

ADVERTISEMENT FOR BIDS
COBB COUNTY PURCHASING DEPARTMENT

BID OPENING DATE: APRIL 22, 2010

Cobb County will receive Sealed Bids before 12:00 NOON, April 22, 2010 in the Cobb County Purchasing Department, 1772 County Services Parkway, Marietta, GA 30008 for:

**SEALED BID # 10 – 5485
ANNUAL CONTRACT
MISCELLANEOUS CONCRETE PROJECTS AT VARIOUS COBB COUNTY PARKS
COBB COUNTY PARKS RECREATION AND CULTURAL AFFAIRS DEPARTMENT**

No bids will be accepted after the 12:00 noon deadline.

Bids are opened at 2:00 p.m. at Cobb County Purchasing Department, 1772 County Services Parkway, 2nd Floor, Bid/Meeting Room, Marietta, GA 30008

No bid may be withdrawn for a period of sixty (60) days after date of bid opening, unless otherwise specified in the bid documents. Cobb County will consider the competency and responsibility of bidders in making the award. Cobb County reserves the right to reject any and all bids, to waive informalities and technicalities, to reject portions of the bids, and to award contracts in a manner consistent with the County and the laws governing the State of Georgia.

This solicitation and any addenda are available for download in PDF format on the Cobb County purchasing website. www.purchasing.cobbcountyga.gov

To request a copy of the proposal documents, **FAX** the following information to the Purchasing Department @ 770-528-1154 or **e-mail** requests to purchasing@cobbcounty.org:

Company name, contact name, company address, phone number and fax number.

Please reference the proposal number and the title of the proposal in the request

Advertise: APRIL 9, 16, 2010

BIDDING INSTRUCTIONS – TERMS AND CONDITIONS

1. PREPARATION OF BID:

- (A) Bidders are expected to examine the drawings, specifications, schedules, and all instructions. Failure to do so will be at the bidder's risk.
- (B) Each bidder shall furnish the information required by the bid form. The bidder shall sign and print or type his/her name where designated. The person signing the bid must initial erasures or other changes.
- (C) Unit price for each quotation shall be shown and such price shall include packing unless otherwise specified, along with a total and grand total where applicable. In case of discrepancy between a unit price and extended price, the unit price will be presumed correct.
- (D) Where not otherwise specified, bidders must definitely state DATE OF DELIVERY.

2. EXPLANATION TO BIDDERS:

Any explanation desired by a bidder regarding the meaning or interpretation of Invitation to Bids, Request for Proposals or Qualifications, drawings, specifications, etc., must be in writing. All questions must be received within seven (7) business days prior to the bid opening date for a response to be generated by the County to all bidders in the form of an addendum. If any statement in the bidding documents, specifications, etc., appears ambiguous to the bidder, the bidder is specifically instructed to make a written request to the Purchasing Department, unless otherwise outlined in the specifications. Any information given to a prospective bidder concerning an Invitation for Bid will be furnished to all prospective bidders, as an addendum to the invitation, if such information is necessary to bidders in submitting bids on the invitation or if the lack of such information would be prejudicial to uninformed bidders. Receipt of the addendum by a bidder must be acknowledged on the bid or by letter received before the date and time specified for the bid opening. **ORAL EXPLANATION OR INSTRUCTIONS GIVEN BEFORE THE AWARD OF THE CONTRACT WILL NOT BE BINDING.**

3. SUBMISSION OF BIDS: FACSIMILE BIDS WILL NOT BE CONSIDERED.

- (A) Any Bid Package and modifications thereof shall be enclosed in a sealed envelope, addressed to the office specified in the Invitation to Bid, with the name and address of the bidder, the date and hour of bid opening, and name of bid. A bid reply label will be included in most bid packages stating the above referenced information. Any bid package NOT having bid information on outside of package could be opened as regular mail, and bid could be disqualified.
- (B) Samples of items, when required, must be submitted within the time specified, unless otherwise specified by the County, and at no expense to the County
- (C) An item offered must at least meet specifications called for and must be of quality which will adequately service the purpose and use for which it was intended.
- (D) Full identification of each item bid upon, including brand name, make, model, and catalog number, must be furnished according to the bid specifications if requested to identify exactly what the bidder is proposing. Supporting literature may be furnished to further substantiate the proposal.
- (E) The bidder represents that the article(s) to be furnished under this Invitation to Bid is (are) new and that the quality has not deteriorated so as to impair its usefulness.
- (F) Bids cannot be withdrawn or corrected after the bid opening (except reductions or changes by the successful bidder which would be beneficial or advantageous to the County). The County as deemed necessary may reject changes.
- (G) Cobb County is exempt from Federal Excise Tax and Georgia Sales Tax.
- (H) Cobb County does not accept conditional bids.

4. DEFAULT:

The Award as a result of bids received under this invitation may be in part based on the delivery factor. Accordingly, should delivery fail to be performed within the time specified by the bidder, the bid may then be declared in default of the contract. In such event, the County may then proceed to purchase in the open market the items from another source.

5. F.O.B. POINT:

Unless otherwise stated in the Invitation to Bid and any resulting contract, all articles will be F.O.B. Destination. This means delivered, unloaded, and placed in the designated place.

6. AWARD OF CONTRACT:

The Contract will be awarded to the responsible bidder whose bid will be the most advantageous to the County, price, and other factors considered. The County will make the determination. The County reserves the right at any time to reject any and all bids, to waive informalities and technicalities, to award portions of the bid, and to award contracts consistent with the County and the laws governing the State of Georgia. Normal payment terms are net thirty (30) days after receipt of invoice by the Finance Department.



SUBMIT BID/PROPOSAL TO:
COBB COUNTY PURCHASING DEPARTMENT
1772 COUNTY SERVICES PARKWAY
MARIETTA, GA 30008-4012

BID/PROJECT NUMBER: 10-5485
ANNUAL CONTRACT
MISCELLANEOUS CONCRETE PROJECTS AT VARIOUS COBB COUNTY PARKS
COBB COUNTY PARKS RECREATION AND CULTURAL AFFAIRS DEPARTMENT

DELIVERY DEADLINE: APRIL 22, 2010 BEFORE 12:00 (NOON) EST
(NO BIDS/PROPOSALS WILL BE ACCEPTED AFTER THIS DEADLINE).

BID OPENING DATE: APRIL 22, 2010 @ 2:00 P.M. IN THE PURCHASING DEPARTMENT BID ROOM.

BUSINESS NAME AND ADDRESS INFORMATION:

COMPANY NAME: _____

CONTACT NAME: _____

COMPANY ADDRESS: _____

E-MAIL ADDRESS: _____

PHONE NUMBER: _____

FAX NUMBER: _____

NAME AND OFFICIAL TITLE OF OFFICER GUARANTEEING THIS QUOTATION:

(PLEASE PRINT/TYPE) NAME TITLE

SIGNATURE OF OFFICER ABOVE: _____
(SIGNATURE)

TELEPHONE: _____ FAX: _____

BIDDER WILL INDICATE TIME PAYMENT DISCOUNT: _____

BIDDER SHALL INDICATE MAXIMUM DELIVERY DATE: _____

BIDS RECEIVED AFTER THE DATE AND TIME INDICATED WILL NOT BE CONSIDERED. COBB COUNTY RESERVES THE RIGHT TO REJECT ANY AND ALL BIDS, TO WAIVE INFORMALITIES, TO REJECT PORTIONS OF THE BID, TO WAIVE TECHNICALITIES AND TO AWARD CONTRACTS IN A MANNER CONSISTENT WITH THE COUNTY AND THE LAWS GOVERNING THE STATE OF GEORGIA.

THE ENCLOSED (OR ATTACHED) BID IS IN RESPONSE TO INVITATION NUMBER 10-5485; IS A FIRM OFFER, AS DEFINED BY SECTION O.C.G.A. (S) 11-2-205 OF THE CODE OF GEORGIA (GEORGIA LAWS 1962 PAGES 156-178), BY THE UNDERSIGNED BIDDER. THIS OFFER SHALL REMAIN OPEN FOR ACCEPTANCE FOR A PERIOD OF 60 DAYS CALENDAR DAYS FROM THE BID OPENING DATE, AS SET FORTH IN THIS INVITATION TO BID UNLESS OTHERWISE SPECIFIED IN THE BID DOCUMENTS.

NOTICE TO BIDDERS - - BID QUOTES MUST INCLUDE INSIDE DELIVERY CHARGES

Advertise Dates: APRIL 9, 16, 2010



COBB COUNTY
PURCHASING DEPARTMENT
1772 County Services Parkway
Marietta, Georgia 30008-4012
(770) 528-8400/FAX (770) 528-1154
www.cobbcounty.org

IMPORTANT NOTICE – PLEASE READ CAREFULLY!!

All vendors are required to submit the ORIGINAL AND AT LEAST one (1) duplicated copy of any bid submitted to Cobb County. Please refer to your bid specifications to determine if more than one (1) copy is required. Non-submission of a duplicate copy may disqualify your bid/proposal.

A “**SEALED BID LABEL**” has been enclosed to affix to your bid. This label ***MUST*** be affixed to the outside of the envelope or package, **even if it is a “NO BID” response**. Failure to attach the label may result in your bid being opened in error or not being routed to the proper location for consideration. No bid will be accepted after the date and time specified. **IT IS THE VENDOR’S RESPONSIBILITY TO ENSURE THAT EACH BID HAS BEEN RECEIVED IN A TIMELY MANNER.**

BIDS MUST BE RECEIVED BEFORE 12:00 (NOON) ON BID OPENING DAY

Bids must be received at the Cobb County Purchasing Department. **Any bids received later than 12:00 (noon) will not be accepted.** The County accepts no responsibility for delays in the mail. Bids are to be mailed or hand delivered to:

COBB COUNTY PURCHASING DEPARTMENT
1772 COUNTY SERVICES PARKWAY
MARIETTA, GA 30008-4012

Bids will be opened at 2:00 P.M. in the Cobb County Purchasing Department, 1772 County Services Parkway, 2nd Floor, Conference/Bid Room, Marietta, GA 30008.

Thank you in advance for your cooperation.

SEALED BID LABEL

SEALED BID ENCLOSED

DELIVER TO:
COBB COUNTY PURCHASING
1772 County Services Parkway
Marietta, GA 30008-4012

SEALED BID # 10-5485 DATE: April 22, 2010

BIDS MUST BE RECEIVED BEFORE 12:00 NOON

**DESCRIPTION: ANNUAL CONTRACT
MISCELLANEOUS CONCRETE PROJECTS AT VARIOUS COBB COUNTY PARKS**

PLEASE ATTACH LABEL TO OUTSIDE OF BID PACKAGE



Cobb County...Expect the Best!

INVITATION TO BID

SEALED BID # 10-5485

ANNUAL CONTRACT

**MISCELLANEOUS CONCRETE PROJECTS AT VARIOUS COBB COUNTY PARKS
COBB COUNTY PARKS RECREATION AND CULTURAL AFFAIRS DEPARTMENT**

BID OPENING DATE: APRIL 22, 2010

BIDS ARE RECEIVED IN THE
COBB COUNTY PURCHASING DEPARTMENT
1772 COUNTY SERVICES PARKWAY
MARIETTA, GEORGIA 30008

BEFORE 12:00 (NOON) BY THE BID OPENING DATE

BIDS WILL BE OPENED IN THE COBB COUNTY PURCHASING DEPARTMENT
BID/MEETING ROOM AT 2:00 P.M.

**VENDORS ARE REQUIRED TO SUBMIT THE ORIGINAL AND 1 COPY OF BID
(UNLESS OTHERWISE SPECIFIED IN BID SPECIFICATIONS)**

N.I.G.P. COMMODITY CODE: 91051

NAME: _____

ADDRESS: _____

REPRESENTATIVE: _____

PHONE: _____ FAX: _____

E-MAIL _____

NOTE: The Cobb County Purchasing Department will not be responsible for the accuracy or completeness of the content of any Cobb County Invitation to Bid or Request for Proposal or subsequent addenda thereto received from a source other than the Cobb County Purchasing Department.



