February 4, 2010

Alternate Standard Detail

NCTA encourages design-build proposers to provide a high level of innovation on projects. To this end, NCTA proposes to allow design-build teams to submit an Alternate Standard Detail (ASD) for possible inclusion in a technical proposal. An ASD may be any standard detail from any state or local transportation entity.

Proposers will be required to submit an ASD for review and conceptual approval or rejection prior to the submission of the Technical Proposal. During one-on-one discussions with each shortlisted Proposer, NCTA will accept the ASD, reject the ASD, or inform the Proposer of conditions that must be addressed for the ASD to be considered. A Technical Proposal that includes an ASD that has not been approved by NCTA may be considered non-responsive.

If NCTA has informed the Proposer that an ASD is incomplete and additional details need to be defined, and the Proposer does not present the additional details necessary for acceptance by NCTA, it does so at its own risk. NCTA will have the right to require those additional details be incorporated into the ASD throughout the life of the Project at no cost to NCTA.

If an ASD has requirements that conflict with other contract requirement(s), NCTA shall have the right to determine, in its sole discretion, which requirement(s) apply.

For any standards, portions of standards or details that have not been specified by the Proposers, NCDOT standards, portions of standards and/or details will apply to the Project at no additional cost to NCTA.

February 2, 2010

Monroe Parkway

STIP R-3329, R-2559

March 2010	FEIS
April/May 2010	Design-Build Procurement – Advertisement (RFQ)
May 2010	Air Quality Conformity Determination
June 2010	Record of Decision
June 2010	Conceptual 404 & 401 Permit Application
June 2010	Design-Build Procurement – Shortlist
June 2010	Design-Build Procurement – Issue Draft RFP
July 2010	Design-Build Procurement – Issue Final RFP
August 2010	Design-Build Procurement - Technical & Price Proposals Due
September 2010	Conceptual 404 & 401 Permit Approval
September 2010	Design-Build Procurement - Price Proposal Opening
October 2010	Final Consulting Engineer's Report
October 2010	Bond Ratings
November 2010	Local Government Commission Approval
November 2010	TIFIA Approval
November 2010	Issue Preliminary Official Statement
December 2010	TIFIA Close
December 2010	Price & Sell Bonds
December 2010	Financial Close
December 2010	Award Construction

December 2014	Substantial Completion (Open to Traffic)
July 2015	Final Completion

January 11, 2010

Monroe Parkway Contracting Strategies

Background

The US 74 Monroe Bypass (Bypass) was initially conceived by NCDOT to relieve congestion through Monroe and Wingate. NCDOT completed the initial planning and environmental process for the Bypass and purchased right of way sufficient to construct the project. An additional project, a variation of what is now know as the Monroe Connector (Connector), was developed as part of the overall corridor improvement concept. Right of way was not purchased for the Connector portion of the corridor.

Due to considerations relating to project segmentation and federally endangered species both the Bypass and the Connector projects were prevented from moving forward. Subsequently, the North Carolina Turnpike Authority (NCTA) was asked to reinitiate the environmental study process to include the entire corridor as one project (from a NEPA standpoint) and develop a financing approach that included tolling.

The NCTA proposes to construct the Monroe Parkway, which would be a controlled-access toll road encompassing the Monroe Connector and the Monroe Bypass. The project would extend from US 74 near I-485 in Mecklenburg County to US 74 between the towns of Wingate and Marshville in Union County, a distance of approximately 20 miles. The NCTA has prepared functional level plans for the corridor and selected a preferred alternative route. The "original final plans" for the Bypass project are available. However, numerous changes have been made as part of the NEPA process. The plans will need to be undated accordingly. Additionally, innovative considerations by the design-build team are expected.

The NCTA continues with financial studies and expects to complete the Final EIS by March 2010 with an advertisement for the design-build project(s) shortly thereafter. A Record of Decision (ROD) and application for Conceptual 404 and 401 permits are anticipated in June 2010, contingent upon acceptance of recent studies regarding the federally endangered wildlife species and an Air Quality Conformity Determination.

From the functional plans, the selected design-build team(s) will continue the plan development and apply for the final (modified) 404 and 401 permits. Upon receipt of the permits and release of right of way plans by the design-build team(s), the NCTA will proceed with acquisition, including acquisition of additional right of way that may be required on the Monroe Bypass.

