

FACILITY CONSTRUCTION PROGRAM GUIDELINES

The following guidelines have been developed for Transportation Systems based on procedures set forth in the N.C. Construction Manual “Blue Book” issued by the Division of State Construction, NCDOA and the Institute of Government’s Construction Contracts with North Carolina Local Governments and the laws governing the State of North Carolina found in the North Carolina General Statutes. If federal funds are used, applicable federal guidelines and requirements must be followed in accordance with FTA Circulars 4220.1E and 5010.1C, and any revisions thereto.

- I. The Public Transportation Division (PTD) shall be kept informed and involved in all phases of planning and construction.
 - A. All construction related activities **over \$30,000** shall require pre-award review and approval by the division before completing the task.
 1. The following activities are included, but not limited to, the PTD’s pre-award review and approval.
 - a) Feasibility study
 - b) Appraisal of property
 - c) Environmental assessment
 - d) Land acquisition
 - e) Architect or Professional Engineer selection
 - f) Design phases
 - g) New construction, renovation, or improvements bids and contract award
 2. North Carolina Department of Transportation (NCDoT)/General Service Division will assist PTD in reviewing A/E selection, design phases, and recommendations for construction awards.
 - B. Other state agency technical reviews of the design phases.
 1. The Department of Insurance (DOI) is required to review plans for projects over 10,000 square feet or by special request.
 - a) Review and approval by local building inspector required before submission.

II. New Construction

A. Planning activities

1. Local Prerequisites

- a) Any actions required by local entities, i.e. county commissioners, city council, governing board, prior to application for funding to the PTD.

2. Project Funding

- a) Transit system (project) requests funding assistance from PTD.
- b) Funding approval by DoT Board of Transportation.
 - 1) New construction or large renovations– phased funding
 - (a) Phase I - may include funding for feasibility study, environmental study, appraisal, survey fees, attorney fees, and A & E.
 - (b) Phase II and III – funded after Phase I completed. May included funds for land purchase, A & E, and construction.
 - 2) Small renovation projects will be funded in full.
- c) Agreement and budget issued by PTD to project (grantee).
 - 1) Project to return signed agreement to PTD.
- d) The agreement will be signed by DoT and an executed copy returned to the project.

3. Feasibility Study

- a) Consulting firm may be retained to determine what course of action to obtain a facility is appropriate. Study may include comparisons on site location and new construction vs. purchase and renovation.
- b) Study will analyze current needs and anticipated future needs.

4. Site Selection

- a) Consulting firm may be retained to compare various properties to determine the most suited location.
- b) Commercial Real Estate firm may also be retained to locate property or facility.

5. Environmental Review (for new construction or building purchases)

- a) All building sites must be evaluated and assessed to determine impact, if any, on wetlands, streams, high quality biotic communities, and federally protected threatened or endangered species and their habitats.

- 1) Environmental review must be completed prior to purchase of property with public funds.
- 2) If property has already been purchased by the system or county, one of the following applies:
 - (a) If an environmental review or study has been completed, submit the document to PTD for Departmental review.
 - (b) If no environmental review or study has been completed, proceed to item 5 b).
- b) A consulting firm or NCDOT's Environmental Branch may be used to determine if there are any environmental issues that need to be addressed prior to construction.
 - 1) NCDOT's review may involve 4-6 weeks.
 - 2) A copy of the survey or plot map and description of the property will need to be furnished for review.
- c) If the environmental review indicates a "finding of no significant impact" (FONSI), the project will be able to proceed to the next step.
- d) If the findings indicate an adverse environmental affect, an environmental study including an "environmental impact statement" (EIS) will need to be conducted or an alternative site will need to be selected.
- e) State Environmental Requirements include, but are not limited to the following:
 - 1) North Carolina Environmental Policy Act (SEPA) of 1971 (N.C.G.S. 113A)
 - 2) Clean Air and Water (NCGS 143-211 and 113A)
 - 3) Coastal Area Management Act (CAMA) of 1974 (NCGS 113A-100)

6. Land Acquisition

- a) At least one independent land appraisal must be completed by a N.C. Licensed Real Estate Appraiser within the **last 6 months**.
 - 1) If it is estimated that one million dollars or more of state or federal funds will be used to purchase the property, **two** independent appraisals must be conducted prior to the NCDOT review.
- b) A certifying appraisal will be required to be completed once the original appraisal is complete.
 - 1) NCDOT's Right of Way Division can provide the certifying appraisal upon request by PTD.
 - 2) Two (2) copies of the appraisal and all relative documents should be submitted to PTD.
 - 3) The certifying appraisal typically takes 2-4 weeks.

- c) PTD will issue a letter indicating the system may proceed with the purchase of the land or alternative suggestions.
- d) A copy of the "Offer to Purchase" shall be submitted to PTD for review. Approval is required by PTD before entering into contract to purchase land.