Cobb County...Expect the Best!

"STATEMENT OF NO BID"

COBB COUNTY PURCHASING DEPARTMENT
1772 COUNTY SERVICES PARKWAY
MARIETTA, GA 30008

TO ALL PROSPECTIVE BIDDERS:

Because of the many requests to be placed on our vendors' list, we are continuously updating the list. While we want to include all bona fide vendors, we do not want to mail bids to those vendors who may no longer be interested in participating in our bidding process.

If you do not choose to respond to the attached Invitation to Bid/Request for Proposal, please fill out the form below indicating whether or not you want to be retained on our current vendor list.

Vendors who do not respond in any way (by either submitting a bid or by returning this form) over a period of one year may be removed from the current vendor list.

Vendors who do not wish to bid often return the entire bid package, sometimes at considerable postage expense. Returning the entire bid package is not necessary. Simply return this form.

Thank you for your cooperation.
Cobb County Purchasing Department

**"STATEMENT OF NO BID"
SEALED BID NUMBER 10-5485
ANNUAL CONTRACT**

MISCELLANEOUS CONCRETE PROJECTS AT VARIOUS COBB COUNTY PARKS

If you do not wish to respond to the attached Invitation to Bid/Request for Proposal, please complete this form and mail/fax to: **Cobb County Purchasing Department, Attention: Sealed Bid Department, 1772 County Services Parkway, Marietta, GA. Fax # 770-528-1154**

I do not wish to submit a bid/proposal on this solicitation.

I wish to be retained on the vendor list for this commodity or service: Yes _____ No _____

Please PRINT the following:

Company

Representative

You are invited to list reasons for your decision not to bid: _____

**INVITATION TO BID
ANNUAL CONTRACT
MISCELLANEOUS CONCRETE PROJECTS AT VARIOUS COUNTY PARKS
COBB COUNTY PARKS, RECREATION & CULTURAL AFFAIRS
SEALED BID #10-5485**

SCOPE OF SERVICES

The Cobb County Parks, Recreation and Cultural Affairs Department is requesting bids for an Annual Contract for Miscellaneous Concrete Projects at Various Cobb County Parks. Bids are due to the Cobb County Purchasing Department located at 1772 County Services Parkway, Marietta, GA before **12:00 noon on April 22, 2010**. Late bids will not be accepted.

Please submit an original and one (1) copy to:

Cobb County Purchasing Department
1772 County Services Parkway
Marietta, GA 30008

1. INTENTION - It is intended that the Project Documents cover the complete work to which they relate.

The Contractor shall perform, and carry out services as specified herein in a satisfactory and proper manner and in conformance with the standard practices and procedures of its profession. The times and locations of the services will be on an "as needed" project basis for the term of the contract. The County or its representative shall notify the Contractor, either orally or in writing, as to the time, location and type of services required for each project. Since this is an annual contract and the need for services are not known at the time of execution, the County does not guarantee any minimum or maximum amounts.

2. DEFINITION - Where the following words, or the pronouns used instead, occur herein, they shall have the following meaning:

"Owner" shall mean Cobb County, Georgia, party of the first part to the "Contract Agreement" or its authorized and legal representative.

"Contractor" shall mean the party of the second part to the "Contract Agreement" or the legal authorized representatives of such party.

3. LOCATION – The work described in these specifications are located in Cobb County, Georgia
4. WORK TO BE COMPLETED – The work to be completed consist of furnishing all materials, labor, equipment, and fabrication as required for Miscellaneous Concrete Projects at Various Cobb County Parks.

5. SITE EXAMINATION - The Bidder is expected to examine the location of the work and to inform himself fully as to the site conditions; the character, quality, and quantity of the materials to be encountered; the equipment and facilities needed preliminary to, and during the prosecution of the work; the general and local conditions; and all other matters which can in any way effect the work to be done under the contract.
Cobb County Parks Contact: Tom Bills @ 770-528-8807.
6. COMPLETE WORK REQUIRED - The specifications and all other documents are an essential part of the contract. Requirements occurring in one are as binding as though occurring in all. Documents are intended to be cooperative and to describe and provide for the complete work. It shall be the responsibility of the Bidder to call to the attention of the owner obvious omissions of those magnitudes which would affect the strength, adequacy, function, completeness or cost of any part of the work.
7. MATERIALS AND WORK BY OWNER - The Owner will neither furnish materials nor perform labor for construction of work under this contract, unless otherwise stipulated elsewhere in the Project Documents.
8. BIDS - All bids must be made upon the bid forms provided and shall be for materials and work called for in the Specifications. Unit prices must be shown for each item in the bid.
9. ALTERNATE EQUIPMENT OR MATERIAL - Any reference to an item of equipment or material by a specific manufacturer's trade name in the Specifications is intended merely as a standard. Even though named in the Specifications, all manufacturers must be able to furnish equipment as specified. Even though named in the Specifications, equipment offered with smaller or lightweight members, inferior or inefficient mechanism or devices compared to that specified will not be approved for the project.
10. AUTHORITY TO SIGN - If a bid is made by an individual, his name and Post Office address must be shown. If made by a firm or partnership, their name must be shown. If made by a Corporation, the person, or persons, signing the Proposal must show the name of the State under the laws of which Corporation is chartered and his, or their, authority for signing same, and names, titles and addresses of the President, Secretary and Treasurer, and the Corporate Authority for doing business in this State.
11. SUBCONTRACTS - The Bidder's attention is directed to the General Conditions concerning subcontracts. The Bidder is specifically advised that any person, firm or other party to whom it is proposed to award a subcontract under this Contract:
 - a. Must be acceptable to the Owner. Approval will not be given until the Contractor submits to the Owner a written statement concerning the proposed award to the Subcontractor, which statement shall contain such information as the Owner may require.
 - b. Must provide insurance equal to that of the bidding contractor.

Approval of the proposed subcontract award cannot be given by the Owner unless and until the proposed Subcontractor has submitted the Certification and/or other evidence showing that it has fully complied with any reporting requirements to which it is or was subject.

Although the Bidder is not required to attach such Certifications by proposed Subcontractors to his Bid, the Bidder is hereby advised of this requirement so that appropriate action can be taken to prevent subsequent delay in subcontract awards.

12. ALLOWABLE TIME FOR COMPLETION - The time allowed for completion for all work to be completed under this contract shall begin when owner's "Notice To Proceed" is issued. Such notification will be issued upon completion of the contract agreement. The time allowed for completion of the work is as scheduled. The contractor will schedule all work with the Parks, Recreation and Cultural Affairs Department contact person (Tom Bills).
13. PENALTIES - The contractor shall pay to the Owner as penalty NA / day for each calendar day that he shall be in default of completing the work t within the time limit named in the contract.
14. ORDER OF WORK - The Contractor will coordinate all work with Cobb County Parks, Recreation and Cultural Affairs Department prior to beginning any work. All work must be scheduled to minimize disturbance of each facility.
15. SITE SAFETY AND CLEAN UP - The Contractor shall be responsible for maintaining a clean and safe site during construction. Special care will be required as park activities will be ongoing during the construction period. The Contractor shall defend, indemnify, and hold harmless the Owner for any claims arising during the construction period
16. MEASUREMENT AND PAYMENT - The quantities for these various projects for which payment will be allowed shall be measured on a unit price basis and paid as a lump sum when completed and accepted

CONCRETE FORMWORK

PART 1 - GENERAL

1.01 WORK INCLUDED

- A. The work covered by this Section shall consist of furnishing all labor, equipment and materials required to furnish and install all formwork required for cast-in-place concrete. Formwork design, engineering, and construction shall be the responsibility of the Contractor subject to review.

1.02 RELATED WORK

- A. Division 1: General Requirements
- B. Section 03200: Concrete Reinforcement
- C. Section 03300: Cast-in-Place Concrete and Grout

1.03 REFERENCE STANDARDS

- A. American Concrete Institute (ACI) Standard Specification 347, "Recommended Practice for Concrete Formwork", latest edition.
- B. American Plywood Association (APA Form V 345, latest edition, "Plywood for Concrete Forming").

1.04 SUBMITTALS

- A. None are required except for premature removal of forms and shores.

1.05 QUALITY ASSURANCE

- A. General design criteria shall conform to ACI 347.
- B. Design criteria for plywood shall conform to APA Form V 345.
- C. Allowable tolerances shall conform to ACI 347.

1.06 PRODUCT DELIVERY, STORAGE AND HANDLING

- A. Upon delivery to the job site, place materials in an area protected from the weather.
- B. Store materials above ground on framework or blocking and cover with protective waterproof covering providing for adequate air circulation.
- C. Materials shall be handled in a manner to prevent damage.

PART 2 - PRODUCTS

2.01 UNEXPOSED FINISH

- A. Forms shall be wood except where other materials are reviewed before use.
- B. Lumber shall be #2 common or better, dressed 4 sides, not less than 3/4 inch thick. Plywood shall be Exterior Plyform B-B, Class 1.

2.02 EXPOSED FINISH

- A. Forms, unless otherwise specified, shall be acceptable panel-type material, to form continuous, straight, smooth exposed surfaces; B-B Plyform, sanded, Class 1, EXT-APA Grade trademarked. Treat face and edges with form release coating. Concrete surfaces shown curved shall have curved forms; flat facets shall not be used.
- B. Panels shall be of the largest practical size and of sufficient strength to withstand the pressure of concrete without bow or deflection.

2.03 FORM-RELEASE COATING

- A. Use an appropriate form-release coating that will not bond with, stain, or in any way adversely affect concrete surfaces. The residual coating shall be compatible with the subsequent finishing, and shall be non-toxic.

2.04 FORM TIES

- A. General.

Form ties shall be free of devices that will leave a hole or depression on the surfaces of the concrete larger than one inch in diameter. The ties shall be such that after forms and tie projections have been removed; no metal will be within one inch of the surfaces. Wire or strap ties so utilized that they would be projecting from the hardened concrete will not be permitted. Temporary through-bolts in permanently

embedded, full-length, plastic sleeves shall not be used for concrete to be exposed to view.

- B. Internal Ties For Tanks, Troughs and Flumes Intended to Contain or Convey Liquids, or Resist External Hydrostatic pressure.

Use metal snap-type ties with a break-back of 1-1/2 inches, a waterstop and removable tapered cones having an exterior diameter of not less than 1-inch nor more than 1-1/4 inches.

PART 3 - EXECUTION

3.01 INSTALLATION

- A. Construct all forms in accordance with ACI Standard Specification 347.
- B. Forms shall conform to the shape, lines, grades and dimensions indicated on the drawings. Forms shall be sufficiently tight to prevent leakage of mortar and properly braced to maintain position and shape. Forms shall not deflect or deform under the fluid pressure or weight of the liquid concrete and construction loads. Except where noted otherwise on the drawings, chamfer strips shall be placed in exterior corners of forms for all concrete work; where the size is not indicated on the drawings, use 3/4" x 3/4" chamfers.
- C. Joints in forms shall be butted tightly and bare on solid construction. Where new concrete is placed above a previous placing, the joint between new and old work and the face of each concrete surface shall be exactly in line.
- D. Form sides of concrete footings where earth is too unstable to suitably serve as a form.
- E. Shores shall be used where necessary. Completed concrete members which will be subjected to additional loads during construction, shall be adequately shored to protect the members from distortion and damage.
- F. Forms for exposed surfaces shall be coated with form-release coating, which shall be applied before steel is placed. Any surplus coating on the form surface shall be removed. Wood forms for unexposed surfaces may be thoroughly wetted with water or oiled in lieu of using the form-release coating. During freezing weather do not use coatings containing water.
- G. Forms shall be constructed so they can be removed readily without hammering, wedging or prying against the concrete. Suitable openings shall be provided at the base of all wall and column forms for cleaning and inspection and kept open until just before concrete is placed.

- H. Coordinate Location: Consult with all other trades and ascertain whether sleeves, anchors, etc., are required and assist those trades in setting same.
- I. Coordinate Pipes and Ducts: Obtain from the various trades the sizes and locations of all pipes or ducts passing through concrete and provide proper formwork to leave openings to accommodate these installations.
- J. Form-Joint Sealers: Where forms can not be constructed to butt tightly at joints and at ends of forms abutting an irregular surface at the bottom of columns, walls, etc., use resilient foam rubber strips or similar suitable material to avoid leakage of concrete at the joint.

