> </td> </tr> </table>		DATE	REVISIONS							<table border="1"> <tr> <td>DATE</td> <td>REVISIONS</td> </tr> <tr> <td> </td> <td> </td> </tr> <tr> <td> </td> <td> </td> </tr> <tr> <td> </td> <td> </td> </tr> </table>		DATE	REVISIONS							SEAL CONSULTANTS NAMES AND ADDRESSES ARCHITECT ENGINEER AND ADDRESS	 State of Illinois George H. Ryan, Governor	SHEET TITLE TITLE AGENCY LOCATION		PROJECT NO. 000-000-000 DATE 1/1/00 SHEET NO. G-1 OF 1 SHEETS
DATE	REVISIONS																										
DATE	REVISIONS																										

DATE:

State of Illinois
CAPITAL DEVELOPMENT BOARD

(*Project Architect/Engineer name, address & phone.)

TO: PROSPECTIVE BIDDERS

SUBJECT: ADDENDUM NO. (*) TO THE BIDDING DOCUMENTS FOR

CDB-(*Project number)
(*Project title and location including county.)

This addendum forms a part of the bidding and contract documents and modifies the original bidding documents, dated _____, 20___. Acknowledge receipt of this addendum in space provided on Bid Form. **FAILURE TO DO SO MAY SUBJECT BIDDER TO DISQUALIFICATION.**

PROJECT MANUAL:

1. SECTION (*****):

DRAWINGS:

1. SHEET (*):

BID DATE:

1. This Addendum does not alter the previously published bid date(s).

* * * OR * * *

1. This addendum modifies the bid date(s) as follows: Bids are due for (*) Work (* date) at (* time) prevailing time. (* Repeat for other bid dates) The bid location is the Capital Development Board's office, (*3rd Floor, Wm. G. Stratton Building, 401 South Spring St., Springfield, IL 62706) (Suite 14-600, 14th Floor, James R. Thompson Center, 100 West Randolph St., Chicago, IL 60601) (1222 Shooting Park Road, Suite106, Peru, Il 61354) (.Small Business Incubator, 150 Pleasant Hill Road, P.O. Box 43, Carbondale, Il 62901).

Except as modified herein, (*Addendum No. 1) (*Addenda Nos.(*)) remain in full force and effect.

Very truly yours,

(Project Architect/Engineer)

This addendum consists of (*) pages.

Attachment (*identify.)

**ARCHITECT/ENGINEER'S
CERTIFICATION AND SIGNATURE
FOR CAPITAL DEVELOPMENT BOARD
PROJECT DRAWINGS**

CDB Project No.: _____

Project Phase: _____

Building Number: _____

Project Description: _____

User Agency: _____

Project Location: _____

This date, _____, 20____.

FIRM: _____

the project A/E, submits herewith record construction drawings of the above project in electronic format as listed below:

This certification shall constitute the A/E's original signature on the record drawings in accordance with Illinois law.

SIGNED: _____
AUTHORIZED SIGNATURE

Appendix 11 CDB ACRONYMS

CDB Acronyms

AAA	=	Asbestos Abatement Authority
AACA	=	African American Construction Association
AACE	=	Association of Asian Construction Enterprise
ACM	=	Asbestos Containing Material
ADA	=	Americans with Disabilities Act
ADR	=	Alternative Dispute Resolution
A/E	=	Architect/Engineer
A/E FCP	=	Architect/Engineer Final Close-Out Package
A/E PE=		Architect/Engineer Performance Evaluation
A/E PRB	=	Architect/Engineer Payment Request Breakdown
AFCC	=	Actual Final Construction Cost
AGC	=	Associated General Contractors of America
AGSF	=	Architectural Gross Square Footage
AHERA	=	Asbestos Hazards Emergency Response Act
AHU	=	Air Handling Unit
AIA	=	American Institute of Architects
ALD	=	Asbestos Litigation Division (Attorney General)
APM	=	Asbestos Project Manager
ASCE	=	American Society of Civil Engineers
ASHRAE	=	American Society of Heating, Refrigeration and Air Conditioning Engineers
ASP	=	Air Sampling Professional
AST	=	Air Sampling Technician -OR- Above Ground Storage Tank
ATP	=	Authorization to Proceed
BA	=	Business Agent
BAS	=	Building Automation System
BCU	=	Black Contractors United