The design-build team(s) will face numerous challenges, including rapid production of plans required for permit application and right of way acquisition. Preliminary earthwork estimates include 3.8 million CY of unclassified excavation and 5.6 million CY of borrow excavation. There may be opportunities to improve the earthwork balance. The large quantity of earthwork and the large number of structures (approximately 48 bridges and 30 RCBC) will require close coordination between the structure and roadway construction.

Contracting Strategies

The NCTA has publicly indicated a preference for two separate design-build contracts due to the overall scale of the projects and a strong desire to promote competition and opportunity for the contracting community. However, issues have come to light that require further consideration of this approach and industry input in this decision is critically important for success of the overall project.

The NCTA is asking for input on various contracting strategies, including the following:

A. Award two design-build contracts, approximately equal in value and length, for construction of the Monroe Parkway.

    1. The Connector project would be from I-485 to US 601. It is estimated that it will take approximately one year to finalize the designs, apply for permit modifications, and acquire the right of way.

    2. The Bypass project would be from US 601 to the tie-in on existing US 74 on the east end of the project. As the vast majority of right of way for the Bypass project has already been acquired, construction could begin as soon as the final 404 and 401 permit modifications are approved. It is estimated that 6 months or more will be needed to acquire final permit approval.

B. The NCTA obtains the final 404 and 401 permits for the Bypass project. Award two design-build contracts as in scenario A above. Construction could begin immediately on the Bypass. No construction could be performed on the Connector until the final 404 and 401 permit modifications are approved and significant portions of the remaining right of way are acquired (Estimated 12 months).

C. Award one design-build contract for construction of the entire corridor. Although the majority of the right of way has been acquired for the Bypass portion of the corridor, no construction could be performed until the final 404 and 401 permits modifications are approved. The design-build team would have the option to apply for the final 404 and 401 permit modifications to cover the entire project or to cover portions of the project. No construction could be performed until the final 404 and 401 permits are approved (Estimated 6 months).

D. The NCTA obtains the final 404 and 401 permits for the Bypass portion of the Parkway. Award one design-build contract for construction of the entire corridor. Construction could begin immediately on the portion of the project where right of way has been acquired, but no construction would be performed on the other portions of the contract until the final 404 and 401 permit modifications are approved.

E. Develop a design-build “cluster” approach. Allow submission of a design-build proposal individually on the two separate projects (the Connector and the Bypass) and also allow proposals on a combined corridor wide project. The “best value” proposal would be determined for the individual projects and the cluster of the two projects. Award would be determined by comparing the best value for the cluster of the two projects to the

sum of the best value for the individual projects. Construction schedule would be similar to Alternate C or Alternate D.

F. NCTA prepares final plans for the Bypass portion of the corridor, obtains the final 404/401 permits for the Bypass and awards a design-bid-build contract for the Bypass only. The permit would include a corridor permit for the Connector project. Award the Connector project as a design-build project with the design-build team obtaining a permit modification on the corridor wide permit.

Considerations

1. Opportunities exist that allow for early completion of the Bypass project. However, without the Connector portion of the corridor open to traffic the system benefit is negligible. Additionally, the financial benefit from a tolling perspective may not be positive. Expending the capital costs and associated debt issues without benefit of revenue is a detriment to the project finances.
2. The entire corridor (in whatever format the contract structure is pursued) needs to have bids opened prior to financial close due to the need to know the project costs.
3. Bond rating agencies prefer the design-build approach given the history of lump sum contracts and overall minimal cost growth.
4. The advantages of design-build from a cost savings and time savings approach are well documented.
5. This corridor will have a bid alternate for the pavement structure. Concrete and asphalt options will be allowed. The design-build teams may be given the opportunity to perform the pavement design within certain parameters with a long-term performance guarantee. This process has just been initiated and details are yet to be concluded. Corridor continuity will be important.
6. Opportunity for the construction and consulting engineering community is a key consideration.
7. Bond rating agencies prefer a “one team approach” where the same design-build team has the responsibility for coordination of an entire project corridor
8. Overall contract administration is much easier under one contract.
9. Economy of scale opportunities.
10. Project phasing opportunities – under one contract, the design-build team could pursue the project from east to west, taking advantage of the existing right of way, etc. while finalizing the design on the western end and obtaining final permit clearances.