3.02 REMOVAL OF FORMS

- A. Remove forms in a manner that will prevent injury to concrete. Immediately after the forms are removed, all damaged or imperfect work shall be patched or, if the work is severely damaged or unacceptable, it shall be rebuilt. Do not repair honeycombed areas until inspected by the Owner. The grouting or plugging of form tie holes is specified in the section "Cast-In-Place Concrete and Grout".
- B. Do not remove supporting forms or shoring until members have acquired sufficient strength to safely support their weight and any applied load. Unless test cylinders warrant other procedure, do not remove forms before the elapsed time shown in the following schedule.

1. Columns, pedestals, walls, and other vertical faces, not supporting other work	27 hours
2. Suspended slabs and beams	28 hours*

*This elapsed time may be reduced upon request by the Contractor, providing sufficient strength is demonstrated by field-cured test cylinders, and by a structural analysis considering the proposed loads in relation to the field-cured strengths, the strength of the remaining forming and shoring system, and any proposed re-shoring. All of the above items shall be reviewed before any premature removal of forms and shores is done.

Even though early removal of forms is allowed, no concrete member shall be subjected to its design loads and forces until the specified 28-day strength has been attained.

- C. Where an upset beam or similar suspended concrete member is composed of 2 or more vertical pours separated by construction joints, and the upper pour concrete structurally acts as part of the member, the supporting forms and shoring for the lowest pour concrete shall remain in position until the concrete in the upper pour has attained its specified 28-day strength.

- D. Whenever the formwork is removed during the curing period, the exposed concrete shall be cured by one of the methods specified in the Section "Cast-In-Place Concrete and Grout".
- F. Forms reused shall be thoroughly cleaned and repaired. Split, frayed, delaminated, or otherwise damaged forms shall not be used.
- G. All portions of wood forms shall be completely removed from concrete.

3.03 DEFECTIVE WORK

- A. Should misalignment of forms or screeds, excessive deflection of forms or displacement of reinforcement occur during concrete placing, corrective measures shall be immediately made to insure acceptable lines and surface to required dimensions and cross sections.
- B. If any forms bulge or show excessive deflection, the concrete shall be removed and the work rebuilt, or other corrective measures taken as directed.

CONCRETE REINFORCEMENT

PART 1 - GENERAL

1.01 WORK INCLUDED

- A. The work covered by this Section shall consist of furnishing all labor, equipment and materials required to furnish and install all concrete reinforcement and bar supports as specified herein and shown on the Drawings.

1.02 RELATED WORK

- A. Division 1: General Requirements
- B. Section 03100: Concrete Formwork
- C. Section 03300: Cast-In-Place Concrete and Grout
- D. Section 04200: Unit Masonry

1.03 REFERENCE STANDARDS

- A. American Society for Testing and Materials (ASTM)
- B. American Concrete Institute (ACI)
 - 1. Building Code Requirements for Reinforced Concrete (ACI 318)
 - 2. Manual of Standard Practice for Detailing Reinforced Concrete Structures (ACI 315)
- C. Concrete Reinforcing Steel Institute (CRSI)
 - 1. Manual of Standard Practice

1.04 SUBMITTALS

- A. Submit shop drawings and product data in accordance with Division 1, General Requirements.
- B. Placing drawings and bar lists shall be in accordance with the latest revision of ACI 315. Shop drawings shall include bar supports.

- C. Submit a certified copy of mill test certificates showing physical and chemical analysis of the steel. The mill tests shall not have been made over 90 days prior to submittal.

1.05 STORAGE

- A. Store reinforcement, above ground on skids or other supports and in a manner to prevent distortion or surface deterioration of the reinforcing bars.

PART 2 - PRODUCTS

2.01 REINFORCING STEEL

- A. Reinforcing bars shall be new, of domestic manufacture, ASTM A-615 Grade 60.

2.02 WELDED WIRE FABRIC

- A. Welded wire fabric shall be new, conform to ASTM A-185, and shall not have more rust than a light, tightly adhered coating.

2.03 TIE WIRE

- A. Tie wire shall be black annealed wire, 16 gauge or heavier.

2.04 BAR SUPPORTS

- A. All bar supports shall conform to the CRSI "Manual of Standard Practice". All supports shall be 'Class C - Plastic Protected', except that 'Class A - Bright Basic' may be used where bar supports are not within one inch from the face of concrete, or for unexpected surfaces of concrete inside conditioned-air portions of buildings.

2.05 HORIZONTAL JOINT REINFORCEMENT

- A. A.A. Wire Products "Blok Trus" truss design with 9 GA. chords and internal members.

PART 3 - EXECUTION

3.01 FABRICATION

- A. All reinforcing shall be fabricated in accordance with the CRSI "Manual of Standard Practice", shall conform accurately to the dimensions shown on the drawings and

within the fabricating tolerances shown in the CRSI "Manual of Standard Practice". Reinforcing shall not be fabricated until the shop drawings have been reviewed. Reinforcing bars shall not be fabricated in the field unless shop quality equipment is used and samples of field fabricated bends and hooks are reviewed before the steel is fabricated.

- B. Reinforcing bars shall not be bent or straightened in a manner that will injure the material.
- C. All hooks shall conform to bend dimensions defined as "ACI Standard Hooks" in the CRSI "Manual of Standard Practice".
- D. Vertical reinforcing for columns higher than one-story, and for walls higher than approximately 13 feet, shall be spliced. Where reinforcing splices at these construction joint locations are not shown on the drawings, coordinate with the location of the proposed construction joints.
- E. In concrete items requiring long horizontal reinforcing bars, and where splices in the bars are not located on the Drawings, splices shall be located where desired by the Contractor, except the splices shall be located near points of minimum stress.

3.02 PLACEMENT

- A. The placement of reinforcement and placement tolerances shall conform to the drawings, the CRSI "Manual of Standard Practice", and the reviewed placing drawings.
- B. All bars shall be securely tied to prevent displacement during the concreting operation and all dowels shall be wired in place before depositing concrete. Tall dowels at walls and columns shall be tied and suitably braced at the top as well as at the bottom.
- C. At the time concrete is placed, metal reinforcement shall be free of hardened concrete, loose rust, mud, oil, or other nonmetallic coatings that adversely affect bonding capacity.
- D. Bars partially embedded in concrete shall not be field bent or straightened except where noted on the drawings.
- E. Except where noted on the drawings, reinforcing steel shall not be welded.
- F. Welded wire fabric splices and sidelaps shall be wire tied and shall be not less than one mesh space. For slab on earth, support welded wire fabric on blocks and use other suitable methods as necessary to maintain fabric in the specified position.
- G. Splices in reinforcing steel shall be as shown on the drawings. Where splice lengths are not shown, use ACI-318 "Class C" tension splice lengths (use splice length for "Top Bars" for horizontal bars in concrete sections having a height greater than 12

inches, and use splice length for "Regular Bars" for vertical bars and horizontal bars in concrete sections less than 12 inches in height).

- H. The dimensions of concrete protection over reinforcing steel shall be as shown on the drawings.

3.03 INSPECTION

- A. Allow sufficient time for completion of the placing of all of the reinforcing for the proposed pour, for allowing inspection, for correcting possible placement errors, and for closing of inspection openings in the forms. The reinforcing steel placement schedule shall allow for the above to be completed by the day before casting the concrete.
- B. Request inspection of the reinforcing steel, at least 24 hours prior to scheduled closing of wall forms and inspection holes. No concrete shall be placed until the placement of the reinforcing has been inspected. Such inspection shall not relieve the Contractor of his responsibility for compliance with the Contract Documents.

CAST-IN-PLACE-CONCRETE AND GROUT

PART 1 - GENERAL

1.01 WORK INCLUDED

- A. Provide all plant, labor, equipment and materials for and perform all operations in connection with cast-in-place concrete work and grout as required by the drawings, and as herein specified.
- B. Coordinate work of all trades to insure that all embedded items are properly installed. Set items not placed in forms in accordance with templates and instructions specified under other Sections.

1.02 RELATED WORK

- A. Division 1: General Requirements
- B. Section 03100: Concrete Formwork
- C. Section 03200: Concrete Reinforcement

1.03 REFERENCE STANDARDS

- A. American Society for Testing and Materials (ASTM)
 - 1. Various standard procedures and tests as referenced elsewhere herein.
- B. American Concrete Institute (ACI)
 - 1. The Manual of Concrete Inspection, and various Recommended Procedures, as referenced elsewhere herein.

1.04 SUBMITTALS

- A. Shop drawings and product data shall be submitted in accordance with Division 1, "General Requirements".
 - 1. Submittal of product data in accordance with Division 1 is not required for curing compounds, non-shrink grout, and hardeners specified by brand name. If equal products, other than the specified brand names, are proposed for use, submit product data for review in accordance with Division 1.

- a. Items for which product data submittals are not hereinbefore required, shall have one copy submitted for information only, prior to use of the products.
2. Submit shop drawings for construction joints and other types of joints in concrete work as specified hereinafter.
3. Submit data on concrete aggregates including type, source, gradation, fineness modulus for fine aggregate, and certified statements that the materials are in conformance with ASTM C-33.
4. Submit concrete mix designs as hereinafter specified.

PART 2 - PRODUCTS

2.01 MATERIALS

- A. Water: Potable, fresh, clean and free from deleterious amounts of oils, acids, alkalis and organic matter.
- B. Portland Cement: ASTM C-150, Type I.
- C. Aggregates:
 1. Aggregates for concrete: ASTM C-33.
 - a. Fine aggregate: Natural sand having a fineness modulus of not less than 2.30 nor more than 3.00; variation in fineness modulus shall be limited to 0.20 from the average of all tests.
 - b. Coarse aggregate: Washed gravel or crushed stone free from deleterious quantities of thin, elongated particles. Gradation shall be Size No. 57, Table II of ASTM C-33.
- D. Expansion Joint Filler: Bituminous impregnated fiber pre-molded expansion joint filler conforming to ASTM D1751.
- E. Curing Compound: A curing, hardening and dust-proofing chemical reactive compound with a base composition of sodium silicates; "Acuricon" by The Anti-Hydro Company, "Cure-Hard" by W.R. Meadows, Inc., "Cure & Hard" by Symons Corporation, or equal.
- F. Admixtures:
 1. For concrete placed when the air temperature is less than 75degF., use a water reducing, densifying admixture in all concrete: "Eucon WR" by the

Euclid Chemical Company; "WR-77" by Chem-Masters Corp.; "PSI Normal" by Gifford-Hill & Company, Inc.; "Plastocrete, Sikamix 161-Normal" by Sika Corp., or equal.

2. For concrete placed when the air temperature is above 75degF., use a water reducing, densifying admixture as specified above and a suitable retarder, or use a water reducing, densifying admixture similar to those specified above but containing a retarder.
 3. All concrete shall be air entrained. Use an air entraining agent, "Darex AEA", as manufactured by Dewey & Almy Chemical Division of W.R. Grace & Co., "Sika Aer" by Sika Chemical Corp., "Aircon" by Union Carbide Corp., or equal, in the amounts necessary to give the required percentage of air entrainment. Agents used shall be compatible with other admixtures used, and the amount of air that will be entrained by other admixtures shall be taken into consideration.
 4. Calcium Chloride: Calcium Chloride or admixtures containing more than 0.1% chloride ions are not permitted.
 5. Set Accelerator: During cold weather only, and at the option of the Contractor, a set-accelerating admixture may be used. Use only non-chloride accelerators conforming to ASTM C494, Type C or E; Accelguard 80 by the Euclid Chemical Co., Darex Set Accelerator by W.R. Grace, or equal.
 6. Vary the amount of admixtures used to suit job conditions such as temperature, rate of placing, etc., in accordance with the manufacturer's recommendations.
 7. The brand names and amounts of admixtures shall be shown on the concrete design mix.
- G. Liquid Hardener and Dust-proofer: An aqueous solution having a base principally composed of fluosilicates, with penetrating agents, that reacts chemically with concrete to result in a hardened, dust-proof floor; "Armortop" by Anti-Hydro Company, "Fluo-Hard" by L & M Construction Chemicals, Inc., or equal.
- H. Vapor Barrier shall be a flexible, sheet product PVC, minimum 6 mil thickness by Rubber and Plastics Compound Co., Inc., B.F. Goodrich, or equal.