BHE	=	Illinois Board of Higher Education
BIN	=	Bid Information Newsletter
BOA	=	Basic Ordering Agreement
BOCA	=	Building Officials and Code Administrators
BOMA	=	Building Owners and Managers Association of Chicago
BRPT	=	Budget Request Project Tracking
C-13	=	Invoice Voucher
CA	=	Construction Administration -OR- Construction Administrator
CAD	=	Computer Aided Design
CAF	=	Construction Administration Fee or Contract Administration Fee
CASS	=	Contractor's Affidavit & Sworn Statement
CAWGC	=	Contractors Association of Will and Grundy Counties
CBO	=	Community-Based Organization
CCS	=	Certified Construction Specifier
CD	=	Construction Documents
CDB	=	Capital Development Board
CDBF	=	Capital Development Board Fund
CDBRF	=	Capital Development Board Revolving Fund
CDF	=	Capital Development Fund
CE	=	Contract Executive
CECI	=	Consulting Engineers Council of Illinois
CF	=	Central Files
CFC	=	Chlorofluorocarbon
CFD	=	Contractor's Final Declaration
CFN	=	Centralized Fee Negotiation
CIBA	=	Central Illinois Builders Association
CISCO	=	Construction Industry Service Corporation
CM	=	Construction Manager
CMS	=	Illinois Department of Central Management Services

CO	=	Change Order
COA	=	Certification of Authenticity
COD	=	Contract Obligation Document
CORR	=	Change Order Review Routing
CPBS	=	Contractor's/Subcontractor's Proposal Breakdown Summary
CPE	=	Contractor Performance Evaluation
CPMW	=	Conduit Pipe Manufacturer's Warranty
CSE	=	Civil/Structural Engineer
CSI	=	Construction Specifications Institute
CSV	=	Contractor's Schedule of Values
CUL	=	Chicago Urban League
CUSAS	=	Comptroller's Unified Statewide Accounting System
DBE	=	Disadvantaged Business Enterprise
DD	=	Design Development
DDC	=	Direct Digital Controls
DHR	=	Illinois Department of Human Rights
DHS	=	Illinois Department of Human Services
DLD	=	Direct Labor Dollars
DOC	=	Illinois Department of Corrections
DNR	=	Illinois Department of Natural Resources
DWE	=	Direct Wage Expense
EAT	=	Expenditure Adjustment Transmittal
EE	=	Electrical Engineer
EEO	=	Equal Employment Opportunity
EPA	=	Environmental Protection Agency
EPACT	=	National Energy Policy Act of 1992
ET	=	Expenditure Transmittal
FA	=	Final Acceptance
FBB	=	Fluidized Bed Boilers

FBE	=	Female Business Enterprise
FCP	=	Final Closeout Package
FEIN	=	Federal Employee Identification Number
FEP	=	Fair Employment Practices
FOIA	=	Freedom of Information Act
FS	=	Funds Summary
FWC	=	Federation of Women Contractors
GAP	=	General Accounting Procedures
GAS	=	General Accounting System
GC	=	General Contractor
GIS	=	Geographical Information System
GPS	=	Global Positioning System
GRF	=	General Revenue Fund
GWB	=	Guaranties, Warranties & Bonds
HACIA	=	Hispanic American Construction Industry Association
HCFC	=	Hydrochlorofluorocarbons
HFC	=	Hydrofluorocarbons
HPA	=	Illinois Historic Preservation Agency
HVAC	=	Heating Ventilation Air Conditioning
HW	=	Hazardous Waste
IA	=	Internal Auditing
IAC	=	Illinois Accessibility Code -OR- Illinois Administrative Code -OR- Industry Advisory Committee
IAPHCC	=	Illinois Association of Plumbing-Heating-Cooling Contractors
IBA	=	Illinois Building Authority
ICCB	=	Illinois Community College Board
ICIC	=	Illinois Construction Industry Committee
IDOL	=	Illinois Department of Labor
IDOT	=	Illinois Department of Transportation