January 11, 2010

Key Project Dates and General Costs

	Monroe Bypass	Monroe Connector
Project Advertisement Date	March 2010	March 2010
Estimated Cost	$200,000,000	$320,000,000
Anticipated Completion Date	December 2013	December 2014

Preliminary Quantities for the Monroe Connector / Bypass

Item	Unit	Bypass	Connector	Total
Unclassified Excavation	CY	2,570,000	1,320,000	3,890,000
Borrow Excavation	CY	1,380,000	4,210,000	5,590,000
Pavement - Mainline	SY	360,000	535,000	895,000
Pavement - Ramps & Loops	SY	62,000	150,000	212,000
Pavement - Y-lines	SY	90,000	200,000	290,000
Resurfacing	SY	45,000	22,000	67,000
Subgrade Stabilization	SY	600,000	930,000	1,530,000
1'-6" C&G	LF	11,000	26,000	37,000
2'6" C&G	LF	6,500	20,000	26,500
Concrete Median Barrier	LF	0	6,800	6,800
Bridges	EA	21	27	48
Bridges	SF	320,000	280,000	600,000
RCBC - Single Barrel	EA	12	12	24
RCBC - Double Barrel	EA	0	2	2
RCBC - Triple Barrel	EA	1	3	4
Noise Walls	SF	37,000	108,000	145,000
Retaining Walls	SF	0	165,000	165,000

February 2, 2010

Garden Parkway
STIP U-3321

May 2010	Final EIS
May 2010	Air Quality Conformity Determination
May/June 2010	Design-Build Procurement - Advertisement (RFQ)
July 2010	Design-Build Procurement - Shortlist
July 2010	Design-Build Procurement – Issue Draft RFP
July 2010	Draft Investment Grade Traffic & Revenue Study
August 2010	Submit TIFIA application
September 2010	Final Investment Grade Traffic & Revenue Study
October 2010	Record of Decision
October 2010	Conceptual 404 & 401 Permit Applications
October 2010	Design-Build Procurement - Issue Final RFP
November 2010	Design-Build Procurement - Technical & Price Proposals Due
December 2010	Design-Build Procurement - Price Proposal Opening
December 2010	Final Consulting Engineer's Report
December 2010	Bond Ratings
January 2011	Conceptual 404 & 401 Permit Approvals
January 2011	Local Government Commission Approval
January 2011	TIFIA Approval
January 2011	Issue Preliminary Official Statement
January 2011	TIFIA Close
February 2011	Price & Sell Bonds
February 2011	Financial Close
February 2011	Award Construction

December 2014	Substantial Completion (Open to Traffic)
July 2015	Final Completion

January 11, 2010

Garden Parkway Contracting Strategies

Background

The NCTA proposes to construct the Garden Parkway (Gaston East-West Connector), which would be a new location, controlled-access toll road extending from I-485 near the Charlotte-Douglas International Airport in Mecklenburg County to I-85 west of Gastonia in Gaston County, a distance of approximately 22 miles. The NCTA has prepared preliminary design level plans for the preferred route.

The Garden Parkway was initially conceived in 1989 when the Gaston Urban Area MPO identified a need for improved east-west mobility and a southern bypass through Gaston County. NCDOT initiated the NEPA process for the Garden Parkway in 2001. NCTA's involvement began in 2005.

The purpose of the proposed project is to improve east-west transportation mobility in the area around the City of Gastonia, between Gastonia and the Charlotte metropolitan area, and particularly to establish direct access between the rapidly growing areas of southeast Gaston County and western Mecklenburg County.

Project cost estimates were developed in accordance with the NEPA document alternatives. Total project cost Original estimates shown in the Draft EIS approached $1.3 billion for the entire corridor project which included a 6-lane facility from I-485 to I-85.

The NCTA continues with financial studies and expects to complete the Final EIS by May 2010 with an advertisement for the design-build project(s) shortly thereafter. A Record of Decision (ROD) and application for Conceptual 404 and 401 permits are anticipated in October 2010, contingent upon a positive outcome to Air Quality Conformity Determination in the Metrolina Region.

From the preliminary plans, the selected design-build team(s) will continue the plan development and apply for the final (modified) 404 and 401 permits. Upon receipt of the permits and release of right-of-way plans by the design-build team(s), the NCTA will proceed with right of way acquisition.

Practical Design Approach

Due to the overall cost and limited available funding, the NCTA initially focused on a project that would only have gone from I-485 to US 321 (approximately 15 miles). The remainder of the corridor would be constructed whenever additional funding became available.

Given the sizable cost of the overall project, concerns from the local community, and a desire to plan, design, and construct the most context sensitive facility, the NCTA is currently focusing on a "practical design" approach that "develops a cost effective project within the context of the

project environment that meets the transportation needs with a reasonable application of design and construction standards".