2.02 CONCRETE CHARACTERISTICS

- A. Use the following concrete for all concrete work.
- B. Conform to all of the following requirements:

Minimum 28-Day	Minimum 7-Day	Max Water / Cement Ratio	Minimum Cement
-------------------	------------------	-----------------------------	-------------------

Strength <u>PSI*</u>	Strength <u>PSI*</u>	Lb./Lb.** <u> </u>	Content <u>Bags/Cu.Yd.</u>
3,000	***	0.62	5.0

*Ultimate compressive strength when tested in accordance with Standard Method of Test for Compression of Molded Concrete Cylinders ASTM C-39 with cylinders having been made and cured in accordance with Standard Method of Making and Curing Concrete Compression Specimens in Field, ASTM C-31.

**Including free moisture on surface of aggregate to be included in mix.

***90 percent of the 7-day tests of cylinder test reports reviewed with the submitted design mix.

- C. Slump for all concrete shall be 4" +/- 1", and shall not exceed 5". Measure slump in accordance with ASTM C-143. Make slump tests each time cylinders are made, and when directed to verify slump of other batches. Adjust water content as required to maintain slump within specified limits.
- D. For air entraining concrete, entrained air content shall range between 4% and 6% as indicated by tests specified herein.

PART 3 - EXECUTION

3.01 PROPORTIONS AND DESIGN OF CONCRETE MIXES

- A. At least 10 days before any concrete is placed on the job, provide design mixes from previous jobs for similar concrete prepared by the ready-mix company or an acceptable testing laboratory. Mix designs shall be supported by records of cylinder breaks that clearly represent the design mixes and were made from concrete having a slump near the high end of the specified slump range. The cylinder breaks shall indicate strengths averaging at least 20 percent higher than the minimum specified. For these preliminary tests provide results of 3 cylinders at age of 7 days and 3 cylinders at age 28 days. Testing and design mix costs under this Article shall be paid by the Contractor. Do not change design mix or ready-mix supplier without approval.
- B. Acceptance of such preliminary tests will be only a check to assist Contractor in his compliance with specification requirements and will be contingent upon acceptance of final tests of the concrete used in the project.
- C. Concrete used in the work shall have the same characteristics and proportions as the reviewed design mixes, and shall consistently have a compressive strength comparable to that of the test cylinders submitted with the design mix.
- D. If, during progress of work, tests indicate concrete placed in work is not in accordance with the Specifications, the Contractor shall, if directed, promptly

provide additional testing and/or full-time inspection by a testing laboratory of batching at the expense of the Contractor, and shall make changes, as directed, in concrete materials or their proportions for subsequent work to secure concrete as specified. If directed, the Contractor shall remove unacceptable concrete from structure and shall replace it with concrete meeting requirements of the Specifications. Removal and replacement of concrete shall be at the concrete previously placed shall be made as directed in lieu of removing the sub-standard concrete; the costs of these shall be paid by the Contractor.

3.02 CONCRETE MIXING

- A. In general, ready-mixed concrete shall be used. At the option of the Contractor, job-site batching and mixing may be used providing all equipment complies with ASTM C-94. Mix and deliver concrete in accordance with requirements of ASTM C-94. Add no water to concrete after it leaves plant except where part of design water was purposely omitted at the plant. Add any such design water only in the presence of the Inspector or laboratory representative. Make test cylinders and slump tests only after all such water has been incorporated into the mix.
- B. Neither the speed of any mixer nor quantity of material loaded into any mixer shall exceed recommendations of mixer manufacturer. Excessive over-mixing, requiring additions of water to preserve required consistency will be cause for rejection of batch. Concrete remaining in a transit mixer or agitator truck more than 90 minutes after water was introduced will not be acceptable for use in work. Immediately remove such concrete from site.
- C. Batch Truck Tickets: Accompany each batch of concrete delivered to site with a trip ticket that will indicate the following information:
 - 1. Time that water was first added to the mix.
 - 2. Class of concrete and 28-day design strength per specifications and supplier's design mix number referenced from the design mix, or all of the following:
 - a. Type of cement, if other than Type I
 - b. Quantity of cement per cubic yard of concrete
 - c. Admixtures and amounts used
 - d. 28-day design strength
 - 3. Planned slump.
 - 4. Name of Supplier.
 - 5. Date.

Make these tickets available to the Inspector and laboratory representative for inspection upon request.

3.03 TESTING

- A. At their discretion, the Owner will retain and pay for services of an approved Testing Laboratory and/or Inspector to act as representative for the Owner in making tests and inspection as outlined below.
- B. The laboratory representative shall responsibly observe all cast-in-place concrete work to insure conformance to Specifications pertaining to quality of concrete. He shall have free access to all points where concrete materials are stored, proportioned, mixed and placed. All materials, equipment and methods used shall be subject to his inspection, test and acceptance.
- C. Laboratory Representative's Duties:
 - 1. Check trip tickets for every truck to ensure that the mix is as specified for the proposed use.
 - 2. Make a slump test with each set of cylinders made and as often as conditions indicate.
 - 3. Make and store test cylinders described below.
 - 4. Keep accurate records of the location in the structure represented by the tests.
 - 5. For air-entrained concrete, make tests for amount of air in concrete each time cylinders are taken. Tests shall be conducted in accordance with ASTM C-231.
 - 6. Reject concrete that has not been placed within 90 minutes after the water was added to the other ingredients, concrete not having the specified air content, or concrete that has a slump greater than specified, or notify the Owner immediately so the Owner can reject the concrete.
 - 7. Record the temperature of the air and of the concrete for each ready-mix truck when the ambient temperature is above 90degF. or below 40degF.
 - 8. Provide molding cylinders, scoop, slump cone, work board, testing equipment, and other tools normally necessary to perform the actual testing work.
- D. Cylinder Tests:
 - 1. A set of 4 cylinders shall be obtained for each 50 cubic yards or fraction thereof placed each day. One cylinder shall be tested at 7 days, and two at 28 days. One cylinder shall be held in reserve in the lab until the results of

the 28-day test is available. If the 28-day strength test (average of 2 cylinders) complies with the specifications, the reserve cylinder shall be discarded. If the 28-day test does not comply, the reserve cylinder shall be tested at 56 days.

2. The lab shall verbally notify the Owner/Engineer promptly of any cylinder break that indicates weaker than specified concrete.
- E. Copies of all tests of any nature made by lab representative shall be sent simultaneously to Owner/Engineer, Contractor, Concrete Supplier, Owner.
- F. The Contractor shall provide: labor to transport the sample concrete to the location of the testing work; wheelbarrow, shovel and other hand mixing tools as necessary; suitable location for the laboratory representative's work; and a suitable stable box or other suitable vibrationless storage location for the storage of concrete test cylinders. The storage box or location shall be such that the temperature will conform to the temperature range specified in ASTM C-31.

3.04 INSPECTION

- A. Request inspection at least 24 hours prior to placing concrete so required observations can be made. Also see the Article entitled "Inspection" in Section 03200 "Concrete Reinforcement".

3.05 PLACING CONCRETE

- A. General
1. Remove water, soft or saturated subgrade soil and foreign matter from excavations and forms before placing concrete. Where the subgrade is sand, lightly dampen it. Do not place concrete on frozen subgrade. Do not place concrete when rain is expected to occur within 4 hours after placement.
 2. Place concrete in clean, damp forms that are not hot to the touch. Spray forms and any contiguous masonry units with water just prior to placing concrete. Secure reinforcement in position before placing concrete. Concreting shall progress at a rate that will avoid loss of plasticity between adjacent or successive increments of the pour. Conveying and placing equipment shall be such that the forms and reinforcing steel are not moved, and separation of the concrete ingredients is avoided. Concrete not placed within 90 minutes from time water is introduced shall be rejected and removed from the job. Deposit concrete as nearly as practicable in final position, and do not allow to drop freely more than necessary, and in no case more than 10 feet, except through an accepted funnel or trunk. Place concrete during daylight. Where reinforcing steel projecting above the top

of a pour becomes coated with concrete, remove all such hardened concrete prior to subsequently placing concrete around those bars.

3. Concrete with a slump greater than specified is to be removed from the job immediately and not to be placed in the forms. Rejected loads shall not be altered and returned to the project.
 4. Concrete shall not be placed by pump unless the pump is 4" or larger and capable of conveying the reviewed design mix.
- B. **Compaction:** Compact concrete by internal vibration equipment supplemented by hand rodding and tamping as required. Internal vibrator used shall be on the site at least the day before intended use. Do not use vibrators to move concrete laterally inside the forms. Internal vibrators shall maintain a speed of at least 5000 impulses per minute when submerged in concrete. Maintain at least one spare vibrator in working condition at the site at all times. Limit duration of vibration to time necessary to produce satisfactory consolidation without causing segregation, not less than 5 and not more than 10 seconds per square foot of exposed top surface. Constantly relocate vibrator and place it in each specific spot only once.
- C. **Columns and Walls:** Place wall and column concrete in not more than 36 inch lifts before vibration, with first preceded by 1-inch minimum layer of 1:2-1/4 cement sand grout with 6-inch to 8-inch slump, placed on concrete previously placed and hardened not more than 20 minutes before concrete placement. Clean and wet surface of previously placed hardened concrete before placing mortar.
- D. **Cold Weather Concreting:** Do not start concrete placing if the ambient temperature is below 40 degrees F., and falling, without following special procedures as recommended by the American Concrete Institute (ACI-306), and as directed. The temperature of the hardened concrete shall be 45degF. or higher for the first 3 days after casting. Insulated blankets, heaters and other materials and procedures shall be reviewed with the Owner/Engineer before placement of cold-weather concrete.
- E. **Hot-Weather Concreting:** during hot weather, take precautions as recommended by the American Concrete Institute (ACI-305) and as directed. The temperature of the concrete as it is being placed shall not exceed 90degF. Precautionary measures for mixing, transporting, placing, and curing shall be reviewed with the Owner/Engineer well before placing the concrete.
- F. Concrete shall not be placed until reinforcement, pipes, conduits, sleeves, hanger, anchors and other work required to be built into concrete have been inspected by the Owner/Engineer.

3.06 EMBEDDED ITEMS

- A. In addition to reinforcing steel, build in, set in, or attach all embedded pipes, inserts, and other objects as indicated, specified or directed and thoroughly clean all embedded items, removing all rust, scale, oil and other foreign materials. Protect

embedded items from damage and displacement and inspect prior to placing concrete. Embed no wood in concrete. Pack concrete carefully and tightly around pipes and other embedded items to secure maximum adhesion. Prevent intrusion of concrete into drains, hollow insert, and similar items by temporarily sealing them with taped polyethylene sheeting. Coordinate the placement of sleeves for pipes and conduits by the Mechanical trades.

- B. Do not embed pipes, other than electrical conduit, in any structural concrete, except where specifically indicated on structural Drawings. Provide sleeves for pipes to pass through. Embed conduit in concrete only under following conditions.
 - 1. No reinforcing shall be cut or displaced to accommodate conduit.
 - 2. Conduit shall not be placed between any reinforcing and its minimum concrete cover.
 - 3. Parallel conduit shall be placed apart at least four (4) times the O.D. of conduit.