III. Renovation

A. Purchasing existing building or updating current offices

1. Project Funding

- a) Transit system (project) requests funding assistance from PTD.
- b) Funding approval by DOT Board of Transportation.
 - 1) Small renovation projects will be funded in full.
 - 2) Large renovation projects – phased funding
 - (a) Phase I - may include funding for feasibility study, environmental study, appraisal, survey fees, attorney fees, and A & E.
 - 3) Phase II – construction funded after Phase I completed.

2. Purchasing existing building for renovation

- a) See above items II-A-1, 2, 4 and 6 for guidance on selection, purchase and funding.
- b) Environmental issues may need to be addressed if any of the following exist:
 - 1) Property is a state or national historic site (N.C.G.S. 121-12)
 - 2) Pre-existing condition, such as underground tanks.
 - (a) Environmental review will be required, see II-A-5.

3. Existing offices to be renovated

- a) No pre-planning actives required other than request for funding.
- b) See item II-A-1 and 2.
- c) Submit drawing(s) and details of changes to be made along with estimates of cost for renovation.

IV. FTA funded projects

A. FTA oversight requirements for projects \geq \$250,000.

1. Land acquisitions

- a) Submit the following documents to Regional FTA office for review and concurrence.
 - 1) Environmental Assessment
 - 2) Appraisal
 - 3) Certifying Appraisal
 - 4) Survey
- b) Must be approved by FTA before authorization for FTA funding can be issued.

B. Application for FTA funding (amendment)

1. Certifications and Assurances must be current
2. Dunn and Bradstreet number (if not previously requested)
3. Civil Rights Policies are current
4. Project listed in STIP

V. Design Phase

- A. A registered architect or engineer must prepare plans and specifications in accordance with N.C.G.S. 133-1.1 if the construction related work falls into one of the following two categories.
 1. \$300,000 for projects that do not include major structural or foundation changes.
 2. \$100,000 for the repair of a public building affecting life safety systems.
 3. \$135,000 for projects that include “major structural change in framing or foundation support systems”.
 4. \$135,000 for the construction of, or additions to public buildings.
- B. Separate specifications must be drawn for each of the following four branches of work if the estimated project cost exceeds \$300,000.
 1. Heating, ventilating, air conditions, and accessories.
 2. Plumbing and gas fittings and accessories.
 3. Electrical wiring and installations.
 4. General work relating to the erection, construction, alteration or repair of the building that is not include in the first three branches.
- C. Selection of an Registered Architect or Professional Engineer - Request for Qualifications

1. Project shall follow applicable, N.C.G.S. 143-64.31-34 to retain a qualified registered architect or professional engineer.
 - a) Issue a RFQ indicating requirements for service and provide a description of construction project.
 - b) Selection shall be based on qualifications and competence.
 - c) Price negotiation is conducted with the most qualified offerer.
 - d) PTD shall review and approve selection prior to entering into a contract with Architect or Engineer.

2. Exemption from RFP and formal procedures for securing A & E Services, N.C.G.S. 143-64.32. (State funded only at this time.)
 - a) If design fee is estimated to be less than \$30,000, procedures in IV-C1 may be waived.
 - b) Exemption must be granted by project's governing board.
 - c) A/E firms may be contacted directly
 - 1) One or more may be evaluated for qualifications
 - 2) Negotiated contract
 - 3) PTD involvement in selection and negotiation required; prior approval required before entering into a contract.

D. Schematic Design Phase

1. Architect or Engineer shall prepare schematic phase.
 - a) A scaled site plan showing location and the size of the facility in relation to existing buildings, roads, walks, utility service, etc.
 - b) Single line drawings of the floor plan, including mechanical and electrical rooms, service areas, etc.
 - c) A general description of the project based on the designer's studies indicating the construction materials; framing systems; and mechanical, electrical and plumbing systems.
 - d) A statement of probable construction cost based upon area, volume or other appropriate units. (Estimates shall include a separate item for site work, utility extensions and other items outside the structure.

2. Plans and documentation shall be submitted to PTD for review.
 - a) **NCDOT/General Service Division will assist PTD in reviewing design phases.**
 - b) Comments will be issued by PTD and to proceed to next phase.
 - c) Additional review and comment may be necessary by the Department of Insurance (DOI) (see I-B1) if applicable.

E. Design Development Phase

1. Architect or Engineer shall prepare detailed plans and specifications.
 - a) The designer shall prepare the Design Development Documents, which include all basic elements, systems and materials to be used in the project.
 - b) Review and approval letter by local building inspector required prior to submitting documents to PTD.
 - 1) Submit with the design development phase the soil investigation report and all other reports or studies made for the project.
 - 2) A statement of probable construction cost based upon area, volume or other appropriate units.
2. Plans and documentation shall be submitted to PTD for review.
 - a) **NCDOT/General Service Division will assist PTD in reviewing design phases.**
 - b) Comments will be issued by PTD and to proceed to next phase.
 - c) Additional review and comment may be necessary by the Department of Insurance (DOI) (see I-B1) if applicable.