The NCTA's goal is to construct a freeway facility between I-485 and I-85. Projected traffic volumes indicate the need for a four-lane divided freeway facility from I-485 to US 321. The median should be of sufficient width to accommodate an additional future lane in each direction. For cost containment purposes, NCTA is considering constructing a two lane facility on a four-lane right of way west of US 321. Interchanges and bridges in this section would be constructed to accommodate the future lanes and median.

The design-build team(s) will face numerous challenges, including rapid production of plans required for permit application and right of way acquisition. Preliminary earthwork estimates include 10 million CY of unclassified excavation and 6 million CY of borrow excavation. There are opportunities to improve the earthwork balance. The large quantity of earthwork and the large number of structures (approximately 42 bridges and 46 RCBC) will require close coordination between the structure and roadway construction.

Contracting Strategies

The NCTA has publicly indicated a general preference for multiple design-build contracts along the corridor of each of its projects due to the overall scale of the projects and a strong desire to promote competition and opportunity for the contracting community. However, this project brings unique challenges that require further consideration of this approach and industry input in this decision is critically important for success of the overall project.

The NCTA is asking for input on various contracting strategies, including the following:

A. Award multiple design-build contracts, of varying value and length, for construction of the Garden Parkway.

    1. Project Number 1 (Eastern): Four-lane divided freeway from NC 279 to I-485, a distance of approximately 5.6 miles. Interchanges will be constructed with NC 279, NC 273, Dixie River Road, and I-485. Also included are dual bridges over the South Fork Catawba River and the Catawba River.

    2. Project Number 2 (Central): Four-lane divided freeway from US 321 to NC 279, a distance of approximately 9.3 miles. Interchanges will be constructed with US 321, Robinson Road, and NC 274. Also included are grade separations at Forbes Road, Bud Wilson Road, Patrick Road, Wilson Farm Road, and Rufus Ratchford Road and dual bridges over an unnamed tributary and Catawba Creek.

    3. Project Number 3 (Western): Two-lane roadway (built on one-half of a four-lane right of way) from I-85 to US 321, a distance of approximately 5.9 miles. Interchanges will be constructed with I-85, US 29-74, and Linwood Road. Also included are a grade separation with Crowder's Creek Road and a crossing of Blackwood Creek.

B. Award one design-build contract for construction of the entire corridor.

C. Develop a design-build "cluster" approach. Allow submission of a design-build proposal individually on the three separate projects and also allow proposals on a combined corridor wide project. The "best value" proposal would be determined for the individual projects and the cluster of the three projects. Award would be determined by comparing the best value for the cluster of the three projects to the sum of the best value for the individual projects.

D. Provide a maximum design-build contract amount with parameters to design and build within an "envelope" of requirements focused on constructing the entire corridor from I-485 to I-85.

Considerations

1. Opportunities exist that may allow for early completion of portions of the project. The connection from I-485 to NC 273 or NC 279 provides a valuable project from a transportation system standpoint that would enhance the overall financial picture of the project with an early opening.
2. The entire corridor (in whatever format the contract structure is pursued) needs to have bids opened prior to financial close due to the need to know the project costs.
3. Bond rating agencies prefer the design-build approach given the history of lump sum contracts and overall minimal cost growth.
4. The advantages of design-build from a cost savings and time savings approach are well documented.
5. This corridor will have a bid alternate for the pavement structure. Concrete and asphalt options will be allowed. The design-build team(s) may be given the opportunity to perform the pavement design within certain parameters with a long-term performance guarantee. This process has just been initiated and details are yet to be concluded. Corridor continuity will be important.
6. Opportunity for the construction and consulting engineering community is a important.
7. Bond rating agencies prefer a "one team approach" where the same design-build team has the responsibility for coordination of an entire project corridor.
8. Overall contract administration is much easier under one contract.
9. Economy of scale opportunities exist with a single project.