3.07 CONSTRUCTION JOINTS, EXPANSION JOINTS AND WEAKENED-PLANE CRACK CONTROL JOINTS

- A. The details and locations of joints in concrete work shall be as shown on the design drawings, except as hereinafter specified. For roughened construction joints made while the concrete is still plastic, see Article 3.10 "FINISHES" hereinafter.
- B. If the Contractor proposes to modify joint details, change locations of joints, or add additional joints, he shall submit shop drawings for review indicating the proposed joint information.
- C. All joints shown on the design drawings, that are clearly not modified by the shop drawings, shall be constructed as shown on the design drawings.
- D. Shop drawings for joint modifications shall be submitted sufficiently in advance of formwork construction and reinforcement placement so delay in construction will not occur.
- E. Except where indicated otherwise on the drawings or as directed after Contractor request, a 36-hour minimum delay shall occur in concrete placement at construction joints.
- F. Preparatory Work At Construction Joints: Before depositing new concrete on or against concrete which has hardened, roughen surface of hardened concrete as required, in a manner that will not leave loosened particles of aggregate or damaged concrete at surface. Thoroughly clean surface of foreign matter and laitance and saturate surface with water, and then retighten forms. To insure and excess of mortar at junction of hardened and newly deposited concrete, thoroughly cover

cleaned and saturated horizontal surfaces with a coating of 1:2-1/4 grout, as previously specified, not more than 20 minutes before concrete placement. Reinforcement shall continue through the joint with a minimum distance of 36 diameters projecting and 36 diameters embedded unless otherwise indicated. Where indicated or required, provide a concrete key or extra dowel bars to increase shear strength.

- G. Curing at construction joints (Also see Article entitled "Curing" hereinafter):
 - 1. Vertical construction joints shall be wet-cured or damp-form-cured.
 - 2. Horizontal construction joints shall be wet-cured.

3.08 DIMENSIONAL TOLERANCES

- A. Tolerances allowances, and limits in reinforced concrete work shall be as prescribed in the ACI Manual of Concrete Inspection (ACI-SP-2).
- B. The limits and tolerances prescribed represent a maximum acceptable deviation from perfectly true and accurate concrete work for individual cases. True and accurate work is expected in every instance, and these tolerances are designed for the purpose of setting forth limits and tolerances governing maxima, rather than an index of acceptability. Work shall be considered unsatisfactory when it consistently approaches these limits through portions of the project.

3.09 CURING

- A. Start curing of all concrete as soon as practicable after placing, but not more than 3 hours thereafter. Assemble all necessary curing materials at site prior to starting concrete placing. Review proposed curing methods with Owner/Engineer well in advance of concrete placement.
- B. Curing method definitions.
 - 1. Wet-curing: Cover concrete surfaces with waterproof reinforced sisal draftpaper, 4-mil minimum polyethylene sheeting, double layer of burlap, 3-inch layer of soil or other approved material. Keep the covered concrete damp by flushing or hosing with water, daily or as necessary.
 - 2. Damp-form-curing: Leave forms in place and keep forms damp by water spraying not less than once each day.
 - 3. Compound-curing: Spray approved curing compound on the concrete surface in strict accordance with manufacturer's printed instructions.
- C. Minimum length of curing time for wet-curing and damp-form-curing:

1. 7 days for concrete surfaces that will receive direct sunlight after the covering has been removed.
 2. 5 days for concrete surfaces that will not receive direct sunlight after the covering has been removed.
- D. Curing methods for various concrete surfaces.
1. Horizontal or nearly horizontal surfaces:
 - a. Interior floor slabs: compound-curing.
 - b. Sidewalks, exterior slabs: wet-curing or compound-curing.
 - c. Wall and column footings, and construction joints in walls and columns: wet-curing.
 2. Formed surfaces:
 - a. Surfaces indicated to receive stucco: wet-curing or damp-form curing.
 - b. Other formed surfaces: damp-form-curing, or wet-curing or compound-curing if forms are removed within the specified minimum length of curing time. If forms are removed before the end of the specified minimum length of curing time and the compound-curing used, the surface shall be kept damp during finishing operations till the compound is applied.

3.10 FINISHES

- A. Do not repair major areas of honeycomb and other major flaws in concrete until inspected by Owner/Engineer and until an acceptable method or repair has been agreed upon.
- B. Definitions of finishes.
 1. As-cast finish: As soon as forms have been stripped, remove form ties. Remove large fins. Patch minor honeycomb, form-tie holes, and pits larger than 1/2" with 1:2-1/4 cement-sand mortar.
 2. Rubbed finish: Finish as specified above for as-cast finish except completely remove all fins, grind offsets, wet and rub entire surface with a piece of concrete block, brick or similar tool. Fill all small pinholes with the "paste" resulting from the rubbing. Rub surface so all fins, offsets, patched areas and form marks are brought to a smooth, uniform appearance. To avoid subsequent spalling and delaminations, do not apply a thin layer of mortar over the plane surface. Excess "paste" resulting from the rubbing shall be removed by buffing with a canvas float or similar material. For concrete that will be exposed and not painted, add white portland cement to the patching mortar to result in a color that matches the dry color of the cast concrete.

3. Rough Finish: Either rough float or screed to a true plane surface. No excess water at the surface will be permitted.
 4. Roughened Construction Joint (For Horizontal Surfaces): While the concrete is still plastic, rake the surface with a small garden rake or similar pronged tool to result in ridges approximately 3/4-inch apart and 1/4-inch to 3/8-inch deep. The direction of the raked ridges shall be parallel with the length of the proposed wall above the joint.
 5. Float Finish: Float surface with a wood, rubber, or similar float to a true and uniform plane with no coarse aggregate visible and with a uniform gritty surface.
 6. Broomed Finish: Float-finish followed by a broom drawn across the surface normal to the direction of traffic. To establish the desired texture of the broomed surface, review with the Owner/Engineer during the brooming of the first area.
 7. Steel trowel finish shall be obtained by floating a stiff low slump mix without bringing any excess water to the surface and then finish with a two operation steel troweling. The first steel troweling shall be only sufficient to produce a smooth surface free of defects, followed by a second steel troweling after the concrete has become hard enough so no mortar adheres to the edge of the trowel and a ringing sound is produced by the troweling. Erase all trowel marks. The use of dusted-on finish to absorb excessive surface moisture is not permitted.
- C. Finishes for the various concrete surfaces. Provide the following finishes except where specifically noted otherwise on the Drawings.
1. As-Cast: surfaces not exposed to view in the completed work.
 2. Rubbed Finish: Interior and exterior formed surfaces exposed to view in the completed work. Exposed formed surfaces, against which earth will be placed, shall be finished to 6 inches below finished grade.
 3. Float Finish: exterior steps, exterior slabs, curbs, top of exposed beams and walls.
 4. Rough Surface: slabs to receive ceramic tile, quarry tile or similar finishes requiring a mortar bed; Top of beams and walls that are to receive masonry; Top of footings.
 5. Roughened Construction Joints: where indicated on the drawings.
 6. Broomed Finish: sidewalks and concrete ramps.
 7. Steel Trowel Finish: Interior exposed floor slabs and floors to receive resilient flooring, carpeting or "thin-set" hard tile.

3.11 FLOOR HARDENER TREATMENT

- A. All exposed concrete floors (not specified to receive other coverings) shall be hardened and dustproofed.
- B. Treatment: After building construction has been essentially completed, thoroughly clean the concrete surface by: dry brooming; scraping as necessary to remove by flushing and mopping with clean water. After the floor is damp or almost dry, with no puddles remaining, apply the specified and approved hardening and dustproofing solution in accordance with the manufacturer's instruction using not less than 2 coats. Do not use the floor for the period recommended by the manufacturer.
- C. Alternate similar hardener treatments shall be used only after review with the Architect/Engineer.

3.12 SLAB STRAIGHTNESS TOLERANCE

- A. Floor and exterior slab surfaces shall be leveled, or constructed to the designed slope, so that depressions between higher spots do not exceed 1/8-inch under a 10-foot straightedge.

3.13 EXTERIOR CONCRETE SLAB MINIMUM DRAINAGE SLOPES

- A. Provide 1/16 inch minimum per foot uniform slope unless otherwise indicated, for all exterior concrete surfaces, including treads of stairs, to provide for water drainage.

3.14 GROUT

- A. Grout Pads for Equipment and other items where specifically noted: Grout shall be non-shrinking, non-staining, non-corrosive and non-metallic. Grouts shall meet or exceed the requirements of Corps of Engineers Specification CRD-C-621. Materials shall be Crystex by L & M Construction Chemicals; Euco NS by the Euclid Chemical Company; Sealtight 588 by W.R. Meadows, Inc., Burke Non-Ferrous, Non-Shrink Grout by the Burke Company, or equal.
- B. Grout Pads for Structural Steel, Precast Concrete Items, and Miscellaneous Metal Items: Except where a non-shrink grout is indicated on the drawings, use a 1:3 cement sand mixture having a very stiff mortar consistency. Grout shall be place with a tamping stick to ensure complete filling of the space.

- C. Grout and Plugs for Filling Form Tie Recesses:
1. For Concrete Surfaces Exposed to the Weather: Use non-shrink grout as specified hereinbefore, and having a stiff mortar consistency.
 2. For Concrete Surfaces to be Stuccoed or Not Exposed to the Weather: Use a 1:3 cement sand mixture having a stiff mortar consistency.
 3. At the Contractor's option, precast plugs may be used instead of the specified grouts. Use Burke SNA-PLUGS or equal, installed in accordance with the manufacturer's recommendations. Plugs shall be flush with the surface of the concrete, and not less than 3/4" deep.
- D. Grout for Construction Joints in Concrete Work: See specifications for construction joints herein.
- E. Grout for Filling the Cores of Concrete Block.
1. This specification is for single-wythe walls, and for "high-lift" grouting. Where the contractor proposes to use "low-lift" grouting, modifications to the specifications shall be first reviewed with the Owner/Engineer.
 2. Preparation for Grouting
 - a. Where intermittent cores of block are to be filled, mortar the web between a core to be filled and the adjacent core that will not be filled.
 - b. Remove mortar that is projecting more than 3/8-inch into the core to be filled.
 - c. Provide a clean-out hole at base of wall, on at least one side of the wall, for each core that is to have vertical reinforcing. The access hole shall be large enough to remove hardened mortar droppings and to physically position the bottom of the vertical reinforcing bar.
 - d. Blow out or otherwise remove the hardened mortar droppings from the base of the core.
 - e. Place the reinforcing bar and secure the top and bottom of the bar rigidly in the indicated position.
 3. Grout Proportions
 - a. Submit for review a suitable design mix prepared by the testing laboratory, or use the following proportions by volume: 1 part Type I portland cement; 2-1/4 parts sand and; 1-1/2 parts course aggregate

(3/8-inch crushed stone or pea gravel). Mix with enough water to result in a slump of approximately 8 inches. A grouting aid admixture is encouraged by not mandatory. Calcium chloride shall be used in the grout.

- b. Batching, mixing and delivering of grout in accordance with ASTM C-94 is encouraged. When a batch mixer is used on the job site, the minimum mixing time shall be 5 minutes; use known-volume boxes for measuring materials (not by the shovel).

4. Grout Placement

- a. Grout not placed within 90 minutes after the introduction of water shall not be used.
- b. Place grout in a manner to avoid spills down the faces of the masonry. Where a grout pump is not used, provide a suitable funnel to avoid splatter and spillage.
- c. Place the grout in lifts not higher than 6 feet and consolidate each lift by using a vibrator or by rodding with a 1 x 2 wood stick (do not rod with the required vertical reinforcing bar in the core). A time delay of approximately 30 minutes shall occur before placing the next lift of grout.

3.15 VAPOR BARRIER

- A. Provide vapor barrier, as specified hereinbefore, under all building interior slab on grade.
- B. Install vapor barrier after all underground utilities and other subsurface work has been completed. Tape joints to provide continuous moisture transmission resistance. Lap joints a minimum of 6 inches and turn up edges the thickness of the slab. Items penetrating the slab shall be taped and sealed.

3.16 PROTECTION

- A. Freshly place concrete and grout shall be protected from low temperatures as specified elsewhere herein, rain, flowing water, vandalism, jarring and vibrations.
- B. Hardened concrete shall be protected from: vandalism; damage due to form and shore removal; damage from adjacent construction operations; premature loading due to early removal of forms and shores, and application of full design loading on any concrete member before it has attained it's 28-day design strength.