F. Construction Document Phase

1. The designer shall prepare working drawings and specifications in detail including materials; workmanship; finishes; mechanical and electrical systems; special equipment; site work; utility connections and services; bidding information; proposal, contract and bond forms; General and Supplementary General Conditions of the Contract; and any and all other information required for receiving of bids on the project.
2. A cost estimate shall be submitted using quantity take-offs of major components and projected unit costs. Overhead, profit, taxes, insurance, etc., shall be included. Estimates must be prepared for all bid items, including alternates. A complete tabulation shall be furnished showing the breakdown of total appropriated and/or authorized funds. The designer is responsible for bringing the project within the budget as set forth in the design contract.
3. Soil and Erosion Control Plan must be filed with DNER. A copy of the permit will need to be submitted with documents for review.
4. **Upon final review through NCDOT/General Service Division and approval by PTD and DOI if applicable, the project can be prepared to bid.**

VI. Facility Bid and Construction

- A. In addition to plans and specs, the designer is responsible for filing all permits, conducting the bid process, oversight of activities during construction and final closeout.
1. A construction management consultant instead of the designer may monitor construction oversight of the facility.
- B. Letting of bids shall be conducted in accordance with statutes. N.C.G.S. 143-128 and 129.
1. Project should follow and complete procurement checklist for formal bids or informal bids which ever is applicable.
 2. The Designer shall include in solicitation, Minority Business Enterprises, Women Business Enterprises, or Certified Disadvantaged Business Enterprises.
 - a) **In accordance with N.C.G.S. 143-128.6, good faith efforts must be documented on ALL construction costs.**
 - b) **NCDOT may require project specific minority goals. The PTD will provide this information to the project prior to the bid being let or solicited for informal bids.**
 - c) **Minority reporting will be tracked through NCDOT on the Subcontractor Payment Form.**
- C. **Bid tabulation and formal request for funding should be submitted to PTD for review after bids are opened.**
1. **Concurrence by PTD is required prior to entering into a contract with recommended Contractor.**
 - a) **Minority reporting will be tracked through NCDOT on the Subcontractor Payment Form.**
 - b) **Construction projects requiring BOT approval must allow between 60-75 days between bid opening and executing contract for this process .**
 - c) **Procurement checklist and applicable documentation must be submitted to PTD for review and approval.**
 - d) **General Service Division will provide necessary bid review assistance.**
 - e) **Contractor's contract must also be reviewed by PTD.**
 2. **Once review is complete and BOT approval is made project may enter in contract with Contractor.**

- D. Request for reimbursement shall be submitted on a monthly basis with supporting documentation.
1. A Certificate of Payment, form AIA G702, must accompany all reimbursement requests.
 - a) The certificate must be completed and signed by the Contractor and Designer.
 - b) The minority reporting form will need to be submitted with payment.**
 2. A retainage of 5% may be withheld pending the close out or final audit.
- E. Change Order Procedures
1. No change in the construction from approved plans and specifications shall be made unless and until a change order has been duly prepared and approved, except in case of emergency endangering life or property.
 2. Change orders shall be prepared substantially in the format used by the State, form OC-24. Sufficient copies to provide one to each holder of contract documents and one copy for the contractor's surety.
 3. Change orders shall be submitted by the designer to the owner and shall be accompanied by a complete breakdown showing computation of the cost together with a written explanation of the change and reasons for change.
 4. The designer, by his submission of the change order to the owner, certifies that he has examined and analyzed the change order and has found it to be in order, and the cost reasonable.
 5. The owner shall forward a copy of the change order to the PTD for final approval.
 6. Incomplete change orders will be returned for correction and completion. Note that cost breakdown must justify the cost.
- F. Final inspections shall be the responsibility of the designer or Construction Manager.
1. A PTD staff member may participate in the final inspection
 2. A copy of the final inspection report shall be submitted to PTD.
 3. The retainage will be released.

VII. Property Management

- A. The facility is the responsibility of the project as long as the facility is used for public transportation.
- B. If the facility is no longer required for the purposes of public transportation, the federal and/ or state percentage based on current market value shall be reimbursed to the division.

- 1. **At least one independent land appraisal must be completed by a N.C. Licensed Real Estate Appraiser within the last 6 months.**
- 2. **A certifying appraisal will be required to be completed once the original appraisal is complete.**
 - 1) **NCDOT's Right of Way Division can provide the certifying appraisal upon request by PTD.**