January 11, 2010

Key Project Dates and General Estimates

	Project 1 (Eastern)	Project 2 (Central)	Project 3 (Western)
Project Advertisement Date	June 2010	June 2010	June 2010
Estimated Construction Cost	$315M	$230M	$160M
Anticipated Completion Date	December 2014	December 2014	December 2014

Preliminary Quantities for the Garden Parkway

Item	Quantity	East	Central	West	Total
Unclassified Excavation	CY	4,420,000	4,330,000	1,190,000	9,940,000
Borrow Excavation	CY	1,650,000	1,150,000	3,190,000	5,990,000
Pavement - Mainline	SY	303,000	480,000	133,000	916,000
Pavement - Ramps & Loops	SY	256,000	83,000	126,000	465,000
Pavement - Y-lines	SY	99,000	82,000	76,000	257,000
Resurfacing	SY	13,000	7,000	144,000	164,000
Subgrade Stabilization	SY	530,000	450,000	225,000	1,205,000
1'-6" C&G	LF	0	13,300	2,300	15,600
2'6" C&G	LF	5,700	6,500	6,900	19,100
Bridges	EA	15	15	12	42
Bridges	SF	605,000	220,000	180,000	1,005,000
RCBC - Single Barrel	EA	8	15	12	35
RCBC - Double Barrel	EA	2	2	6	10
RCBC - Triple Barrel	EA	0	1	0	1
Noise Walls	SF	89,000	110,000	88,000	287,000

February 4, 2010

Garden Parkway

Alternate Contract Concept

Funding is not anticipated to be available to construct the Garden Parkway as contained in the environmental document (i.e. length, number of lanes, etc). The North Carolina Turnpike Authority (NCTA) has a preliminary finance plan that would allow construction of a portion of the Garden Parkway. This portion extends from I-485 to US 321. If NCTA determines a single design-build contract will be awarded for the work, the following alternate contract concept will be considered for use.

Highest Value Fixed Price Contract

The NCTA has elected to procure a design-build team to design and construct the best value project within the approximate $1 billion program budget. This will be accomplished through a fixed price, best design procurement concept. The design-build proposers will be give a fixed price and encouraged to propose innovative and creative solutions for achieving the goals of the project as specified in the Request for Proposals (RFP). This approach allows the NCTA and the Proposers, in a competitive environment, to participate in a process that will develop the highest value solutions that the design and construction industry can provide.

Provide the Best Value for the Budget

The current finance plan includes sufficient funding to construct a portion of the Garden Parkway as a four-lane facility from I-485 to US 321 ("Base Project"). The portion of the Garden Parkway from US -321 to I-85 would be constructed in the future when funding is available.

The NCTA desires to construct as much of the Garden Parkway as possible, with a focus of constructing a facility from I-485 to I-85. If the design-build team can construct the Garden Parkway beyond the Base Project to provide a "Bonus Project" between US -321 and I-85, creative and innovative design will be considered that provide the means to construct the Bonus Project. The design standard for the Bonus Project may be less than the design standard required for the Base Project. The NCTA believes that constructing the Bonus Project, rather than constructing the Base Project alone, will provide the public better value and will increase toll revenue.

It is critically important to maintain the ability to expand the Bonus Project in the future to the ultimate design standard, with limited rework. To this end, the NCTA anticipates purchasing all right-of-way necessary to build the entire Garden Parkway to Base Project design standard.

Pavement and Bridges

The NCTA values pavements and bridges that meet high quality and durability standards that will minimize maintenance needs throughout their respective design lives. The NCTA anticipates utilizing an alternate pavement bidding provision for this project that allows the design-build team to both design and construct a pavement type of their choosing based on a life-cycle analysis.

The NCTA encourages the use of existing pavement and fill materials within the corridor by incorporating those materials into the newly reconstructed roadway. In areas where the Garden Parkway results in reconstruction of existing highway elements consistent with the Base Project design life and design standards, the NCTA values replacement of structurally deficient and/or functionally obsolete bridges and walls, drainage pipe and other elements rather than repair schemes. This will assure the appropriate design life is achieved for the project and will minimize the need for future traffic disruptions due to routine maintenance. However, NCTA will entertain rehabilitation strategies that extend the life of existing highway elements to meet the design life of the Base Project.

Other Considerations

To provide the opportunity for development of the Highest Value Fixed Price, the design-build RFP will provide a “design envelope” that provides the absolute requirements for the project as well as flexible options. The design-build proposers are expected to meet the ultimate design goals through innovations. Alternate Technical Concepts will be allowed with the normal NCTA vetting process. Design variances and/or exceptions may be considered.

Evaluation Criteria & Best Value Determination

Proposals will be evaluated on their ability to meet or exceed the project goals, values and requirements. Award of the project shall be based on a best value determination defined by a fixed price best design approach. The responsive Proposal that achieves the highest score on the Technical Elements will determine the best value.