SPECIAL TERMS AND CONDITIONS

I. Contract Period:

Contract awarded as a result of bids submitted under this Sealed Bid shall extend from the date of award for a period of 12 full months.

II. Pricing:

Prices shall remain firm for the duration of the initial Contract period. Reasonable price changes based on market conditions and price/cost analysis may be made after the initial Contract period. The Contractor shall supply documentation satisfactory to Cobb County, such as: documented changes to Producers Price Indexes; Consumer Price Indexes; or a manufacturer's published notification of price change(s).

Cobb County will evaluate this information to determine if revising the pricing is considered fair and reasonable to the satisfaction of Cobb County. Requests for any such change must be received in writing by the Cobb County Purchasing Department thirty (30) days prior to the expiration of the original contract term. The County may cancel the contract if the price increase request is not approved.

All price reductions at the manufacturers' or distributors' level shall be reflected in a reduction of the contract price(s) to Cobb County retroactive to the effective date of the price reduction(s).

III. Option to Extend the Term of Contract:

Contract is renewable, at the option of Cobb County Government, and upon written agreement by the vendor. However, the total duration of this contract, including the exercise of any options, shall not exceed three (3) years (basic year and two (2) one (1) year options).

Cobb County General Instructions for Bidders, Terms and Conditions

I. Preparation Of Bids

Each bidder shall examine the drawings, specifications, schedule and all instructions. Failure to do so will be at the bidder's risk, as the bidder will be held accountable for their bid response.

Each bidder shall furnish all information required by the bid form or document. Each bidder shall sign the bid and print or type his or her name on the schedule. The person signing the bid must initial erasures or other changes. An authorized agent of the company must sign bids.

Invitations to Bid issued by Cobb County are advertised on the Cobb County Internet site (www.purchasing.cobbcountyga.gov) and every Friday in the Cobb County legal organ, the Marietta Daily Journal.

II. Delivery

Each bidder should state the time of proposed delivery of goods or services. Words such as "immediate", "as soon as possible", etc. shall not be used. The known earliest date or the minimum number of calendar days required after receipt of order (delivery A.R.O.) shall be stated (if calendar days are used, include Saturday, Sunday and holidays in the number).

III. Explanation to Bidders

Any explanation desired by a bidder regarding the meaning or interpretation of the invitation for bids, drawings, specifications, etc. must be received by **5:00 pm on April 13, 2010** in order for a reply to reach all bidders before the close of the bid. Any information concerning an Invitation to Bid (ITB) will be furnished to all prospective bidders as an addendum if such information is necessary or if the lack of such information would be prejudicial to uninformed bidders.

**Submit questions in writing to:
Cobb County Purchasing Department
1772 County Services Parkway
Marietta, GA 30008
Fax: 770-528-1154
Email: purchasing@cobbcounty.org**

The written bid documents supersede any verbal or written communication between parties. Addenda are posted on the Purchasing web site: www.purchasing.cobbcountyga.gov. Receipt of addenda should be acknowledged in the bid. It is the bidder's ultimate responsibility to ensure that they have all applicable addenda prior to bid submittal.

IV. Submission of Bids

Bids shall be enclosed in sealed envelopes, addressed to the Cobb County Purchasing Department with the name of the bidder, the date and hour of opening and the invitation to bid number on the face of the envelope. Bids must be received in the Purchasing Department no later than the date and time (determined by the date/time stamp in the department) set forth in the Invitation to Bid. It is the sole responsibility of the bidder to ensure that his or her bid reaches the Purchasing Department. Telegraphic/faxed bids will not be considered. Any addenda should be enclosed in the sealed envelopes as well. The bids will be publicly opened and read at the time and place set forth in the Invitation to Bid.

Samples of items, when required, must be submitted within the time specified and, unless otherwise specified by the County, at no expense to the County. Unless otherwise specified, samples will be returned at the bidder's request and expense if items are not destroyed by testing. Items offered must meet required specifications and must be of a quality, which will adequately serve the use and purpose for which intended.

Full identification of each item bid upon, including brand name, model, catalog number, etc. must be furnished to identify exactly what the bidder is offering. The bidder must certify that items to be furnished are new and that the quality has not deteriorated so as to impair its usefulness.

If no items are bid on, the "Statement of No Bid" must be returned, with the envelope plainly marked "No Bid" including the bid number. Where more than one item is listed, any items not bid upon must be indicated "No Bid".

Unsigned bids will not be considered except in cases where bid is enclosed with other documents, which have been signed. The County will determine this.

Cobb County is exempt from federal excise tax and Georgia sales tax with regards to goods and services purchased directly by Cobb County. Suppliers and contractors are responsible for federal excise tax and sales tax, including any taxes for materials incorporated in county construction projects. Suppliers and contractors should contact the State of Georgia Sales Tax Division for additional information. Tax Exemption Certificates will be furnished upon request.

Information submitted by a bidder in the bidding process shall be subject to disclosure after the public opening in accordance with the Georgia Open Records Act. Each page of proprietary information must be identified. Entire bid may not be deemed proprietary.

V. Withdraw Bid Due To Errors

The bidder shall give notice in writing of his claim of right to withdraw his bid without penalty due to an error within two (2) business days (48 hours) after the conclusion of the bid opening. Bids may be withdrawn from consideration if the price was substantially lower than the other bids due solely to a mistake therein, provided the bid was submitted in good faith, and the mistake was a clerical mistake as opposed to a judgment mistake,

and was actually due to an unintentional arithmetic error or an unintentional omission of a quantity of work, labor or material made directly in the compilation of the bid, which unintentional arithmetic or unintentional omission can be clearly shown by objective evidence drawn from inspection of original work papers, documents and materials used in the preparation of the bid sought to be withdrawn. The bidder's original work papers shall be the sole acceptable evidence of error and mistake if he elects to withdraw his bid. If a bid is withdrawn under the authority of this provision, the lowest remaining responsive bid shall be deemed to be low bid. Bid withdrawal is not automatically granted and will be allowed solely at the discretion of Cobb County.

No bidder who is permitted to withdraw a bid shall, for compensation, supply any material or labor or perform any subcontract or other work agreement for the person or firm to whom the contract is awarded or otherwise benefit, directly or indirectly, from the performance of the project for which the withdrawn bid was submitted.

VI. Testing and Inspection

Since tests may require several days for completion, the County reserves the right to use a portion of any supplies before the results of tests are determined. Cost of inspections and tests of any item, which fails to meet specifications, shall be borne by the bidder.

VII. F.O.B. Point

Unless otherwise stated in the Invitation to Bid and any resulting contract, or unless qualified by the bidder, items shall be shipped F.O.B. Destination. The seller shall retain title for the risk of transportation, including the filing for loss or damages. The invoice covering the items is not payable until items are delivered and the contract of carriage has been completed. Unless the F.O.B. clause states otherwise, the seller assumes transportation and related charges either by payment or allowance.

VIII. Patent Indemnity

The contractor guarantees to hold the County, its agents, officers, or employees harmless from liability of any nature or kind for use of any copyrighted or uncopyrighted composition, secret process, patented or unpatented invention, articles or appliances furnished or used in the performance of contract, for which the contractor is not the patentee, assignee or licensee.

IX. Insurance

Contractor shall procure and maintain for the duration of the contract, insurance against claims for injuries to persons or damages to property that may arise from or in connection with performance of the Work hereunder by the Contractor, his agents, representatives, employees, or subcontractors.

A. MINIMUM LIMITS OF INSURANCE

Contractor shall maintain limits no less than:

1. General Liability: \$1,000,000 combined single limit per occurrence for comprehensive coverage including bodily injury, personal injury and property damage for premises/operations, products/completed operations, contractual liability, independent contractors, broad-from property damage, and underground, explosion and collapse hazard.
2. Automobile Liability: \$1,000,000 combined single limit per accident for bodily injury and property damage including all owned, hired, and non-owned.
3. Workers' Compensation and Employers Liability: Workers' Compensation limits as required by the Labor code of the State of Georgia and Employers Liability of \$100,000 per accident.
4. Umbrella Liability: \$5,000,000 combined single limits per occurrence.
5. Builders Risk Insurance, if applicable: All Risk coverage on any buildings, structure of work and material in an amount equal to 100 per cent of the value of the contract. Coverage is to cover Cobb County interest and Cobb County shall be named as Loss Payee.

B. DEDUCTIBLES AND SELF-INSURED RETENTION

Any deductibles or self-insurance retentions must be declared to and approved by the Owner. At the option of the Owner, either: The insurer shall reduce or eliminate such deductibles or self-insured retentions as respects the Owner, its officers officials, and employees; or the Contractor shall procure a bond guaranteeing payment of losses related to investigations, claim administration and defense expenses.

C. OTHER INSURANCE PROVISIONS

1. General Liability, Automobile Liability, and Umbrella Liability Coverages; The Owner and its officers, officials, employees and volunteers are to be covered as additional insureds as respects: liability arising out of activities performed by or on behalf of the Contractor.

Any failure to comply with reporting provisions of the policies shall not affect coverage provided to the Owner and its officers, officials, employees or volunteers.

The Contractor is responsible for insuring its own property and equipment.

2. Workers' Compensation and Employers Liability Coverage. The insurer shall agree to waive all rights of subrogation against the Owner and its officers, officials, employees and volunteers for losses arising from the work performed by the Contractor for the Owner.

3. All Coverages: Each insurance policy required by this clause shall be endorsed to state that coverage shall not be changed, cancelled, suspended, terminated or non-renewed except after sixty (60) days prior written notice by certified mail, return receipt requested,

has been given to Cobb County of said change of coverage, cancellation, suspension, termination / or non-renewal.

D. ACCEPTABILITY.

Insurance is to be placed with insurers with an A.M.Best's rating of no less than A: VII, or otherwise acceptable to the Owner.

E. VERIFICATION OF COVERAGE.

Contractor shall furnish the Owner with certificates of insurance and with original endorsements effecting coverage required by this clause. These certificates and endorsements for each insurance policy are to be signed by a person authorized by that insurer to bind coverage on its behalf. The certificates and endorsements are to be received and approved by the Owner before any work commences. The Owner reserves the right to require complete, certified copies of all required insurance policies at any time.

F. SUBCONTRACTORS

Subcontractor means one not in the employment of the Contractor who is performing all or part of the services under this Agreement under a separate contract with the Contractor.

Contractor shall include all subcontractors as insured under its insurance or shall ensure that subcontractors have met the insurance requirements of this agreement. Owner may request evidence of subcontractor's insurance.

Contractor is responsible for having all subcontractors comply with all terms and conditions of the Invitation to Bid.

G. WAIVER OF SUBROGATION

Vendor shall require all insurance policies in any way related to the work and secured and maintained by Vendor to include clauses stating each underwriter shall waive all rights of recovery, under subrogation or otherwise, against Customer. Vendor shall require of subcontractors, by appropriate written agreements, similar waivers each in favor of all parties enumerated in this section.

X. Award

Award will be made to the lowest responsive and responsible bidder. Conditional bids are not acceptable. The quality of articles to be supplied, their conformity with the specifications, their suitability to the requirements of the County, and the delivery terms will be taken into consideration in making the award. The County may make such investigations as it deems necessary to determine the ability of the bidder to perform, and the bidder shall furnish to the County all such information and data for this purpose as the County may request. The County reserves the right to reject any bid if the evidence submitted by,

or investigation of such bidder fails to satisfy the County that such bidder is properly qualified to carry out the obligations of the contract. The County reserves the right to reject or accept any or all bids and to waive technicalities, informalities, and minor irregularities in bids received.

The Bidder does not have the exclusive right to fill all of the County's requirements for the goods or services awarded nor will the County be obligated to purchase the estimated annual quantity or any quantity contained in the bid document.

The County reserves the right to make an award as deemed in its best interest, which may include awarding a bid to a single bidder or multiple bidders; or to award the whole bid, only part of the bid, or none of the bid to single or multiple bidders, based on its sole discretion of its best interest. In case of tie bid, the award will be made as follows:

1. The bid will be awarded to the in-county vendor.
2. The bid will be awarded to the in-state vendor.
3. The bid will be awarded to the vendor with the lesser total dollar volume.