HEMA	=	Illinois Emergency Management Agency
IEPA	=	Illinois Environmental Protection Agency
IIA	=	Institute of Internal Auditors
IMS	=	Information Management System
IMSCA	=	Illinois Mechanical Speciality Contractors Association
IPA	=	Illinois Purchasing Act
IPS	=	Illinois Procurement System
IS	=	Information Systems
ISPE	=	Illinois Society of Professional Engineers
ISTEA	=	Intermodal Surface Transportation Enhancement Act
ITEP	=	Illinois Transportation Enhancement Program
JCAR	=	Joint Committee on Administrative Rules
JRTC	=	James R. Thompson Center (Chicago)
LA	=	Landscape Architect
LAN	=	Local Area Network
LUST	=	Leaking Underground Storage Tank
M/FBE	=	Minority/Female Business Enterprise
MBE	=	Minority Business Enterprise
ME	=	Mechanical Engineer
MEP	=	Mechanical Electrical Plumbing
MMUR	=	Monthly Manpower Utilization Report
NEC	=	National Electrical Code
NESHAP	=	National Emissions Standards for Hazardous Air Pollutants
NFPA	=	National Fire Protection Association
NOA	=	Notice of Award
NRO	=	Northern Regional Office (Chicago)
NTE	=	Not to Exceed
OBS	=	Obligations
OPA	=	Office of Public Affairs

OSFM	=	Office of Illinois State Fire Marshal
OSHA	=	U.S. Occupational Safety and Health Administration
OTQM	=	Office of Training and Quality Management
PA	=	Program Analysis
PAF	=	Personnel Action Form
PA/DD	=	Program Analysis and Design Development
PBMC	=	Pre-Engineered Metal Building Manufacturer's Certification
PBMW	=	Pre-Engineered Metal Building Manufacturer's Warranty
PC-2	=	Manpower Hiring Form in Bidding Documents
PCB	=	Proposed Cost Budget
PCBS	=	Proposed Cost Breakdown Summary
PE	=	Professional Engineer
PIR	=	Project Inspection Report
PO	=	Purchase Order
PM	=	Project Manager
PPCB	=	Proposed Project Cost Budget
PQ	=	Prequalification
PRB	=	Payment Request Breakdown
PSA	=	Professional Services Agreement
PSB	=	Professional Services Bulletin
PSR	=	Project Status Report
PVC	=	Polyvinylchloride
QBS	=	Qualifications-Based Selection
QRT	=	Quality Review Team
QSC	=	Quality Steering Committee
RACIF	=	Response Action Contract Indemnification Fund
RDT	=	Received Deposit Transmittal
RFI	=	Request for Information
RFP	=	Request for Proposal

RFP/CO	= Request for Change Order Proposal
RM	= Regional Manager
R & M	= Repair and Maintenance
R & R	= Remodeling and Rehabilitation
RRR	= Request for Reduction in Retainage
RSMC	= Roofing System Manufacturer's Certification
RSMW	= Roofing System Manufacturer's Warranty
RT	= Retention Trust
RTA	= Recommendation to Award
SAMS	= Comptroller's Statewide Accounting Management System
SB	= Single Bid
SC	= Substantial Completion
SE	= Structural Engineer
SEAOI	= Structural Engineers Association of Illinois
SIBA	= Southern Illinois Builders Association
SML	= Stored Material Log
SOB	= Stratton Office Building (Springfield)
SOS	= Illinois Secretary of State
SRO	= Springfield Regional Office
SWA	= Structural Work Act
T & B	= Testing and Balancing
T & M	= Time and Materials
TCV	= Total Contract Value
TIN	= Taxpayers Identification Number
TJR	= FEP Technician Jobsite Report
TQM	= Total Quality Management
TR	= Travel Request
TSR	= Telephone Service Request
UBC	= Uniform Building Code

UL	=	Underwriters Laboratory
UM	=	Unit Manager
USACE	=	United States Army Corps of Engineers
UST	=	Underground Storage Tank
VR	=	Voucher Register
WBDC	=	Women's Business Development Center
WBE	=	Women's Business Enterprise
WC	=	Workers' Compensation