The County reserves the right to award by line item to more than one vendor. The County reserves the right to negotiate a lower price than the bid award price on any line item with the successful vendor, should the quantity required significantly exceed those on the Invitation to Bid. If the County is unable to negotiate an acceptable price, it reserves the right to rebid the item(s) involved. If after the award of the bid there is a decrease in the price of a product from the manufacturer, or a rebate, the successful bidder will pass that price decrease and/or rebate onto the County.

Time payment discounts will be considered in arriving at net prices and in award of bids. Offers of discount for payment within ten (10) days following the end of the month are preferred.

XI. Delivery Failures

Failure of a contractor to deliver within the time specified or within reasonable time as interpreted by the Purchasing Director, or failure to make replacement of rejected articles/services when so requested, immediately or as directed by the Purchasing Director, shall constitute authority for the Purchasing Director to purchase in the open market articles/services of comparable grade to replace the articles/services rejected or not delivered. On all such purchases, the contractor shall reimburse the County within a reasonable time specified by the Purchasing Director for any expense incurred in excess of contract prices, or the County shall have the right to deduct such amount from monies owed the defaulting contractor. Alternatively, the County may penalize the contractor one percent (1%) per day for a period of up to ten (10) days for each day that delivery or replacement is late. Should public necessity demand it, the County reserves the right to use or consume articles delivered which are substandard in quality, subject to an adjustment in price to be determined by the Purchasing Director.

XII. County Furnished Property

No material, labor or facilities will be furnished by the County unless so provided in the invitation to bid.

XIII. Reject And Withdraw Bids

Failure to observe any of the instructions or conditions in this invitation to bid may constitute grounds for rejection of bid.

XIV. Contract

Each bid is received with the understanding that the acceptance in writing by the County of the offer to furnish any or all commodities or services described therein shall constitute a contract between the bidder and the County which shall bind the bidder on his part to furnish and deliver the articles quoted at the prices stated in accordance with the conditions of said accepted bid. The County, on its part, may order from such contractor, except for cause beyond reasonable control, and to pay for, at the agreed prices, all articles specified and delivered. Payment terms are net thirty (30) days after receipt of invoice.

The Price and all unit prices shown shall be deemed to include all costs of Contractor's performance of the Work as set forth in the Bid Documents, including, but not limited to, the costs of labor, supervision, travel, services, materials, equipment, tools, scaffolds, hoisting, transportation, storage, insurance and taxes.

Upon receipt of a bid package, containing a Cobb County "Sample Contract" as part of the requirements, it is understood that the bidder has reviewed the documents with the understanding that Cobb County requires all agreements between the parties must be entered into via this document. If any exceptions are taken to any part, each must be stated in detail and submitted as part of the bid. If no exceptions are stated, it is assumed that the bidder fully agrees to the provisions contained in the "Sample Contract" in its entirety. The County reserves the right to make alterations to Sample contracts.

XV. Non-Collusion

By submission of a bid, the vendor certifies, under penalty of perjury, that to the best of its knowledge and belief:

- (a) The prices in the proposal have been arrived at independently without collusion, consultation, communications, or agreement, for the purpose of restricting competition, as to any matter relating to such prices with any other vendor or with any competitor.
- (b) Unless otherwise required by law, the prices which have been quoted in the proposal have not been knowingly disclosed by the vendor prior to opening, directly or indirectly, to any other vendor or to any competitor.

- (c) No attempt has been made, or will be made, by the vendor to induce any other person, partnership or corporation to submit or not to submit a proposal for the purpose of restricting competition.

Collusions and fraud in bid preparation shall be reported to the State of Georgia Attorney General and the United States Justice Department.

XVI. Conflict of Interest, Etc.

By submission of a bid, the responding firm certifies, under penalty of perjury, that to the best of its knowledge and belief:

1. No circumstances exist which cause a Conflict of Interest in performing the services required by this ITB, and
2. That no employee of the County, nor any member thereof, not any public agency or official affected by this ITB, has any pecuniary interest in the business of the responding firm or his sub-consultant(s) has any interest that would conflict in any manner or degree with the performance related to this ITB.

By submission of a bid, the vendor certifies under penalty of perjury, that to the best of its knowledge and belief:

- (a) The prices in the bid have been arrived at independently without collusion, consultation, communications, or agreement, for the purpose of restricting competition, as to any matter relating to such prices with any other vendor or with any competitor.
- (b) Unless other wise required by law, the prices which have been quoted in the bid have not knowingly been disclosed by the vendor prior to opening, directly or indirectly, to any other vendor or competitor.
- (c) No attempt has been made, or will be made, by the vendor to induce any other person, partnership or cooperation to submit or not to submit a bid for the purpose of restricting competition.

For any breach or violation of this provision, the County shall have the right to terminate any related contract or agreement without liability and at its discretion to deduct from the price, or otherwise recover, the full amount of such fee, commission, percentage, gift, payment or consideration.

The successful responding firm shall require each of its sub-consultant(s) to sign a statement certifying to and agreeing to comply with the terms of the Sub-sections above.

XVII. Default

The contract may be cancelled or annulled by the Purchasing Director in whole or in part by written notice of default to the contractor upon non-performance or violation of contract terms. An award may be made to the next low responsive and responsible bidder, or articles specified may be purchased on the open market similar to those so terminated. In either event, the defaulting contractor (or his surety) shall be liable to the County for costs to the County in excess of the defaulted contract prices; provided,

however, that the contractor shall continue the performance of this contract to the extent not terminated under the provisions of this clause. Failure of the contractor to deliver materials or services within the time stipulated on his bid, unless extending in writing by the Purchasing Director, shall constitute contract default.

XVIII. Disputes

Except as otherwise provided in the contract documents, any dispute concerning a question of fact arising under the contract which is not disposed of shall be decided after a hearing by the Purchasing Director, who shall reduce his/her decision to writing and mail or otherwise furnish a copy thereof to the contractor. The decision of the Purchasing Director shall be final and binding; however, the contractor shall have the right to appeal said decision to a court of competent jurisdiction.

XIX. Substitutions

Bidders offering and quoting on substitutions or who are deviating from the attached specifications shall list such deviations on a separate sheet to be submitted with their bid. The absence of such a substitution list shall indicate that the bidder has taken no exception to the specifications contained herein.

XX. Ineligible Bidders

The County may choose not to accept the bid of a bidder who is in default on the payment of taxes, licenses, or other monies due to the County. Failure to respond three (3) consecutive times for any given commodity/service may result in removal from the supplier list under that commodity/service.

XXI. Alterations of Documents

Alterations of County documents are strictly prohibited and will result in automatic disqualification of the firm's solicitation response. If there are "exceptions" or comments to any of the solicitation requirements or other language, then the firm may make notes to those areas, but may not materially alter any document language.

XXII. Termination for Convenience

The County, by written notice, may terminate this contract, in whole or in part, when it is in the County's interest. If this contract is terminated, the County shall be liable only for goods or services delivered or accepted. The County Notice of Termination may provide the contractor thirty (30) days prior notice before it becomes effective. However, at the County's sole option a termination of convenience may be effective immediately and may apply to delivery orders (if applicable) or to the contract in whole.

XXIII. Inter-governmental Agreement

Other cities and Authorities located in Cobb County will be allowed to purchase identical items at the same price and upon the same terms and conditions, pursuant to the Intergovernmental Cooperative Purchasing Agreements entered into between the BOC and Cobb County Governmental entities listed under the Intergovernmental Cooperative Purchasing Program. These entities include the Cobb County Board of Education and Cities of Acworth, Austell, Kennesaw, Smyrna, Marietta, and Powder Springs and the Cobb County-Marietta Water Authority and the Cobb-Marietta Coliseum and Exhibit Hall Authority.

XXIV. Indemnification and Hold Harmless

By submission of a bid, the selected responding firm agrees to the fullest extent permitted by law to indemnify Cobb County and protect, defend, indemnify and hold harmless Cobb County, its officers, officials, employees and volunteers from and against all claims, actions, liabilities, losses (including economic losses), or costs arising out of any actual or alleged a) bodily injury, sickness, disease, or death; or injury to or destruction of tangible property including the loss of use resulting there from; or any other damage or loss arising out of or resulting claims resulting in whole or part from any actual or alleged act or omission of the responding firm, sub-consultant, anyone directly or indirectly employed by any firm or sub-consultant; or anyone for whose acts any of them may be liable in the performance of work; b) violation of any law, statute, ordinance, governmental administrative order, rule, regulation, or infringements of patent rights or other intellectual property rights by the responding firm in the performance of work; or c) liens, claims or actions made by the responding firm or other party performing the work, as approved by Cobb County. The indemnification obligations herein shall not be limited by any limitation on the amount, type of damages, compensation, or benefits payable by or for the responding firm or its sub-consultant(s), as approved by the County, under workers' compensation acts, disability benefit acts, other employee benefit acts, or any statutory bar or insurance.

XXV. Special Terms and Conditions

Should these General Terms and Conditions be in conflict with any attached Special Terms and Conditions, the Special Terms and Conditions will control.

XXVI. Disadvantaged Business Enterprises (DBE): The following provisions should be carefully read to determine applicability to your business.

Cobb County Government encourages the participation of all businesses in offering their services and/or products. It is the goal of Cobb County Government to fairly and competitively procure the best product at the most reasonable cost.

A Disadvantaged Business Enterprise (DBE) is generally defined as a Female, Black American, Hispanic American and any other minority owned business. The Federal Government has long had program in place to ensure participation of DBE vendors and suppliers. The State of Georgia has established a similar program whereby DBE firms are defined, certified and made known. This effort is managed by the Georgia Department of Transportation (GDOT). More information can be obtained from GDOT web site:

1. <http://www.dot.state.ga.us/eo-div/index.shtml>

The Cobb County Government addresses DBE business participation (frequency and dollar value) in the following ways:

1. Cobb County wishes to identify all DBE participation; both at the contractor and sub-contractor levels in the following ways.
 - a. DBE businesses are requested to identify such status at the time they register as a vendor.
 - b. DBE businesses are requested to identify themselves at the time they propose to do business. Please complete **EXHIBIT B** if applicable and return with bid submittal.
 - c. All businesses will receive with each Purchase Order an instruction sheet for use of the furnished *Cobb County Government DBE Participation Report, EXHIBIT C*. Businesses are requested to complete this report and submit it with each invoice for the time period billed.
2. Cobb County has established a Disadvantaged Business Enterprise Plan in accordance with the regulations of the U.S. Department of Transportation (U. S. Department of Transportation (USDOT), 49 CFR Part 26.) The Cobb County Department of Transportation is the lead agency for implementing the USDOT DBE Program for the County.

The Plan applies only to projects which are clearly indicated by the County.

XXVII. Evidence of Compliance with Georgia Security & Immigration Compliance Act

The County and Contractor agree that compliance with the requirements of O.C.G.A. Sec. 13-10-91 and Rule 300-10-1-.02 of the Rules of the Georgia Department of Labor are conditions of this Agreement for the physical performance of services.

Contractor Name

The Contractor further agrees that its compliance with the requirements of O.C.G.A. Sec. 13-10-91 and DOL Rule 300-10-1-.02 is attested to on the executed Contractor Affidavit and Agreement attached hereto as EXHIBIT A.

If employing or contracting with any subcontractor(s) in connection with this Agreement, Contractor further agrees:

- (1) To secure from the subcontractor(s) such subcontractor(s)' indication of the employee-number category applicable to the subcontractor(s); and
- (2) To secure from the subcontractor(s) an affidavit attesting to the subcontractor's compliance with O.C.G.A. Sec. 13-10-91 and DOL Rule 300-10-1-.02; such affidavit being in the form attached hereto and referenced as EXHIBIT A-1; and
- (3) To submit such subcontractor affidavit(s) to the County when the subcontractor(s) is retained, but in any event, prior to the commencement of work by the subcontractor(s).

The failure of Contractor to supply the affidavit of compliance at the time of execution of this Agreement and/or the failure of Contractor to continue to satisfy the obligations of O.C.G.A. Sec. 13-10-91 and DOL Rule 300-10-1-.02 as set forth in this Agreement during the term of the Agreement shall constitute a material breach of the contract. Upon notice of such breach, Contractor shall be entitled to cure the breach within ten (10) days, upon providing satisfactory evidence of compliance with the terms of this Agreement and State law. Should the breach not be cured, the County shall be entitled to all available remedies, including termination of the contract and damages.

THIS PAGE MUST BE SUBMITTED WITH BID PACKAGE

SEE AFFIDAVITS ON FOLLOWING PAGES

EXHIBIT A

CONTRACTOR AFFIDAVIT & AGREEMENT

By executing this affidavit, the undersigned contractor verifies its compliance with O.C.G.A. § 13-10-91, stating affirmatively that the individual, firm or corporation which is contracting with Cobb County, Georgia, has registered and is participating in a federal work authorization program* [an electronic verification of work authorization program operated by the U.S. Department of Homeland Security or any equivalent federal work authorization program operated by the U.S. Department of Homeland Security to verify information of newly hired employees, pursuant to the Immigration Reform and Control Act of 1986 (IRCA), P.L. 99-603], in accordance with the applicability provisions and deadlines established in O.C.G.A. § 13-10-91.

The undersigned further agrees that should it employ or contract with any subcontractor(s) for the physical performance of services pursuant to the contract with Cobb County, Georgia, the contractor will secure from the subcontractor(s) verification of compliance with O.C.G.A. § 13-10-91 on the attached Subcontractor Affidavit. (EXHIBIT A-1). The contractor further agrees to maintain records of such compliance and shall provide a copy of each such verification to Cobb County, Georgia, at the time the subcontractor(s) is retained to perform such services.

BY: _____ Date: _____
Authorized Officer or Agent
[Contractor Name]

Title

Printed Name

Company Name

SUBSCRIBED AND SWORN
BEFORE ME ON THIS THE
____ DAY OF _____, 200_

Notary Public
My Commission Expires:

**The applicable federal work authorization program as of the effective date of the statute is the Basic Pilot program of the Systematic Alien Verification for Entitlements (SAVE) Program Office of U.S. Citizenship and Immigration Service (USCIS).*

EXHIBIT A-1

SUBCONTRACTOR AFFIDAVIT

By executing this affidavit, the undersigned subcontractor verifies its compliance with O.C.G.A. § 13-10-91, stating affirmatively that the individual, firm or corporation which is engaged in the physical performance of services on behalf of Cobb County, Georgia, has registered and is participating in a federal work authorization program* [an electronic verification of work authorization program operated by the U.S. Department of Homeland Security or any equivalent federal work authorization program operated by the U.S. Department of Homeland Security to verify information of newly hired employees, pursuant to the Immigration Reform and Control Act of 1986 (IRCA)], in accordance with the applicability provisions and deadlines established in O.C.G.A. § 13-10-91.

BY: _____
Authorized Officer or Agent
[Contractor Name]

Date: _____

Title

Printed Name

Company Name

SUBSCRIBED AND SWORN
BEFORE ME ON THIS THE
____ DAY OF _____, 200_

Notary Public
My Commission Expires:

**The applicable federal work authorization program as of the effective date of the statute is the Basic Pilot program of the Systematic Alien Verification for Entitlements (SAVE) Program Office of U.S. Citizenship and Immigration Service (USCIS).*

EXHIBIT B

DISADVANTAGED BUSINESS ENTERPRISE (DBE) IDENTIFICATION FORM

A Disadvantaged Business Enterprise (DBE) is generally defined as a Female, Black American, Hispanic American and any other minority owned business. If your firm is classified as a Disadvantaged Business Enterprise (DBE), please complete this form and submit with bid response or send to:

Cobb County Purchasing Department
Attn: Mr. Rick Brun, Purchasing Director
1772 County Services Parkway
Marietta, GA 30008
Fax: 770-528-1154
Email: purchasing@cobbcounty.org

Name of Firm: _____

Address: _____

Telephone: _____

Fax: _____

Email: _____

MBE Certification Number: _____

Name of Organization Certification _____

This information is acquired for informational purposes only and will have no bearing on the award unless otherwise stated

Instructions for Completing Exhibit C
Disadvantaged Business Enterprise (DBE)
Participation Report

All Cobb County Government contractors or vendors are requested to complete a report descriptive of any DBE subcontractor involvement in work for which the government is making payment. If otherwise specified in an RFP/ITB or contract, additional reporting forms may be required as well.

The objective of this request is to assist in the identification of Disadvantaged Business Enterprise (DBE) business participation with the Cobb County Government and to quantify that participation.

The Cobb County Government does not administer a DBE Certification Program. The principle certification agency for the State of Georgia is the Georgia Department of Transportation. As a Contractor/Vendor you are not responsible for verification of any DBE Certification information of your subcontractor.

***** Instructions *****

1. Contractor/Vendor is furnished the one-page ***DBE Participation Report*** form with each Cobb County Government-issued Purchase Order.
2. Contractor/Vendor completes this form for each billing period and attaches it to the invoice to then be sent to the Cobb County Government.
3. Upon receipt of a Contractor/Vendor invoice, County staff should simply separate the completed DBE form and transmit to:

Cobb County Purchasing Department,
Attn.: DBE Report

A Disadvantaged Business Enterprise (DBE) is a firm that is under the control of someone in an ownership position (at least 51%) that:

1. Has membership in one or more of the following groups: Female, Black American, Hispanic American, Native American, Subcontinent Asian American and Asian-Pacific America. There may be other groups that may be eligible to be certified as DBE;
2. Is a U.S. citizen or lawfully admitted permanent resident of the U.S.;
3. Has a personal net worth which does not exceed \$750,000; and,
4. The business meets the Small Business Administration's size standard for a small business and does not exceed \$17.42 million in gross annual receipts;
5. The business is organized as a for-profit business.
6. The business may also be DBE eligible as a certified U.S. Small Business Administration 8(a) program.

EXHIBIT C
Cobb County Government Disadvantaged
Business Enterprise Participation Report

→ *PLEASE keep this blank form to make copies for actual use as needed. Also, please print or type in the form.* ←

Submitted by: _____ Period Invoiced: _____

Name of Prime Contractor/Vendor

From/To:

Cobb County Project Name: _____ Bid or P.O. Number: _____

Cobb County Department or Agency receiving service or product: _____

Description of Purchased Service/Product: _____

Full Contracted Amount: \$_____ Payment amount requested at this time: \$_____

1. Are YOU, the Prime Contractor or Vendor a DBE business? YES _____ NO _____
2. Please provide the following information for each subcontractor participating during this reporting period:

Subcontractor Business Name	Type Service or Product Supplied	Subcontractor Business/Contact Tel. Number	Actual Dollar Value of Subcontractor Participation this Reporting Period
			\$
			\$
			\$
			\$
			\$
			\$

Submitted by: _____

Printed Name

Title or position: _____

Signature of Authorized Representative

Date Completed: _____

County Departments: Please send this completed form to the Cobb County Purchasing Department, ATTN: DBE Report

BID FORM
MISCELLANEOUS CONCRETE PROJECTS AT VARIOUS COUNTY PARKS
COBB COUNTY PARKS, RECREATION & CULTURAL AFFAIRS
SEALED BID #10-5485

TO THE COBB COUNTY BOARD OF COMMISSIONERS
COBB COUNTY, GEORGIA

Submitted _____, 2010

The undersigned, as Bidder, hereby declares that the only person or persons interested in this Proposal as principle or principles is or are named herein; that no person other than those named herein has an interest in this Proposal or in the Contract to be entered into; that this Proposal is made without connection with any other person, company, and parties making a Proposal; and that this Proposal is, in all respects, fair and made in good faith without collusion or fraud.

The Bidder further declares that he has examined the Cobb County Parks facilities typical of potential sites of the work and has informed himself fully in regard to typical conditions pertaining to the places where the work is to be done; that he has examined the contractual documents relative thereto; that he understands that there are a variety of project types that may or may not be requested as the work during the duration of this contract; that he has read the instructions to Bidders and General conditions furnished prior to the Bid opening date; and that he has satisfied himself relative to the work to be performed.

The Bidder proposes and agrees that, if he becomes the successful bidder on the basis of this Proposal, he will contract with the Cobb County Board of Commissioners, Cobb County, Georgia, (herein called the "Owner"), in the form of contract illustrated to furnish all necessary materials, equipment, machinery, tools, apparatus, means of transportation, and all necessary labor to complete the construction of the work in full, and in complete accord with the shown, noted, described, Specifications, Drawings, and Contract Documents to the full and entire satisfaction of the owner, with a definite understanding that no money will be allowed for extra work except as set forth in the General Conditions and other Contract Documents, for the following prices.

If the Bidder is awarded any projects under this contact which exceed \$25,000, the Bidder agrees to furnish a 100% Performance Bond and a 100% Payment Bond within ten (10) days after being notified of award of the project. Said performance and payment bonds shall be issued by a surety accepted by the U.S. Department of the Treasury and listed in the current Department Circular 570.

COMPANY NAME: _____

COMPANY REPRESENTATIVE SIGNATURE: _____

BID FORM
MISCELLANEOUS CONCRETE PROJECTS AT VARIOUS COUNTY PARKS
COBB COUNTY PARKS, RECREATION & CULTURAL AFFAIRS
SEALED BID #10-5485

The Cobb County Parks, Recreation and Cultural Affairs Department requests unit price bids on various items of work.

Site preparation with proper size equipment is to include the concrete for new construction, as well as the repair items. All items necessary to build catch basins, junction boxes, and related drainage structure items are to be included in the price also. Contractor must submit to the owner engineered drawings of any wall greater than 6 feet high in advance for any construction activity.

Contractor will be responsible for site cleanup, removal of all debris pertaining to job; appropriate repair to any site or facility damage caused by the Contractor; and backfilling soil to appropriate grade following form removal.

All work to be done shall be executed per attached specifications.

"L" Type curb 9" x 24"	per linear ft	\$ _____
Roll Type curb 6" x 24"	per linear ft	\$ _____
Catch Basins: Standard GA D.O.T. 1033-1034 Price to include Lids, Throats, Tops, Ring & Cover	per V.F.	\$ _____
Junction Boxes: Poured Bottom & Lid	per V.F.	\$ _____
Concrete repair work: Consists of Curbing, Sidewalks, Floors, Walls, other Related Concrete Work	per cu. ft.	\$ _____
New Concrete Work Sidewalks, Bleacher Pads, Other "Mud Slab" Work Base to be compacted, level earth	per sq. ft.	\$ _____
Floors with 4" Concrete Fiber Mesh, Including 8" minimum Turn Down Footings at perimeter of Monolithic Slabs; 6" gravel base (#57 Stone), #6 mil polyethylene vapor barrier	per sq. ft.	\$ _____
Walls with #4 Rebar	per cu. ft.	\$ _____

BID FORM
MISCELLANEOUS CONCRETE PROJECTS AT VARIOUS COUNTY PARKS
COBB COUNTY PARKS, RECREATION & CULTURAL AFFAIRS
SEALED BID #10-5485

Slabs with Welded Wire Fabric
and #6 Mil Vapor Barrier per sq. ft. \$_____

New Concrete Work – Floors, Slabs
Driveway 6” Fiber Mesh per sq. ft. \$_____

Base to be compacted, level earth

Concrete Steps per riser and Handrail per linear foot as follows:

- Riser height minimum 4”, maximum 7”; consistent through set
- Tread width minimum 11”, maximum 13” nose to nose; consistent through set
- #4 rebar 12” O.C. each way
- Concrete minimum 6” thick
- Handrail 1 ¼” to 1 ½” O.D. round steel or aluminum
- Handrail extensions to comply with Cobb Fire Marshal specifications and with GA Rule 120-3-20-.15
- Finished handrail primed and painted, color chosen by owner

Concrete Steps, 5 feet width per riser \$_____

Concrete Steps, 6 feet width per riser \$_____

Concrete Steps, 8 feet width per riser \$_____

Central Handrail per linear ft. \$_____

Includes posts, top rail, mid rail, extensions